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## Inkommande mail

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**Remiss av Europeiska kommissionens förslag till förordning om ekodesign för hållbara produkter (del 1 av 2) - svar senast 12 juni 2022**

[Del 1 \(av 2\)](#)

### Remittering av Europeiska kommissionens förslag till förordning om ekodesign för hållbara produkter

(Remissinstanser framgår av bifogat remissmissiv)

Remissvaren ska ha kommit in till Miljödepartementet **senast den 12 juni 2022**. Svaren bör lämnas per e-post till [m.remissvar@regeringskansliet.se](mailto:m.remissvar@regeringskansliet.se) och med kopia till [m.kemikalieenheten@regeringskansliet.se](mailto:m.kemikalieenheten@regeringskansliet.se). Ange diarienummer M2022/00802 och remissinstansens namn i ämnesraden på e-postmeddelandet.

Svaret bör lämnas i två versioner: den ena i ett bearbetningsbart format (t.ex. Word), den andra i ett format (t.ex. pdf) som följer tillgänglighetskraven enligt lagen (2018:1937) om tillgänglighet till digital offentlig service. Remissinstansens namn ska anges i namnet på respektive dokument.

Remissvaren kommer att publiceras på regeringens webbplats.

I remissen ligger att regeringen vill ha synpunkter på förslagen eller materialet i promemorian. Frågor under remisstiden besvaras av Elin Simonsson, kemikalieenheten, tel 08-405 55 78, e-post: [elin.simonsson@regeringskansliet.se](mailto:elin.simonsson@regeringskansliet.se).



**Miljödepartementet**  
Kemikalieenheten, Kemikalier och avfall  
Elin Simonsson

## Remiss av EU-kommissionens förslag till förordning om ekodesign för hållbara produkter

### Remissinstanser

- 1 Alingsås kommun
- 2 Avfall Sverige
- 3 Axfoundation
- 4 Belysningsbranschen
- 5 Bil Sweden
- 6 Boverket
- 7 Byggföretagen
- 8 Byggmaterialindustrierna
- 9 ChemSec, Internationella kemikaliesekretariatet
- 10 Cradlenet
- 11 Dagligvaruleverantörernas förbund (DLF)
- 12 Delegationen för cirkulär ekonomi
- 13 Eda kommun
- 14 El-Kretsen AB
- 15 Elsäkerhetsverket
- 16 Flens kommun
- 17 Formas
- 18 Fossilfritt Sverige
- 19 Företagarna Sverige

- 20 Förvaltningsrätten i Stockholm
- 21 Greenpeace
- 22 Gävle kommun
- 23 Gotland kommun
- 24 Göteborgs kommun
- 25 Hagainiciativet
- 26 Huddinge kommun
- 27 Håbo kommun
- 28 Härjedalens kommun
- 29 IKEA Sverige AB
- 30 IKEM – Innovations- och kemiindustrierna i Sverige
- 31 Inrego
- 32 IVL Svenska Miljöinstitutet
- 33 Jernkontoret
- 34 Kammarrätten i Stockholm
- 35 Karlshamns kommun
- 36 Kemikalieinspektionen
- 37 Klimatpolitiska rådet
- 38 Kiruna kommun
- 39 Kommerskollegium
- 40 Konkurrensverket
- 41 Konsumentverket
- 42 Kungl. Tekniska högskolan
- 43 Kungsbacka kommun
- 44 Köpings kommun
- 45 Lerums kommun
- 46 Lessebo kommun
- 47 Linköpings universitet
- 48 Livsmedelsföretagen
- 49 Luleå kommun

- 50 Lunds universitet
- 51 Länsstyrelsen i Hallands län
- 52 Länsstyrelsen i Norrbottens län
- 53 Länsstyrelsen i Stockholms län
- 54 Länsstyrelsens Värmlands län
- 55 Malmö kommun
- 56 Melleruds kommun
- 57 Miljömärkning Sverige AB
- 58 Mora kommun
- 59 Nacka kommun
- 60 Nacka tingsrätt (Mark- och miljödomstolen)
- 61 Naturskyddsföreningen
- 62 Naturvårdsverket
- 63 Oskarshamn kommun
- 64 Patent- och registreringsverket (PRV)
- 65 Ragn Sells AB
- 66 Recycling United Scandinavia AB
- 67 Regelrådet
- 68 Region Dalarna
- 69 Region Skåne
- 70 Region Västerbotten
- 71 Region Östergötland
- 72 RISE Research Institutes of Sweden AB
- 73 SEK Svensk Elstandard
- 74 Skurups kommun
- 75 Småföretagarnas riksförbund
- 76 Statens energimyndighet
- 77 Statistiska centralbyrån (SCB)
- 78 Stena Recycling
- 79 Stockholm Resilience Center

- 80 Stockholms kommun
- 81 Stockholms universitet
- 82 Styrelsen för ackreditering och teknisk kontroll (Swedac)
- 83 Sustainable Innovation
- 84 Svea hovrätt (Mark- och miljööverdomstolen)
- 85 SveMin
- 86 Svenska Föreningen för Immaterialrätt (SFIR)
- 87 Svensk Dagligvaruhandel
- 88 Svensk Däckåtervinning AB
- 89 Svensk Handel
- 90 Svensk Plastindustriförening
- 91 Svenskt Näringsliv
- 92 Svenskt Producentansvar
- 93 Sveriges advokatsamfund
- 94 Sveriges Bilskrotares Riksförbund
- 95 Sveriges Bilåtervinnare Riksförbund (SBR)
- 96 Sveriges Kommuner och Regioner
- 97 Sveriges konsumenter
- 98 Sveriges skogsindustrier
- 99 Sveriges standardiseringsförbund (SSF)
- 100 Sveriges Textil- och Modeföretag (TEKO)
- 101 Swedish Lifecycle Centre
- 102 TCO certified
- 103 Teknikföretagen
- 104 Tillväxtanalys
- 105 Tillväxtverket
- 106 Timrå kommun
- 107 Tingsryds kommun
- 108 TMR AB
- 109 Trosa kommun

- 110 Upphandlingsmyndigheten
- 111 Uppsala kommun
- 112 Verket för innovationssystem (Vinnova)
- 113 Vimmerby kommun
- 114 Världsnaturfonden WWF
- 115 Återvinningsindustrierna
- 116 Älmhults kommun
- 117 Örebro kommun

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Charlotta Fred  
Departementsråd



Brussels, 30.3.2022  
COM(2022) 142 final

2022/0095 (COD)

Proposal for a

**REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**establishing a framework for setting ecodesign requirements for sustainable products  
and repealing Directive 2009/125/EC**

(Text with EEA relevance)

{SEC(2022) 165 final} - {SWD(2022) 81 final} - {SWD(2022) 82 final} -  
{SWD(2022) 83 final}

## EXPLANATORY MEMORANDUM

### 1. CONTEXT OF THE PROPOSAL

#### • Reasons for and objectives of the proposal

The main objectives of this regulation are to reduce the negative life cycle environmental impacts of products and improve the functioning of the internal market. These objectives seek to resolve the problems and their causes analysed in the impact assessment. They reflect the fact that products are available on the internal market that generate unnecessary adverse environmental impacts. This Regulation also contributes to the objectives of EU industrial policy to boost the supply of and demand for sustainable goods, deliver on sustainable production, and ensure a level playing field for products sold on the internal market. Industry needs harmonised requirements applicable across the board, efficient means to comply with them, proper enforcement, reinforced market surveillance and customs controls based on a risk analysis<sup>1</sup>.

Products play a vital role in the lives of EU citizens and the number, range and variety of products on offer to us are constantly increasing. With the technological leaps that have taken place over past decades, our reliance on them has also increased: from the ICT products that kept us connected during the COVID-19 crisis, to the furniture and the appliances that help to run our homes on a daily basis. The free circulation of products is essential to ensuring the functioning of the internal market, which remains the foundation for EU companies' competitiveness and for consumers' choice.

By applying the Ecodesign approach to a very broad range of products and enabling it to set a wide range of targeted product requirements, this regulation seeks to address the most detrimental environmental impacts of products. It therefore lays down a framework for setting ecodesign requirements based on the sustainability and circularity aspects listed in the Circular Economy Action Plan<sup>2</sup>, such as product durability, reusability, upgradability and reparability, the presence of substances of concern in products, product energy and resource efficiency, recycled content of products, product remanufacturing and high-quality recycling, and for reducing products' carbon and environmental footprints.

In doing so, it will contribute to achieving the EU's overall climate, environmental and energy goals, while supporting economic growth, job creation and social inclusion. By making materials last for longer, ensuring their value is retained for as long as possible and boosting the use of recycled content in products, it will promote decoupling of economic development from natural resource use and reduction of material dependencies – thus fostering EU open strategic autonomy and resilience. Several recent events have reminded us of the possible vulnerabilities of global supply chains.

This regulation is part of a package of initiatives presented by the Commission relating to sustainable products and fostering sustainable product choices. The package includes targeted sectoral initiatives on textiles<sup>3</sup> and construction products<sup>4</sup>, which address products with most significant impacts on the environment and climate, and an initiative to empower the consumers in the green transition, through better protection against unfair practices and better

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<sup>1</sup> As foreseen in Article 46 of Regulation (EU) No 952/2013 on the Union Customs Code.

<sup>2</sup> COM(2020) 98 final.

<sup>3</sup> COM(2022) 141 final.

<sup>4</sup> COM(2022) 144 final.



information<sup>5</sup>. Finally, until this regulation is in place, the Commission will ensure work under the existing Ecodesign Directive continues, including via adoption of a new Ecodesign and Energy Labelling Working Plan for the period 2022–2024, addressing new energy-related products and updating and increasing the ambition of those already regulated.

- **Consistency with existing policy provisions in the policy area**

This regulation will broaden the scope of the **Ecodesign Directive** both in terms of products and new kinds of requirements. For reasons of legal clarity, the Ecodesign Directive should therefore be repealed. Given the wide scope of the proposed regulation, it is necessary to define in so far as possible how it relates to existing legislation applicable to the products covered, and to other initiatives linked to or relevant its goals. The aim is to prevent duplication so as to minimise the administrative burden for businesses and authorities.

The general approach is that this Regulation will set requirements where existing legislation does not, or where it insufficiently addresses environmental sustainability aspects. The general principle of law, *lex specialis derogat legi generali*, (where more specific rules will prevail over more general rules) will therefore apply. To be more specific, the approach covers two categories: product-specific legislation and legislation addressing horizontal aspects.

**Product-specific legislation** refers to legislation focused on a specific product or well-defined product group, often regulating mainly safety aspects (e.g. on **batteries, toys, detergents and packaging**). It is not feasible to provide specifications for every piece of existing product-specific legislation at the general level of this Regulation. However, before setting concrete requirements at product-specific level through measures under this Regulation, the Commission will assess in detail any potential overlaps or conflicts with existing legislation to avoid duplicating requirements and putting an excessive burden on businesses. As a matter of principle, this Regulation will only apply to products not covered by existing legislation, or when legislation does not sufficiently address the sustainability of those products. In addition, product-specific requirements under this Regulation will be included in delegated acts and as such cannot supersede requirements set through legislative acts such as directives or regulations (although they can be more specific), following the principle of the hierarchy of norms.

In relation to construction products in particular, whilst these will be in the scope of this Regulation, given the need to manage the strong interlinkages between their environmental and structural performance, including their health and safety, ecodesign requirements will be laid down under the revised Regulation (EU) No 305/2011<sup>6</sup> (the Construction Products Regulation), except for energy-related construction products, which are already regulated under the existing Ecodesign Directive.

**Legislation governing horizontal aspects** refers to legislation that addresses or can address horizontal aspects under this Regulation of a broad range of products, such as the **REACH** rules that govern chemicals and grant empowerments in relation to chemical substances in products. Where legislation already addresses or may address specific aspects covered by this Regulation in a more horizontal manner, there is the clear need and possibility to specify how

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<sup>5</sup> COM(2022) 143 final.

<sup>6</sup> Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC (OJ L 88, 4.4.2011, p. 5).

this relates to this Regulation at a more general level. Similarly, this Regulation will also build upon the general framework set for market surveillance in the **Market Surveillance Regulation**, while tailoring the provisions where needed to the specific aims of the Initiative.

Please see **Section 7.9** as well as **Annex 14** to the impact assessment, which details how the Initiative interacts and is consistent with existing and emerging legislation.

Finally, the **Energy Labelling Regulation** will continue to apply in parallel to the proposed regulation to energy-related products. Coherence will be ensured. This means, for instance, that as a principle such products must only bear the energy label specified under the Energy Labelling Regulation.

- **Consistency with other Union policies**

This Regulation builds on several Union policies.

The bedrock for this initiative is the **European Green Deal**<sup>7</sup>, the growth strategy to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use. The European Green Deal also announced the new industrial strategy for Europe and the Circular Economy Action Plan, published together in in March 2020.

The **European Commission's 2020 industrial strategy for Europe**<sup>8</sup> sets out the EU's overarching ambition to foster a 'twin transition' to climate neutrality and digital leadership. It echoes the European Green Deal in highlighting the leading role that Europe's industry must play in this, by reducing its carbon and material footprint and embedding circularity across the economy. It underlines the need to move away from traditional models, and revolutionise the way we design, make, use and dispose of products. In 2021, the Commission published an **update to the industrial strategy**<sup>9</sup>, which reinforces the main messages of the 2020 strategy and provides a range of additional implementation tools.

The **Circular Economy Action Plan (CEAP)** aims, amongst other aspects, to stimulate the development of lead markets for climate-neutral and sustainable **products**, in the EU and beyond. To achieve this, it establishes a sustainable product policy framework, including measures in three broad areas: fostering sustainable product design; empowering consumers and public buyers; and promoting circularity in production processes<sup>10</sup>.

While the three areas of the sustainable product policy framework are synergetic with each other, this regulation focuses primarily on the measures set out under the first area (sustainable product design) that aim to make products fit for a climate-neutral, resource-efficient and circular economy, reduce waste and ensure that the performance of frontrunners in sustainability progressively becomes the norm. As announced in the CEAP, the core of this legislative initiative is to extend the scope of the **Ecodesign Directive** beyond energy-related products so that it covers the broadest possible range of products and helps achieve a circular economy.

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<sup>7</sup> COM(2019) 640 final.

<sup>8</sup> COM(2020) 102 final.

<sup>9</sup> COM(2021) 350 final.

<sup>10</sup> Also in synergy with actions under the Zero Pollution Action Plan, COM(2021) 400 final.

The product requirements set out in this legislation should complement and strengthen the requirements set under other CEAP initiatives. In particular, the product requirements set in this legislation should help achieve the objectives and be in line with other measures on key value chains defined in implementation of the CEAP, such as the **EU strategy for sustainable and circular textiles**. Furthermore, the **Empowering consumers for the green transition initiative** will improve information on products at the point of sale in particular on their durability and reparability, and help prevent greenwashing and premature obsolescence. The upcoming Commission initiative on **Green Claims** will also complement measures in this legislation, by increasing the reliability, comparability and verifiability of environmental claims about products, via requirements that such claims be substantiated and verified using life-cycle analysis methods, including the Product Environmental Footprint method<sup>11</sup>. In addition, the objectives of this legislation will be further supported by the legislation on **Corporate Sustainable Due Diligence**<sup>12</sup>, in particular the environmental due diligence rules it lays down for companies.

Finally, the requirements will also **contribute to achieving EU climate goals**: they will synergise with and complement instruments with more direct climate focus<sup>13</sup> by going beyond the production of basic materials/basic material components to cover final products themselves. This will allow for taking action on negative impacts generated along the entire value chain (including the embedded emissions of a product throughout its lifecycle, or other negative consequences), directly supporting Green Deal objectives and consistent with the ‘do no significant harm’ principle.

## 2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY

### • Legal basis

The proposal is based on Article 114 of the Treaty on the Functioning of the European Union (TFEU), which is to be used for measures aiming at the establishment and functioning of the internal market. The Ecodesign Directive (which the Commission proposes to repeal by this regulation) was itself based on Article 95 of the Treaty establishing the European Community (now Article 114 TFEU).

The issues tackled by this initiative are related to the internal market, including the uneven playing field for companies attempting to implement more sustainable approaches or the fact current EU rules only partially cover sustainability aspects of products. This means that there is no comprehensive set of requirements to ensure that all products placed on the EU market become increasingly sustainable. As a result, the Member States have begun to adopt multiple approaches at national level (leading to internal market fragmentation) and the enforcement of current Ecodesign rules is insufficient and uneven.

The lack of sufficient and comprehensive internal market rules leaves room for initiatives developed by Member States or by industries that impair the functioning of the internal market by giving rise to potential barriers, fragmentation and incoherent approaches. In addition, in the absence of a comprehensive set of requirements defining product’s environmental sustainability, or ecodesign requirements, the same product considered

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<sup>11</sup> Set out in Commission Recommendation (EU) 2021/2279 of 15 December 2021 on the use of the Environmental Footprint methods to measure and communicate the life cycle environmental performance of products and organisations.

<sup>12</sup> COM(2022) 71 final.

<sup>13</sup> Such as the Fit for 55 package: [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_21\\_3541](https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541)

sustainable in one Member State might not qualify as sustainable in another Member State. What's more, recently adopted national legislation is likely to oblige manufacturers (and retailers) operating across EU borders to comply with a range of different national obligations varying from one Member State to another.

These new national obligations, ranging from information requirements on technical operations performed on refurbished electronic devices, on the duration of software compatibility in France, to reporting obligations on handling unsold durable goods in Germany, give clear indications of a trend to take regulatory action by setting ecodesign requirements on goods. As a consequence, without EU action, there will inevitably be an increase in national obligations and increased market fragmentation.

The problems outlined above are the rationale for basing this proposal on Article 114 TFEU.

- **Subsidiarity (for non-exclusive competence)**

The necessity test questions whether the objectives of a proposal can be sufficiently achieved by action taken by Member States alone. On this test, it is essential to put in place a harmonised set of rules to achieve a harmonised and well-functioning internal market for sustainable products across all Member States, and therefore a level playing field for businesses operating on the internal market. This includes product requirements and the obligation to provide reliable information to users.

Member States alone would not be able to enact measures of this scope without creating divergences in the requirements for business and obstacles to the free movement of products, regulatory burden and excessive costs for business. In addition, action taken by Member States alone would inevitably give rise to different tools that would render consumer choices more complicated. If Member States take individual action there would therefore be a high risk of ending up with different competing systems based on different methods and approaches, especially for products traded across the internal market. This fragments the market and is likely to lead to differing levels of awareness and information on the environmental performance of products across the EU and additional costs for companies trading across EU Member States.

The effectiveness test checks whether action at EU level is more effective than action at national level. On this test, only EU-level action can set harmonised product requirements and information requirements on sustainability aspects applicable across the EU, ensuring the free movement of goods and providing consumers with relevant and reliable information about sustainable characteristics and circular features of products in whatever Member State they are purchased. There is clear added value in setting requirements at EU level, as this will create a harmonised and well-functioning internal market across all Member States and, therefore, a level playing field for businesses operating on the internal market. With harmonised minimum and information requirements set at EU level, sustainable products and circular practices will be promoted in all Member States, creating a larger and more efficient market and hence greater incentives for industry to develop them. Finally, the size of the internal market provides a critical mass enabling the EU to promote product sustainability and influence product design and value chain management worldwide.

- **Proportionality**

The proposal does not go beyond what is necessary to provide a regulatory framework for the development of ecodesign requirements for the broadest possible range of products.

The Commission will continue the approach followed for the Ecodesign Directive of issuing implementing measures, based on impact assessments carried out in line with the Commission's Better Regulation guidelines. Therefore it will carry out an analysis of the economic and environmental impacts of different options for each set of requirements. This will allow for proportionality to be maintained.

The proposal is designed as a flexible framework as a means of ensuring proportionality. For this reason, it will not set any criteria or targets for the requirements unless they are justified on the basis of a prior assessment. To ensure proportionality, each individual requirement will need to be justified before being applied to any product group. Setting requirements, criteria or targets at the level of well-defined product groups will enable a careful assessment of impacts. It will enable the Commission to take account of the added value and proportionality of setting requirements, targets or criteria depending on the inherent characteristics of the products, their manufacturing processes and their market situation.

- **Choice of the instrument**

A regulation will set direct requirements for all operators, thus providing the necessary legal certainty and scope for enforcement of a fully integrated market across the EU. A regulation also ensures that the obligations are implemented at the same time and in the same way in all 27 Member States.

### **3. RESULTS OF EX-POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS**

- **Ex-post evaluations/fitness checks of existing legislation**

In March 2019, the Commission published a staff working document entitled *Sustainable Products in a Circular Economy - Towards an EU Product Policy Framework contributing to the Circular Economy*<sup>14</sup>. This examined the extent to which EU policies affecting products contribute to the transition to a circular economy, and where there is potential to make a stronger contribution. It found that there is **no overarching, integrated EU policy instrument covering the sustainable production and consumption of all products and/or the availability and reliability of information on these products to consumers**.

Though successive evaluations<sup>15</sup> of the Ecodesign Directive have confirmed that it is clearly relevant and effective as a regulatory tool, they identified potential to improve implementation and enforcement. These evaluations, for example, noted that 'while it is broadly recognised that the energy efficiency aspects of the SCP/SIP action plan<sup>16</sup> and of EU resource efficiency policy can be served by the Ecodesign Directive and the implementing measures, is also suggested by some Member State representatives and by environmental NGOs that there have been missed opportunities as a result of the limited coverage in implementing measures of other environmental aspects'<sup>17</sup>. The evaluation also highlighted the untapped potential of the Directive to address aspects beyond energy efficiency, concluding that 'there may have been

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<sup>14</sup> SWD(2019) 92 final.

<sup>15</sup> [Evaluation of the Ecodesign Directive \(2009/125/EC\)](#), Centre for Strategy and Evaluation Services (CSES), 2012; [Evaluation of the Energy Labelling Directive and specific aspects of the Ecodesign Directive](#), Ecofys, June 2014; [EU action on Ecodesign and Energy Labelling: important contribution to greater energy efficiency reduced by significant delays and non-compliance](#), European Court of Auditors, Special Report 01/2020.

<sup>16</sup> [Communication on the Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan](#)

<sup>17</sup> [Evaluation of the Ecodesign Directive](#) p.19.

non-energy improvements that have not been addressed as a result of the product scope, policy choices or the underlying technical analysis’.

- **Stakeholder consultations**

In line with the Better Regulation guidelines, several consultation activities took place.

- Consultation on an **inception impact assessment** from 14 September to 16 November 2020<sup>18</sup>. 193 responses received.
- An **open public consultation** from 17 March to 9 June 2021. 626 responses received.
- A series of **workshops** from April to July 2021, on different topics related to Sustainable Product Initiative, widely attended by participants from several stakeholder groups.
- A **survey of small and medium-sized enterprises** from 26 April to 15 June 2021. 332 responses received.
- A **second targeted survey** for small and medium enterprises (SMEs) from 20 October to 4 November 2021. This drew primarily on the expertise of organisations representing SMEs. 35 replies received.
- **Tailored questionnaires** submitted to selected stakeholder representatives from 20 May to 9 June 2021.
- A number of **stakeholder interviews** conducted with selected stakeholder representatives.

Overall, the consultation activities demonstrated **strong general support** for a regulatory initiative covering product sustainability. Most stakeholders advocated for the initiative to cover a wide product scope and take a whole life cycle approach to product regulation. It indicated strong support to extend the scope of the current Ecodesign Directive, with general agreement that the sectors identified in the 2020 circular economy action plan should be prioritised. The feedback showed a preference (in particular from manufacturers/importers) for an approach that takes product specificities firmly into account. There is general agreement that the lack of clear, comprehensive and binding legislation, and the lack of trustworthy information are all barriers to increasing the availability of sustainable products on the EU market, as is uneven enforcement of ecodesign requirements. The idea to bring in a digital product passport is generally supported by clear majorities across all stakeholder groups, as are incentives and tools to stimulate demand for sustainable products. Stronger enforcement and market surveillance activities (e.g. inspections or audits) are seen as necessary to accompany implementation of this initiative.

Detailed conclusions from the stakeholder consultations are set out in **Annex 2** to the impact assessment.

- **Collection and use of expertise**

The Commission awarded a contract to external experts to carry out a **study** to feed into the impact assessment accompanying this proposal. This study provided part of the data underlying the analysis of the policy options set out in that document, and in turn fed into the

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<sup>18</sup> [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12567-Sustainable-products-initiative\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12567-Sustainable-products-initiative_en)

measures included in the current proposal. The external experts worked in close cooperation with the Commission throughout the different phases of the study.

- **Impact assessment**

The proposal is based on an impact assessment. After resolving the issues raised in the Regulatory Scrutiny Board's negative opinion issued on 17 September 2021, the impact assessment received a positive opinion on 21 January 2022. In its final opinion, the Board asked for additional details on the choice of options, the method to be employed under the regulation and how the rules for digital product passports will be laid down in practice.

The main problem this initiative seeks to remedy, its related sub-problems, and the policy options identified are detailed in **Sections 2** and **5.2** of the impact assessment. The preferred combination of options is described in detail in **Section 7** of the impact assessment. **Annex 10** to the impact assessment provides a summary overview of the costs and benefits of all sub-options analysed, while **Annex 12** provides more information on the costs and benefits likely to be associated with the preferred combination of options. All these aspects are summarised in the **executive summary** accompanying the impact assessment.

Due to the framework architecture foreseen, exact costs stemming from the requirements are difficult to estimate with precision. Most will be incurred only in a second stage, following the enactment of the secondary legislation.

The dedicated impact assessments that will be done in connection to each delegated act in the future will assess in detail the impacts expected, including on third country operators, also in light of their WTO notification.

It should be noted that, due to the adoption of the Commission Proposal for a Directive on **Corporate Sustainable Due Diligence**<sup>19</sup> during the preparation of this initiative, it was deemed appropriate to exclude requirements on social aspects from the scope of this legislative proposal.

As specified in the legal text, an evaluation will take place after 8 years from the date of application of this Regulation. Among other aspects, this evaluation may consider the inclusion of social requirements in the regulatory framework.

- **Regulatory fitness and simplification**

This regulation is expected to create a level playing field for businesses operating on the internal market. The harmonised requirements proposed at EU level are likely to reduce overall compliance costs, given that they are likely to replace multiple existing or planned requirements at national level.

Producers that use more sustainable production and transparent supply chains are expected to gain EU market share and increase their competitiveness over producers that use less sustainable methods.

Though SMEs suggested that certain negative impacts may stem from some of the measures under the preferred combination of policy options identified in the impact assessment, many also expressed the belief that these can be offset and bring added value over time (due to

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<sup>19</sup> COM(2022) 71 final.

reduced material expenditure, increased customer loyalty, better access to the market for greener products, reputational benefits etc.). In addition, the Commission has looked specifically at ways to mitigate the negative impacts on SMEs. These are detailed in Annex 19 to the accompanying impact assessment, and in specific provisions of the current proposal.

For consultation purposes, in continuation of the successful example of the existing Consultation Forum under the Ecodesign Directive, the proposal establishes an Ecodesign Forum with a balanced participation of Member States' representatives and all interested parties such as industry, including small and medium-sized enterprises and craft industry, trade unions, traders, retailers, importers, environmental protection groups and consumer organisations. The Ecodesign Forum is limited to providing expertise to the Commission on the working plan and on the preparation of eco-design requirements, before the Commission formally exercises its delegated powers. The Commission may set up an additional expert group to consult Member States on the delegated acts to be adopted under this Regulation, in accordance with the Interinstitutional Agreement of 13 April 2016 on Better Law-Making<sup>20</sup>.

The proposal also includes the creation of a digital product passport to electronically register, process and share product-related information amongst supply chain businesses, authorities and consumers. This is expected to increase transparency, both for supply chain businesses and for the general public, and increase efficiencies in terms of information transfer. In particular, it is likely to help facilitate and streamline the monitoring and enforcement of the regulation carried out by EU and Member State authorities. It is also likely to provide a market-intelligence tool that may be used for revising and refining obligations in the future.

The Fit for Future Platform's opinion on Ecodesign<sup>21</sup> recognised the need to improve the sustainability of products and the necessity to introduce new obligations whilst keeping the burden on business to the minimum. The Platform made nine suggestions that were considered in the design of the new legislation on digitalisation; considering the burdens on SMEs; and ensuring consistency and clarity. For example, enabling consumers to have better access to information whilst ensuring that the Digital Product Passport allows for efficient information flows following best practices; and the possibility of accompanying the measures under this Regulation with mitigating measures so that impacts are expected to remain proportionate for SMEs.

- **Fundamental rights**

Ecodesign requirements can have benefits for the protection and promotion of fundamental rights as laid down in the EU Charter of Fundamental Rights, including on the freedom to conduct a business (Article 16), the right to environmental protection (Article 37) and the right to consumer protection (Article 38).

#### **4. BUDGETARY IMPLICATIONS**

The proposal has limited budgetary implications for the Commission. Specifically, it requires 54 full-time equivalents to fully implement the regulation and the related delegated acts over the period 2022-2027 of the EU Multiannual Financial Framework (MFF). New commitments would be needed on existing budget lines, amounting to EUR 23,338 million in Heading 1 of the MFF (Single Market, Innovation and Digital), EUR 43,912 million in Heading 3 (Natural

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<sup>20</sup> OJ L123, 12.5. 2016, p. 1.

<sup>21</sup> [https://ec.europa.eu/info/sites/default/files/final\\_opinion\\_2021\\_sbgr2\\_10\\_ecodesign.pdf](https://ec.europa.eu/info/sites/default/files/final_opinion_2021_sbgr2_10_ecodesign.pdf)



Resources and the Environment) and EUR 38,621 million in Heading 7 (Administrative Expenditure). The new commitments will be covered from the existing budgetary envelopes of the relevant programmes.

The budget implications mainly stem from the following work to:

- review, between 2022 and 2026, 33 Commission regulations and adopt 5 new measures under the current Ecodesign Directive, which cannot be carried out by staff currently working on implementation of the Directive;
- prepare and adopt up to 18 new delegated acts between 2024 and 2027; 12 new delegated acts would also be adopted between 2028 and 2030, with staff and budget implications in 2025-2027;
- prepare implementing acts (on average one per year as from 2024) when this is needed to ensure uniform conditions for the implementation of this Regulation, for example in relation to market surveillance, disclosure of information on the destruction of unsold consumer goods or the acknowledgement of self-regulatory measures; and
- carry out horizontal tasks related to the digital product passport, support for market surveillance and customs control, and a European circular business hub to support the exchange of experience between economic actors in integrating circularity in product design and manufacturing<sup>22</sup>.

In terms of staffing needs, the Commission has looked carefully at ways to share the work between lead DGs, reallocate staff when possible and outsource scientific and technical support for the preparation of delegated and implementing acts and for crosscutting tasks.

## 5. OTHER ELEMENTS

### • **Implementation plans and monitoring, evaluation and reporting arrangements**

In accordance with the Better Regulation guidelines published in November 2021 and in particular tool 38, the Commission will draw up an implementation strategy after the legislative proposal has been adopted by the co-legislators. It will present the different compliance promotion tools to be used and will include aspects related to digital implementation.

### • **Detailed explanation of the specific provisions of the proposal**

*Article 1* lays down the subject matter of this Regulation, namely a framework for setting ecodesign requirements, creating a digital product passport, and prohibiting the destruction of unsold consumer products. It lays down the product aspects to which the eco-design requirements relate, such as durability and reliability, reusability, upgradability, reparability, and possibility of maintenance and refurbishment, presence of substances of concern, energy and resource efficiency, recycled content. It further sets the scope of the Regulation – only a few sectors, such as food, feed, and medicinal products, are exempted.

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<sup>22</sup> The Hub will support the uptake of circular business models, channel information and services including awareness raising, cooperation, training and exchanges of best practices. It will build upon the expertise and service offer of existing EU actions, notably the European Circular Economy Stakeholder Platform, Enterprise Europe Network Sustainability Advisors and the network of European green tech clusters.

*Article 2* lays down the definitions needed for the purposes of this Regulation. A number of these definitions are taken over from the New Legislative Framework (Regulation (EC) No 765/2008 and Decision 768/2008/EC), from the repealed Ecodesign Directive or from existing Union environmental legislation (such as the Waste Framework Directive). A set of new definitions is brought in, for instance on the provisions on the product passport and on the destruction of unsold consumer products.

*Article 3* sets out the general principle related to the free movement of products that comply with delegated acts adopted pursuant to this Regulation.

*Article 4* lays down the empowerments for the Commission to adopt delegated acts to supplement this Regulation by establishing ecodesign requirements, requirements relating to conformity assessment procedures, requirements for the measure of energy consumption or of performance in relation to other parameters, requirements for manufacturers, authorised representatives or importers to provide information to the Commission or market surveillance authorities, requirements on the use of online tools to calculate the performance of products, requirements on alternative rules for the declaration of conformity or for markings and finally, requirements on Member States incentives and on public procurement criteria.

*Article 5* lays down the general framework for the adoption of ecodesign requirements. It lays down the product aspects that those requirements can improve. It explains that those requirements may apply to one specific product group or horizontally to more product groups, where technical similarities allow for the setting of common requirements. It specifies that ecodesign requirements include performance requirements and information requirements). Finally, it lays down a number of conditions to be met by the Commission when preparing ecodesign requirements, as well as a number of criteria that those requirements would need to meet.

It also enables the Commission to require that supply chain actors cooperate with manufacturers, notified bodies and competent national authorities for the verification of products' compliance with eco-design requirements.

*Article 6* provides more details about performance requirements, for instance that they can take the form of either a quantitative level or a non-quantitative requirement, set to improve a product aspect, on the basis of selected product parameter(s) (the list of which is in Annex D).

*Article 7* focuses on information requirements. It establishes that those requirements shall always include requirements related to the product passport and requirements related to substances of concern. The Article further details other type of information that can be provided, e.g. information on the performance of a product or information for consumers on how to install or use the product. This information can take the form of 'classes of performance' for instance ranging from A to G, to facilitate comparison between products.

Finally, the Article specifies the different ways in which the information can be provided (e.g. on the passport, on a website, on a label, etc.).

*Article 8* sets out the elements that the Commission needs to specify in the information requirements in relation to the digital product passport, for example the information to be included and who has access to what information. *Articles 9 to 11* lay down the necessary provision to implement the product passport. *Article 9* lays down the general requirement in relation to the product passport. *Article 10* provides the essential requirements for the technical design and operation of the product passport. *Article 11* lays down the rules related to unique operator and facility identifiers.

*Article 12* provides for the setting up of a registry storing information included in the products passport, allowing the Commission to specify which information needs to be uploaded

*Article 13* includes the provisions specifying what is expected from customs authorities in relation to the product passport and to what information they should have access to facilitate their work.

*Article 14* specifies the requirements attached to labels, when they are to be used for a given product group. It explains that in such cases, delegated acts must specify the label's content (including classes of performance) and layout, and how they are to be displayed to consumers. If the product is already covered by a label as provided for in the Energy Labelling Regulation (EU) 2017/1369, and the information on other parameters, including on other classes of performance, cannot be included in it, that information might be included in a separate label if the Commission finds it appropriate.

*Article 15* specifies that economic operators cannot display labels mimicking the labels provided for under this Regulation.

*Article 16* provides for the Commission to adopt a working plan which must cover at least 3 years and indicates the criteria for prioritising products. The working plan includes an indicative list of product groups that the Commission intends to tackle in the coming years.

*Article 17* establishes an Ecodesign Forum (expert group). It is based on the existing Consultation Forum established under Directive 2009/125/EC.

*Article 18* concerns self-regulation measures. These are industry-led measures that can be used as alternatives to delegated acts establishing ecodesign requirements adopted pursuant to Article 5. Directive 2009/125/EC<sup>23</sup> already contained an article on voluntary agreements. Article 17 of this Regulation expands upon the original article from Directive 2009/125/EC. In particular, it lays down what the self-regulation measure should contain, what the industry should submit as evidence to the Commission, and the procedure for the Commission to recognise the self-regulation measure as a valid alternative to a delegated act.

*Article 19* lays down a number of measures that the Member States and the Commission are required to take to help SMEs with the general implementation of this Regulation and the future delegated acts. Such measures include guidelines, financial assistance and training.

*Article 20* first establishes a general obligation of transparency for economic operators who discard unsold consumer products. It also provides for the possibility to adopt delegated acts to prohibit economic operators from destroying unsold consumer products. These delegated acts may also contain exemptions to the general prohibition for instance for reasons of health and safety. If such an exemption is used, economic operators also have an obligation of transparency (i.e. disclosing the number of products destroyed, reasons for destruction, etc.). The article does not apply to SMEs, but the delegated act prohibiting the destruction of products may specify that some obligations apply to certain categories of SMEs (micro, small or medium).

*Articles 21, 22, 23 and 24* lay down obligations of manufacturers, authorised representatives, importers and distributors. They are based on standard provisions from Decision 768/2008/EC.

*Article 25* lays down obligations of dealers (who are typically retailers or sellers) especially in relation to the display of labels and access to the product passport, including in case of (online) distance selling.

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<sup>23</sup> Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products (Text with EEA relevance) (OJ L 285, 31.10.2009, p. 10).

*Article 26* gathers together the different obligations that the economic operators have to comply with if the delegated act requires the product to have a label (e.g. providing dealers with labels).

*Article 27* concerns obligations of fulfilment service providers, namely ensuring that when they handle a product, the conditions during warehousing, packaging, addressing or dispatching do not jeopardise the products' compliance with the ecodesign requirements.

*Article 28* is a standard article from Decision 768/2008/EC, which lays down the two cases in which manufacturers' obligations apply to importers and distributors.

*Article 29* sets out the obligations of online marketplaces and online search engines in particular concerning cooperation with market surveillance authorities. It also specifies that market surveillance authorities should have the power to order an online marketplace to remove illegal content.

*Article 30* lays down the possibility for future delegated acts to require economic operators to make the technical documentation available digitally without request. Further, in order to assess market penetration of products for which ecodesign requirements have been set, the Article requires economic operators to provide information about products supplied.

*Article 31* specifies that products should be able, where appropriate, to measure the energy they consume while in use, or its performance in relation to other relevant parameters and to make this data available to the end user. When so established in a delegated act manufacturers shall collect, anonymise and report this data to the Commission.

*Chapter VIII* on the conformity of products is mostly standard provisions on how to assess the conformity of products. It concerns:

- the use of reliable, accurate and reproducible methods for tests, measurements and calculations (*Article 32*);
- harmonised standards providing a presumption of conformity (*Article 34*);
- the possibility for the Commission to adopt common specifications where harmonised standards are not available (*Article 35*);
- the conformity assessment procedures (*Article 36*);
- the EU declaration of conformity (*Article 37*); and
- the CE marking (*Articles 38 and 39*) and the possibility to use alternative markings (*Article 40*).

Noteworthy in this standard Chapter are the presumption of conformity with ecodesign requirements for products bearing the Union Ecolabel (*Article 34*) and the possibility to amend, in the delegated act, the relevant conformity assessment module depending on the product at stake (*Article 36*).

*Article 33* concerns the prevention of circumvention. For instance, products designed to be able to detect they are being tested and automatically altering their performance to a more favourable result will not be permitted on the market.

*Chapter IX (Articles 41 to 56)* concerns the notification of conformity assessment bodies and consists of standard provisions based on Decision 768/2008/EC, combined with targeted enhancements of those provisions to ensure legal clarity and further strengthen the independence, competence and monitoring of notified bodies.

*Article 57* provides that if Member States adopt incentives to reward products, those incentives should, in principle, target the highest two populated classes of performance or that

bear the EU Ecolabel. In case no class of performance is set, or the class of performance is based on several product parameters, the Commission can further specify in a delegated act how the Member States incentives must work.

*Article 58* concerns green public procurement and more specifically the possibility for delegated acts adopted pursuant to this Regulation to establish requirements applicable to public contracts (e.g. technical specifications, selection criteria, award criteria, etc.), based on the product parameters listed in annex to this Regulation.

*Chapter XI* concerns market surveillance. It generally builds upon the obligations that exist under the Market Surveillance Regulation (EU) 2019/1020, while providing for some more specific obligations where relevant for this Regulation.

*Article 59* requires Member States to draw up an action plan for market surveillance activities, which must include ‘priorities for market surveillance’, to be identified based on a number of criteria laid down in the Article, and the nature and number of checks planned.

*Article 60* empowers the Commission to adopt delegated acts setting out a minimum number of checks to be performed on specific products.

*Article 61* makes reference to the information and communication system under the Market Surveillance Regulation (ICSMS) and requires Member States to enter information on penalties imposed pursuant to this Regulation. On that basis, the Commission is required to adopt a report including indicative benchmarks on the frequency of checks and the nature and severity of penalties imposed.

*Article 62* makes reference to the administrative cooperation group (‘ADCO’) set up pursuant to the Market Surveillance Regulation and sets out its role in the context of this Regulation. This role includes identifying common priorities for Member States’ action plans or priorities for Union support (such as joint market surveillance and testing projects, joint investment in market surveillance capacities, including equipment and IT tools, common training sessions, and guidelines).

*Chapter XII* concerns safeguard procedures and is based on standard provisions. *Article 61* sets out the procedure to be followed by a national market surveillance authority where it considers that a product presents a risk. In such case, the national market surveillance authority must initiate a procedure informing other market surveillance authorities of the measures taken (prohibition or restriction on making the product available, withdrawal or recall).

*Article 64* lays down the Union safeguard procedure to be used if a Member State or the Commission disagrees with a measure taken at national level under the safeguard procedure set out in *Article 63*. Following a consultation, the Commission will adopt an implementing act deciding whether the measure is justified or not. Once adopted, all Member States must ensure that the non-compliant product is withdrawn from their market.

*Article 65* concerns the particular case where a case of non-compliance relates to a formal obligation (affixing the CE marking, EU declaration of conformity, etc.)

*Chapter XIII* is a standard chapter with articles on delegated acts (*Article 66*) and on implementing acts (*Article 67*).

*Chapter XIV* is a standard chapter on final provisions, with articles on penalties (*Article 68*), on carrying out an evaluation of the Regulation 8 years after adoption (*Article 69*), and on repeal and transition provisions (*Article 70*). Noteworthy is the fact that implementing measures adopted under the Ecodesign Directive should remain applicable until they are repealed by a delegated act adopted pursuant to this Regulation.

*Annex I* sets out the product parameters to be used for setting performance and information requirements for products under this Regulation.

*Annex II* lays down the procedure for setting such performance requirements.

*Annex III* lists the information that can be included in the product passport and specifies the information to be included in it.

*Annex IV* reproduces the standard conformity assessment module referred to in Article 35 (from Decision 768/2008/EC).

*Annex V* reproduces the standard EU declaration of conformity.

*Annex VI* gives more detailed information about the content of delegated acts setting ecodesign requirements to be adopted pursuant to this Regulation.

*Annex VII* lays down general criteria applicable to self-regulation measures (Article 18).

*Annex VIII* is a standard annex including the correlation table with the Ecodesign Directive.

Proposal for a

**REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**establishing a framework for setting ecodesign requirements for sustainable products  
and repealing Directive 2009/125/EC**

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee<sup>24</sup>,

Acting in accordance with the ordinary legislative procedure,

Whereas:

- (1) The European Green Deal<sup>25</sup> is Europe's sustainable growth strategy that aims to transform the Union into a fair and prosperous society, with a modern, competitive, climate-neutral and circular economy. It sets the ambitious objective of ensuring that the Union becomes the first climate neutral continent by 2050. It recognises the advantages of investing in the Union's competitive sustainability by building a fairer, greener and more digital Europe. Products have a pivotal role to play in this green transition. Underlining that current production processes and consumption patterns remain too linear and dependent on a throughput of new materials extracted, traded and processed goods and finally disposed of as waste or emissions, the European Green Deal emphasises the urgent need to transition to a circular economy model and stresses the significant progress that remains to be made. It also identifies energy efficiency as a priority for the decarbonisation of the energy sector and for reaching the climate objectives in 2030 and 2050.
- (2) To accelerate the transition to a circular economy model, the Commission designed a future-oriented agenda in its Circular Economy Action Plan for a cleaner and more competitive Europe<sup>26</sup> (CEAP), with the objective of making the regulatory framework fit for a sustainable future. As set out in this plan, there is currently no comprehensive set of requirements to ensure that all products placed on the Union market become

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<sup>24</sup> OJ C., p. .

<sup>25</sup> Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions *The European Green Deal* COM(2019)640 final.

<sup>26</sup> Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions *A new Circular Economy Action Plan For a cleaner and more competitive Europe* COM(2020)98 final.

increasingly sustainable and stand the test of circularity. In particular, product design does not sufficiently promote sustainability over the whole life cycle. As a result, products are being replaced frequently, involving significant energy and resource use in order to produce and distribute new products and dispose of old ones. It is still too difficult for economic operators and citizens to make sustainable choices in relation to products given that relevant information and affordable options to do so are lacking. This leads to missed opportunities for sustainability and for value-retaining operations, limited demand for secondary materials and obstacles to the adoption of circular business models.

- (3) The European Industrial Strategy<sup>27</sup> sets out the Union's overarching ambition to foster a 'twin transition' to climate neutrality and digital leadership. It echoes the European Green Deal in pointing to the leading role that Europe's industry must play in this, by reducing its carbon and material footprint and embedding circularity across the economy, and underlines the need to move away from traditional models, and revolutionise the way we design, make, use and dispose of products. The 2021 Update to the Industrial Strategy<sup>28</sup> reinforces the main messages of the 2020 Strategy and focuses on the lessons from the COVID-19 crisis, including the need to foster resilience.
- (4) In the absence of legislation at Union level, diverging national approaches to improving the environmental sustainability of products have already emerged, ranging from information requirements on the duration of software compatibility of electronic devices to reporting obligations on handling unsold durable goods. This is an indication that further national efforts to achieve the aims pursued by this Regulation will likely lead to further fragmentation of the internal market. Therefore, in order to safeguard the functioning of the internal market while ensuring a high level of environmental protection, there is a need for a regulatory framework to progressively introduce ecodesign requirements for products. This Regulation will, by making the ecodesign approach initially set out in Directive 2009/125/EC of the European Parliament and of the Council<sup>29</sup> applicable to the broadest possible range of products, provide such a framework.
- (5) This Regulation will contribute to making products fit for a climate-neutral, resource-efficient and circular economy, reducing waste and ensuring that the performance of frontrunners in sustainability progressively becomes the norm. It should provide for the setting of new ecodesign requirements to improve product durability, reusability, upgradability and reparability, improve possibilities for refurbishment and maintenance, address the presence of hazardous chemicals in products, increase their energy and resource efficiency, reduce their expected generation of waste materials and increase recycled content in products, while ensuring their performance and safety, enabling remanufacturing and high-quality recycling and reducing carbon and environmental footprints.

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<sup>27</sup> Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions *A New Industrial Strategy for Europe* COM(2020)102 final.

<sup>28</sup> Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions *Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe's recovery* COM(2021)350 final

<sup>29</sup> Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products (Text with EEA relevance) (OJ L 285, 31.10.2009, p. 10).



- (6) The European Parliament, in its Resolution of 25 November 2020 ‘Towards a more sustainable single market for business and consumers’<sup>30</sup>, welcomed promoting durable products which are easier to repair, re-use and recycle. In its report on the New Circular Economy Action Plan adopted on 16 February 2021<sup>31</sup>, the European Parliament further endorsed the agenda presented by the Commission in the CEAP. It considered that the transition to a circular economy can provide solutions to address the current environmental challenges and the economic crisis brought on by the COVID-19 pandemic. The Council, in its conclusions on ‘Making the Recovery Circular and Green’ adopted on 11 December 2020<sup>32</sup>, also welcomed the Commission’s intention to submit legislative proposals as part of a comprehensive and integrated sustainable product policy framework that promotes climate neutrality, energy and resource efficiency and a non-toxic circular economy, protects public health and biodiversity, and empowers and protects consumers and public buyers.
- (7) This Regulation should contribute to achieving the Union’s climate and energy objectives. In line with the goals set out in the Paris Agreement, ratified by the Union in 2016<sup>33</sup>, Regulation (EU) 2021/1119 of the European Parliament and of the Council, the ‘European Climate Law’<sup>34</sup> establishes a binding Union domestic reduction commitment of net greenhouse gas emissions of at least 55 % by 2030 and enshrines in legislation the target of economy-wide climate neutrality by 2050. In 2021 the Commission adopted the Fit for 55 Package<sup>35</sup> to make the Union’s climate and energy policies fit for achieving these objectives. To do so, in line with the energy efficiency first principle enshrined in Directive (EU) 2018/2002 of the European Parliament and of the Council<sup>36</sup>, energy efficiency improvements need to be significantly stepped up, to around 36% in terms of final energy consumption by 2030<sup>37</sup>. Product requirements established under this Regulation should play a significant role towards this target by substantially decreasing products’ energy footprint. These energy efficiency requirements will also reduce consumer vulnerability to energy price increases. As recognised by the Paris Agreement improving the sustainability of consumption and production will also play an important role in addressing climate change.
- (8) This Regulation should also contribute to achieving the Union’s wider environmental objectives. The 8th Environmental Action Programme<sup>38</sup> enshrines in a legal framework the Union’s objective of staying within the planetary boundaries and

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<sup>30</sup> P9\_TA(2020)0318.

<sup>31</sup> [P9\\_TA\(2021\)0040](#).

<sup>32</sup> 13852/20.

<sup>33</sup> Council Decision (EU) 2016/1841 of 5 October 2016 on the conclusion, on behalf of the European Union, of the Paris Agreement adopted under the United Nations Framework Convention on Climate Change (OJ L 282, 19.10.2016, p. 1).

<sup>34</sup> Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (‘European Climate Law’) (OJ L 243, 9.7.2021, p. 1).

<sup>35</sup> [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_21\\_3541](https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541)

<sup>36</sup> Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency (OJ L 328, 21.12.2018, p. 210).

<sup>37</sup> According to the impact assessment accompanying the Climate Target Plan (*Stepping up Europe’s 2030 climate ambition – Investing in a climate-neutral future for the benefit of our people*, COM/2020/562 final) and to the [Energy Efficiency Directive proposal]

<sup>38</sup> Decision (EU) 2022/.... of the European Parliament and of the Council of ... on a General Union Environment Action Programme to 2030 [Add reference when published in OJ – trilogue agreement 2 December 2021].

identifies enabling conditions to achieve priority objectives, which include the transition to a non-toxic circular economy. The European Green Deal also calls for the Union to better monitor, report, prevent and remedy air, water, soil and consumer products pollution. This means that chemicals, materials and products have to be as safe and sustainable as possible by design and during their life cycle, leading to non-toxic material cycles<sup>39</sup>. In addition, both the European Green Deal and the CEAP recognise that the Union internal market provides a critical mass that is able to influence global standards on product sustainability and product design. This Regulation should therefore play a significant role towards achieving several targets established under the United Nations' Sustainable Development Goals of the UN's 2030 Agenda for Sustainable Development 'Responsible consumption and production'<sup>40</sup>, both inside and outside the Union.

- (9) Directive 2009/125/EC establishes a framework for the setting of ecodesign requirements for energy-related products. It has, in combination with Regulation (EU) 2017/1369 of the European Parliament and of the Council<sup>41</sup>, significantly reduced EU primary energy demand for products and it is estimated these savings will continue to increase. Implementing measures adopted under Directive 2009/125/EC have also included requirements on circularity aspects, such as durability, reparability and recyclability. At the same time, instruments such as the EU Ecolabel, introduced by Regulation (EC) No 66/2010 of the European Parliament and of the Council<sup>42</sup> or the EU green public procurement criteria<sup>43</sup> are broader in scope but have a reduced impact due to the limitations of voluntary approaches.
- (10) Directive 2009/125/EC has been generally successful in fostering the energy efficiency and some circularity aspects of energy-related products, and its approach has the potential to progressively address the sustainability of all products. To deliver on Green Deal commitments, this approach should be extended to other product groups and systematically address key aspects for increasing the environmental sustainability of products with binding requirements. By ensuring that only products that meet those requirements are placed on the Union market, this Regulation should not only improve the free movement of such products by avoiding national disparities, but also reduce the negative life cycle environmental impacts of products for which such requirements are set.
- (11) In order to create an effective and future-proof regulatory framework, it is necessary to allow for the setting of ecodesign requirements on all physical goods placed on the market or put into service, including components and intermediate products. This should allow the Commissions to take into account the broadest range of products possible when prioritising the establishment of ecodesign requirements and thereby maximise their effectiveness. Where needed, specific exemptions should be made when setting ecodesign requirements, for example for products with a particular

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<sup>39</sup> As set out in the EU Action Plan *Towards zero pollution for air, water and soil* (COM(2021)400 final) and the *Chemicals Strategy for Sustainability* (COM(2020)667 final), which calls for embracing the zero pollution goals in production and consumption.

<sup>40</sup> Including in particular targets under SDG 12 ("Responsible consumption and production").

<sup>41</sup> Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU (OJ L 198, 28.7.2017, p. 1).

<sup>42</sup> Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel (OJ L 27, 30.1.2010, p. 1).

<sup>43</sup> Communication "Public procurement for a better environment" (COM (2008) 400) [https://ec.europa.eu/environment/gpp/eu\\_gpp\\_criteria\\_en.htm](https://ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm)

purpose that could not be fulfilled when complying with ecodesign requirements. In addition, exemptions should be made at the level of the framework for those products for which it is already clear that ecodesign requirements would not be suitable or where other frameworks provide for the setting of such requirements. This should be the case for food and feed as defined in Regulation (EC) No 178/2002 of the European Parliament and of the Council<sup>44</sup>, medicinal products for human use as defined in Directive 2001/83/EC of the European Parliament and of the Council<sup>45</sup>, veterinary medicinal products as defined in Regulation (EU) 2019/6 of the European Parliament and of the Council<sup>46</sup>, living plants, animals and micro-organisms, products of human origin, and products of plants and animals relating directly to their future reproduction.

- (12) The proposal for a Directive of the European Parliament and of the Council on the energy performance of buildings (recast)<sup>47</sup> requires Member States to set minimum energy performance requirements for building elements that form part of the building envelope and system requirements in respect to overall energy performance, the proper installation and the appropriate dimensioning, adjustment and control of technical building systems installed in new or existing buildings. It is consistent with the objectives of this Regulation that these minimum energy performance requirements may in certain circumstances limit the installation of energy-related products which comply with this Regulation and its delegated acts, provided that such requirements do not constitute an unjustifiable market barrier.
- (13) In order to improve the environmental sustainability of products and to ensure the free movement of products in the internal market, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to supplement this Regulation by setting out ecodesign requirements. Those ecodesign requirements should in principle apply to specific product groups, such as washing machines or washing machines and washer dryers. In order to maximise the effectiveness of ecodesign requirements and to efficiently improve environmental sustainability of products, it should also be possible to set out one or more horizontal ecodesign requirements for a wider range of products groups, such as electronic appliances or textiles. Horizontal ecodesign requirements should be established where the technical similarities of product groups allow their environmental sustainability to be improved based on the same requirements.
- (14) In order to allow the Commission to set requirements as appropriate to the product groups covered, ecodesign requirements should include performance and information requirements. Those requirements should be used to improve product aspects relevant for environmental sustainability, such as energy efficiency, durability, reparability and carbon and environmental footprints. Ecodesign requirements should be transparent, objective, proportionate and in compliance with international trade rules.
- (15) Once a delegated act setting ecodesign requirements is adopted by the Commission for a given product group, Member States should, in order to ensure the functioning of the

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<sup>44</sup> Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1).

<sup>45</sup> Directive 2001/83/EC of the European Parliament and of the Council of 6 November 2001 on the Community code relating to medicinal products for human use (OJ L 311, 28.11.2001, p. 67).

<sup>46</sup> Regulation (EU) 2019/6 of the European Parliament and of the Council of 11 December 2018 on veterinary medicinal products and repealing Directive 2001/82/EC (OJ L 4, 7.1.2019, p. 43).

<sup>47</sup> COM (2021) 802 final.

internal market, no longer be allowed to set national performance requirements based on product parameters covered by such performance requirements laid down in that delegated act, and no longer be allowed to set national information requirements based on product parameters covered by such information requirements laid down in that delegated act. In order to ensure the functioning of the internal market, the Commission should be empowered to establish that no ecodesign requirements in the form of performance requirements and/or in the form of information requirements are necessary in relation to a specific product parameter.

- (16) When establishing ecodesign requirements the Commission should take into account the nature and purpose of the products concerned as well as the characteristics of the relevant markets. For example, defence equipment has to be able to operate under specific and sometimes harsh conditions, which needs to be considered when setting ecodesign requirements. Certain information on defence equipment should not be disclosed and should be protected. Therefore, for military or sensitive equipment ecodesign requirements should take into account the security needs and the characteristics of the defence market, as defined in Directive 2009/81/EC of the European Parliament and of the Council<sup>48</sup>. Similarly, the space industry is strategic for Europe and for its technological non-dependence. As space technologies operate in extreme conditions, any ecodesign requirements for space products should balance sustainability considerations with resilience and expected performance. Further, for medical devices as defined in Article 2(1) of Regulation (EU) 2017/745 on medical devices<sup>49</sup> and *in vitro* diagnostic medical devices as defined in Article 2(2) of Regulation (EU) 2017/746 on *in vitro* diagnostic medical devices<sup>50</sup>, the Commission should take into account of the need to not negatively affect health and safety of patients and users.
- (17) To avoid duplication of efforts and regulatory burden, consistency should be ensured between this Regulation and requirements set in or pursuant to other Union legislation, especially products, chemicals and waste legislation<sup>51</sup>. However, the existence of empowerments under other Union legislation to set requirements with the same or similar effects as requirements under this Regulation does not limit the empowerments included in this Regulation, unless specified in this Regulation.
- (18) Delegated acts including ecodesign requirements should, as was the case under Directive 2009/125/EC, undergo a dedicated impact assessment and stakeholder consultation, and should be drawn up in line with the Commission's Better Regulation guidelines, and include an assessment of the international dimension and impacts on third countries. When doing so, the Commission should take due consideration of all

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<sup>48</sup> Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security, and amending Directives 2004/17/EC and 2004/18/EC (OJ L 216, 20.8.2009, p. 76).

<sup>49</sup> Regulation (EU) 2017/745 of the European Parliament and of the Council of 5 April 2017 on medical devices, amending Directive 2001/83/EC, Regulation (EC) No 178/2002 and Regulation (EC) No 1223/2009 and repealing Council Directives 90/385/EEC and 93/42/EEC (OJ L 117 5.5.2017, p. 1).

<sup>50</sup> Regulation (EU) 2017/746 of the European Parliament and of the Council of 5 April 2017 on *in vitro* diagnostic medical devices and repealing Directive 98/79/EC and Commission Decision 2010/227/EU (OJ L 117, 5.5.2017, p. 176).

<sup>51</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions *on the implementation of the circular economy package - options to address the interface between chemical, product and waste legislation* (COM(2018) 32 final).

aspects of the life cycle of the product and base its impact assessment on best available evidence. When preparing ecodesign requirements the Commission should use a scientific approach and also take into consideration relevant technical information in particular coming from Regulation (EC) No 66/2010 of the European Parliament and of the Council<sup>52</sup>, Directive 2010/75/EU of the European Parliament and of the Council<sup>53</sup>, technical screening criteria adopted pursuant to Regulation (EU) 2020/852 of the European Parliament and of the Council<sup>54</sup> and green public procurement criteria<sup>55</sup>.

- (19) In order to take into account the diversity of products, the Commission should select the methods to assess the setting of the ecodesign requirements and, as appropriate, develop them further based on the nature of the product, its most relevant aspects and its impacts over its life cycle. In doing so, the Commission should take account of its experience in assessing the setting of requirements under Directive 2009/125/EC and the continuing efforts to develop and improve science-based assessment tools, such as the update of the methodology for ecodesign of energy-related products, and the Product Environmental Footprint method set out in Commission Recommendation (EU) 2021/2279<sup>56</sup>, including as regards temporary storage of carbon, as well as the development of standards by international and European standardisation organisations, including on the material efficiency of energy-related products. Building on these tools and using dedicated studies when needed, the Commission should further reinforce circularity aspects (such as durability, reparability including reparability scoring, identification of chemicals hindering re-use and recycling) in the assessment of products and in the preparation of ecodesign requirements, and should develop new methods or tools where appropriate. New approaches may also be needed for the preparation of mandatory public procurement criteria and for bans on the destruction of unsold consumer products.
- (20) Performance requirements should relate to a selected product parameter relevant to the targeted product aspect for which potential for improving environmental sustainability has been identified. Such requirements may include minimum or maximum levels of performance in relation to the product parameter, non-quantitative requirements that aim to improve performance in relation to the product parameter, or requirements related to a product's functional performance to ensure that the selected performance requirements do not negatively impact the ability of the product to perform the function for which it was designed and marketed. Regarding minimum or maximum levels, they may for example take the form of a limit on energy consumption in the use phase or on the quantities of a given material incorporated in the product, a requirement for minimum quantities of recycled content, or a limit on a specific environmental impact category or on an aggregation of all relevant environmental

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<sup>52</sup> Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel (OJ L 27, 30.1.2010, p. 1).

<sup>53</sup> Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (OJ L 334, 17.12.2010, p. 17).

<sup>54</sup> Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (OJ L 198, 22.6.2020, p. 13).

<sup>55</sup> Communication “Public procurement for a better environment” (COM (2008) 400)

<sup>56</sup> Commission Recommendation (EU) 2021/2279 of 15 December 2021 on the use of the Environmental Footprint methods to measure and communicate the life cycle environmental performance of products and organisations.

impacts. An example of a non-quantitative requirement is the prohibition of a specific technical solution that is detrimental to product reparability. Performance requirements will be used to ensure the removal of the worst performing products from the market where this is necessary to contribute to the environmental sustainability objectives of the Regulation.

- (21) In order to ensure consistency, performance requirements should complement the implementation of Union legislation on waste. While requirements for placing on the market packaging as a final product are laid down under European Parliament and Council Directive 94/62/EC<sup>57</sup>, this Regulation may complement that Directive by setting product-based requirements focussing on the packaging of specific products when placed on the market. Where relevant, such complementary requirements should contribute in particular to minimising the amount of packaging used, in turn contributing to the prevention of waste generation in the Union.
- (22) Chemical safety is a recognised element of product sustainability. It is based on chemicals' intrinsic hazards to health or the environment in combination with specific or generic exposure, and is addressed by chemicals legislation, such as Regulation (EC) No 1935/2004 of the European Parliament and of the Council<sup>58</sup>, Regulation (EC) No 1907/2006 of the European Parliament and of the Council<sup>59</sup>, Regulation (EC) No 1223/2009 of the European Parliament and of the Council<sup>60</sup>, Regulation (EU) 2017/745 of the European Parliament and of the Council<sup>61</sup> and Directive 2009/48/EC of the European Parliament and of the Council<sup>62</sup>. This Regulation should not enable the restriction of substances based on chemical safety, as done under other Union legislation. Similarly, this Regulation should not enable the restriction of substances for reasons related to food safety. Union law on chemicals and food, however, does not allow addressing, through restrictions on certain substances, impacts on sustainability that are unrelated to chemical safety or food safety. To overcome this limitation, this Regulation should allow, under certain conditions, for the restriction, primarily for reasons other than chemical or food safety, of substances present in products or used in their manufacturing processes which negatively affect products' sustainability. This Regulation also should not result in the duplication or replacement of restrictions of substances covered by Directive 2011/65/EU of the European

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<sup>57</sup> European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste (OJ L 365, 31.12.1994, p. 10).

<sup>58</sup> Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food and repealing Directives 80/590/EEC and 89/109/EEC (OJ L 338, 13.11.2004, p. 4).

<sup>59</sup> Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (OJ L 396, 30.12.2006, p. 1).

<sup>60</sup> Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products (OJ L 342, 22.12.2009, p. 59).

<sup>61</sup> Regulation (EU) 2017/746 of the European Parliament and of the Council of 5 April 2017 on in vitro diagnostic medical devices and repealing Directive 98/79/EC and Commission Decision 2010/227/EU (OJ L 117, 5.5.2017, p. 176).

<sup>62</sup> Directive 2009/48/EC of the European Parliament and of the Council of 18 June 2009 on the safety of toys (OJ L 170, 30.6.2009, p. 1).

Parliament and of the Council<sup>63</sup>, which has as its objective the protection of human health and the environment, including the environmentally sound recovery and disposal of waste from electrical and electronic equipment

- (23) To improve environmental sustainability of products, information requirements should relate to a selected product parameter relevant to the product aspect, such as the product's environmental footprint or its durability. They may require manufacturer to make available information on the product's performance in relation to a selected product parameter or other information that may influence the way the product is handled by parties other than the manufacturer in order to improve performance in relation to such a parameter. Such information requirements should be set either in addition to, or in place of, performance requirements on the same product parameter as appropriate. Where a delegated act includes information requirements, it should indicate the method for making the required information available, such as its inclusion on a free-access website, product passport or product label. Information requirements are necessary to lead to the behavioural change needed to ensure that the environmental sustainability objectives of this Regulation are achieved. By providing a solid basis for purchasers and public authorities to compare products on the basis of their environmental sustainability, information requirements are expected to drive consumers and public authorities towards more sustainable choices.
- (24) Where delegated acts include information requirements, they may in addition determine classes of performance in relation to one or more relevant product parameters, in order to facilitate comparison between products on the basis of that parameter. Classes of performance should enable differentiation of products based on their relative sustainability and could be used by both consumers and public authorities. As such, they are intended to drive the market towards more sustainable products.
- (25) Information on the presence of substances of concern in products is a key element to identify and promote products that are sustainable. The chemical composition of products determines largely their functionalities and impacts, as well as the possibilities for their re-use or for recovery once they become waste. The Chemicals Strategy for Sustainability<sup>64</sup> calls for minimising the presence of substances of concern in products, and ensuring the availability of information on chemical content and safe use, by introducing information requirements and tracking the presence of substances of concern throughout the life cycle of materials and products. Regulation (EC) No 1272/2008 of the European Parliament and of the Council<sup>65</sup> and other existing chemicals legislation such as Regulation (EC) No 1223/2009 already ensure communication on hazards to health or the environment posed by certain substances of concern on their own or in a mixture. Users of substances and mixtures should also be informed about pertinent sustainability-related information not primarily related to

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<sup>63</sup> Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (OJ L 174, 1.7.2011, p. 88).

<sup>64</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions *Chemicals Strategy for Sustainability Towards a Toxic-Free Environment* COM(2020)667 final.

<sup>65</sup> Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1).

hazards to health or the environment. Furthermore, users of products other than substances or mixtures, and managers of waste from such products, should also receive sustainability-related information, including information primarily related to chemicals' hazards to health or the environment. Therefore, this Regulation should allow for the setting of requirements related to the tracking and communication of sustainability information, including the presence of substances of concern in products throughout their life cycle, including with a view to their decontamination and recovery when they become waste. Such a framework should aim to progressively cover all substances of concern in all products listed in working plans setting out the product groups the Commission intends to tackle.

- (26) The information requirements set under this Regulation should include the requirement to make available a product passport. The product passport is an important tool for making information available to actors along the entire value chain and the availability of a product passport should significantly enhance end-to-end traceability of a product throughout its value chain. Among other things, the product passport should help consumers make informed choices by improving their access to product information relevant to them, allow economic operators other value chain actors such as repairers or recyclers to access relevant information, and enable competent national authorities to perform their duties. To this end, the product passport should not replace but complement non-digital forms of transmitting information, such as information in the product manual or on a label. In addition, it should be possible for the product passport to be used for information on other sustainability aspects applicable to the relevant product group pursuant to other Union legislation.
- (27) To take account of the nature of the product and its market, the information to be included in the product passport should be carefully examined on a case-by-case basis when preparing product-specific rules. To optimise access to the resulting information while also protecting intellectual property rights, the product passport needs to be designed and implemented allowing differentiated access to the information included in the product passport depending on the type of information and the typology of stakeholders. Similarly, to avoid costs to companies and the public that are disproportionate to the wider benefits, the product passport should be specific to the item, batch or product model, depending on for example the complexity of the value chain, the size, nature or impacts of the products considered.
- (28) In order to ensure interoperability, the types of permitted data carriers should be specified. For the same reason, the data carrier and the unique product identifier should be released in accordance with internationally recognised standards. The power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to amend this Regulation by replacing or adding standards in accordance with which the data carrier and the unique identifiers may be released, in light of technical or scientific progress. This should ensure that the information contained in the product passport can be recorded and transmitted by all economic operators, as well as to guarantee the compatibility of the unique identifier with external components such as scanning devices.
- (29) In order to not unnecessarily delay the establishment of ecodesign requirements other than on the product passport or to ensure that product passports can be effectively implemented, the Commission should be allowed to exempt product groups from the product passport requirements in case technical specifications are not available in relation to the essential requirements for the technical design and operation of the



product passport. Similarly, in order to prevent unnecessary administrative burden for economic operator, the Commission should be allowed to exempt product groups from the product passport requirements in case other Union law already includes a system for the digital provision of product information allowing actors along the value chain to access relevant product information and facilitating the verification of product compliance by competent national authorities. These exemptions should be periodically reviewed taking into account further availability of technical specifications.

- (30) Unique identification of products is a fundamental element to enable traceability across the supply chain. Therefore, the product passport should be linked to a unique product identifier. In addition, where appropriate, the passport should allow for the tracing of the actors and manufacturing facilities related to that product. In order to ensure interoperability, the unique operator identifiers and unique facility identifiers enabling traceability should be released in accordance with internationally recognised standards. The power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to amend this Regulation by replacing or adding standards in accordance with which unique operator identifiers and unique facility identifiers may be released, in light of technical or scientific progress.
- (31) Digitalised information about the product and its life cycle or, where applicable, its passport should be easily accessible by scanning a data carrier, such as a watermark or a quick response (QR) code. Where possible, the data carrier should be on the product itself to ensure the information remains accessible throughout its life cycle. However, exceptions are possible depending on the nature, size or use of the products concerned.
- (32) To ensure that the product passport is flexible, agile and market-driven and evolving in line with business models, markets and innovation, it should be based on a decentralised data system, set up and maintained by economic operators. However, for enforcement and monitoring purposes, it may be necessary that competent national authorities and the Commission have direct access to a record of all data carriers and unique identifiers linked to products placed on the market or put in service.
- (33) To ensure the effective roll-out of the product passport, technical design, data requirements and operation of the product passport should adhere to a set of essential technical requirements. Such requirements should provide a basis for the consistent deployment of the product passport across sectors. Technical specifications should be established to ensure the effective implementation of those essential requirements, either in the form of harmonised standard referenced in the Official Journal or, as a fall-back option, common specification adopted by the Commission. The technical design should ensure that the product passport carries data in a secure way, respecting privacy rules. The digital product passport will be developed in an open dialogue with international partners, in order to take account of their views when developing technical specifications and to ensure that they help remove trade barriers for greener products and lower costs for sustainable investments, marketing and compliance. Technical specifications and requirements related to traceability across the value chain should, in order to allow for their effective implementation, to the extent possible be developed based on a consensual approach and on the involvement, buy-in, and effective collaboration of a diverse set of actors, including standardisation bodies, industry associations, consumer organisations, experts, NGOs and international partners, including developing economies.

- (34) In order to improve enforcement of ecodesign requirements, it is necessary that national authorities and the Commission have direct access to a record of all data carriers and unique identifiers linked to products placed on the market or put in service. To this end, the Commission should set up and maintain a product passport registry to store such data. Where needed to further facilitate enforcement, the Commission should, as appropriate, specify other information included in the product passport that needs to be stored in the registry.
- (35) Any processing of personal data pursuant to this Regulation should comply with the applicable rules on the protection of personal data. Processing of personal data by the competent national authorities within Member States should be carried out in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council<sup>66</sup>. Processing of personal data by the Commission should be carried out in accordance with Regulation (EU) 2018/1725 of the European Parliament and of the Council<sup>67</sup>.
- (36) Effective enforcement in relation to products placed on the Union market, whether domestically produced or imported, is essential for achieving the aims of this Regulation. Therefore, where the Commission has set up a registry, customs authorities should have direct access to it via the EU Single Window Environment for Customs set up by Regulation (EU) .../.... The role of customs should be to ensure that the reference of a product passport is made available in the customs declaration and that this reference corresponds to a unique product identifier that is stored in the registry. This would allow the verification by customs that a product passport exists for imported products.
- (37) Where certain information included in the product passport is stored in the registry in addition to data carriers and unique identifiers, the Commission should be able to provide, where appropriate, that customs authorities verify the consistency between this information and the customs declaration, in order to improve the compliance of products with ecodesign requirements and taking into account the need to avoid disproportionate burden for customs authorities.
- (38) The information included in the product passport can allow customs authorities to enrich and facilitate risk management and enable the better targeting of controls at the border. Therefore, customs authorities should be able to retrieve and use the information included in the product passport and the related registry for carrying out their tasks in accordance with Union legislation including for risk management in accordance with Regulation (EU) No 952/2013 of the European Parliament and of the Council<sup>68</sup>.
- (39) To drive consumers towards more sustainable choices, labels should, when required by the delegated acts adopted pursuant to this Regulation, provide information allowing for the effective comparison of products, for instance by indicating classes of

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<sup>66</sup> Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (OJ L 119, 4.5.2016, p. 1).

<sup>67</sup> Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39).

<sup>68</sup> Regulation (EU) No 952/2013 of the European Parliament and of the Council of 9 October 2013 laying down the Union Customs Code (OJ L 269, 10.10.2013, p. 1).

performance. Specifically for consumers, physical labels can be an additional source of information at the place of sale. They can provide a quick visual basis for consumers to distinguish between products based on their performance in relation to a specific product parameter or set of product parameters. They should, where appropriate, also allow for the accessing of additional information by bearing specific references like website addresses, dynamic QR codes, links to online labels or any appropriate consumer-oriented means. The Commission should set out in the relevant delegated act the most effective way of displaying such labels, including in the case of online distance selling, taking into account the implications for customers and economic operators and the characteristics of the products concerned. The Commission may also require the label to be printed on the packaging of the product.

- (40) Regulation (EU) 2017/1369 setting a framework on energy labelling applies, in parallel to this Regulation, to energy-related products. This means that energy labels are the primary instrument providing the appropriate information to consumers for energy-related products and that classes of performance determined under this Regulation should, where appropriate, be incorporated in the label as supplementary information as provided for in Article 16 of Regulation (EU) 2017/1369. In cases where relevant information on a product's performance in relation to a product parameter cannot be included as supplementary information in the energy label established for the energy-related product pursuant to Regulation (EU) 2017/1369, the Commission should assess whether a label in accordance with this Regulation is to be established, taking into account the need for consumers to be informed on the most relevant parameters for the product and the disadvantages in terms of risks of confusion for the public and of excessive administrative burden for economic operators.
- (41) Consumers should be protected from misleading information that could hamper their choices for more sustainable products. For this reasons it should be prohibited to place on the market products bearing a label mimicking the labels provided for in this Regulation.
- (42) To deliver in the most efficient way on the European Green Deal's objectives and to address the most impactful products first, the Commission should carry out a prioritisation of products to be regulated under this Regulation and requirements that will apply to them. Based on the process followed for prioritisation under Directive 2009/125/EC, the Commission should adopt a working plan, covering at least 3 years, laying down a list of product groups for which it plans to adopt delegated acts as well as the product aspects for which it intends to adopt delegated acts of horizontal application. The Commission should base its prioritisation on a set of criteria pertaining in particular to the delegated acts' potential contribution to the Union climate, environmental and energy objectives and their potential for improving the product aspects selected without disproportionate costs to the public and economic operators. Considering their importance for meeting the Union's energy objectives, the working plans should include an adequate share of actions related to energy-related products. Member States and stakeholders should also be consulted through the Ecodesign Forum. Due to the complementarities between this Regulation and Regulation (EU) 2017/1369 for energy-related products, the timelines for the working plan under this Regulation and the one provided for under Article 15 of Regulation (EU) 2017/1369 should be aligned.
- (43) In addressing construction products, this Regulation should set requirements on final products only when the obligations created by [the revised Construction Products

Regulation] and its implementation are unlikely to sufficiently achieve the environmental sustainability objectives pursued by this Regulation. In addition, when formulating working plans, the Commission should take into account that, in continuation of current practice, [the revised Construction Products Regulation] will, in relation to energy-related products that are also construction products, give prevalence to sustainability requirements set under this Regulation. This should be the case for instance for heaters, boilers, heat pumps, water and space heating appliances, fans, cooling and ventilating systems and photovoltaic products (excluding building-integrated photovoltaic panels). For these products, [the revised Construction Products Regulation] may intervene in a complementary manner where needed, mainly in relation to safety aspects, also taking account of other Union legislation on products such as on gas appliances, low voltage, and machinery.

- (44) In order to encourage self-regulation as a valid alternative to regulatory approaches, this Regulation should, in continuation of Directive 2009/125/EC, include the possibility for industry to submit self-regulation measures. The Commission should assess the self-regulation measures proposed by industry, along with the information and evidence submitted by the signatories, including in light of the international trade commitments of the Union and the need to ensure coherence with Union law. In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred on the Commission to adopt and update an act listing the self-regulation measures considered as valid alternatives to a delegated act setting ecodesign requirements. It is also appropriate, for instance in view of relevant market or technological developments within the product group concerned, that the Commission be able to request a revised version of the self-regulation measure whenever considered necessary. Once a self-regulation measure is listed in an implementing act, there is a legitimate expectation for economic operators that the Commission will not adopt a delegated act establishing ecodesign requirements for this specific product group. However, it is not excluded that the Commission may adopt horizontal ecodesign requirements also applying to the products covered by a recognised self-regulation measure for the product aspects not addressed by that self-regulation measure. Where the Commission considers that a self-regulation measure no longer fulfils the criteria set in this Regulation, it should remove that self-regulation from the implementing act listing the recognised self-regulation measures. Consequently, ecodesign requirements may then be established for the product groups previously addressed by the self-regulation measure, in accordance with this Regulation.
- (45) Micro, small and medium-sized enterprises (SMEs) could greatly benefit from an increase in the demand for sustainable products but could also face costs and difficulties with some of the requirements. The Member States and the Commission should, in their respective areas of responsibility, provide adequate information, ensure targeted and specialised training, and provide specific assistance and support, including financial, to SMEs active in the manufacturing of products for which ecodesign requirements are set. Those actions should, for example, cover the calculation of the product environmental footprint and the technical implementation of the product passport. Member States actions should be taken in respect of applicable State aid rules.
- (46) The destruction of unsold consumer products, such as textiles and footwear, by economic operators is becoming a widespread environmental problem across the Union, in particular due to the rapid growth of online sales. It amounts to a loss of

valuable economic resources as goods are produced, transported and afterwards destroyed without ever being used for their intended purpose. It is therefore necessary, in the interest of environmental protection, that this Regulation establishes a framework to prevent the destruction of unsold products primarily intended for consumers pursuant to Directive (EU) 2019/771 of the European Parliament and of the Council<sup>69</sup>, including products that have been returned by a consumer in view of their right of withdrawal as laid down by Directive (EU) 2011/83/EU of the European Parliament and of the Council<sup>70</sup>. This will reduce the environmental impact of those products by reducing the generation of waste and by dis-incentivising overproduction of products. In addition, given that several Member States have introduced national legislation on the destruction of unsold consumer products thereby creating market distortions, harmonised rules on the destruction of unsold consumer products are necessary to ensure that distributors, retailers and other economic operators are subject to the same rules and incentives across Member States.

- (47) To dis-incentivise the destruction of unsold consumer products and to further generate data on the occurrence of this practice, this Regulation should introduce a transparency obligation for economic operators holding consumer products in the Union, requiring them to disclose information on the number of unsold consumer products discarded per year. The economic operator should indicate the product type or category, the reasons for their discarding and their delivery for subsequent waste treatment operations. While economic operators should be free to determine how to disclose that information in a manner appropriate to their business environment, it should be considered a best practice to include the required information in a publicly available non-financial statement drafted in accordance with Article 19a of Directive 2013/34/EU of the European Parliament and of the Council<sup>71</sup> where applicable.
- (48) In order to avoid the destruction of unsold consumer products, where the destruction of such products is prevalent, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to supplement this Regulation by prohibiting the destruction of such products. Given the wide range of products that may potentially be destroyed without ever being sold or used, it is necessary to establish such empowerment in this Regulation. However, the prohibition set in the delegated acts should apply to specific product groups to be determined based on an assessment by the Commission of the extent to which the destruction of such products takes place in practice, taking into account the information made available by economic operators where appropriate. To ensure that this obligation is proportionate, the Commission should consider specific exemptions under which destroying unsold consumer products may still be permitted, for instance in view of health and safety concerns. To monitor the effectiveness of this prohibition and to dis-incentivise

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<sup>69</sup> Directive (EU) 2019/771 of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the sale of goods, amending Regulation (EU) 2017/2394 and Directive 2009/22/EC, and repealing Directive 1999/44/EC (OJ L 136, 22.5.2019, p. 6).

<sup>70</sup> Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council (OJ L 304, 22.11.2011, p. 64).

<sup>71</sup> Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC (OJ L 182, 29.6.2013, p. 19).

circumvention, economic operators should be required to disclose the number of unsold consumer products destroyed and the reasons for their destruction under applicable exemptions. Finally, to avoid any undue administrative burden on SMEs, they should be exempted from the obligations to disclose their unsold discarded products and from the prohibition to discard specific products groups set in delegated acts. However, where there is reasonable evidence that SMEs may be used to circumvent those obligations, the Commission should be able to require, in those delegated acts, for some product groups, that these obligations also apply to micro, small or medium sized enterprises.

- (49) Economic operators should be responsible for products' compliance with the ecodesign requirements under this Regulation, in relation to their respective roles in the supply chain, so as to ensure those products' free movement on the internal market and to improve their sustainability. Economic operators intervening in the supply and distribution chain should take appropriate measures to ensure that they only make available on the market products that are in conformity with this Regulation and the delegated acts adopted pursuant to it.
- (50) The manufacturer, having detailed knowledge of the design and production process, is best placed to carry out the conformity assessment procedure. Conformity assessment should therefore remain solely the obligation of the manufacturer.
- (51) In order to safeguard the functioning of the internal market, it is necessary to ensure that products from third countries entering the Union market comply with this Regulation and the delegated acts adopted pursuant to it, whether imported as products, components, or intermediate products. In particular, it is necessary to ensure that appropriate conformity assessment procedures have been carried out by manufacturers with regard to those products. Provision should therefore be made for importers to ensure that the products they place on the market comply with those requirements and that the CE marking and documentation drawn up by manufacturers are available for inspection by the competent national authorities. Provision should also be made for importers to ensure, where applicable, that a product passport is available for those products.
- (52) When placing a product on the, every importer should indicate on the product their name, registered trade name or registered trade mark as well as their postal address and, where available, electronic means of communication through which it can be contacted. Exceptions should be provided for in cases where the size of the product does not allow for such indications. This includes cases where the importer would have to open the packaging to put the name and address on the product or where the product is too small in size to affix this information.
- (53) As the distributor makes a product available on the market after it has been placed there by the manufacturer or importer, it should act with due care in relation to the applicable ecodesign requirements. The distributor should also ensure that its handling of the product does not adversely affect its compliance with the requirements of this Regulation or the delegated acts adopted pursuant to it.
- (54) As distributors and importers are close to the marketplace and have an important role in ensuring product compliance, should be involved in market surveillance tasks carried out by the competent national authorities, and should be prepared to participate actively, providing those authorities with all necessary information relating to the product concerned.

- (55) As the dealer offers a product for sale, hire or hire purchase, or displays products to customers or installers, it is necessary for the dealer to ensure that its customers can effectively access the information required under this Regulation, including in the case of distance selling. In particular, this Regulation should require dealers to ensure that the product passport is accessible to their customers and that labels are clearly displayed, in line with the applicable requirements. The dealer should comply with this obligation every time the product is offered for hire.
- (56) To facilitate the choice of more sustainable products, labels, where required, should be displayed in a clearly visible and identifiable way. They should be identifiable as the label belonging to the product in question, without the customer having to read the brand name and model number on the label. Labels should attract the attention of the customer browsing through the products displayed. To ensure that the label is accessible to customers when considering a purchase, both the dealer and the responsible economic operator should display the label whenever advertising the product, also in cases of distance selling, including online.
- (57) Any importer or distributor that either places on the market a product covered by a delegated act adopted pursuant to this Regulation under the importer's or distributor's own name or trademark, or modifies such a product in such a way that compliance with this Regulation or with the relevant delegated act might be affected, should be considered to be the manufacturer and should assume the manufacturer's obligations.
- (58) Online marketplaces play a crucial role in the supply chain, allowing economic operators to reach a large number of customers. Given their important role in intermediating the sale of products between economic operators and customers, online marketplaces should take responsibility for addressing the sale of products that do not comply with ecodesign requirements and should cooperate with market surveillance authorities. Directive 2000/31/EC of the European Parliament and of the Council<sup>72</sup> provides the general framework for e-commerce and lays down certain obligations for online platforms. Regulation [.../...] on a Single Market for Digital Services (Digital Services Act) and amending Directive 2000/31/EC<sup>73</sup> regulates the responsibility and accountability of providers of intermediary services online with regard to illegal content, including products that do not comply with ecodesign requirements. Building on this general framework, specific requirements to effectively address the sale of non-compliant products online should be brought in.
- (59) It is essential that online marketplaces cooperate closely with the market surveillance authorities. An obligation of cooperation with market surveillance authorities is imposed on information society service providers under Article 7(2) of Regulation (EU) 2019/1020 of the European Parliament and of the Council<sup>74</sup> in relation to products covered by that Regulation, including products for which ecodesign requirements are set. To further improve cooperation to tackle illegal content related to

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<sup>72</sup> Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market ('Directive on electronic commerce') (OJ L 178, 17.7.2000, p. 1).

<sup>73</sup> [Add reference when adopted Proposal for a regulation of the European Parliament and of the Council on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC (COM(2020)825 final)].

<sup>74</sup> Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on market surveillance and compliance of products and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011 (OJ L169, 25.6.2019, p. 1).

non-compliant products, this Regulation should include concrete obligations to put this cooperation into practice as regards online marketplaces. For instance, market surveillance authorities are constantly improving the technological tools they use for online market surveillance in order to identify non-compliant products sold online. For these tools to be operational, online marketplaces should grant access to their interfaces. Moreover, market surveillance authorities may also need to scrape data from the online marketplaces.

- (60) Article 14(4) of Regulation (EU) 2019/1020 provides market surveillance authorities with the power, where no other effective means are available to eliminate a serious risk, to require the removal of content referring to non-compliant products from an online interface or to require the explicit display of a warning to end-users when they access an online interface. The powers entrusted to market surveillance authorities by Article 14(4) of Regulation (EU) 2019/1020 also apply to this Regulation. However, for effective market surveillance under this Regulation and to avoid non-compliant products being present on the Union market, this power should apply in all necessary and proportionate cases, including for products presenting a less than serious risk. This power should be exercised in accordance with [Article 8] of the [Digital Services Act].
- (61) Ensuring a product's traceability throughout the whole supply chain facilitates the market surveillance authorities' task of tracing economic operators who placed on the market or made available on the market non-compliant products. The economic operators should therefore be required to keep the information on their transactions for a certain period of time.
- (62) To speed up and facilitate the verification of compliance of products placed on the market, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to supplement this Regulation by requiring responsible economic operators, where necessary, to make specific parts of the technical documentation digitally available both to competent authorities and to the Commission. This should allow competent national authorities to access this information without request, while continuing to guarantee the protection of trade secrets. Possible means of making this information digitally available should in principle include a product passport, or via inclusion in the compliance part of the product database referred to in Regulation (EU) 2017/1369, or on a website of the economic operator. Such an obligation should not take away from the competent national authorities' right to access other parts of the technical documentation on request.
- (63) In order to allow for a better estimation of relevant products' market penetration, to better inform studies feeding into the drafting or updating of ecodesign requirement and working plans, and to help identify the market share of specific product groups in order to speed up the formulation or review of ecodesign requirements, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to supplement this Regulation by requiring the collection of adequate and reliable data on the sales of products, by allowing the collection of such data by or on behalf of the Commission directly from manufacturers or retailers. When adopting rules on monitoring and reporting, the Commission should take into account the need to maximise the available data on market penetration and the need to minimise the administrative burden for economic operators.
- (64) In order to improve future ecodesign requirements and improve end-users confidence identifying and correcting deviations between energy in-use and other performance



parameters when measured under test conditions and actual functioning, the Commission should have access to products' actual energy consumption while in use and where relevant to other performance parameters. To that end, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to supplement this Regulation by requiring individual products, similarly to road vehicles, to determine their in-use energy consumption and other relevant performance parameters and display it to the end-user. For products connected to the internet, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to supplement this Regulation by requiring economic operators to remotely collect such in-use data and report it to the Commission, as it is essential to identify how the products perform and to inform the public. For products whose in use performance depends significantly also on climatic or geographical conditions, climatic or geographical information should also be collected, anonymised and reported.

- (65) In order to ensure the effective and harmonised application of ecodesign requirements set under this Regulation, including on aspects such as energy use or efficiency, durability and reliability, and recycled content, compliance with those requirements should be measured using reliable, accurate and reproducible methods that take into account the generally recognised state-of-the-art methods. Delegated acts establishing ecodesign requirements for products should in principle include the specifications for tests, measurements or calculations needed to establish or verify compliance. In addition, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to supplement this Regulation by requiring the use of online tools reflecting applicable calculation requirements, in order to ensure their harmonised application.
- (66) In order to ensure that ecodesign requirements achieve their intended effects, this Regulation should set out comprehensive and overarching provisions, applicable to all products covered by ecodesign requirements, prohibiting circumvention of such requirements. Therefore, any practice leading to an unjustified alteration of the product's performance during compliance testing or within a short period after putting the product into service, leading to a declared performance that misrepresents the product's actual performance while in use should be prohibited..
- (67) Where appropriate, delegated acts establishing ecodesign requirements for products may refer to the use of standards to establish or verify compliance. In order to ensure that there are no barriers to trade on the internal market, such standards should be harmonised at Union level. Once a reference to such a standard has been adopted in accordance with Regulation (EU) No 1025/2012 of the European Parliament and of the Council<sup>75</sup> and published in the *Official Journal of the European Union*, products in conformity with such standards, for which ecodesign requirements have been adopted pursuant to this Regulation, should be considered in conformity with those requirements to the extent that they are covered by the relevant harmonised standards. Similarly, methods for tests, measurement or calculation that are in conformity with

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<sup>75</sup> Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation, amending Council Directives 89/686/EEC and 93/15/EEC and Directives 94/9/EC, 94/25/EC, 95/16/EC, 97/23/EC, 98/34/EC, 2004/22/EC, 2007/23/EC, 2009/23/EC and 2009/105/EC of the European Parliament and of the Council and repealing Council Decision 87/95/EEC and Decision No 1673/2006/EC of the European Parliament and of the Council (OJ L 316, 14.11.2012, p. 12).

harmonised standards should be considered in conformity with the test, measurement and calculation requirements set out in the relevant delegated acts laying down ecodesign requirements, to the extent that they are covered by the relevant harmonised standards.

- (68) In the absence of harmonised standards, recourse to common specifications should be used as a fall-back solution to facilitate the manufacturer's obligation to comply with ecodesign requirements, for instance when the standardisation process is blocked due to lack of consensus between stakeholders or where there are undue delays in establishing a harmonised standard. Such delays could for example occur when the required quality is not reached. In addition, recourse to this solution should be possible where the Commission has restricted or withdrawn the references to relevant harmonised standards in line with Article 11(5) of Regulation (EU) No 1025/2012. Compliance with common specifications should also give rise to the presumption of conformity.
- (69) In order to enable economic operators to demonstrate, and competent authorities to verify, that products made available on the market comply with the ecodesign requirements adopted pursuant to this Regulation, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to supplement this Regulation by laying down conformity assessment procedures appropriate and proportionate to the nature of the product concerned and of the product parameters regulated. To ensure coherence with other Union law, the conformity assessment procedures should be chosen from among the internal production control module included in this Regulation and the modules included in Decision No 768/2008/EC of the European Parliament and of the Council<sup>76</sup>, ranging from the least stringent to the most stringent depending. To further ensure that the applicable module is appropriate and proportionate to the nature of the product concerned and of the product parameters regulated, the Commission should where needed adapt the module chosen in light of that nature.
- (70) Manufacturers should draw up an EU declaration of conformity to provide information on the conformity of products with this Regulation. Manufacturers may also be required by other Union legislation to draw up an EU declaration of conformity. To ensure effective access to information for market surveillance purposes, a single EU declaration of conformity should be drawn up in respect of all Union acts. To reduce the administrative burden on economic operators, it should be possible for that single EU declaration of conformity to be a dossier made up of relevant individual declarations of conformity.
- (71) Regulation (EC) No 765/2008 of the European Parliament and of the Council<sup>77</sup> lays down rules on the accreditation of conformity assessment bodies, provides a framework for the market surveillance of products and for controls on products from third countries, and lays down the general principles of the CE marking. That Regulation should be applicable to products covered by this Regulation in order to ensure that products benefiting from the free movement of goods within the Union

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<sup>76</sup> Decision No 768/2008/EC of the European Parliament and of the Council of 9 July 2008 on a common framework for the marketing of products, and repealing Council Decision 93/465/EEC (OJ L 218, 13.8.2008, p. 82).

<sup>77</sup> Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93 (OJ L 218, 13.8.2008, p. 30).

fulfil requirements providing a high level of protection of public interests such as human health, safety and the environment. Where ecodesign requirements have been adopted for a product, the CE marking should indicate that product's conformity with this Regulation and the ecodesign requirements adopted pursuant to it, insofar as they relate to the product. General principles governing the CE marking and its relationship to other markings are set out in Regulation (EC) No 765/2008. Considering that this Regulation provides for the setting of ecodesign requirements for a large range of products, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to supplement this Regulation by setting out alternative or more specific rules on the declaration of conformity or conformity marking in relation to ecodesign requirements in order to ensure coherence with requirements under Union law applicable to the products covered, prevent confusion with other marking or declarations and minimise administrative burden for economic operators.

- (72) Some of the conformity assessment modules laid down in Decision No 768/2008/EC require the intervention of conformity assessment bodies. In order to ensure uniform conditions for the implementation of this Regulation, those bodies should be notified to the Commission by Member State authorities.
- (73) To ensure a consistent level of quality in the performance of conformity assessment, it is necessary to set requirements for notifying authorities involved in the assessment, notification and monitoring of notified bodies. In particular, it should be ensured that the notifying authority is objective and impartial with regard to its activity. Furthermore, notifying authorities should be required to safeguard the confidentiality of the information they obtain, but should nonetheless be able to exchange information on notified bodies with national authorities, the notifying authorities of other Member States and the Commission to ensure consistency in the conformity assessment. To effectively establish and monitor the competence and independence of applicant bodies, notifying authorities should take as a basis for notification only the precise legal body applying, not taking into account the credentials of parent or sister companies. For the same reason, they should assess applicant bodies against all relevant requirements and conformity assessment tasks, relying on harmonised standards for the requirements and tasks covered by those standards.
- (74) Given their central role in ensuring the reliability of conformity assessments in relation to ecodesign requirements, it is essential that notifying authorities have a sufficient number of competent personnel and sufficient funding at their disposal for the proper performance of their tasks. Where, in the implementation of this Regulation, it occurs that notifying authorities do not effectively verify and monitor notified bodies due to a lack of competent personnel, implementing powers should be conferred on the Commission to lay down a minimum number of full-time equivalents that should be at the disposal of notifying authorities, where appropriate in relation to specific conformity assessment tasks.
- (75) It is essential that all notified bodies perform their functions to the same level and under conditions of equal competition and autonomy. Therefore, requirements should be set for conformity assessment bodies wishing to obtain the status of notified body in order to provide conformity assessment activities. Those requirements should continue to apply to maintain the competence of the notified body. To ensure its autonomy, the notified body and the staff it employs should be required to maintain independence from economic operators in the value chain of the products in relation to which it has been notified and from other companies, including business associations and parent companies and subsidiaries.

- (76) If a conformity assessment body demonstrates conformity with the criteria laid down in harmonised standards it should be presumed to comply with the corresponding requirements set out in this Regulation.
- (77) Conformity assessment bodies frequently subcontract parts of their activities linked to the assessment of conformity or have recourse to a subsidiary. To ensure that products placed on the Union market comply with ecodesign requirements, conformity assessment subcontractors and subsidiaries should fulfil the same requirements as notified bodies in relation to the performance of conformity assessment tasks under this Regulation.
- (78) In order for notifying authorities to effectively establish and monitor the competence and independence of applicant bodies, those bodies should be and remain autonomous. Therefore, certain activities and decision-making processes, both regarding the conformity assessment of products and other activities internal to the notified body, should exclusively be carried out by the individual notified body itself.
- (79) To facilitate the process of establishing and monitoring the competence and independence of applicant bodies, applicant bodies should draw up and regularly update a qualification matrix. This matrix should match personnel and their qualifications to specific conformity assessment tasks, enabling the notifying authority to more effectively assess the adequacy of staffing and the continued autonomy of the notified body.
- (80) Since the services offered by notified bodies in a Member State might relate to products made available on the market throughout the Union, it is appropriate to give the other Member States and the Commission the opportunity to raise objections concerning a notified body. In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred on the Commission to request that the notifying Member State take corrective action if a notified body does not meet, or no longer meets, the requirements of this Regulation.
- (81) In the interests of facilitating and accelerating the conformity assessment procedure, and to ensure equal treatment of economic operators, it is crucial that the notified bodies apply the conformity assessment procedures consistently and without creating unnecessary burdens for economic operators.
- (82) Prior to taking a final decision on whether a product can be granted a conformity certificate, the economic operator that wishes to place that product on the market should be allowed to supplement the relevant documentation once only. This limitation is necessary to ensure that notified bodies are not able to assist manufacturers in making changes until conformity is reached, as that would mean that the service provided resembles a consulting service and could in practice dilute the public interest nature of notified bodies' tasks. Where appropriate, notified bodies should also be able to restrict, suspend or withdraw any certificates or approval decisions.
- (83) To facilitate the identification and resolution of cases of non-conformity of notified bodies, manufacturers or products, notified bodies should proactively forward relevant information at their disposal to notifying authorities or market surveillance authorities.
- (84) It is essential to ensure efficient exchange of information between notified bodies and market surveillance authorities, including from other Member States. To that end, it is necessary for notifying authorities and notified bodies to ensure follow-up to requests for information from market surveillance authorities.

- (85) The Commission should enable appropriate coordination and cooperation between notified bodies. To ensure harmonised application of ecodesign requirements, notified bodies should discuss and coordinate on topics of possible divergence. In that process, they should take as general guidance any document produced by the administrative cooperation group made up of market surveillance authorities, as referred to in Article 30(2) of Regulation (EU) 2019/1020.
- (86) In order to incentivise consumers to make sustainable choices, in particular when the more sustainable products are not affordable enough, mechanisms such as eco-vouchers and green taxation should be provided for. When Member States decide to make use of incentives to reward the best-performing products among those for which classes of performance have been set by delegated acts pursuant to this Regulation, they should do so by targeting those incentives at the highest two populated classes of performance, unless otherwise indicated by the relevant delegated act. However, Member States should not be able to prohibit the placing on the market of a product based on its class of performance. For the same reason, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to supplement this Regulation by further specifying which product parameters or related levels of performance Member States' incentives concern in case no class of performance is determined in the applicable delegated act or where classes of performance are established in relation to more than one product parameter. The introduction of Member State incentives should be without prejudice to the application of the Union State aid rules.
- (87) Public procurement amounts to 14% of the Union's GDP. To contribute to the objective of reaching climate neutrality, improving energy and resource efficiency and transitioning to a circular economy that protects public health and biodiversity, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to require, where appropriate, contracting authorities and entities as defined in Directive 2014/24/EU<sup>78</sup> and 2014/25/EU<sup>79</sup> of the European Parliament and of the Council, to align their procurement with specific green public procurement criteria or targets, to be set out in the delegated acts adopted pursuant to this Regulation. The criteria or targets set by delegated acts for specific product groups should be complied with not only when directly procuring those products in public supply contracts but also in public works or public services contracts where those products will be used for activities constituting the subject matter of those contracts. Compared to a voluntary approach, mandatory criteria or targets will ensure that the leverage of public spending to boost demand for better performing products is maximised. The criteria should be transparent, objective and non-discriminatory.
- (88) Effective enforcement of ecodesign requirements is essential to ensure equal competition in the Union market and to ensure that this Regulation's expected benefits and contribution to achieving the Union's climate, energy and circularity objectives are achieved. Therefore, Regulation (EU) 2019/1020 setting out a horizontal framework for market surveillance and control of products entering the Union market should apply to products for which ecodesign requirements are set pursuant to this

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<sup>78</sup> Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (OJ L 94, 28.3.2014, p. 65).

<sup>79</sup> Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC (OJ L 94, 28.3.2014, p. 243).

Regulation, in so far as there are no specific provisions with the same objective, nature or effect in this Regulation. In addition, to lower the problematic levels of non-compliance of products covered by implementing measures adopted under Directive 2009/125/EC, to better prevent non-compliance with future ecodesign requirements, and taking account of the broader scope and increased ambition of this Regulation compared to Directive 2009/125/EC, this Regulation should contain specific additional rules complementing the framework created by Regulation (EU) 2019/1020. Those specific additional rules should be aimed at further strengthening the planning, coordination and support of Member State efforts and should provide additional tools for the Commission to ensure sufficient action is taken by market surveillance authorities to prevent non-compliance with ecodesign requirements.

- (89) Beyond market surveillance authorities, customs authorities also have an important role to play in enforcing this Regulation with regard to imported goods and can rely on Council Regulation (EC) No 515/97<sup>80</sup> for that purpose.
- (90) To ensure that appropriate checks are performed on an adequate scale in relation to ecodesign requirements, Member States should draw up a dedicated action plan identifying the products or requirements identified as priorities for market surveillance under this Regulation and the activities planned to reduce non-compliance of relevant products or with relevant ecodesign requirements. Where relevant, this action plan should be part of Member States' national market surveillance strategies adopted pursuant to Article 13 of Regulation (EU) 2019/1020.
- (91) Priorities for market surveillance under this Regulation should be identified based on objective criteria such as the levels of non-compliance observed or the environmental impacts resulting from non-compliance. The activities planned to address those priorities should in turn be proportionate to the facts leading to their prioritisation. In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred on the Commission to determine products and requirements that Member States should consider as priorities for market surveillance in the context of their action plans identifying priorities for market surveillance under this Regulation and activities planned to reduce non-compliance.
- (92) Where problematic levels of non-compliance with ecodesign requirements are observed despite the enhanced planning, coordination and support laid down by this Regulation, the Commission should be able to intervene to ensure that market surveillance authorities perform checks on an adequate scale. Therefore, in order to safeguard the effective enforcement of ecodesign requirements, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission to lay down a minimum number of checks to be performed on specific products or requirements. This empowerment should be additional to the empowerment in Article 11(4) of Regulation (EU) 2019/1020.
- (93) Based on data entered into the information and communication system for market surveillance, the Commission should draw up a report containing information on the nature and number of checks performed, on the levels of non-compliance identified and on the nature and severity of penalties imposed in relation to ecodesign requirements over the two previous calendar years. The reports should contain a

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<sup>80</sup> Council Regulation (EC) No 515/97 of 13 March 1997 on mutual assistance between the administrative authorities of the Member States and cooperation between the latter and the Commission to ensure the correct application of the law on customs and agricultural matters (OJ L 82, 22.3.1997, p. 1).

comparison of Member States' activities with the activities planned and indicative benchmarks for market surveillance authorities.

- (94) To further strengthen coordination of market surveillance authorities, the administrative cooperation group ('ADCO') set up pursuant to Regulation (EU) 2019/1020 should, for the purposes of identifying the products or requirements identified as priorities for market surveillance under this Regulation and the activities planned to reduce non-compliance with Regulation, meet at regular intervals and identify common priorities for market surveillance to be taken into account in Member States' action plans, priorities for the provision of Union support, and ecodesign requirements that are interpreted differently leading to market distortion.
- (95) To support Member States in their efforts to ensure sufficient action is taken to prevent non-compliance with ecodesign requirements, the Commission should, where relevant, make use of the support measures provided for in Regulation (EU) 2019/1020. The Commission should organise and, where appropriate finance, joint market surveillance and testing projects in areas of common interest, joint investments in market surveillance capacities and common trainings for the staff of market surveillance authorities, notifying authorities and notified bodies. In addition, the Commission should draw up guidelines on how to apply and enforce ecodesign requirements where necessary to ensure their harmonised application.
- (96) Products should be placed on the market only if they do not present a risk. In order to better align with the specific nature of ecodesign requirements and to ensure that the focus of market surveillance efforts is on non-compliance with such requirements, a product presenting a risk should, for the purposes of this Regulation, be defined as a product that, by not complying with an ecodesign requirement or because a responsible economic operator does not comply with an ecodesign requirement, may adversely affect the environment or other public interests protected by the relevant requirements. This more specific definition should be used when applying Articles 19 and 20 of Regulation (EU) 2019/1020.
- (97) A procedure should exist under which interested parties are informed of measures intended to be taken with regard to products presenting a risk. It should also allow market surveillance authorities in the Member States, in cooperation with the relevant economic operators, to act at an early stage with regard to such products. To that end, the safeguard clause currently included in Directive 2009/125/EC should be updated and aligned with the safeguard procedures included in other Union harmonisation legislation and in Decision No 768/2008/EC. In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred on the Commission to determine whether national measures in respect of non-compliant products are justified or not.
- (98) The market surveillance authorities should have the right to require economic operators to take corrective action on the basis of findings that either a product is not compliant with ecodesign requirements or that the economic operator has infringed the rules on the placing or making available on the market of products or other rules addressed to it.
- (99) When adopting delegated acts pursuant to Article 290 TFEU, it is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted

in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making<sup>81</sup>. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

- (100) In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred on the Commission as regards: (a) specifying implementation arrangements for the interconnection of the registry referred to in Article 12 and the EU Customs Single Window Certificates Exchange; (b) establishing common requirements for the layout of labels; (c) containing a list of self-regulation measures established as valid alternatives to a delegated act adopted pursuant to Article 4; (d) setting out format for the disclosure of the information on unsold consumer products that have been discarded; (e) laying down, amending or repealing common specifications for ecodesign requirements, the essential requirements for product passports or for test, measurement or calculation methods; (f) laying down a minimum number of full-time equivalents considered sufficient for the proper monitoring of notified bodies; (g) requiring a Member State to take corrective action, including withdrawal of the notification, for non-compliant notified bodies; (h) listing the products or requirements that Member States must at least consider as priorities for market surveillance; and (i) deciding, pursuant to the Union safeguard procedure, whether a national measure is justified or not. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council<sup>82</sup>
- (101) To enhance trust in products placed on the market, in particular as regards the fact that they comply with ecodesign requirements, the public needs to be sure that economic operators placing non-compliant products on the market will be subject to penalties. It is therefore necessary that Member States lay down effective, proportionate and dissuasive penalties in national law for failure to comply with this Regulation.
- (102) The Commission should carry out an evaluation of this Regulation. Pursuant to paragraph 22 of the Interinstitutional Agreement on Better Law-Making, that evaluation should be based on the five criteria of efficiency, effectiveness, relevance, coherence and EU value added and should provide the basis for impact assessments of possible further measures. The Commission should submit to the European Parliament, to the Council, the European Economic and Social Committee, and to the Committee of the Regions a report on the implementation of this Regulation and its impact on the environmental sustainability of products and the functioning of the internal market. Where appropriate, the report should be accompanied by a proposal to amend relevant provisions of this Regulation.
- (103) It is necessary that ecodesign requirements apply to the widest possible range of products, and not only energy-related products, and that the definition of ecodesign requirements is widened to encompass all aspects of circularity. It is also necessary to align this Regulation to the New Legislative Framework set out in Regulation (EC) No

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<sup>81</sup> OJ L123, 12.5. 2016, p. 1.

<sup>82</sup> Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers ([OJ L 55, 28.2.2011, p. 13](#)).



765/2008 and Decision No 768/2008/EC, and to improve the provisions related to market surveillance. Directive 2009/125/EC should therefore be replaced. In order to ensure legal certainty for all economic operators from the date of entry into force of this Regulation and to guarantee a level playing-field for businesses operating on the internal market, the provisions setting out transparency obligations related to the discarding of unsold consumer products, circumvention, and market surveillance, should be of uniform application for all operators across the Union. Directive 2009/125/EC should therefore be replaced by a Regulation.

- (104) In order to ensure legal certainty and continuity for products placed on the market or put into service in conformity with implementing measures adopted pursuant to Directive 2009/125/EC, in its version applicable on the date of application of this Regulation, those measures should remain in force beyond that date, and until repealed by a delegated act adopted pursuant to this Regulation. For the same reasons, a number of provisions of Directive 2009/125/EC should continue to have full effect in the context of applying these implementing measures. This concerns in particular provisions of Directive 2009/125/EC excluding means of transport for goods or persons from its scope, establishing definitions relevant for implementing measures, setting economic operators' responsibilities in relation to products placed on the market, specifying the details of the relevant conformity assessment procedures and the EC declaration of conformity, establishing a presumption of conformity for products which have been awarded the EU ecolabel and enabling necessary action in relation to harmonised standards. Noting the importance of ensuring free movement of goods, banning practices illegally altering products' performance in order to reach a more favourable result and ensuring proper enforcement of ecodesign requirements, relevant provisions of this Regulation should be applicable to energy-related products placed on the market pursuant to implementing measures under Directive 2009/125/EC.
- (105) Since the objectives of this Regulation, namely to improve environmental sustainability of products and to ensure the free movement in the internal market of products for which ecodesign requirements are set, cannot be sufficiently achieved by the Member States, but can rather, by reason of its scale and effects, only be achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union (TEU). In accordance with the principle of proportionality as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective,

HAVE ADOPTED THIS REGULATION:

## **CHAPTER I - GENERAL PROVISIONS**

### *Article 1*

#### *Subject matter and scope*

1. This Regulation establishes a framework to improve the environmental sustainability of products and to ensure free movement in the internal market by setting ecodesign requirements that products shall fulfil to be placed on the market or put into service. Those ecodesign requirements, which shall be further elaborated by the Commission in delegated acts, relate to:
  - (a) product durability and reliability;

- (b) product reusability;
- (c) product upgradability, reparability, maintenance and refurbishment;
- (d) the presence of substances of concern in products;
- (e) product energy and resource efficiency;
- (f) recycled content in products;
- (g) product remanufacturing and recycling;
- (h) products' carbon and environmental footprints;
- (i) products' expected generation of waste materials.

This Regulation also establishes a digital product passport ('product passport'), provides for the setting of mandatory green public procurement criteria and creates a framework to prevent unsold consumer products from being destroyed.

2. This Regulation shall apply to any physical good that is placed on the market or put into service, including components and intermediate products. However, it shall not apply to:
- (a) food as defined in Article 2 of Regulation (EC) No 178/2002;
  - (b) feed as defined in Article 3(4) of Regulation (EC) No 178/2002;
  - (c) medicinal products for human use as defined in Article 1(2) of Directive 2001/83/EC;
  - (d) veterinary medicinal products as defined in Article 4(1) of Regulation (EU) 2019/6;
  - (e) living plants, animals and micro-organisms;
  - (f) products of human origin;
  - (g) products of plants and animals relating directly to their future reproduction.

## *Article 2*

### *Definitions*

For the purposes of this Regulation, the following definitions shall apply:

- (1) 'product' means any physical good that is placed on the market or put into service;
- (2) 'component' means a product intended to be incorporated into another product;
- (3) 'intermediate product' means a product that requires further manufacturing or transformation such as mixing, coating or assembling to make it suitable for end-users;
- (4) 'energy-related product' means any product that has an impact on energy consumption during use;
- (5) 'product group' means a set of products that serve similar purposes and are similar in terms of use, or have similar functional properties, and are similar in terms of consumer perception;
- (6) 'ecodesign' means the integration of environmental sustainability considerations into the characteristics of a product and the processes taking place throughout the product's value chain;

- (7) ‘ecodesign requirement’ means a performance requirement or an information requirement aimed at making a product more environmentally sustainable;
- (8) ‘performance requirement’ means a quantitative or non-quantitative requirement for or in relation to a product to achieve a certain performance level in relation to a product parameter referred to in Annex I;
- (9) ‘information requirement’ means an obligation for a product to be accompanied by information as specified in Article 7(2);
- (10) ‘supply chain’ means all upstream activities and processes of the value chain of the product, up to the point where the product reaches the end-user;
- (11) ‘value chain’ means all activities and processes that are part of the life cycle of a product, as well as its possible remanufacturing;
- (12) ‘life cycle’ means the consecutive and interlinked stages of a product’s life, consisting of raw material acquisition or generation from natural resources, pre-processing, manufacturing, storage, distribution, installation, use, maintenance, repair, upgrading, refurbishment and re-use, and end-of-life;
- (13) ‘end-of-life’ means the life cycle stage that begins when a product is discarded and ends when the product is returned to nature as a waste product or enters another product’s life cycle;
- (14) ‘environmental impact’ means any change to the environment, whether adverse or beneficial, wholly or partially resulting from a product during its life cycle;
- (15) ‘class of performance’ means a range of performance levels in relation to one or more product parameters referred to in Annex I, ordered into successive steps to allow for product differentiation;
- (16) ‘remanufacturing’ means an industrial process in which a product is produced from objects that are waste, products or components and in which at least one change is made to the product that affects the safety, performance, purpose or type of the product typically placed on the market with a commercial guarantee;
- (17) ‘upgrading’ means enhancing the functionality, performance, capacity or aesthetics of a product;
- (18) ‘refurbishment’ means preparing or modifying an object that is waste or a product to restore its performance or functionality within the intended use, range of performance and maintenance originally conceived at the design stage, or to meet applicable technical standards or regulatory requirements, with the result of making a fully functional product;
- (19) ‘maintenance’ means an action carried out to keep a product in a condition where it is able to function as required;
- (20) ‘repair’ means returning a defective product or waste to a condition where it fulfils its intended use;
- (21) ‘durability’ means the ability of a product to function as required, under specified conditions of use, maintenance and repair, until a limiting event prevents its functioning;
- (22) ‘reliability’ means the probability that a product functions as required under given conditions for a given duration without a limiting event;

- (23) ‘environmental footprint’ means a quantification of a product’s environmental impacts, whether in relation to a single environmental impact category or an aggregated set of impact categories based on the Product Environmental Footprint method;
- (24) ‘Product Environmental Footprint method’ means the life cycle assessment method to quantify the environmental impacts of products established by Recommendation (EU) 2021/2279;
- (25) ‘carbon footprint’ means the sum of greenhouse gas (GHG) emissions and GHG removals in a product system, expressed as CO<sub>2</sub> equivalents and based on a life cycle assessment using the single impact category of climate change;
- (26) ‘public contracts’ means public contracts as defined in Article 2(5) of Directive 2014/24/EU;
- (27) ‘substance’ means a substance as defined in Article 3, point (1), of Regulation (EC) No 1907/2006;
- (28) ‘substance of concern’ means a substance that:
- (a) meets the criteria laid down in Article 57 and is identified in accordance with Article 59(1) of Regulation (EC) No 1907/2006; or
  - (b) is classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 in one of the following hazard classes or hazard categories:
    - carcinogenicity categories 1 and 2,
    - germ cell mutagenicity categories 1 and 2,
    - reproductive toxicity categories 1 and 2, [*to be added in the course of the legislative procedure once Regulation (EC) No 1272/2008 contains these hazard classes: Persistent, Bioaccumulative, Toxic (PBTs), very Persistent very Bioaccumulative (vPvBs); Persistent, Mobile and Toxic (PMT), very Persistent very Mobile (vPvM); Endocrine disruption*],
    - respiratory sensitisation category 1,
    - skin sensitisation category 1,
    - chronic hazard to the aquatic environment categories 1 to 4,
    - hazardous to the ozone layer,
    - specific target organ toxicity – repeated exposure categories 1 and 2,
    - specific target organ toxicity – single exposure categories 1 and 2; or
  - (c) negatively affects the re-use and recycling of materials in the product in which it is present;
- (29) ‘product passport’ means a set of data specific to a product that includes the information specified in the applicable delegated act adopted pursuant to Article 4 and that is accessible via electronic means through a data carrier in accordance with Chapter III;
- (30) ‘data carrier’ means a linear bar code symbol, a two-dimensional symbol or other automatic identification data capture medium that can be read by a device;
- (31) ‘unique product identifier’ means a unique string of characters for the identification of products that also enables a web link to the product passport;

- (32) ‘unique operator identifier’ means a unique string of characters for the identification of actors involved in the value chain of products;
- (33) ‘unique facility identifier’ means a unique string of characters for the identification of locations or buildings involved in the value chain of a product or used by actors involved in the value chain of a product;
- (34) ‘processing’ means processing as defined in Article 3, point (2), of Regulation (EU) 2018/1807;
- (35) ‘destruction’ means the intentional damaging or discarding of a product as waste with the exception of discarding for the only purpose of delivering a product for preparing for re-use or remanufacturing operations;
- (36) ‘consumer product’ means any product, excluding components and intermediate products, primarily intended for consumers as defined in Article 2, point (2), of Directive (EU) 2019/771;
- (37) ‘unsold consumer product’ means any consumer product that has not been sold or that has been returned by a consumer in view of their right of withdrawal in accordance with Article 9 of Directive (EU) 2011/83/EU;
- (38) ‘self-regulation measure’ means a voluntary agreement or codes of conduct, concluded by industry sectors on their own initiative, which they are responsible for enforcing;
- (39) ‘making available on the market’ means any supply of a product for distribution, consumption or use on the Union market in the course of a commercial activity, whether in return for payment or free of charge;
- (40) ‘placing on the market’ means the first making available of a product on the Union market;
- (41) ‘putting into service’ means the first use, for its intended purpose, in the Union, of a product;
- (42) ‘manufacturer’ means any natural or legal person who manufactures a product or who has such a product designed or manufactured, and markets that product under its name or trademark or, in the absence of such person or an importer, any natural or legal person who places on the market or puts into service a product;;
- (43) ‘authorised representative’ means any natural or legal person established in the Union who has received a written mandate from the manufacturer to act on its behalf in relation to specified tasks with regard to the manufacturer’s obligations under this Regulation;
- (44) ‘importer’ means any natural or legal person established in the Union who places a product from a third country on the Union market;
- (45) ‘distributor’ means any natural or legal person in the supply chain, other than the manufacturer or the importer, who makes a product available on the market;
- (46) ‘economic operator’ means the manufacturer, the authorised representative, the importer, the distributor, the dealer and the fulfilment service provider;
- (47) ‘technical specification’ means a document that prescribes technical requirements to be fulfilled by a product, process or service;
- (48) ‘harmonised standard’ means a standard as defined in Article 2(1), point (c), of Regulation (EU) No 1025/2012;

- (49) ‘CE marking’ means a marking by which the manufacturer indicates that the relevant product is in conformity with the applicable requirements set out in Union harmonisation legislation providing for its affixing;
- (50) ‘accreditation’ means accreditation as defined in Article 2(10) of Regulation (EC) No 765/2008;
- (51) ‘national accreditation body’ means a national accreditation body as defined in Article 2(11) of Regulation (EC) No 765/2008;
- (52) ‘conformity assessment’ means the process demonstrating whether the requirements set out in the relevant delegated acts adopted pursuant to Article 4 have been fulfilled;
- (53) ‘conformity assessment body’ means a body that performs conformity assessment activities including calibration, testing, certification and inspection;
- (54) ‘notified body’ means a conformity assessment body notified in accordance with Chapter IX of this Regulation;
- (55) ‘online marketplace’ means a provider of an intermediary service using software, including a website, part of a website or an application, that allows customers to conclude distance contracts with economic operators for the sale of products covered by delegated acts adopted pursuant to Article 4;
- (56) ‘dealer’ means a retailer or any other natural or legal person who offers products for sale, hire or hire purchase, or displays products to customers in the course of a commercial activity, whether or not in return for payment;
- (57) ‘distance selling’ means the offer for sale, hire or hire purchase of products, online or through other means of distance sales, whereby the potential customer cannot physically access the product displayed;
- (58) ‘product presenting a risk’ means a product that, by not complying with a requirement set out in or pursuant to this Regulation other than those listed in Article 65(1), may adversely affect the environment or other public interests protected by that requirement;
- (59) ‘product presenting a serious risk’ means a product presenting a risk for which, based on an assessment, the degree of the relevant non-compliance or the associated harm is considered to require rapid intervention by the market surveillance authorities, including cases where the effects of the non-compliance are not immediate.

In addition, the definitions of ‘waste’, ‘hazardous waste’, ‘re-use’, ‘recovery’, ‘preparing for re-use’ and ‘recycling’ in Article 3, points (1), (2), (13), (15), (16) and (17), of Directive 2008/98/EC of the European Parliament and of the Council<sup>83</sup> shall apply.

The definitions of ‘market surveillance’, ‘market surveillance authority’, ‘fulfilment service provider’, ‘online interface’, ‘corrective action’, ‘end-user’, ‘recall’, ‘withdrawal’, ‘customs authorities’ and ‘release for free circulation’ in Article 3, points (3), (4), (11), (15), (16), (21), (22), (23), (24) and (25), of Regulation (EU) 2019/1020 shall also apply.

The definitions of ‘SMEs’, ‘small enterprises’ and ‘microenterprises’ in Article 2(1), (2) and (3), of Annex I to Commission Recommendation 2003/361/EC<sup>84</sup> shall also apply.

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<sup>83</sup> Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3).

*Article 3*  
*Free movement*

1. Products shall only be placed on the market or put into service if they comply with the ecodesign requirements set out in the delegated acts adopted pursuant to Article 4 applicable to those products.
2. Member States shall not prohibit, restrict or impede the placing on the market or putting into service of products that comply with the performance requirements set out in delegated acts adopted pursuant to Article 4 for reasons of non-compliance with national performance requirements relating to product parameters referred to in Annex I covered by performance requirements included in such delegated acts.  

Member States shall not prohibit, restrict or impede the placing on the market or putting into service of products that comply with the information requirements set out in delegated acts adopted pursuant to Article 4 for reasons of non-compliance with national information requirements relating to product parameters referred to in Annex I covered by information requirements included such delegated act.
3. Paragraph 2 shall not prevent Member States from setting minimum energy performance requirements in accordance with Article 4(1) and system requirements in accordance with Article 8 of Directive 2010/31/EU of the European Parliament and of the Council<sup>85</sup>.
4. Member States shall not prohibit, restrict or impede the placing on the market or putting into service of products on grounds of non-compliance with national requirements relating to product parameters referred to in Annex I, for which a delegated act adopted pursuant to Article 4 provides that no performance, no information or neither performance nor information requirements are necessary.
5. At trade fair, exhibitions and similar events, Member States shall not prevent the showing of products that do not comply with delegated acts adopted pursuant to Article 4, provided that a visible sign clearly indicates that such products do not comply and that they are not for sale until they have been brought into conformity.

**CHAPTER II - ECODESIGN REQUIREMENTS**

*Article 4*  
*Empowerments to adopt delegated acts*

The Commission is empowered to adopt delegated acts in accordance with Article 66 to supplement this Regulation by establishing ecodesign requirements for, or in relation to, products to improve their environmental sustainability. Those requirements shall include the elements listed in Annex VI and shall be established in accordance with Articles 5, 6 and 7 and Chapter III. The empowerment to adopt ecodesign requirements includes the power to establish that no performance requirements, no information requirements or neither performance nor information requirements are necessary for certain specified product parameters referred to in Annex I.

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<sup>84</sup> Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (OJ L 124, 20.5.2003, p. 36).

<sup>85</sup> Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (OJ L 153, 18.6.2010, p. 13).

When establishing ecodesign requirements in delegated acts referred to in the first subparagraph, the Commission shall also supplement this Regulation by specifying the applicable conformity assessment procedures from among the modules set out in Annex IV to this Regulation and Annex II to Decision No 768/2008/EC, with the adaptations necessary in view of the product or ecodesign requirements concerned, in accordance with Article 36.

Delegated acts referred to in the first subparagraph may also supplement this Regulation by:

- (a) requiring manufacturers, their authorised representatives or importers to make parts of the technical documentation related to the relevant product digitally available to the Commission or market surveillance authorities without request, in accordance with Article 30(3);
- (b) requiring manufacturers, their authorised representatives or importers to make available to the Commission information on the quantities of a product covered by those delegated acts placed on the market or put into service, in accordance with Article 31(1);
- (c) requiring products placed on the market to be able to measure the energy they consume or their performance in relation to other relevant product parameters referred to in Annex I while in use, in accordance with Article 31(2);
- (d) requiring manufacturers, their authorised representatives or importers to collect, anonymise, or report to the Commission the in-use data referred to in point (c), in accordance with Article 31(3);
- (e) requiring the use of online tools to calculate the performance of a product in relation to a product parameter referred to in Annex I, in accordance with Article 32(2);
- (f) specifying alternative rules on the declaration of conformity or markings indicating conformity with ecodesign requirements by way of derogation from Articles 37 and 39, in accordance with Article 40;
- (g) specifying rules to direct Member States incentives in accordance with Article 57;
- (h) establishing requirements applicable to public contracts, including implementation, monitoring and reporting of those requirements by Member States. Those requirements shall be based on the product parameters referred to in Annex I and established in accordance with Article 58.

#### *Article 5* *Ecodesign requirements*

1. The Commission shall, as appropriate to the relevant product groups and with due consideration for all stages of their life cycle, establish ecodesign requirements to improve the following product aspects:
  - (a) durability;
  - (b) reliability;
  - (c) reusability;
  - (d) upgradability;
  - (e) reparability;
  - (f) possibility of maintenance and refurbishment;
  - (g) presence of substances of concern;



- (h) energy use or energy efficiency;
  - (i) resource use or resource efficiency;
  - (j) recycled content;
  - (k) possibility of remanufacturing and recycling;
  - (l) possibility of recovery of materials;
  - (m) environmental impacts, including carbon and environmental footprint;
  - (n) expected generation of waste materials.
2. Ecodesign requirements shall be established for a specific product group.
- However, where two or more product groups display technical similarities allowing a product aspect referred to in paragraph 1 to be improved based on a common requirement, ecodesign requirements may be established horizontally for those product groups.
- A horizontal ecodesign requirement established pursuant to the second subparagraph may cover products falling in the scope of a self-regulation measure established as a valid alternative pursuant to Article 18(3), where the Commission considers that that self-regulation measure does not address the product aspect covered by that horizontal ecodesign requirement.
3. Ecodesign requirements shall, as appropriate, include:
- (a) performance requirements as set out in Article 6;
  - (b) information requirements as set out in Article 7.
4. When preparing ecodesign requirements, the Commission shall:
- (a) take into account the following elements:
    - (i) Union climate, environmental and energy efficiency priorities and other related Union priorities;
    - (ii) relevant Union legislation, including the extent to which it addresses the relevant product aspects listed in paragraph 1;
    - (iii) self-regulation measures, as provided for in Article 18;
    - (iv) relevant national environmental legislation;
    - (v) relevant European and international standards;
  - (b) carry out an impact assessment based on best available evidence and analyses, and as appropriate on additional studies and research results produced under European funding programmes. In doing so, the Commission shall ensure that the depth of analysis of the product aspects listed in paragraph 1 is proportionate to their significance. The establishment of ecodesign requirements on the most significant aspects of a product among those listed in paragraph 1 shall not be unduly delayed by uncertainties regarding the possibility to establish ecodesign requirements to improve other aspects of that product;
  - (c) take into consideration relevant technical information used as a basis for or derived from Union legislation or instruments, including Regulation (EC) No

66/2010, Directive 2010/75/EU, technical screening criteria adopted pursuant to Regulation (EU) 2020/852 and green public procurement criteria;

- (d) take into account the views expressed by the Ecodesign Forum referred to in Article 17.
5. Ecodesign requirements shall meet the following criteria:
- (a) there shall be no significant negative impact on the functionality of the product, from the perspective of the user;
  - (b) there shall be no adverse effect on the health and safety of persons;
  - (c) there shall be no significant negative impact on consumers in terms of the affordability of relevant products, also taking into account access to second-hand products, durability and the life cycle cost of products;
  - (d) there shall be no disproportionate negative impact on the competitiveness of economic actors, at least of SMEs;
  - (e) there shall be no proprietary technology imposed on manufacturers or other economic actors;
  - (f) there shall be no disproportionate administrative burden on manufacturers or other economic actors.
6. The Commission shall, where appropriate, require supply chain actors to:
- (a) provide, upon request, manufacturers, notified bodies and competent national authorities with available information related to their supplies or services that is relevant in order to verify compliance with eco-design requirements;
  - (b) allow, in the absence of information referred to in point (a), manufacturers to assess their supplies or services in order to verify compliance with eco-design requirements and give access to relevant documents or facilities to those manufacturers;
  - (c) enable notified bodies and competent national authorities to verify the correctness of information related to their activities and relevant for verifying compliance with eco-design requirements.
7. The Commission shall, where appropriate, identify appropriate means of verification for specific eco-design requirements, including directly on the product or on the basis of the technical documentation.
8. The Commission shall publish relevant studies and analyses used in the establishment of eco-design requirements in accordance with this Regulation.

#### *Article 6*

##### *Performance requirements*

- 1. Products shall comply with performance requirements related to the product aspects listed in Article 5(1), as laid down in the delegated acts adopted pursuant to Article 4.
- 2. Performance requirements referred to in paragraph 1 shall be based on the product parameters referred to in Annex I and shall, as appropriate, include:
  - (a) minimum or maximum levels in relation to a specific product parameter referred to in Annex I or a combination thereof;

- (b) non-quantitative requirements that aim to improve performance in relation to one or more product parameters referred to in Annex I;
  - (c) requirements related to the functional performance of a product.
3. Performance requirements based on the product parameter set out in Annex I, point (f), shall not restrict the presence of substances in products for reasons relating primarily to chemical safety.
  4. When establishing performance requirements, the Commission shall follow the procedure set out in Annex II.

*Article 7*  
*Information requirements*

1. Products shall comply with information requirements related to the product aspects listed in Article 5(1), as laid down in the delegated acts adopted pursuant to Article 4.
2. The information requirements referred to in paragraph 1 shall:
  - (a) include, as a minimum, requirements related to the product passport referred to in Chapter III and requirements related to substances of concern referred to in paragraph 5; and
  - (b) as appropriate, require products to be accompanied by:
    - (i) information on the performance of the product in relation to the product parameters referred to in Annex I;
    - (ii) information for consumers and other end-users on how to install, use, maintain and repair the product in order to minimise its impact on the environment and to ensure optimum durability, as well as on how to return or dispose of the product at end-of-life;
    - (iii) information for treatment facilities on disassembly, recycling, or disposal at end-of-life;
    - (iv) other information that may influence the way the product is handled by parties other than the manufacturer in order to improve performance in relation to product parameters referred to in Annex I.

Where a delegated acts contains horizontal ecodesign requirements for two or more product groups as referred to in Article 5(2), second subparagraph, point (a) of this paragraph shall not apply.

3. Information requirements based on the product parameter set out in Annex I, point (f), shall not provide obligations on the labelling of substances or mixtures for reasons relating primarily to their hazards to health or the environment.
4. When establishing the information requirements referred to in paragraph 2, point (b), point (i), the Commission shall, as appropriate, determine classes of performance.
 

Those classes of performance shall correspond to statistically significant improvements in performance levels.
5. The information requirements referred to in paragraph 1 shall enable the tracking of all substances of concern throughout the life cycle of products, unless such tracking is already enabled by another delegated act adopted pursuant to Article 4 covering the products concerned, and shall include at least the following:

- (a) the name of the substances of concern present in the product;
- (b) the location of the substances of concern within the product;
- (c) the concentration, maximum concentration or concentration range of the substances of concern, at the level of the product, its main components, or spare parts;
- (d) relevant instructions for the safe use of the product;
- (e) information relevant for disassembly.

Where the Commission sets out information requirements in a delegated act adopted pursuant to Article 4, it shall:

- (a) establish which substances fall under the definition in Article 2(28), point (c), for the purposes of the product groups covered;
- (b) lay down deadlines for the entry into application of the information requirements referred to in the first subparagraph, with possible differentiation between substances; and
- (c) provide exemptions for substances of concern or information elements from the information requirements referred to in the first subparagraph.

Exemptions referred to in the second subparagraph, point (c), may be provided based on the technical feasibility or relevance of tracking substances of concern, the need to protect confidential business information and in other duly justified cases.

Substances of concern falling under the definition in Article 2(28), point (a), shall not be exempted from the information requirement referred to in the first subparagraph if they are present in the relevant products, their main components or spare parts in a concentration above 0,1 % weight by weight.

6. Information requirements shall indicate the manner in which the required information shall be made available.

The required information shall, as appropriate, be provided in at least one of the following manners:

- (a) on the product itself;
- (b) on the product's packaging;
- (c) in the product passport referred to in Article 8;
- (d) on a label referred to in Article 14;
- (e) in a user manual;
- (f) on a free access website or application.

Information ensuring the traceability of substances pursuant to paragraph 5 shall be given either on the product or be accessible through a data carrier included on the product.

7. The information to be supplied pursuant to information requirements shall be provided in a language which can be easily understood by consumers and other end-users, as determined by the Member State in which the product is to be made available on the market or put into service.

## CHAPTER III - DIGITAL PRODUCT PASSPORT

### *Article 8* *Product passport*

1. The information requirements referred to in Article 7(1) shall provide that products can only be placed on the market or put into service if a product passport is available in accordance with the applicable delegated act adopted pursuant to Article 4 and Articles 9 and 10.
2. The requirements related to the product passport laid down in the delegated acts adopted pursuant to Article 4 shall, as appropriate for the product groups covered, specify the following:
  - (a) the information to be included in the product passport pursuant to Annex III;
  - (b) the types of data carrier to be used;
  - (c) the layout in which the data carrier shall be presented and its positioning;
  - (d) whether the product passport is to correspond to the model, batch, or item level;
  - (e) the manner in which the product passport shall be made accessible to customers before they are bound by a sales contract, including in case of distance selling;
  - (f) the actors that shall have access to information in the product passport and to what information they shall have access, including customers, end-users, manufacturers, importers and distributors, dealers, repairers, remanufacturers, recyclers, competent national authorities, public interest organisations and the Commission, or any organisation acting on their behalf;
  - (g) the actors that may introduce or update the information in the product passport, including where needed the creation of a new product passport, and what information they may introduce or update, including manufacturers, repairers, maintenance professionals, remanufacturers, recyclers, competent national authorities, and the Commission, or any organisation acting on their behalf;
  - (h) the period for which the product passport shall remain available.
3. The requirements referred to in paragraph 2 shall:
  - (a) ensure that actors along the value chain, in particular consumers, economic operators and competent national authorities, can access product information relevant to them;
  - (b) facilitate the verification of product compliance by competent national authorities; and
  - (c) improve traceability of products along the value chain.
4. When establishing the requirements related to the product passport, the Commission may exempt product groups from the requirement set out in paragraph 1 of this Article where:
  - (a) technical specifications are not available in relation to the essential requirements included in Article 10; or

- (b) other Union law includes a system for the digital provision of information related to a product group for which the Commission considers that it achieves the objectives referred to in paragraph 3, points (a) and (b).

#### *Article 9*

##### *General requirements for the product passport*

1. A product passport shall meet the following conditions:
  - (a) it shall be connected through a data carrier to a unique product identifier;
  - (b) the data carrier shall be physically present on the product, its packaging or on documentation accompanying the product, as specified in the applicable delegated act adopted pursuant to Article 4;
  - (c) the data carrier and the unique product identifier shall comply with standard ('ISO/IEC') 15459:2015;
  - (d) all information included in the product passport shall be based on open, standards, developed with an inter-operable format and shall be machine-readable, structured, and searchable, in accordance with the essential requirements set out in Article 10;
  - (e) the information included in the product passport shall refer to the product model, batch, or item as specified in the delegated act adopted pursuant to Article 4;
  - (f) the access to information included in the product passport shall be regulated in accordance with the essential requirements set out in Article 10 and the specific access rights at product group level shall be identified in the applicable delegated act adopted pursuant to Article 4.

The Commission is empowered to adopt delegated acts in accordance with Article 66 to amend the first subparagraph, point (c), of this Article in light of technical and scientific progress by replacing the standard referred to in that point or adding other European or international standards with which the data carrier and the unique identifiers shall comply for the purposes of meeting the conditions set out in this Article.

2. Where other Union legislation requires or allows the inclusion of specific information in the product passport, that information may be added to the information to be included in the product passport pursuant to the applicable delegated act adopted pursuant to Article 4.
3. The economic operator placing the product on the market shall provide dealers with a digital copy of the data carrier to allow the dealer to make it accessible to customers where they cannot physically access the product. The economic operator shall provide that digital copy free of charge and within 5 working days of the dealer's request.

#### *Article 10*

##### *Technical design and operation of the product passport*

The technical design and operation of the product passport shall comply with the following essential requirements:

- (a) product passports shall be fully interoperable with other product passports required by delegated acts adopted pursuant to Article 4 in relation to the technical, semantic and organisational aspects of end-to-end communication and data transfer;
- (b) consumers, economic operators and other relevant actors shall have free access to the product passport based on their respective access rights set out in the applicable delegated act adopted pursuant to Article 4;
- (c) the data included in the product passport shall be stored the economic operator responsible for its creation or by operators authorised to act on their behalf;
- (d) if the data included in the product passport is stored or otherwise processed by operators authorised to act on their behalf, those operators shall not be allowed to sell, re-use or process such data, in whole or in part, beyond what is necessary for the provision of the relevant storing or processing services;
- (e) the product passport shall remain available for the period specified in delegated acts adopted pursuant to Article 4, including after an insolvency, a liquidation or a cessation of activity in the Union of the economic operator that created the product passport;
- (f) the rights to access and to introduce, modify or update information in product passport shall be restricted based on the access rights specified in delegated acts adopted pursuant to Article 4;
- (g) data authentication, reliability and integrity shall be ensured;
- (h) product passports shall be designed and operated so that a high level of security and privacy is ensured and fraud is avoided.

### *Article 11*

#### *Unique operator identifier and unique facility identifier*

1. The unique operator identifiers referred to in Annex III, points (g) and (h), and the unique facility identifiers referred to in Annex III, point (i), shall comply with the ISO/IEC standard 15459:2015.
2. Where a unique operator identifier referred to in Annex III, point (h), is not yet available, the economic operator creating the product passport shall request a unique operator identifier on behalf of the relevant actor.  
  
Before issuing a request as referred to in the first subparagraph, the economic operator creating the product passport shall seek confirmation from the actor concerned that no unique operator identifier exists and shall provide the supply chain actor concerned with full details of the released unique operator identifier.
3. Where a unique facility identifier referred to in Annex III, point (i), is not yet available, the economic operator creating the product passport shall request a unique facility identifier on behalf of the actor responsible for the relevant location or building.  
  
Before issuing a request as referred to in the first subparagraph, the economic operator creating the product passport shall seek confirmation from the responsible actor that no unique facility identifier exists and provide the responsible actor with the full details of the released unique facility identifier.
4. The Commission is empowered to adopt delegated acts in accordance with Article 66 to amend paragraph 1 of this Article in light of technical and scientific progress by

replacing the standard referred to in that paragraph or adding European or international standards with which unique operator identifiers referred to in Annex III, points (g) and (h), and unique facility identifiers referred to in Annex III, point (i), may comply for the purposes of meeting the conditions set out in this Article.

#### *Article 12*

##### *Product passport registry*

1. The Commission shall set up and maintain a registry storing information included in the product passports required by delegated acts adopted pursuant to Article 4.

The registry referred to in the first subparagraph shall at least include a list of the data carriers and unique product identifiers referred to in Article 9(1).

The Commission shall ensure that the information stored in the registry referred to in the first subparagraph is processed securely and in compliance with Union law, including applicable rules on the protection of personal data.

2. The Commission shall, in the delegated acts adopted pursuant to Article 4, specify the information which, in addition to being included in the product passport, shall be stored in the registry referred to in paragraph 1, taking into account at least the following criteria:

- (a) the need to allow for the verification of the authenticity of the product passport;
- (b) the relevance of information for improving the efficiency and effectiveness of market surveillance checks and customs controls in relation to products covered by delegated acts adopted pursuant to Article 4;
- (c) the need to avoid disproportionate administrative burden for economic operators.

3. In relation to its responsibility to establish and manage the registry referred to in paragraph 1 and the processing of any personal data that might result from that activity, the Commission shall be regarded as controller as defined in Article 3, point (8), of Regulation (EU) 2018/1725.

4. The economic operator placing the product on the market or putting it into service shall upload, in the registry referred to in paragraph 1, the information referred to in paragraph 2.

5. The Commission, competent national authorities and customs authorities shall have access to the registry referred to in this Article for carrying out their duties pursuant to Union legislation.

#### *Article 13*

##### *Customs controls relating to the product passport*

1. The Commission shall interconnect the registry referred to in Article 12(1) with the EU Customs Single Window Certificates Exchange (EU CSW-CERTEX), thus enabling the automated exchange of information with the national customs systems through the EU Single Window Environment for Customs established by Regulation (EU).../.....

The Commission shall adopt an implementing act specifying the details of the implementation arrangements of the interconnection referred to in the first subparagraph.



This implementing act shall be adopted in accordance with the examination procedure referred to in Article 67(3).

The interconnection referred to in the first subparagraph shall be in place within four years from the date of adoption of the implementing act referred to in the second subparagraph.

Paragraphs 3 to 6 of this Article shall apply as from the moment the interconnection is in place.

2. Declarants as defined in Article 5, point (15), of Regulation (EU) 952/2013 shall include the unique product identifier referred to in Article 9(1), point (a), in the customs declaration for release for free circulation of any product covered by a delegated act adopted pursuant to Article 4.

This paragraph shall apply from the moment the registry referred to in Article 12(1) is in place.

3. Before allowing the release for free circulation, customs authorities shall verify whether the unique product identifier indicated by the declarant in accordance with paragraph 2 matches a unique product identifier included in the registry referred to in Article 12(1).
4. Where information included in the product passport is also stored in the registry referred to in Article 12(1), the Commission may specify, in the delegated acts adopted pursuant to Article 4, that customs authorities shall, in addition to the verification referred to in paragraph 3 of this Article, verify the consistency between the information stored in the registry and the customs declaration before allowing the release for free circulation. In such case, the Commission shall take into account at least the following criteria:
  - (a) the need to improve compliance of products placed on the Union market with ecodesign requirements;
  - (b) the need to avoid disproportionate burden for customs authorities.

Where customs authorities establish further to the verification laid down in this paragraph that there are discrepancies between the information stored in the registry and the customs declaration, customs authorities shall refuse the release of that product for free circulation. Customs authorities may take any other actions they deem appropriate in accordance with customs legislation, and also registering the refusal in the registry referred to in Article 12(1) and notifying competent national authorities of the refusal.

The release for free circulation shall not be deemed to be proof of conformity with Union law.

5. The verification referred to in paragraphs 3 and 4 shall take place electronically and automatically via the EU Single Window Environment for Customs.
6. Customs authorities may retrieve and use the information included in the product passport and the registry referred to in Article 12(1) for carrying out their duties pursuant to Union legislation, including for risk management in accordance with Articles 46 and 47 of Regulation (EU) No 952/2013.

## CHAPTER IV - LABELS

### *Article 14* *Labels*

1. Where the information requirements referred in Article 7(1) specify that information shall be included in a label pursuant to Article 7(6), point (d), the delegated acts adopted pursuant to Article 4 shall specify:
  - (a) the content of the label;
  - (b) the layout of the label taking account visibility and legibility;
  - (c) the manner in which the label shall be displayed to customers including in case of distance selling, taking into account the requirements set out in Article 26 and the implications for the relevant economic operators;
  - (d) where appropriate, electronic means for generating labels.
2. Where an information requirement entails the inclusion in a label of the class of performance of a product as referred to in Article 7(4), the layout of the label referred to in paragraph 1, point (b), shall enable customers to easily compare product performance in relation to the relevant product parameter and to choose better performing products.
3. For energy-related products, where information on a relevant product parameter, including on classes of performance referred to in Article 7(4), cannot be incorporated in the energy label established pursuant to Regulation (EU) 2017/1369, the Commission, after assessing the best way to communicate about this particular information, may, if appropriate, require the establishment of a label in accordance with this Regulation.
4. When establishing the information requirements referred to in paragraph 1, the Commission shall, where appropriate, require the label to include data carriers or other means to allow customers to access additional information on the product, including means allowing access to the product passport referred to in Article 8.
5. The Commission may adopt implementing acts establishing common requirements for the layout of the labels required pursuant to Article 7(6), point (d).

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 67(3).

### *Article 15* *Mimicking labels*

Where delegated acts adopted pursuant to Article 4 do not require products to have a label, those products may not be placed on the market or put into service if they supply or display labels which are likely to mislead or confuse customers with respect to the labels provided for in Article 14.

## CHAPTER V - PRIORITISATION, PLANNING AND CONSULTATION

### *Article 16*

#### *Prioritisation and planning*

1. When prioritising products to be covered by ecodesign requirements in accordance with this Regulation, the Commission shall take into account their potential contribution to achieving Union climate, environmental and energy efficiency objectives, as well as the following criteria:
  - (a) the potential for improving the product aspects listed in Article 5(1) without entailing disproportionate costs, taking into account in particular:
    - (i) the absence or insufficiency of Union law or failure of market forces or self-regulation measures adopted in accordance with Article 18 to address the objective properly; and
    - (ii) the disparity in the performance of products available on the market with equivalent functionality in relation to the product aspects listed in Article 5(1);
  - (b) the volume of sales and trade of the product within the Union;
  - (c) the distribution of the environmental impacts, energy use and waste generation across the value chain, in particular whether they take place within the Union;
  - (d) the need to regularly review and adapt delegated acts adopted pursuant to Article 4 in light of technological and market developments.
2. The Commission shall adopt and regularly update a working plan, covering a period of at least 3 years, setting out a list of product groups for which it intends to establish ecodesign requirements in accordance with this Regulation. That list shall include products aspects referred to in Article 5(1) for which the Commission intends to adopt horizontal ecodesign requirements established pursuant to Article 5(2), second subparagraph.

When adopting or updating the working plan referred to in the first subparagraph, the Commission shall take into account the criteria set out in paragraph 1 of this Article and shall consult the Ecodesign Forum referred to in Article 17.

### *Article 17*

#### *Ecodesign Forum*

The Commission shall ensure that when it conducts its activities, it observes a balanced participation of Member States' representatives and all interested parties involved with the product or product group in question, such as industry, including SMEs and craft industry, trade unions, traders, retailers, importers, environmental protection groups and consumer organisations. These parties shall contribute in particular to preparing ecodesign requirements, examining the effectiveness of the established market surveillance mechanisms and assessing self-regulation measures.

To that end, the Commission shall establish an expert group, in which those parties shall meet, referred to as the 'Ecodesign Forum'.

*Article 18*  
*Self-regulation measures*

1. Two or more economic operators may submit a self-regulation measure establishing ecodesign requirements for products to the Commission as an alternative to a delegated act adopted pursuant to Article 4. Those operators shall provide evidence that the criteria referred to in paragraph 3, points (a) to (e), are fulfilled. With respect to paragraph 3, point (a), that evidence shall consist of a structured technical, environmental and economic analysis, justifying the ecodesign requirements and objectives of the self-regulation measure, and assessing the impacts of the ecodesign requirements set in that self-regulation measure.
2. The self-regulation measure shall contain the following information:
  - (a) a list of the economic operators that are signatories to the self-regulation measure;
  - (b) the ecodesign requirements applicable to products covered by the self-regulation measure;
  - (c) a detailed, transparent and objective monitoring plan, with clearly identified responsibilities for industry and independent inspectors, including the criteria set out in point 6 of Annex VII;
  - (d) rules on information to be reported by signatories and on testing and inspections.

The information referred to in this paragraph shall be kept up-to-date and be available on a publicly accessible website.

3. The Commission shall assess the proposed self-regulation measure, and, where necessary, shall seek scientific advice from Union decentralised agencies. On the basis of that assessment, it shall establish whether it is a valid alternative to a delegated act adopted pursuant to Article 4 where the following criteria are fulfilled:
  - (a) the self-regulation measure contributes to improving the environmental sustainability of products and ensuring the free movement in the internal market quickly or at a lesser expense than a delegated act adopted pursuant to Article 4;
  - (b) the market share in terms of volume of the signatories to the self-regulation measure in relation to the products covered by that measure is at least 80 % of units placed on the market or put into service;
  - (c) the self-regulation measure complies with the criteria set out in Annex VII;
  - (d) the product covered by the self-regulation measure does not fall within the scope of a delegated act adopted pursuant to Article 4;
  - (e) the self-regulation measure is in line with Union legislation and international trade commitments of the Union.

The Commission shall adopt an implementing act containing a list of self-regulation measures established as valid alternatives to a delegated act adopted pursuant to Article 4. That implementing act shall be adopted in accordance with the advisory procedure referred to in Article 67(2).

4. The Commission may at any point in time request the signatories of a self-regulation measure to submit a revised and updated version of that measure in view of relevant

market or technological developments within the product group concerned or where it has reason to believe that the criteria set out in paragraph 3 are no longer fulfilled.

5. Once a self-regulation measure has been listed in an implementing act adopted pursuant to paragraph 3, second subparagraph, the signatories of that measure shall report to the Commission, at regular intervals set out in that implementing act, on the progress towards achieving the objectives of the self-regulation measures and to demonstrate that the criteria set in paragraph 3, points (a) to (e), remain fulfilled. Those reports shall also be made available on a publicly accessible website.
6. Where the Commission considers, based on information received pursuant to paragraphs 4 or 5, that a self-regulation measure no longer fulfils the criteria set out in paragraph 3, it shall delete it from the list referred to in that paragraph. In such cases, the Commission may decide to adopt ecodesign requirements applicable to the product covered by that self-regulation measure.

#### *Article 19*

##### *Micro, small and medium-sized enterprises*

1. In the context of programmes from which SMEs can benefit, the Commission shall take into account initiatives which help SMEs to integrate environmental sustainability aspects including energy efficiency in their value chain.
2. When adopting delegated acts pursuant to Article 4 the Commission shall, where appropriate, accompany those acts with guidelines covering specificities of SMEs active in the product or product group sector affected for facilitating the application of this Regulation by SMEs.
3. Member States shall take appropriate measures to help SMEs apply ecodesign requirements set out in delegated acts adopted pursuant to Article 4..

Those measures shall at least include ensuring the availability of one-stop shops or similar mechanisms to raise awareness and create networking opportunities for SMEs to adapt to requirements.

In addition, without prejudice to applicable State aid rules, such measures may include:

- (a) financial support, including by giving fiscal advantages and providing physical and digital infrastructure investments;
- (b) access to finance;
- (c) specialised management and staff training;
- (d) organisational and technical assistance.

### **CHAPTER VI - DESTRUCTION OF UNSOLD CONSUMER PRODUCTS**

#### *Article 20*

##### *Destruction of unsold consumer products*

1. An economic operator that discards unsold consumer products directly, or on behalf of another economic operator, shall disclose:
  - (a) the number of unsold consumer products discarded per year, differentiated per type or category of products;

- (b) the reasons for the discarding of products;
- (c) the delivery of discarded products to preparing for re-use, remanufacturing, recycling, energy recovery and disposal operations in accordance with the waste hierarchy as defined by Article 4 of Directive 2008/98/EC.

The economic operator shall disclose that information on a freely accessible website or otherwise make it publicly available, until a delegated act adopted pursuant to paragraph 3 starts applying to the category of unsold consumer products discarded by the operator in question.

2. The Commission may adopt implementing acts setting out the format for the disclosure of the information referred to in paragraph 1, including the type or category and how the information is to be verified.

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 67(3).

3. The Commission shall be empowered to adopt delegated acts in accordance with Article 66 to supplement this Regulation by prohibiting economic operators to destroy unsold consumer products in the Union, where the destruction of unsold consumer products falling within a certain product group has significant environmental impact.

In the delegated acts adopted pursuant to the first subparagraph, the Commission shall set out certain exemptions to those prohibitions where it is appropriate in view of:

- (a) health and safety concerns;
- (b) damage to products as a result of their handling or detected after a product has been returned by a consumer;
- (c) fitness of the product for the purpose for which it is intended, taking into account, where applicable, Union and national law and technical standards;
- (d) refusal of products for donation, preparing for re-use or remanufacturing.

4. When preparing a delegated act adopted pursuant to paragraph 3, the Commission shall:

- (a) assess the prevalence and environmental impact of the destruction of specific consumer products;
- (b) take into account the information disclosed by economic operators pursuant to paragraph 1;
- (c) carry out an impact assessment based on best available evidence and analyses, and on additional studies as necessary.

The Commission shall consult the Ecodesign Forum referred to in Article 17, and take account of its views on possible prohibitions of destruction of unsold consumer products referred to in paragraph 3, prior to the preparation of the delegated acts setting out those prohibitions.

5. Where unsold consumer products are destroyed under an exemption referred to in paragraph 3, second subparagraph, the responsible economic operator shall disclose on a freely accessible website or otherwise make publicly available:

- (a) the number of unsold consumer products destroyed;

- (b) the reasons for their destruction, referring to the applicable exemption;
- (c) the delivery of the products destroyed to recycling, energy recovery and disposal operations in accordance with the waste hierarchy as defined by Article 4 of Directive 2008/98/EC.

The details and format for the disclosure of information provided in the implementing act adopted pursuant to paragraph 2 shall apply to the information to be disclosed pursuant to this paragraph, unless the delegated act adopted pursuant to paragraph 3 provides otherwise.

6. This Article shall not apply to SMEs.

However, the Commission may, in the delegated acts adopted pursuant to paragraph 3, provide that the prohibition to destroy unsold consumer products referred to in paragraph 3 or the disclosure obligation referred to in paragraph 4 shall apply to:

- (a) medium-sized enterprises, where there is sufficient evidence that they account for a substantial proportion of unsold consumer products being destroyed;
- (b) microenterprises, small enterprises or medium-sized enterprises, where there is sufficient evidence that they may be used to circumvent the prohibition to destroy unsold consumer products referred to in paragraph 3 or the disclosure obligation referred to in paragraph 4.

## **CHAPTER VII - OBLIGATIONS OF ECONOMIC OPERATORS**

### *Article 21*

#### *Obligations of manufacturers*

1. When placing products covered by a delegated act adopted pursuant to Article 4 on the market or putting them into service, manufacturers shall ensure that:
  - (a) those products have been designed and manufactured in accordance with the requirements set out in Article 6 and the delegated acts adopted pursuant to Article 4;
  - (b) those products are accompanied by the information required by the Article 7 and the delegated acts adopted pursuant to Article 4;
  - (c) a product passport is available in accordance with Article 8 and the delegated acts adopted pursuant to Article 4.
2. Before placing a product covered by a delegated act adopted pursuant to Article 4 on the market or putting it into service, manufacturers shall carry out the conformity assessment procedure specified in the delegated acts adopted pursuant to Article 4 and draw up the required technical documentation, or have it carried out on their behalf.

Where compliance of a product covered by a delegated act adopted pursuant to Article 4 with the applicable requirements has been demonstrated by that procedure, manufacturers shall draw up an EU declaration of conformity in accordance with Article 37 and affix the CE marking in accordance with Article 39. However, where the Commission has specified alternative rules pursuant to Article 4, third subparagraph, point (f), the manufacturer shall draw up a conformity declaration and affix conformity marking in accordance with those rules.

3. Manufacturers shall keep the technical documentation and the EU declaration of conformity for 10 years after the product has been placed on the market or put into service. Delegated acts adopted pursuant to Article 4 may specify a period longer or shorter than 10 years in order to take account of the nature of the products or requirements concerned.
4. Manufacturers shall ensure that procedures are in place for series production to remain in conformity with the applicable requirements. Changes in the production process, product design or in characteristics, as well as changes in harmonised standards, common specifications or other technical specifications by reference to which product conformity is declared or by application of which its conformity is verified, shall be adequately taken into account by manufacturers and, in case they found that the product's conformity is affected, manufacturers shall carry out a re-assessment in accordance with the conformity assessment procedure specified in the delegated acts adopted pursuant to Article 4, or have it carried out on their behalf..
5. Manufacturers shall ensure that their products bear a type, batch or serial number or other element allowing their identification, or, where the size or nature of the product does not allow so, that the required information is provided on the packaging or in a document accompanying the product.
6. Manufacturers shall indicate on the product their name, registered trade name or registered trade mark and the postal address and, where available, electronic means of communication, where they can be contacted or, where this is not possible, on its packaging, in a document accompanying the product or, where available, in a product passport. The address shall indicate a single point where the manufacturer can be contacted. The contact details shall be clear, understandable and legible.
7. Manufacturers shall ensure that that a product covered by a delegated act adopted pursuant to Article 4 is accompanied by instructions that enable consumers and other end-users to safely assemble, install, operate, store, maintain, repair and dispose of the product in a language that can be easily understood by consumers and other end-users, as determined by the Member State concerned. Such instructions shall be clear, understandable and legible and include at least the information specified in the delegated acts adopted pursuant to Article 4 and pursuant to Article 7(2)(b), point (ii).
8. Manufacturers who consider or have reason to believe that a product covered by a delegated act adopted pursuant to Article 4 that they have been placed on the market or put into service is not in conformity with the requirements set out in those delegated acts shall immediately take the necessary corrective measures to bring that product into conformity, to withdraw it or recall it, if appropriate.  
  
Manufacturer shall immediately inform the market surveillance authorities of the Member States in which they made the product available of the suspected non-compliance and of any corrective measures taken.
9. Manufacturers shall, further to a reasoned request from a competent national authority, provide all the information and documentation necessary to demonstrate the conformity of the product, including the technical documentation in a language that can be easily understood by that authority. That information and documentation shall be provided in either paper or electronic form. The relevant documents shall be made available within 10 days of receipt of a request by a competent national authority.



Manufacturers shall cooperate with the competent national authority, on any action taken to remedy any case of non-compliance with the requirements set out in a delegated act adopted pursuant to Article 4 by which the product in question is covered.

#### *Article 22*

##### *Authorised representatives*

1. A manufacturer may, by a written mandate, appoint an authorised representative.  
The obligations laid down in Article 21(1) and the drawing up of technical documentation shall not form part of the authorised representative's mandate.
2. An authorised representative shall perform the tasks specified in the mandate received from the manufacturer. The mandate shall allow the authorised representative to do at least the following:
  - (a) keep the EU declaration of conformity and technical documentation at the disposal of the national market surveillance authorities for 10 years after a product covered by a delegated act adopted pursuant to Article 4 has been placed on the market or put into service;
  - (b) cooperate with the competent national authorities, at their request, on any measures taken with regard to non-compliances of the product covered by the authorised representative's mandate;
  - (c) further to a reasoned request from a competent national authority, provide that authority with all the information and documentation necessary to demonstrate the conformity of a product in a language that can be easily understood by that authority;
  - (d) further to a request from a competent national authority, make available relevant documents within 10 days of the receipt of such a request ;
  - (e) terminate the mandate if the manufacturer acts contrary to its obligations under this Regulation and the delegated act adopted pursuant to Article 4.

#### *Article 23*

##### *Obligations of importers*

1. Importers shall only place on the market products covered by a delegated act adopted pursuant to Article 4 that comply with the requirements set out in the applicable delegated acts.
2. Before placing a product covered by a delegated act adopted pursuant to Article 4 on the market, importers shall ensure that:
  - (a) the appropriate conformity assessment procedure has been carried out by the manufacturer and that the manufacturer has drawn up the technical documentation;
  - (b) products are accompanied by the information required by the Article 7 and the delegated acts adopted pursuant to Article 4;
  - (c) a product passport is available in accordance with Article 8 and the delegated acts adopted pursuant to Article 4.

The importer shall further ensure that the product bears the required CE marking referred to in Article 38, or the alternative conformity marking as laid down in a delegated act adopted pursuant to Article 4, third subparagraph, point (f), and is accompanied by the required documents, and that the manufacturer has complied with the requirements set out in Article 21(5) and (6).

Where importers consider or have reason to believe that a product is not in conformity with the requirements set out in the applicable delegated acts adopted pursuant to Article 4, they shall not place the product on the market or put it into service until it has been brought into conformity.

3. Importers shall indicate on the product their name, registered trade name or registered trade mark and the postal address and, where available, electronic means of communication, where they can be contacted or, where this is not possible, on the packaging, in a document accompanying the product or, where available, in a product passport. The contact details shall be clear, understandable and legible.
4. Importers shall ensure that the product is accompanied by instructions that enable the consumer to assemble, install, operate, store, maintain, repair and dispose of the product, in a language that can be easily understood by consumers and other end users, as determined by the Member State concerned. Such instructions shall be clear, understandable and legible and shall include at least the information specified in the delegated acts adopted pursuant to Article 4.
5. Importers shall ensure that, while a product is under their responsibility, storage or transport conditions do not jeopardise its compliance with the requirements set out in a delegated act adopted pursuant to Article 4 by which it is covered.
6. Importers who consider or have reason to believe that a product covered by a delegated act adopted pursuant to Article 4, which they have placed on the market or put into service, is not in conformity with the requirements set out in that act shall immediately take the corrective measures necessary to bring that product into conformity, to withdraw it or recall it, if appropriate.

Importers shall immediately inform the market surveillance authorities of the Member States in which they made the product available of the suspected non-compliance and of any corrective measures taken.

7. Importers shall, for 10 years or the period specified by a delegated act adopted pursuant to Article 4, keep a copy of the EU declaration of conformity at the disposal of the market surveillance authorities and ensure that the technical documentation can be made available to those authorities, upon request.
8. Importers shall, further to a reasoned request from a competent national authority, provide it with all the information and documentation necessary to demonstrate the conformity of a product, including technical documentation, in a language that can be easily understood by that authority. That information and documentation shall be provided in either paper or electronic form. The relevant documents shall be made available within 10 days of receipt of a request by the competent authority of a Member State.

Importers shall cooperate with the competent national authority on any action taken to remedy any case of non-compliance with the requirements set out in a delegated act adopted pursuant to Article 4 by which the product in question is covered.

*Article 24*  
*Obligations of distributors*

1. When making a product covered by a delegated act adopted pursuant to Article 4 available on the market, distributors shall act with due care in relation to the requirements set out in that act.
2. Before making a product covered by a delegated act adopted pursuant to Article 4 available on the market, distributors shall verify that the following:
  - (a) the product bears the CE marking in accordance with Articles 38 and 39 or alternative conformity marking adopted pursuant to Article 4, third subparagraph, point (f), and, where relevant, is labelled or is linked to a product passport in accordance with that delegated acts;
  - (b) the product is accompanied by the required documents and by instructions, to enable the consumer to assemble, install, operate, store, maintain, and dispose of the product, in a language that can be easily understood by consumers and other end-users, as determined by the Member State in which the product is to be made available on the market, and that such instructions are clear, understandable and legible and include at least the information set out in Article 7(2), point (b), point (ii), as laid down in the delegated act adopted pursuant to Article 4;
  - (c) the manufacturer and the importer have complied with the requirements set out in Article 21(5) and (6) and Article 23(3).

3. Where a distributor considers or has reason to believe that a product, before making it available on the market, or its manufacturer is not complying with the requirements set out in a delegated act adopted pursuant to Article 4, they shall not make the product available on the market until the product has been brought into conformity or the manufacturer complies.

Distributors shall ensure that, while a product is under their responsibility, storage or transport conditions do not jeopardise its compliance with the requirements set out in the delegated act adopted pursuant to Article 4.

4. Distributors who consider or have reason to believe that a product which they have made available on the market is not in conformity with the requirements set out in a delegated act adopted pursuant to Article 4 shall make sure that the corrective measures necessary to bring that product into conformity, to withdraw it or recall it, if appropriate, are taken.

Distributors shall immediately inform the market surveillance authorities of the Member States in which they made the product available of the suspected non-compliance and of any corrective measures taken.

5. Distributors shall, further to a reasoned request from a competent national authority, provide the authority with all the information and documentation to which they have access and that is relevant for demonstrating the conformity of a product. That information and documentation shall be provided in either paper or electronic form.

Distributors shall cooperate with that authority on any corrective action taken to remedy any case of non-compliance with a delegated act adopted pursuant to Article 4 by which the product in question is covered.

*Article 25*  
*Obligations of dealers*

1. Dealers shall ensure that their customers have access to any relevant information required by the delegated acts adopted pursuant to Article 4, including in case of distance selling.
2. Dealers shall ensure that the product passport is easily accessible to customers, including in case of distance selling, as specified in Article 8 and delegated acts adopted pursuant to Article 4 by which the product is covered.
3. Dealers shall:
  - (a) display to customers, in a visible manner, including for online distance selling, labels provided in accordance with Article 26(2) or (3);
  - (b) make reference to the information included in labels provided in accordance with Article 26(2) or (3) in visual advertisements or in technical promotional material for a specific model, in accordance with delegated acts adopted pursuant to Article 4 by which the product is covered;
  - (c) not provide or display other labels, marks, symbols or inscriptions that are likely to mislead or confuse customers with respect to the information included on the label.

*Article 26*  
*Obligations related to labels*

1. Where a delegated act adopted pursuant to Article 4 requires products to have a label as referred to in Article 14, the economic operator placing the product on the market or putting it into service shall ensure that products are accompanied, for each individual unit and free of charge, by printed labels in accordance with that delegated act.
2. Where a delegated act adopted pursuant to Article 4 requires products to have a label as referred to in Article 14, the economic operator placing the product on the market or putting it into service shall deliver printed labels or digital copies of the label to the dealer free of charge, promptly and in any event within 5 working days of the dealer's request.
3. Where a delegated act adopted pursuant to Article 4 requires products to have a label as referred to in Article 14, the economic operator placing the product on the market or putting it into service shall ensure that its labels are accurate and shall, as part of the applicable conformity assessment procedure, produce technical documentation sufficient to enable the accuracy to be assessed.
4. Where a delegated act adopted pursuant to Article 4 requires products to have a label as referred to in Article 14, the economic operator placing the product on the market or putting it into service shall:
  - (a) make reference to the information included in the label, in visual advertisements or in technical promotional material for a specific model in accordance with the relevant delegated act adopted pursuant to Article 4;
  - (b) not provide or display other labels, marks, symbols or inscriptions that are likely to mislead or confuse customers with respect to the information included on the label.

*Article 27*  
*Obligations of fulfilment service providers*

Fulfilment service providers shall ensure that, for products that they handle that are covered by a delegated act adopted pursuant to Article 4, the conditions during warehousing, packaging, addressing or dispatching, do not jeopardise the products' compliance with the requirements set out in that delegated act .

*Article 28*  
*Cases in which obligations of manufacturers apply to importers and distributors*

An importer or distributor shall be considered a manufacturer for the purposes of this Regulation and shall be subject to the obligations of a manufacturer under Article 21, where they:

- (1) place a product covered by a delegated act adopted pursuant to Article 4 on the market under their name or trademark;
- (2) modify such a product already placed on the market in a way that affects compliance with the requirements set out in delegated acts adopted pursuant to Article 4 by which the product is covered.

*Article 29*  
*Obligations of online marketplaces and online search engines*

1. The cooperation referred to in Article 7(2) of Regulation (EU) 2019/1020 shall, with regard to online marketplaces and for the purposes of this Regulation, include in particular:
  - (a) cooperating to ensure effective market surveillance measures, including by abstaining from putting in place obstacles to such measures;
  - (b) informing the market surveillance authorities of any action taken;
  - (c) establishing a regular and structured exchange of information on offers that have been removed on the basis of this Article by online marketplaces;
  - (d) allowing online tools operated by market surveillance authorities to access their interfaces in order to identify non-compliant products;
  - (e) upon request of the market surveillance authorities, when online marketplaces or online sellers have put in place technical obstacles to the extraction of data from their online interfaces, allowing those authorities to scrape such data for product compliance purposes based on the identification parameters provided by the requesting market surveillance authorities.
2. For the purpose of the requirements of [Article 22(7)] of Regulation (EU) .../... [the Digital Services Act], online marketplaces shall design and organise their online interface in a way that enables dealers to fulfil their obligations set out in Article 25 and allows economic operators to fulfil their obligations under Article 30(1) of this Regulation.

The information shall be able to be provided for each product offered and displayed or otherwise made easily accessible by customers on the product listing.

In particular, where delegated acts adopted pursuant to Article 4 require online visual advertising for certain products to be accompanied by online electronic information to be displayed on the display mechanism, online marketplaces shall enable dealers to show it. This obligation shall also apply to online search engines and other online platforms that provide online visual advertising for the products concerned.

3. As far as powers conferred by Member States in accordance with Article 14 of Regulation (EU) 2019/1020 are concerned, Member States shall confer on their market surveillance authorities the power, for all products covered by a relevant delegated act adopted pursuant to Article 4, to order an online marketplace to remove specific illegal content referring to a non-compliant product from its online interface, disable access to it or display an explicit warning to end-users when they access it. Such orders shall comply with [Article 8(1)] of Regulation (EU) .../... [the Digital Services Act].
4. Online marketplaces shall take the necessary measures to receive and process the orders referred to in paragraph 2 in accordance with [Article 8] of Regulation (EU) .../... [the Digital Services Act].
5. Online marketplaces shall establish a single contact point allowing for direct communication with Member States' market surveillance authorities in relation to compliance with this Regulation and the delegated acts adopted pursuant to Article 4. This contact point may be the same contact point as the one referred to in [Article 20(1)] of Regulation (EU) .../... [the General Product Safety Regulation] or [Article 10(1)] of Regulation (EU) .../... [the Digital Services Act].

#### *Article 30*

##### *Information obligations of economic operators*

1. Where products are made available on the market online or through other means of distance sales by the relevant economic operators, the relevant product offer shall clearly and visibly provide at least the following information:
  - (a) the name, registered trade name or registered trade mark of the manufacturer, as well as the postal or electronic address where they can be contacted;
  - (b) in case the manufacturer is not established in the Union, the name, address, telephone number and email address of the economic operator established in the Union within the meaning of Article 4 of Regulation (EU) 2019/1020;
  - (c) information to identify the product, including its type and, where available, batch or serial number and any other product identifier.
2. Economic operators shall, upon request, provide the market surveillance authorities with:
  - (a) the name of any economic operator who has supplied them with a product falling within the scope of a delegated act adopted pursuant to Article 4;
  - (b) any economic operator to whom they have supplied such products, as well as the quantities and exact models.

Economic operators shall be able to provide this information for 10 years after they have been supplied with the relevant products and for 10 years after they have supplied such products. When adopting delegated acts pursuant to Article 4, the

Commission may specify a period of more or less than 10 years to take account of the nature of the relevant products or requirements.

3. When requiring manufacturers, their authorised representatives or importers to make parts of the technical documentation related to the relevant product digitally available pursuant to Article 4, third subparagraph, point (a), the Commission shall take into account the following criteria:
  - (a) the need to facilitate the verification of compliance with the applicable requirements by market surveillance authorities;
  - (b) the need to avoid disproportionate administrative burden for economic operators.

The Commission shall specify the manner in which the relevant parts of the technical documentation shall be made available. Where available, technical documentation shall be made available through the product passport.

### *Article 31*

#### *Monitoring and reporting obligations of economic operators*

1. When requiring manufacturers, their authorised representatives or importers to make available to the Commission, information on the quantities of a product covered by delegated acts adopted pursuant to Article 4, third subparagraph, point (b), the Commission shall take into account the following criteria:
  - (a) the availability of evidence on the market penetrations of the relevant product in order to facilitate the review of delegated acts adopted pursuant to Article 4 applicable to that product;
  - (b) the need to avoid disproportionate administrative burden for economic operators.

The Commission shall specify the period of time to which the information referred to in the first subparagraph shall relate. That information shall be differentiated per product model.

The Commission shall ensure that the resulting data is processed securely and in compliance with Union law.

The Commission shall specify in those delegated acts the means through which the relevant information shall be made available and its periodicity.

2. When requiring a product to be able to measure the energy it consumes or its performance in relation to other relevant product parameters referred to in Annex I while in use, pursuant to Article 4, third subparagraph, point (c), the Commission shall take into account the following criteria:
  - (a) the usefulness of in-use data for end-users to understand and manage the energy use or performance of the product;
  - (b) the technical feasibility of recording in-use data;
  - (c) the need to avoid disproportionate administrative burden for economic operators.

Products covered by a requirement set pursuant to Article 4, third subparagraph, point (c), shall record the resulting in-use data and make it visible to the end-user.

3. When requiring manufacturers, their authorised representatives or importers to collect, anonymise or report to the Commission in-use data referred to in paragraph 2, pursuant to Article 4, third subparagraph, point (d), the Commission shall take into account the following criteria:
  - (a) the usefulness of in-use data for the Commission when reviewing ecodesign requirements or assisting market surveillance authorities with statistical information for their risk-based analysis;
  - (b) the need to avoid disproportionate administrative burden for economic operators.Such requirements referred to in the first subparagraph may in particular consist of:
  - (a) collecting the in-use data if it can be accessed remotely via the internet, unless the end-user expressly refuses to make that data available;
  - (b) anonymising the data collected under point (a) and report it to the Commission at least once a year. The economic operator shall include the product database identification number of the model as referred to in Article 12(5) of Regulation (EU) No 2017/1369 and, if relevant to their performance, geographical information on the products.The Commission shall specify the details and format for reporting the in-use data as referred to in the second subparagraph, point (b).
4. The Commission shall periodically assess the in-use data received pursuant to paragraph 3 and shall, where appropriate, publish aggregated datasets.

## **CHAPTER VIII - CONFORMITY OF PRODUCTS**

### *Article 32*

#### *Test, measurement and calculation methods*

1. For the purposes of compliance and verification of compliance with ecodesign requirements, tests, measurements and calculations shall be made using reliable, accurate and reproducible methods that take into account the generally recognised state-of-the art methods. Such methods shall fulfil the test, measurement and calculation requirements set out in the relevant delegated acts adopted pursuant to Article 4.
2. Where necessary to ensure compliance with ecodesign requirements set out in delegated acts adopted pursuant to Article 4, third subparagraph, point (e), the Commission may require the use of online tools for the calculation of the performance of products in relation to the relevant product parameter referred to in Annex I reflecting the applicable calculation requirements.

Where setting such requirements for the use of online tools, the Commission shall take into account the following criteria:

  - (a) the need to ensure the harmonised application of calculation requirements;
  - (b) the need to minimise administrative burden imposed on economic operators complying with the relevant requirements.Online tools shall be freely accessible for economic operators complying with the relevant requirements.



*Article 33*  
*Circumvention*

1. Products falling within the scope of a delegated act adopted pursuant to Article 4 shall not be placed on the market or put into service if they are designed to alter their behaviour or properties when they are tested in order to reach a more favourable result for any of the product parameters regulated in delegated acts adopted pursuant to Article 4 by which the products are covered.

For the purposes of this paragraph, products designed to be able to detect they are being tested and automatically alter their performance in response and products pre-set to alter their performance at the time of testing shall constitute products designed to alter their behaviour or properties when they are tested.

2. Economic operators placing a product covered by a delegated act adopted pursuant to Article 4 shall not prescribe instructions specific to testing that alter the behaviour or the properties of products in order to reach a more favourable result for any of the product parameters regulated in delegated acts adopted pursuant to Article 4 by which the products are covered.

For the purposes of this paragraph, instructions leading to a manual alteration of the product before a test that alters the performance of the product shall constitute instructions specific to testing that alter the behaviour or the properties of products.

3. Products falling within the scope of a delegated act adopted pursuant to Article 4 shall not be placed on the market or put into service if they are designed to alter their behaviour or properties within a short period after putting the product into service leading to a worsening of their performance in relation to any of the product parameters regulated in delegated acts adopted pursuant to Article 4 by which the products are covered or their functional performance from the perspective of the user.
4. Software or firmware updates shall not worsen product performance in relation to any of the product parameters regulated in delegated acts adopted pursuant to Article 4 by which the products are covered or the functional performance from the perspective of the user when measured with the test method used for the conformity assessment, except with explicit consent of the end-user prior to the update. No performance change shall occur as a result of rejecting the update.

Software or firmware updates shall not worsen performance referred to in the first subparagraph to the extent that the product becomes non-compliant with the requirements set out in delegated acts adopted pursuant to Article 4 applicable at the time of the placing on the market or putting into service of the product.

*Article 34*  
*Presumption of conformity*

1. Tests, measurement or calculation methods referred to in Article 32 which are in conformity with harmonised standards or parts thereof, the references of which have been published in *the Official Journal of the European Union*, shall be presumed to be in conformity with the requirements set out in that Article and with test, measurement and calculation requirements set out in delegated acts adopted pursuant to Article 4 to the extent that those requirements are covered by such harmonised standards or parts thereof.

2. Products which are in conformity with harmonised standards or parts thereof, the references of which have been published in the *Official Journal of the European Union* shall be presumed to be in conformity with ecodesign requirements set out in delegated acts adopted pursuant to Article 4 to the extent that those requirements are covered by such harmonised standards or parts thereof.
3. Products covered by a delegated act adopted pursuant to Article 4, which have been awarded the EU Ecolabel pursuant to Regulation (EC) No 66/2010 shall be presumed to comply with the ecodesign requirements set out in that delegated act in so far as those requirements are covered by the EU Ecolabel criteria established according to Article 16(2) of Regulation (EC) No 66/2010.

#### *Article 35*

##### *Common specifications*

1. The Commission may adopt implementing acts laying down common specifications for ecodesign requirements, the essential requirements for product passports referred to in Article 10 or for test, measurement or calculation methods referred to in Article 32, in the following situations:
  - (a) it has requested one or more European standardisation organisations to draft a harmonised standard in relation to an ecodesign requirement or method that is not covered by a harmonised standard or part thereof, the references of which have been published in the *Official Journal of the European Union*, and there are either undue delays in the standardisation procedure or the request has not been accepted by any of the European standardisation organisations;
  - (b) the Commission has decided in accordance with the procedure referred to in Article 11(5) of Regulation (EU) No 1025/2012 to maintain with restriction or to withdraw the references to the harmonised standards or parts thereof by which an ecodesign requirements or method is covered.

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 67(3).

2. Test, measurement and calculation methods referred to in Article 32 which are in conformity with common specification or parts thereof shall be presumed to be in conformity with the requirements set out in that Article and with test, measurement and calculation requirements set out in delegated acts adopted pursuant to Article 4 to the extent that those requirements are covered by such common specification or parts thereof.
3. Products which are in conformity with common specifications or parts thereof shall be presumed to be in conformity with ecodesign requirements set out in the delegated act adopted pursuant to Article 4 by which those products are covered to the extent that those requirements are covered those common specifications or parts thereof.

#### *Article 36*

##### *Conformity assessment*

1. When specifying the applicable conformity assessment procedure pursuant to Article 4, second subparagraph, the Commission shall consider the following criteria:
  - (a) whether the module concerned is appropriate to the type of product and proportionate to the public interest pursued;

- (b) the nature of the product parameters referred to in Annex I on which the relevant ecodesign requirements are based, in particular whether performance in relation to those product parameters can be verified on the product itself;
  - (c) where third party involvement is mandatory, the need for the manufacturer to have a choice between quality assurance and product certification modules set out in Annex II of Decision No 768/2008/EC.
2. Where relevant, records and correspondence relating to the conformity assessment shall be drawn up in an official language of the Member State where a notified body involved in a conformity assessment procedure referred to in paragraph 1 is established, or in a language accepted by that body.

#### *Article 37*

##### *EU declaration of conformity*

1. The EU declaration of conformity shall state that the fulfilment of ecodesign requirements specified in the applicable delegated acts adopted pursuant to Article 4 has been demonstrated.
2. The EU declaration of conformity shall have the model structure set out in Annex V, shall contain the elements specified in the applicable conformity assessment procedure and a reference to the applicable delegated acts adopted pursuant to Article 4. It shall be continuously updated. It shall be translated into the language or languages required by the Member State in which the product is placed or made available.
3. Where a product covered by a delegated act adopted pursuant to Article 4 is subject to more than one Union act requiring an EU declaration of conformity, a single EU declaration of conformity shall be drawn up in respect of all such Union acts. That declaration shall state the Union acts concerned and their publication references. It may be a dossier made up of relevant individual EU declarations of conformity.
4. By drawing up the EU declaration of conformity, the manufacturer shall assume responsibility for the compliance of the product.

#### *Article 38*

##### *General principles of the CE marking*

The CE marking shall be subject to the general principles set out in Article 30 of Regulation (EC) No 765/2008.

#### *Article 39*

##### *Rules and conditions for affixing the CE marking*

1. The CE marking shall be affixed visibly, legibly and indelibly to the product. Where that is not possible or not warranted on account of the nature of the product, it shall be affixed to the packaging and to the accompanying documents.
2. The CE marking shall be affixed before the product is placed on the market.
3. For a product in the conformity assessment of which a notified body participates, the CE marking shall be followed by the identification number of that notified body.

The identification number of the notified body shall be affixed by the body itself or, under its instructions, by the manufacturer or its authorised representative.

4. The CE marking and, where applicable, the identification number of the notified body may be followed by a pictogram or other marking indicating a special risk or use.
5. Member States shall build upon existing mechanisms to ensure correct application of the regime governing the CE marking and take appropriate action in the event of improper use of the marking.

#### *Article 40*

#### *Alternative conformity declarations and markings*

When specifying alternative rules on the declaration of conformity or markings indicating conformity with the applicable requirements under Union law pursuant to Article 4, third subparagraph, point (f), the Commission shall take into account the following criteria:

- (a) the need to minimise administrative burden for economic operators;
- (b) the need to ensure coherence with other conformity declarations and markings applicable to a specific product;
- (c) the need to prevent confusion about the meaning of conformity declarations and markings under other Union law.

### **CHAPTER IX - NOTIFICATION OF CONFORMITY ASSESSMENT BODIES**

#### *Article 41*

#### *Notification*

Member States shall notify the Commission and the other Member States of bodies authorised to carry out the third-party conformity assessment tasks provided for under the delegated acts adopted pursuant to Article 4.

#### *Article 42*

#### *Notifying authorities*

1. Member States shall designate a notifying authority that shall be responsible for setting up and carrying out the necessary procedures for the assessment and notification of conformity assessment bodies and the monitoring of notified bodies, including compliance with the provisions of Article 47.
2. Member States may decide that the assessment and monitoring referred to in paragraph 1 shall be carried out by a national accreditation body within the meaning of and in accordance with Regulation (EC) No 765/2008.
3. Where the notifying authority delegates or entrusts the assessment, notification or monitoring referred to in paragraph 1 to a body which is not a governmental entity, that body shall be a legal entity and shall comply *mutatis mutandis* with the requirements laid down in Article 43. In addition, it shall have arrangements to cover liabilities arising out of its activities.
4. The notifying authority shall take full responsibility for the tasks performed by the body referred to in paragraph 3.

### *Article 43*

#### *Requirements relating to notifying authorities*

1. A notifying authority shall be established in such a way that no conflict of interest with conformity assessment bodies or notified bodies occurs.
2. A notifying authority shall be organised and operated so as to safeguard the objectivity and impartiality of its activities.
3. A notifying authority shall be organised in such a way that each decision relating to notification of a conformity assessment body is taken by competent persons different from those who carried out the assessment.
4. A notifying authority shall not offer or provide any activities that conformity assessment bodies perform, or consultancy services on a commercial or competitive basis.
5. A notifying authority shall safeguard the confidentiality of the information it obtains. However, it shall, upon request, exchange information on notified bodies with the Commission, with notifying authorities of other Member States and with other relevant national authorities.
6. A notifying authority shall take as a basis for notification only the specific conformity assessment body applying for notification and not take account of the capacities or personnel of parent or sister companies. The authority shall assess that body against all relevant requirements and conformity assessment tasks.
7. A notifying authority shall have a sufficient number of competent personnel and sufficient funding at its disposal for the proper performance of its tasks.

The Commission may adopt implementing acts laying down a minimum number of full-time equivalents considered sufficient for the proper monitoring of notified bodies, where appropriate in relation to specific conformity assessment tasks. Where monitoring is carried out by a national accreditation body or a body referred to in Article 42(3), this minimum number shall apply to that body.

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 67(3).

### *Article 44*

#### *Information obligation on notifying authorities*

Member States shall inform the Commission of their procedures for the assessment and notification of conformity assessment bodies and the monitoring of notified bodies, and of any changes thereto.

The Commission shall make that information publicly available.

### *Article 45*

#### *Requirements relating to notified bodies*

1. For the purposes of notification, a conformity assessment body shall meet the requirements laid down in paragraphs 2 to 11.
2. A conformity assessment body shall be established under the national law of a Member State and have legal personality.

3. A conformity assessment body shall be a third-party body independent of the organisation or the product it assesses. It shall not have any business ties with organisations that have an interest in the products it assesses, in particular manufacturers, their trade partners and their shareholding investors. This shall not preclude the conformity assessment body from carrying out conformity assessment activities for competing manufacturers.
4. A conformity assessment body, its top-level management and the personnel responsible for carrying out the conformity assessment tasks shall not be the designer, manufacturer, supplier, importer, distributor, installer, purchaser, owner, user or maintainer of the products which they assess, nor the representative of any of those parties. This shall not preclude the use of assessed products that are necessary for the operations of the conformity assessment body or the use of such products for personal purposes.

A conformity assessment body, its top-level management and the personnel responsible for carrying out the conformity assessment tasks shall not be directly involved in the design, manufacture or construction, the marketing, installation, use or maintenance of those products, or represent the parties engaged in those activities. They shall not engage in any activity that may conflict with their independence of judgement or integrity in relation to conformity assessment activities for which they are notified. This shall apply in particular to consultancy services.

Conformity assessment bodies shall ensure that the activities of its parent or sister companies, subsidiaries or subcontractors do not affect the confidentiality, objectivity or impartiality of their conformity assessment activities.

The establishment and the supervision of internal procedures, general policies, codes of conduct or other internal rules, the assignment of personnel to specific tasks and the conformity assessment decisions may not be delegated to a subcontractor or a subsidiary.

5. Conformity assessment bodies and their personnel shall carry out the conformity assessment activities with the highest degree of professional integrity and the requisite technical competence in the specific field. They shall be free from all pressures and inducements, particularly financial, which might influence their judgement or the results of their conformity assessment activities, especially as regards persons or groups of persons with an interest in the results of those activities.
6. A conformity assessment body shall be capable of carrying out all the conformity assessment tasks assigned to it under the relevant delegated act adopted pursuant to Article 4 and in relation to which it has been notified, whether those tasks are carried out by the conformity assessment body itself or on its behalf and under its responsibility.

At all times and for each conformity assessment procedure, and for each kind or category of products in relation to which it has been notified, a conformity assessment body shall have at its disposal the necessary:

- (a) personnel with technical knowledge, and sufficient and appropriate experience to perform the conformity assessment tasks. Personnel responsible for taking assessment decisions shall be employed by the conformity assessment body under the national law of the notifying Member State, shall not have any other potential conflict of interest, shall be competent to verify the assessments made by other staff, external experts or subcontractors. The number of such

personnel shall be sufficient to ensure business continuity and a consistent approach to conformity assessments;

- (b) descriptions of procedures in accordance with which conformity assessment is carried out, ensuring the of these procedures and the ability to reproduce them. This shall include a qualification matrix that matches relevant personnel, their respective status and tasks within the conformity assessment body with the conformity assessment tasks in relation to which the body intends to be notified;
- (c) appropriate policies and procedures to distinguish the tasks it carries out as a notified body from other activities;
- (d) procedures for the performance of activities, which take due account of the size of an undertaking, the sector in which it operates, its structure, the degree of complexity of the product technology in question and the mass or serial nature of the production process.

It shall have the means necessary to perform the technical and administrative tasks connected with the conformity assessment activities in an appropriate manner and shall have access to all necessary equipment or facilities.

7. The personnel responsible for carrying out conformity assessment activities shall have the following:
  - (a) sound technical and vocational training covering all the conformity assessment activities in relation to which the conformity assessment body has been notified;
  - (b) satisfactory knowledge of the requirements of the assessments they carry out and adequate authority to carry out those assessments, including appropriate knowledge and understanding of the relevant legislation, test, measurement and calculation requirements, of the applicable harmonised standards or common specifications and of the relevant provisions of this Regulation, and of the delegated acts adopted pursuant to Article 4;
  - (c) the ability to draw up certificates, records and reports demonstrating that assessments have been carried out.
8. The impartiality of the conformity assessment bodies and their top-level management and of the assessment personnel shall be guaranteed.

The remuneration of the top-level management and assessment personnel of a conformity assessment body shall not depend on the number of assessments carried out or their results.
9. Conformity assessment bodies shall take out liability insurance unless liability is assumed by the State in accordance with national law, or the Member State itself is directly responsible for the conformity assessment.
10. The personnel of a conformity assessment body shall observe professional secrecy regarding all information obtained in carrying out the conformity assessment tasks under the relevant delegated acts adopted pursuant to Article 4, except in relation to the notifying authorities and other national authorities of the Member State in which its activities are carried out. Proprietary rights shall be protected.
11. Conformity assessment bodies shall participate in, or ensure that their assessment personnel are informed about, the relevant standardisation activities and apply as

general guidance the administrative decisions and documents produced as a result of the work of that group.

#### *Article 46*

##### *Presumption of conformity of conformity assessment bodies*

Where a conformity assessment body demonstrates its conformity with the criteria laid down in the relevant harmonised standards or parts thereof the references of which have been published in the *Official Journal of the European Union* it shall be presumed to comply with the requirements set out in Article 45 in so far as the applicable harmonised standards cover those requirements.

#### *Article 47*

##### *Subsidiaries of and subcontracting by notified bodies*

1. Where a notified body subcontracts specific tasks connected with conformity assessment or has recourse to a subsidiary, it shall ensure that the subcontractor or the subsidiary meets the requirements set out in Article 45 and shall inform the notifying authority accordingly.
2. Notified bodies shall take full responsibility for the tasks performed by subcontractors or subsidiaries wherever these are established. The relevant notified bodies shall establish procedures for the on-going monitoring of the competence, activities and performance of its subcontractors or subsidiaries, taking into account the qualification matrix referred to in Article 45(6).
3. Activities may be subcontracted or carried out by a subsidiary only with the agreement of the client.
4. Notified bodies shall keep at the disposal of the notifying authority the relevant documents concerning the assessment and monitoring of the qualifications of the subcontractor or the subsidiary and the work carried out by them under the relevant delegated acts adopted pursuant to Article 4.

#### *Article 48*

##### *Application for notification*

1. A conformity assessment body shall submit an application for notification to the notifying authority of the Member State in which it is established.
2. That application shall be accompanied by a description of the conformity assessment activities, the conformity assessment module or modules and the product or products for which that body claims to be competent, the qualification matrix referred to in Article 45(6), as well as by an accreditation certificate, where one exists, issued by a national accreditation body attesting that the conformity assessment body fulfils the requirements laid down in Article 45. The accreditation certificate shall relate only to the precise legal body applying for notification and shall be based, in addition to relevant harmonised standards, on the specific requirements and conformity assessment tasks set out in the relevant delegated act adopted pursuant to Article 4.
3. Where the conformity assessment body concerned cannot provide an accreditation certificate, it shall provide the notifying authority with all the documentary evidence necessary for the verification, recognition and regular monitoring of its compliance with the requirements laid down in Article 45.



*Article 49*  
*Notification procedure*

1. Notifying authorities only notify conformity assessment bodies which have satisfied the requirements laid down in Article 45.
2. They shall notify the Commission and the other Member States using the electronic notification tool developed and managed by the Commission.
3. The notification shall include full details of the conformity assessment activities, the conformity assessment module or modules and product or products concerned and the relevant attestation of competence.
4. Where a notification is not based on an accreditation certificate as referred to in Article 48(2), the notifying authority shall provide the Commission and the other Member States with documentary evidence which attests to the conformity assessment body's competence and the arrangements in place to ensure that that body will be monitored regularly and will continue to satisfy the requirements laid down in Article 45.
5. The body concerned may perform the activities of a notified body if the Commission or the other Member States do not raise any objections within 2 weeks of a notification where an accreditation certificate is used, or within 2 months of a notification where accreditation is not used.

Only such a body shall be considered a notified body for the purposes of this Regulation.

6. The notification shall become valid the day after the body is included in the list of notified bodies referred to in Article 50(2) by the Commission. The body concerned may perform the activities of a notified body only after the notification has become valid.

The Commission shall not publish a notification if it is aware or becomes aware that the relevant notified body does not meet the requirements laid down in Article 45.

7. The Commission and the other Member States shall be notified of any subsequent relevant changes to the notification.

*Article 50*  
*Identification numbers and lists of notified bodies*

1. The Commission shall assign an identification number to a notified body.  
It shall assign a single such number even where the body is notified under several Union acts.
2. The Commission shall make the list of the bodies notified under this Regulation publicly available, including the identification numbers that have been allocated to them and the activities for which they have been notified.

The Commission shall ensure that that list is kept up to date.

*Article 51*  
*Changes to notifications*

1. Where a notifying authority has ascertained or has been informed that a notified body no longer meets the requirements laid down in Article 45, or that it is failing to fulfil

its obligations, the notifying authority shall restrict, suspend or withdraw notification as appropriate, depending on the seriousness of the failure to meet those requirements or fulfil those obligations. It shall immediately inform the Commission and the other Member States accordingly.

2. In the event of restriction, suspension or withdrawal of notification, or where the notified body has ceased its activity, the notifying Member State shall take appropriate steps to ensure that this body's files are either processed by another notified body or kept available for the responsible notifying and market surveillance authorities at their request.

#### *Article 52*

##### *Challenge of the competence of notified bodies*

1. The Commission shall investigate all cases where it doubts, or doubt is brought to its attention regarding, the competence of a notified body or the continued fulfilment by a notified body of the requirements and responsibilities to which it is subject.
2. The notifying Member State shall provide the Commission, on request, with all information relating to the basis for the notification or the maintenance of the competence of the body concerned.
3. The Commission shall ensure that all sensitive information obtained in the course of its investigations is treated confidentially.
4. Where the Commission ascertains that a notified body does not meet or no longer meets the requirements for its notification, it shall adopt an implementing act requiring the notifying Member State to take the necessary corrective action, including withdrawal of the notification if necessary. That implementing act shall be adopted in accordance with the advisory procedure referred to in Article 67(2).

The Commission shall update the list of notified bodies referred to in Article 50(2) within 2 weeks of the implementing act being adopted.

#### *Article 53*

##### *Operational obligations of notified bodies*

1. Notified bodies shall carry out conformity assessments in accordance with the conformity assessment procedures provided for in the delegated acts adopted pursuant to Article 4.
2. Conformity assessments shall be carried out in a proportionate manner, avoiding unnecessary burdens for economic operators. Conformity assessment bodies shall perform their activities taking due account of the size of an undertaking, the sector in which it operates, its structure, the degree of complexity of the product technology in question and the mass or serial nature of the production process.

In so doing they shall nevertheless respect the degree of rigour and the level of protection required for the compliance of the product with the relevant requirements.

3. Where a notified body finds that a manufacturer does not meet the relevant requirements or corresponding harmonised standards, common specifications or other technical specifications, it shall require that manufacturer to take appropriate corrective measures in view of a second and final conformity assessment, unless the deficiencies cannot be remedied, in which case it shall not issue a certificate or approval decision.

4. Where, in the course of the monitoring of conformity following the issue of a certificate or approval decision, a notified body finds that a product or the manufacturer does not comply or no longer complies, it shall require the manufacturer to take appropriate corrective measures and shall suspend or withdraw the certificate or approval decision if necessary.
5. Where corrective measures are not taken or do not have the required effect, the notified body shall restrict, suspend or withdraw any certificates or approval decisions, as appropriate.
6. When taking conformity assessment decisions, including when deciding on the need to suspend or withdraw a certificate or approval decisions in light of possible non-compliance, notified bodies shall apply clear and pre-determined criteria.
7. Notified bodies shall ensure rotation among the personnel carrying out different conformity assessment tasks.

*Article 54*  
*Information obligation on notified bodies*

1. Notified bodies shall inform the notifying authority of the following:
  - (a) any refusal, restriction, suspension or withdrawal of a certificate;
  - (b) any circumstances affecting the scope of and conditions for notification;
  - (c) any request for information which they have received from market surveillance authorities regarding conformity assessment activities;
  - (d) on request, conformity assessment activities performed within the scope of their notification and any other activity performed, including cross-border activities and subcontracting.
2. Notified bodies shall provide the other bodies notified under this Regulation which carry out similar conformity assessment activities that cover the same products with relevant information on issues relating to negative and, on request, positive conformity assessment results.
3. Where the Commission or a Member State's market surveillance authority submits a request to a notified body established on the territory of another Member State relating to a conformity assessment carried out by that notified body, it shall send a copy of that request to the notifying authority of that other Member State. The notified body concerned shall respond without delay and within 15 days at the latest to the request. The notifying authority shall ensure that such requests are resolved by the notified body unless there is a legitimate reason for not doing so.
4. Where notified bodies have or receive evidence that:
  - (a) another notified body does not comply with the requirements laid down in Article 45 or its obligations; or
  - (b) a product placed on the market does not comply with ecodesign requirements set out in delegated acts adopted pursuant to Article 4 by which that product is covered; or
  - (c) a product placed on the market, due to its physical condition, is likely to cause a serious risk;

they shall alert and share such evidence with the relevant market surveillance or notifying authority, as appropriate.

*Article 55*  
*Exchange of experience*

The Commission shall provide for the organisation of exchange of experience between the Member States' authorities responsible for notification policy.

*Article 56*  
*Coordination of notified bodies*

1. The Commission shall ensure that appropriate coordination and cooperation between bodies notified under this Regulation are put in place and properly operated in the form of a group or groups of notified bodies, where appropriate including groups of bodies notified under the same delegated act adopted pursuant to Article 4 or in relation to similar conformity assessment tasks.

Notified bodies shall participate in the work of any relevant group, directly or by means of designated representatives.

2. Notified bodies shall apply as general guidance any relevant documents produced as a result of the work of the groups referred to in paragraph 1.
3. Coordination and cooperation in the groups referred to in paragraph 1 shall aim at ensuring the harmonised application of this Regulation and of the delegated acts adopted pursuant to Article 4. In doing so, the groups shall follow as general guidance any relevant documents produced by the administrative cooperation group set up pursuant to Article 30(2) of Regulation (EU) 2019/1020.

**CHAPTER X - INCENTIVES**

*Article 57*  
*Member State incentives*

1. Member States incentives relating to products covered by a delegated act adopted pursuant to Article 4 that determines classes of performance in accordance with Article 7(4), in relation to a product parameter referred to in Annex I, shall concern the highest two classes of performance that are populated at Union level or, where relevant, products with an EU Ecolabel, unless otherwise specified in that delegated act.
2. Where a delegated act adopted pursuant to Article 4 determines classes of performance pursuant to Article 7(4), in relation to more than one product parameter referred to in Annex I or where classes of performance are established both under Regulation (EU) 2017/1369 and under this Regulation, the Commission may further specify in the delegated acts adopted pursuant to Article 4, third subparagraph, point (g), which product parameters the Member States incentives shall concern.

When doing so, the Commission shall take into account the following criteria:

- (a) the number of products in each class of performance;
- (b) the relative affordability of the products in each class of performance;

- (c) the need to ensure sufficient demand for more environmentally sustainable products.
3. Where a delegated act adopted pursuant to Article 4 does not determine classes of performance, the Commission may specify in the delegated acts adopted pursuant to Article 4, third subparagraph, point (g), requirements related to product parameters that products concerned by Member State incentives shall meet.

When doing so, the Commission shall take into account the following criteria:

- (a) the relative affordability of the products meeting those requirements;
- (b) the need to ensure sufficient demand for more environmentally sustainable products.

*Article 58*  
*Green public procurement*

1. Requirements pursuant to Article 4, third subparagraph, point (h) for public contracts awarded by contracting authorities, as defined in Article 2(1) of Directive 2014/24/EU or Article 3(1) of Directive 2014/25/EU, or contracting entities, as defined in Article 4(1) of Directive 2014/25/EU, may take the form of mandatory technical specifications, selection criteria, award criteria, contract performance clauses, or targets, as appropriate.
2. When establishing requirements pursuant to Article 4, third subparagraph, point (h), for public contracts, the Commission shall take into account the following criteria:
- (a) the value and volume of public contracts awarded for that given product group or for the services or works using the given product group;
  - (b) the need to ensure sufficient demand for more environmentally sustainable products;
  - (c) the economic feasibility for contracting authorities or contracting entities to buy more environmentally sustainable products, without entailing disproportionate costs.

**CHAPTER XI - MARKET SURVEILLANCE**

*Article 59*  
*Market surveillance action plans*

1. Without prejudice to Article 13 of Regulation (EU) 2019/1020, each Member State shall, at least every 2 years, draw up an action plan outlining the market surveillance activities planned to ensure that appropriate checks are performed on an adequate scale in relation to this Regulation and the delegated acts adopted pursuant to Article 4. Each Member State shall draw up the first such action plan by [16 July 2024].

The action plan referred to in paragraph 1 shall at least include:

- (a) the products or requirements identified as priorities for market surveillance, taking into account the common priorities identified by the administrative cooperation group pursuant to Article 62(1), point (a), and in accordance with the implementing acts referred to in paragraph 5;

- (b) the market surveillance activities planned in order to reduce non-compliance for those products or requirements identified as priorities, including the nature and minimum number of checks to be performed during the period covered by the action plan.
2. The priorities for market surveillance referred to in paragraph 1, point (a), shall be identified on the basis of objective criteria, including:
    - (a) the levels of non-compliance observed in the market;
    - (b) the environmental impacts of non-compliance;
    - (c) the number of relevant products made available on national markets; and
    - (d) the number of relevant economic operators active on those markets.
  3. The nature and number of checks planned pursuant to paragraph 1, point (b), shall be proportionate to the objective criteria used to identify the priorities in line with paragraph 2.
  4. Member States shall communicate their action plans to the Commission and other Member States through the information and communication system referred to in Article 34 of Regulation (EU) 2019/1020.
  5. The Commission may adopt implementing acts listing the products or requirements that Member States shall at least consider as priorities for market surveillance pursuant to paragraph 1, point (a).

Those implementing acts shall be adopted in accordance with the advisory procedure referred to in Article 67(2).

#### *Article 60*

##### *Minimum number of checks*

1. The Commission is empowered to adopt delegated acts in accordance with Article 66 to supplement this Regulation by laying down the minimum number of checks to be performed by the market surveillance authorities of each Member State on specific products covered by delegated acts adopted pursuant to Article 4 or in relation to specific requirements set out in such delegated acts. The delegated act may, where relevant, specify the nature of the checks required and methods to be used.

The minimum number of checks shall be established on the basis of the following criteria:

  - (a) the criteria listed in Article 59(2);
  - (b) the activities planned in Member States' action plans;
  - (c) the common priorities identified by the administrative cooperation group pursuant to Article 62(1), point (a);
  - (d) where relevant, the priorities included in the implementing acts referred to in Article 59(5).
2. Market surveillance authorities shall have the right to recover from the responsible economic operator the costs of document inspection and physical product testing in case of non-compliance with delegated acts adopted pursuant to Article 4.

*Article 61*  
*Reporting and benchmarking*

1. Market surveillance authorities shall enter into the information and communication system referred to in Article 34 of Regulation (EU) 2019/1020 information on the nature and severity of any penalty imposed in relation to non-compliance with this Regulation.
2. The Commission shall, every 2 years, draw up a report by 30 June based on the information entered by market surveillance authorities into the information and communication system referred to in Article 34 of Regulation (EU) 2019/1020. The first of these reports shall be published by [*OP: Please add date: two years after date of application of this Regulation*].

The report shall include:

- (a) information on the nature and number of checks performed by market surveillance authorities during the two previous calendar years pursuant to Article 34(4) and (5) of Regulation (EU) 2019/1020;
  - (b) information on the levels of non-compliance identified and on the nature and severity of penalties imposed for the two previous calendar years in relation to products covered by delegated acts adopted pursuant to Article 4 of this Regulation;
  - (c) a comparison of this information with the activities planned in the context of the action plans drawn up pursuant to Article 59(1);
  - (d) indicative benchmarks for market surveillance authorities in relation to the frequency of checks and the nature and severity of penalties imposed.
3. The Commission shall publish the report referred to in paragraph 2 of this Article in the information and communication system referred to in Article 34 of Regulation (EU) 2019/1020 and shall make public a summary of the report.

*Article 62*  
*Market surveillance coordination and support*

1. For the purposes of this Regulation, the administrative cooperation group ('ADCO') set up pursuant to Article 30(2) of Regulation (EU) 2019/1020 shall meet at regular intervals and, where necessary, at the reasoned request of the Commission or of two or more participating market surveillance authorities.

In the context of performing its tasks set out in Article 32 of Regulation (EU) 2019/1020, the ADCO shall support the implementation of the action plans drawn up pursuant to Article 59(1) and shall identify:

- (a) common priorities for market surveillance as referred to in Article 59(1), point (a), based on objective criteria as referred to in Article 59(2);
  - (b) priorities for Union support pursuant to paragraph 2;
  - (c) requirements set out in delegated acts adopted pursuant to Article 4 that are applied or interpreted differently that should be priorities for the organisation of common trainings or adoption of guidelines pursuant to paragraph 2 of this Article.
2. Based on priorities identified by the ADCO, the Commission shall:

- (a) organise joint market surveillance and testing projects in areas of common interest;
- (b) organise joint investment in market surveillance capacities, including equipment and IT tools;
- (c) organise common trainings for the staff of market surveillance authorities, notifying authorities and notified bodies, including on the correct interpretation and application of requirements set out in delegated acts adopted pursuant to Article 4 and on methods and techniques relevant for applying or verifying compliance with such;
- (d) elaborate guidelines for the application and enforcement of requirements set out in delegated acts adopted pursuant to Article 4, including common practices and methodologies for effective market surveillance.

The Union shall, where appropriate, finance the actions referred to in points (a), (b) and (c).

3. The Commission shall provide technical and logistic support to ensure the ADCO fulfils its tasks set out in Article 32 of Regulation (EU) 2019/1020 and this Article.

## **CHAPTER XII - SAFEGUARD PROCEDURES**

### *Article 63*

#### *Procedure for dealing with products presenting a risk at national level*

1. Where the market surveillance authorities of one Member State have sufficient reason to believe that a product covered by a delegated act adopted pursuant to Article 4 presents a risk, they shall carry out an evaluation covering all requirements relevant to the risk and laid down in this Regulation or in the relevant delegated act. The relevant economic operators shall cooperate as necessary with the market surveillance authorities.

Where, in the course of that evaluation, the market surveillance authorities find that the product does not comply with the requirements laid down in the applicable delegated acts adopted pursuant to Article 4, they shall without delay require the relevant economic operator to take appropriate and proportionate corrective action, within a reasonable period prescribed by the market surveillance authorities and commensurate with the nature and where relevant the degree of the non-compliance, to bring the non-compliance to an end. The corrective action required to be taken by the economic operator may include the actions listed in Article 16(3) of Regulation (EU) 2019/1020.

The market surveillance authorities shall inform the relevant notified body accordingly.

2. Where the market surveillance authorities consider that non-compliance is not restricted to their national territory, they shall inform the Commission and the other Member States of the results of the evaluation and of the actions which they have required the economic operator to take.
3. The economic operator shall ensure that all appropriate corrective action is taken in respect of all the products concerned that it has made available on the market throughout the Union.



4. Where the relevant economic operator does not take corrective action within the period referred to in the second subparagraph of paragraph 1 or the non-compliance persists, the market surveillance authorities shall take all appropriate provisional measures to prohibit or restrict the making available of the product concerned on their national market, to withdraw the product from that market or to recall it.  
They shall inform the Commission and the other Member States, without delay, of those measures.
5. The information to the Commission and the other Member States referred to in paragraph 4 shall be communicated through the information and communication system referred to in Article 34 of Regulation (EU) 2019/1020 and shall include all available details, in particular the data necessary for the identification of the non-compliant product, the origin of the product, the nature of the non-compliance alleged and the non-compliance involved, the nature and duration of the national measures taken and the arguments put forward by the relevant economic operator. The market surveillance authorities shall also indicate whether the non-compliance is due to either:
  - (a) failure of the product to meet requirements set out in the relevant delegated act adopted pursuant to Article 4; or
  - (b) shortcomings in the harmonised standards or common specification referred to in Articles 34 and 35 conferring a presumption of conformity.
6. Member States other than the Member State initiating the procedure shall without delay inform the Commission and the other Member States of any measures adopted and of any additional information at their disposal relating to the non-compliance of the product concerned, and, in the event of disagreement with the notified national measure, of their objections.
7. Where, within three months of receipt of the information referred to in paragraph 4, no objection has been raised by either a Member State or the Commission in respect of a provisional measure taken by a Member State, that measure shall be deemed justified. Measures may specify a period longer or shorter than three months in order to take account of the specificities of the products or requirements concerned.
8. Member States shall ensure that appropriate restrictive measures are taken in respect of the product or manufacturer concerned, such as withdrawal of the product from their market, without delay.

#### *Article 64*

#### *Union safeguard procedure*

1. Where, on completion of the procedure set out in Article 63(3) and (4), objections are raised against a measure taken by a Member State, or where the Commission considers a national measure to be contrary to Union legislation, the Commission shall without delay enter into consultation with the Member States and the relevant economic operator or operators and shall evaluate the national measure. On the basis of the results of that evaluation, the Commission shall decide by means of an implementing act whether the national measure is justified or not.

That implementing act shall be adopted in accordance with the examination procedure referred to in Article 67(3).

2. The Commission shall address its decision to all Member States and shall immediately communicate it to them and the relevant economic operator or operators.

If the national measure is considered justified, all Member States shall take the measures necessary to ensure that the non-compliant product is withdrawn from their market, and shall inform the Commission accordingly.

If the national measure is considered unjustified, the Member State concerned shall withdraw the measure.

3. Where the national measure is considered justified and the non-compliance of the product is attributed to shortcomings in the harmonised standards referred to in Article 34 of this Regulation, the Commission shall apply the procedure provided for in Article 11 of Regulation (EU) No 1025/2012.

4. Where the national measure is considered justified and the non-compliance of the product is attributed to shortcomings in the common specifications referred to in Article 35, the Commission shall, without delay, adopt implementing acts amending or repealing the common specifications concerned.

The implementing acts referred to in the first subparagraph shall be adopted in accordance with the examination procedure referred to in Article 67(3).

#### *Article 65*

##### *Formal non-compliance*

1. Where a Member State makes one of the following findings, it shall require the relevant economic operator to put an end to the non-compliance concerned:
  - (a) the CE marking has been affixed in violation of Article 30 of Regulation (EC) No 765/2008 or of Article 39 of this Regulation;
  - (b) the CE marking has not been affixed;
  - (c) the identification number of the notified body has been affixed in violation of Article 39 or has not been affixed where required;
  - (d) the EU declaration of conformity has not been drawn up;
  - (e) the EU declaration of conformity has not been drawn up correctly;
  - (f) the technical documentation is not available, not complete or contains errors;
  - (g) the information referred to in Article 21(6) or Article 23(3) is absent, false or incomplete;
  - (h) any other administrative requirement provided for in Article 21 or Article 23 or in the applicable delegated act adopted pursuant to Article 4, is not fulfilled.
2. Where the non-compliance referred to in paragraph 1 persists, the Member State concerned shall take all appropriate measures to restrict or prohibit the product being made available on the market or ensure that it is recalled or withdrawn from the market.

## CHAPTER XIII - DELEGATED POWERS AND COMMITTEE PROCEDURE

### *Article 66*

#### *Exercise of the delegation*

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.
2. The power to adopt delegated acts referred to in Article 4, Article 9(1), second subparagraph, Article 11(4), Article 20(3), and Article 61(1) shall be conferred on the Commission for a period of six years from [*one month after the entry into force of this act*]. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the six-year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.
3. The delegation of power referred to in Article 4, Article 9(1), second subparagraph, Article 11(4), Article 20(3), and Article 61(1) may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect on the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.
4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State acting in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making.
5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.
6. A delegated act adopted pursuant to Article 4, Article 9(1), second subparagraph, Article 11(4), Article 20(3), and Article 61(1) shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

### *Article 67*

#### *Committee procedure*

1. The Commission shall be assisted by a Committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. Where reference is made to this paragraph, Article 4 of Regulation (EU) No 182/2011 shall apply.
3. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

## CHAPTER XIV - FINAL PROVISIONS

### *Article 68* *Penalties*

Member States shall lay down the rules on penalties applicable to infringements of this Regulation and shall take all measures necessary to ensure that they are implemented. The penalties provided for shall be effective, proportionate and dissuasive, taking into account the extent of non-compliance and the number of units of non-complying products placed on the Union market. Member States shall notify the Commission of those provisions by [*one year after the date of application of this Regulation*] at the latest and shall notify it without delay of any subsequent amendment affecting them.

### *Article 69* *Evaluation*

No sooner than [*8 years after the date of application of this Regulation*], the Commission shall carry out an evaluation of this Regulation and of its contribution to the functioning of the internal market and the improvement of the environmental sustainability of products. The Commission shall present a report on the main findings to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions. Member States shall provide the Commission with the information necessary for the preparation of that report.

Where the Commission finds it appropriate, the report shall be accompanied by a legislative proposal for amendment of the relevant provisions of this Regulation.

### *Article 70* *Repeal and transitional provisions*

1. Directive 2009/125/EC is repealed.
2. References to the repealed Directive shall be construed as references to this Regulation and shall be read in accordance with the correlation table in Annex VIII.
3. Article 1(3), Article 2, Article 3(1), Articles 4, 5 and 8, Article 9(3), Article 10 and Annexes IV, V and VI of Directive 2009/125/EC, as applicable on [*OP: please insert the day before the date of application of this Regulation*] shall continue to apply to implementing measures adopted pursuant to Article 15 of that Directive.
4. Articles 3, 33 and Articles 59 to 65 of this Regulation shall apply to implementing measures adopted pursuant to Article 15 of Directive 2009/125/EC.
5. For products placed on the market or put into service in accordance with Directive 2009/125/EC before the date of application of a delegated act adopted pursuant to Article 4 of this Regulation covering the same products, the manufacturer shall, for a period of 10 years as from the date when the last of that product was manufactured, make an electronic version of documentation relating to the conformity assessment and the declaration of conformity available for inspection within 10 days of a request received from market surveillance authorities or the Commission.

*Article 71*  
*Entry into force*

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

*For the European Parliament*  
*The President*

*For the Council*  
*The President*

## **LEGISLATIVE FINANCIAL STATEMENT**

### **1. FRAMEWORK OF THE PROPOSAL/INITIATIVE**

#### **1.1. Title of the proposal/initiative**

#### **1.2. Policy area(s) concerned**

#### **1.3. The proposal/initiative relates to:**

#### **1.4. Objective(s)**

*1.4.1. General objective(s)*

*1.4.2. Specific objective(s)*

*1.4.3. Expected result(s) and impact*

*1.4.4. Indicators of performance*

#### **1.5. Grounds for the proposal/initiative**

*1.5.1. Requirement(s) to be met in the short or long term including a detailed timeline for roll-out of the implementation of the initiative*

*1.5.2. Added value of Union involvement (it may result from different factors, e.g. coordination gains, legal certainty, greater effectiveness or complementarities). For the purposes of this point 'added value of Union involvement' is the value resulting from Union intervention which is additional to the value that would have been otherwise created by Member States alone.*

*1.5.3. Lessons learned from similar experiences in the past*

*1.5.4. Compatibility with the Multiannual Financial Framework and possible synergies with other appropriate instruments*

*1.5.5. Assessment of the different available financing options, including scope for redeployment*

#### **1.6. Duration and financial impact of the proposal/initiative**

#### **1.7. Management mode(s) planned**

### **2. MANAGEMENT MEASURES**

#### **2.1. Monitoring and reporting rules**

#### **2.2. Management and control system(s)**

*2.2.1. Justification of the management mode(s), the funding implementation mechanism(s), the payment modalities and the control strategy proposed*

*2.2.2. Information concerning the risks identified and the internal control system(s) set up to mitigate them*

*2.2.3. Estimation and justification of the cost-effectiveness of the controls (ratio of "control costs ÷ value of the related funds managed"), and assessment of the expected levels of risk of error (at payment & at closure)*

#### **2.3. Measures to prevent fraud and irregularities**

### **3. ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE**

**3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected**

**3.2. Estimated financial impact of the proposal on appropriations**

*3.2.1. Summary of estimated impact on operational appropriations*

*3.2.2. Estimated output funded with operational appropriations*

*3.2.3. Summary of estimated impact on administrative appropriations*

*3.2.4. Compatibility with the current multiannual financial framework*

*3.2.5. Third-party contributions*

**3.3. Estimated impact on revenue**

# 1. FRAMEWORK OF THE PROPOSAL/INITIATIVE

## 1.1. Title of the proposal/initiative

Proposal for a Regulation of the European Parliament and of the Council establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC

## 1.2. Policy area(s) concerned

03 - Single Market

09 - Environment and Climate Action

## 1.3. The proposal/initiative relates to:

a new action

a new action following a pilot project/preparatory action<sup>86</sup>

the extension of an existing action

a merger or redirection of one or more actions towards another/a new action

## 1.4. Objective(s)

### 1.4.1. General objective(s)

The objectives of this Regulation are to improve the environmental sustainability of products and to ensure the free movement in the internal market of products for which sustainability requirements are set.

It does so by providing for the adoption of delegated acts containing requirements related to product durability, reusability, upgradability and reparability, the presence of substances of concern in products, product energy and resource efficiency, recycled content in products, product remanufacturing and high-quality recycling, and for reducing products' carbon and environmental footprints. It also provides for the creation of a digital product passport ('product passport'), for the setting of mandatory green public procurement criteria and creates a framework to prevent unsold consumer products from being destroyed.

### 1.4.2. Specific objective(s)

Following from the general objective, the specific objectives are to:

- Improve products environmental sustainability and access to sustainability information along the supply chain
- Incentivise more sustainable products and business models to improve value retention
- Improve application of sustainable product legislative framework

### 1.4.3. Expected result(s) and impact

*Specify the effects which the proposal/initiative should have on the beneficiaries/groups targeted.*

The expected results and impacts of implementation of this Regulation are the following:

<sup>86</sup> As referred to in Article 58(2)(a) or (b) of the Financial Regulation.



In terms of improved products environmental sustainability and access to sustainability information along the supply chain

- Increased number of (non-food) products covered
- Product requirements covering better the value chain of products, circularity aspects and access to sustainability information
- Lower environmental impacts, better energy and resource efficiency in the life cycle of products, including through addressing product lifetime and materials used.

In terms of incentives to more sustainable products and business models

- Increased investment in the design, production & after-sales services of more sustainable products leading to a higher market share for them.
- Increased economic value of the recycling and repair and re-use sectors

In terms of improved application of sustainable product legislative framework

- Increased number of products covered by sustainability requirements
- Product requirements covering better the value chain of products, circularity aspects and access to sustainability information
- Reduced level of non-compliance on sustainability requirements for products placed on the EU market

For businesses operating across EU borders, harmonised requirements at EU level are likely to reduce overall compliance costs, given that they will replace various existing or planned requirements at national level. There will also be direct benefits to the competitiveness of businesses, including from a shift of activity from the processing of primary towards secondary raw materials and from production of products to maintenance, re-use, refurbishment, repair and second-hand sales, which is expected to benefit SMEs significantly because they are more active in these sectors.

It is also expected that this Regulation will change consumer behaviour. It will respond to the identified problem that it is still too difficult for economic operators and citizens to make sustainable purchasing choices given that relevant information and affordable options to do so are lacking. It will lead consumers towards more environmentally friendly purchases by excluding the least sustainable products from the market (therefore simplifying consumers' choices) and by providing clearer and more accessible information, including for some products their classes of performance and possibly related labels. The Digital Product Passport will further increase the information available and facilitating access. It will allow private providers to develop apps and services that improve the ability of consumers to assess products and compare them.

The Digital Product Passport will also make relevant product information digitally available to market surveillance authorities (MSAs) and possibly Customs authorities, facilitating the verification of compliance and improving the efficiency of enforcement activities by Member States. However, the extended scope of the Ecodesign framework with higher sustainability ambitions can only be successful if resources of both the European Commission and Member States are strengthened to a level commensurate with the ambitions.

#### 1.4.4. Indicators of performance

*Specify the indicators for monitoring progress and achievements.*

The following core set of indicators will be used to monitor the implementation of this Regulation and impacts:

In terms of improved products environmental sustainability and access to sustainability information along the supply chain

- Number of product groups covered by delegated acts pursuant to Article 5
- Estimated change in Pollutants and Greenhouse Gas (GHG) emissions (including via removals) from the manufacturing value chains supplying regulated products to the EU Internal Market
- Estimated change in energy use and efficiency and water use and efficiency of relevant regulated products placed or put in service in the EU Internal market; resource productivity (material efficiency)
- Average life duration of relevant regulated products as a consequence of (1) its intrinsic durability, (2) the maintenance, repair and upgrade operations it was subject to, and (3) the number of its successive users
- Contribution of post-consumer recycled materials to raw materials demand of the Internal Market - for non-precious metals, Critical Raw Materials, and plastics.
- Circular material use rate - Share of material demand satisfied by secondary raw materials (% of total material use)

In terms of incentives to more sustainable products and business models

- Value added and its components by activity
- Green public procurement - the share of public procurement procedures above the EU thresholds (in number and value) that include environmental elements
- Impact on consumers due to change in cost of products and change in value from their use
- “Gross investment in tangible goods”, “Number of persons employed” and “Value added at factor costs” in the recycling sector and repair and re-use sector.

In terms of improved application of sustainable product legislative framework

- types of requirements set including digital product passport established
- Rate of non-compliance with requirements set for products covered by delegated acts

#### 1.5. Grounds for the proposal/initiative

##### 1.5.1. Requirement(s) to be met in the short or long term including a detailed timeline for roll-out of the implementation of the initiative

The proposal builds on a pre-existing Directive and structure that has been used to regulate energy related products through secondary legislation for over 15 years. In the same way, most measures introduced in this Regulation are not immediately applicable but should follow the adoption of the legal act through adoption of

delegated and implementing acts. Only measures on circumvention and on disclosure of the destruction of unsold consumer products are immediately applicable.

After adoption of the legal act, the Commission shall adopt a working plan setting out an indicative list of product groups for which it intends to adopt delegated acts pursuant to Article 4. This will take over the continuing work under the existing Directive that will be brought under the new Regulation.

These delegated acts shall establish ecodesign requirements applicable to specific product groups or to a range of product groups where those product groups present similarities allowing for the setting of common ecodesign requirements. These delegated acts may include requirements applicable to public contracts and the creation of digital product passports.

Delegated acts may also be adopted on the prohibition of the discarding of unsold consumer products and on the number of checks to be performed by Market Surveillance authorities.

Implementing acts may be adopted to specify the format for the disclosure of the information on the destruction of unsold consumer products and to listing the products or requirements that Member States shall at least consider as priorities for market surveillance activities.

Delegated acts and, where appropriate, implementing acts will be adopted after thorough assessment of impacts and consultation of stakeholders, in line with Better Regulation guidelines.

Delegated acts on ecodesign requirements and on the prohibition of the discarding of unsold consumer products will be implemented by economic actors, in particular manufacturers, importers and distributors. Industry will be supported by the provision of guidelines on Circular Business Models (CBM) supported by an EU-wide hub supporting the uptake of circular business models, channelling information and services including awareness raising, cooperation, provision of training, exchange of best practices, etc.

- 1.5.2. *Added value of Union involvement (it may result from different factors, e.g. coordination gains, legal certainty, greater effectiveness or complementarities). For the purposes of this point 'added value of Union involvement' is the value resulting from Union intervention which is additional to the value that would have been otherwise created by Member States alone.*

Reasons for action at European level (ex-ante)

Comparable to the rationale for the existing Ecodesign legislation, Member States alone would not have the possibility to enact appropriate measures without creating divergences in the requirements for economic operators, and obstacles to the free movement of products, regulatory burden and excessive costs for economic operators. In addition, Member States alone would inevitably develop tools that would diverge and render consumer's choices more complicated. If Member States would act individually there would be therefore a high risk to end up with different competing systems, based on different methods and approaches, especially products traded across the internal market, creating market fragmentation, and likely leading to uneven awareness and information levels on the environmental performance of products across the EU and additional costs for companies trading cross border.

Expected generated Union added value (ex-post)

Action at Union level is more effective than action at national level because only EU action can set harmonised common product requirements and information requirements on sustainability characteristics ensuring the free movement of goods and allowing consumers to dispose of pertinent and reliable information about sustainable characteristics and circular features of products in whatever Member State they are purchased. There is clear added value in setting common requirements at EU level, as this will ensure a harmonised and well-functioning internal market across all Member States and, therefore, a level playing field for businesses operating on the internal market. With harmonised minimum and information requirements set at EU level, sustainable products and circular practices will be promoted in all Member States, creating a larger and more efficient market and hence greater incentives for the industry to develop them. Finally, the size of the internal market provides a critical mass enabling the EU to promote product sustainability and to influence product design and value chain management worldwide.

### 1.5.3. *Lessons learned from similar experiences in the past*

There is a long experience of regulating first energy-using and then energy related products at EU level. The current Directive 2009/125, the Ecodesign Directive provides the basis for product specific measures that have been adopted. The benefits have been documented in annual Ecodesign impact accounting reports showing the mainly energy benefits accompanied by other emission and resource benefits.

While a number of evaluations of the Ecodesign Directive have confirmed its clear relevance and effectiveness as a regulatory tool, they point to potential to improve its implementation and enforcement. A 2012 evaluation, for example, noted that “while it is broadly recognised that the energy efficiency aspects of the SCP/SIP Action Plan and of EU resource efficiency policy can be served by the Ecodesign Directive and the implementing measures, it is also suggested by some Member State representatives and by environmental NGOs that there have been missed opportunities as a result of the limited coverage in implementing measures of other environmental aspects”. The untapped potential of the Directive to address aspects beyond energy efficiency has also been highlighted, with the same evaluation concluding that “there may have been non-energy improvements that have not been addressed as a result of the product scope, policy choices or the underlying technical analysis”. While there are undoubtedly opportunities for further action, this always needs to be seen in the context of the available resources and focusing on the largest benefits.

In March 2019, the Commission published a Staff Working Document entitled ‘Sustainable Products in a Circular Economy - Towards an EU Product Policy Framework contributing to the Circular Economy’. This examined the extent to which EU policies affecting products contribute to the transition to a circular economy, and where there is potential for a stronger contribution – for example through more consistent implementation, better synergies between policy interventions or better coverage of products by policy instruments – and looked in particular depth at a number of specific product groups. It found that no overarching, integrated EU policy instrument exists that covers the sustainable production and consumption of all products and/or the availability and reliability of information on these products to consumers. Instead, it identified a patchwork of tools that, although capable of addressing certain aspects related to product circularity, nevertheless offers space for additional work to be done. The document also noted that in certain

highly relevant sectors (such as textiles and furniture), no tools to systematically target circularity were in place, and that the success of Ecodesign policies in stimulating circularity for energy-related products had yet to be applied in other relevant sectors.

1.5.4. *Compatibility with the Multiannual Financial Framework and possible synergies with other appropriate instruments*

The European Union has approved a major recovery plan based on a reinforced long term budget for the next Multiannual Financial Framework and a new recovery instrument, Next Generation EU.

The initiative falls under the umbrella of the **European Green Deal**, which guides the EU's recovery strategy. The Green Deal recognises the advantages of investing in our competitive sustainability by building a fairer, greener and more digital Europe. This also entails engaging third countries and trading partners to ensure the sustainability of global value chains and ensuring that European emission reductions contribute to a global emissions decline, instead of pushing carbon-intensive production outside Europe. This will benefit citizens, providing them with high-quality products that are efficient and affordable, last longer and are better for the environment.

The initiative falls under Heading 1 (Single Market, Innovation and Digital), Title 3 (Single Market) and Heading 3 (Natural Resources and the Environment), Title 9 (Environment and Climate Action) of the Multiannual Financial Framework. As detailed below, the implementation of this piece of legislation will require additional human resources and also some supporting expenditure.

Other policy areas will provide support, in particular EU funding provided on innovation and investments to businesses. The **European Regional Development Fund**, through smart specialisation, **LIFE** and **Horizon Europe** complements private innovation funding and support the whole innovation cycle with the aim to bring solutions to the market. The **Digital Europe Programme** is expected to launch by end 2022 an 18-month long Concerted Action to propose and agree with relevant stakeholders the design and prototypes of the digital product passport in three sectors, including requirements for cross-sectoral interoperability. The **Innovation Fund** is one of the world's largest funding programmes for the demonstration of innovative low-carbon technologies and solutions. It will provide around EUR 10 billion of support over 2020-2030, aiming to bring to the market industrial solutions to decarbonise Europe and support its transition to climate neutrality.

1.5.5. *Assessment of the different available financing options, including scope for redeployment*

The budget implications come mainly from the following factors:

- The review, between 2022 and 2026, of 33 Commission Regulations and adoption of 5 new Regulations in 2022-2023 under the current Ecodesign Directive, which cannot be addressed only by staff currently allocated to the implementation of Ecodesign; the 14 Commission Regulations reviewed in 2021 continue also to have staff implications for tasks such as standardisation and guidance of stakeholders;

- The preparation and adoption of up to 18 new Delegated Acts between 2024 and 2027; The multiannual Working Plan exercise is a key step to define and prioritise product groups; we work on the assumption of a phasing in of 4 products in 2024, 6 in 2025 and 4 each year as from 2026 in order to reach SPI objectives while smoothing the need for resources over time. 12 Delegated acts should also be adopted between 2028 and 2030, with staff and budget implications in 2025-2027.
- prepare implementing acts (on average one per year as from 2024) when this is needed to ensure uniform conditions for the implementation of this Regulation, for example in relation to market surveillance, disclosure of information on the destruction of unsold consumer goods or the acknowledgement of self-regulatory measures; and
- carry out horizontal tasks related to the digital product passport, to market surveillance and customs control, and a European circular business hub to support the exchange of experience between economic actors in integrating circularity in product design and manufacturing.

For the review of existing regulations, a reasonable estimate based on experience is that around 0,5 FTE (+ assistants support) are needed on average to cover one product, including work on standardisation but excluding the technical assessment associated with the review, which is outsourced. The 11,5 Full-Time Equivalent (FTE) currently allocated to Ecodesign in the 3 DGs are not sufficient to meet legal obligations. Additional resources of 13 FTEs in 2022, 24 FTEs in 2023 then decreasing progressively to 19 FTEs in 2027 are requested in addition to redeployment and outsourcing of studies.

As regards new product groups under SPI, the analysis of new requirements and assessment tasks lead to the estimate of around 0.9 FTE (+ assistants support) per new product. The IA analysis lead to an estimate of around 30 new product groups or horizontal measures to be covered under SPI. This leads to an estimated need of 16 FTEs in 2023 and increasing progressively up to 28,5 FTEs in 2027, in addition to the redeployment of 8,5 FTEs currently allocated to the preparation of SPI or other tasks in the 3 lead DGs. The following table gives the estimates for additional needs year per year.

	2022	2023	2024	2025	2026	2027 and follow.
Ecodesign existing products, incl.	13	24	23	21	20	19
DG GROW	4,5	7	6,5	5,5	4,5	3,5
DG ENV	4	5	4,5	3,5	3,5	3,5
DG ENER	4,5	12	12	12	12	12
SPI new products, incl.	0	16	21,5	23,5	25,5	28,5
DG GROW	0	7	10	11	12	13,5

DG ENV	0	7	10	11	12	13,5
DG ENER	0	2	1,5	1,5	1,5	1,5
Digital product passport, incl.	0,5	2	2	2	2	2
DG GROW	0	0,5	0,5	0,5	0,5	0,5
DG ENV	0,5	1	1	1	1	1
DG ENER	0	0,5	0,5	0,5	0,5	0,5
Support to market surveillance, incl.	0,5	0,5	2	2	2	2
DG GROW	0	0	0,5	0,5	0,5	0,5
DG ENV	0	0	0,5	0,5	0,5	0,5
DG ENER	0,5	0,5	1	1	1	1
Support to customs control (DG TAXUD)	0	1,5	2	2	2	2
Circular business models hub (DG GROW)	0	0	0,5	0,5	0,5	0,5
Total	14	44	51	51	52	54

In the Impact Assessment report, different administrative setups have been envisaged to implement the new legislative framework.

An option would be to create a “sustainable product centre” within the European Commission. The difference would be that staff allocated to the sustainable product policy will function under a virtual “Sustainable Products Centre” inside the European Commission. While European Commission staff would remain under their DG of origin, they would also be part of a permanent centre/task force, with an overall coordination ensuring knowledge sharing and with responsibility for horizontal tasks. This option could also build on and fully integrate the technical know-how of JRC which already contributes to ecodesign preparatory studies and horizontal/methodological work on consumption footprint, circular economy strategies and carbon and environmental footprint. This experience and expertise can be exploited by the JRC as part of the “Sustainable Product Centre”. The JRC would contribute to the scientific-technical dimension of methodology and data coherence, piloting new types of product requirements, and product prioritisation. In the context of this financial statement, this option was not considered substantially different to the current situation in terms of resources needed.

The estimates of this financial statement built upon the current situation, with competences spread among 3 DGs, and mobilising additional staff and financial

resources in line with the increase of product groups and additional requirements. In terms of possible outsourcing, the current situation includes already a significant use of external support for the preparation of regulatory measures (preparatory and review studies) and for the support to impact assessments. Additional external support is envisaged for the Circular Business Hub and for the support to market surveillance authorities, but this does not change the need for additional (internal) staff resources for the core implementation tasks of the legislation, which cannot be outsourced.

Additional resources are also needed to support the customs system in enforcing new requirements applicable to imported products. This includes the analysis of SPI impact on TAXUD IT ecosystem, in particular Single Window; entailing business case, Business Process Modelling, coordination with MS customs authorities, preparation for design and implementation, support to conformance testing and roll-out, maintenance, running Customs Business Groups, contributing to MASP-C and to the ECCG meetings.

When estimating the additional resources detailed in this financial statement, careful assessment was made of possible staff redeployment within each DG, beyond the reallocation of staff already working on Ecodesign implementation and on the preparation of the legislative proposal. The rare possibilities or redeployment were integrated in the estimates. As for the type of HR needed, an important part is requested as CAs, especially in the first years of the period, and 3 additional END are requested as from 2023, both to facilitate the phasing-in in permanent staff, from 26,5 FTEs in 2023 to 45 in 2027. Permanent staff is nevertheless needed to coordinate decision procedures, represent the institution and ensure contractual management. It is shared in 87% AD and 13% AST.

As regards administrative expenditure other than staff, the basis of calculation are the following, mirroring the doubling of the number of products covered:

- the costs of missions have been estimated on the basis of current budgets (without effect of the sanitary crisis) and a doubling between 2024 and 2027, corresponding to the extension in scope and need to present and explain the new framework to stakeholders.
- the costs for meetings of the Ecodesign Forum are based on current costs in DG ENER, with an increase in the frequency of meetings from 6 to 9 per year on average because of the increase in the number of products covered.
- the costs for expert groups are based on the current costs associated with the Ecodesign committee, with the same increase of meetings frequency and the costs of committee meetings, in relation to implementing acts, were estimated on the basis of equivalent costs in DG ENV, for the period 2024 to 2026 when implementing acts should be prepared.

As regards operational expenditure, the following hypotheses have been retained:

- for each review, a supporting study with a cost of €300 000, based on current cost under Ecodesign; for each new product, a supporting study of €400 000, expected to be more complex than current preparatory studies under Ecodesign, and an additional cost of €800 000 for the preparation of Product Environmental Footprint Category Rules when needed, which is expected for half of new products – the timing for reviews and preparatory studies follows



the same hypotheses as for staff, but the corresponding budget is committed two years before the planned date of adoption.

- Horizontal studies, for example on methodology, working plan, market surveillance, are estimated to cost around 1 M€ per year between 2022 and 2024, shared between DG GROW and DG ENV;
- Studies specific for the preparation of the digital product passport will be needed, under DG GROW coordination: 3 support studies and IT development on data carriers, access rights and security, data management and registry: 1 M€ from 2022 to 2024; maintenance of the product passport registry is estimated at 0,1 M€ from 2025 to 2026; preparation of the digital product passport may also require IT developments for the SCIP database of substances of very high concern but the precise evaluation of this is not achieved at the time of drafting this financial statement; IT development and procurement choices will be subject to pre-approval by the European Commission Information Technology and Cybersecurity Board.
- The administrative and technical support to the Circular Business Models Hub is estimated at 0,5 M€ from 2024 to 2027, on DG GROW budget line;
- The support to market surveillance and customs will take the form of guidance and implementing acts (counted under horizontal studies) but also of projects, e.g. to provide training, technical support to cooperation, support joint compliance testing; a budget increasing from 3 M€ in 2024 to 9 M€ in 2027, distributed between the 3 lead DGs, should be allocated to 3 to 10 projects each year between 2024 and 2027.
- The new requirements on products may also require IT developments on the EU Customs Single Window-CERTEX activities for DG TAXUD, for which 1,25 M€ in total would be needed from 2023 to 2027, and from entry into operations an annual maintenance fee of 160 k€. IT development and procurement choices will be subject to pre-approval by the European Commission Information Technology and Cybersecurity Board.

For some of these areas of action, the JRC expertise will be mobilised through service agreements, within the estimates and envelopes indicated in this financial statement.

## 1.6. Duration and financial impact of the proposal/initiative

**limited duration**

- in effect from [DD/MM]YYYY to [DD/MM]YYYY
- Financial impact from YYYY to YYYY for commitment appropriations and from YYYY to YYYY for payment appropriations.

**unlimited duration**

- Implementation with a start-up period from 2022 to 2027,
- followed by full-scale operation.

## 1.7. Management mode(s) planned<sup>87</sup>

**Direct management** by the Commission

by its departments, including by its staff in the Union delegations;

by the executive agencies

**Shared management** with the Member States

**Indirect management** by entrusting budget implementation tasks to:

third countries or the bodies they have designated;

international organisations and their agencies (to be specified);

the EIB and the European Investment Fund;

bodies referred to in Articles 70 and 71 of the Financial Regulation;

public law bodies;

bodies governed by private law with a public service mission to the extent that they are provided with adequate financial guarantees;

bodies governed by the private law of a Member State that are entrusted with the implementation of a public-private partnership and that are provided with adequate financial guarantees;

persons entrusted with the implementation of specific actions in the CFSP pursuant to Title V of the TEU, and identified in the relevant basic act.

*If more than one management mode is indicated, please provide details in the 'Comments' section.*

Comments

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<sup>87</sup> Details of management modes and references to the Financial Regulation may be found on the BudgWeb site:  
<https://myintracomm.ec.europa.eu/budgweb/EN/man/budgmanag/Pages/budgmanag.aspx>

## 2. MANAGEMENT MEASURES

### 2.1. Monitoring and reporting rules

*Specify frequency and conditions.*

This Legislative Financial Statement includes staff expenditure, procurement and possibly administrative arrangements. Standard rules for this type of expenditure apply.

### 2.2. Management and control system(s)

#### 2.2.1. *Justification of the management mode(s), the funding implementation mechanism(s), the payment modalities and the control strategy proposed*

The management mode for the initiative is direct management by the Commission. The Commission will be assisted by an Expert Group with member states representatives and stakeholders: the Ecodesign Forum. The Commission will also be assisted by a Committee.

Overall, the initiative requires staff expenditure, procurement and possibly administrative arrangements. Standard rules for this type of expenditure apply.

#### 2.2.2. *Information concerning the risks identified and the internal control system(s) set up to mitigate them*

Overall, the initiative requires staff expenditure, procurement and possibly administrative arrangements. Standard rules for this type of expenditure apply.

Most aspects of the initiative follow standard procedures for procuring technical support, involving stakeholders and the adoption of secondary legislation. The main risk, already illustrated in the past, is insufficient human resources to implement working plans. There is also the risk of court challenges to product legislation adopted.

New risks may arise due to novel aspects of the SPI framework, including the establishment and operation of the Digital Product Passport and requirements affecting, directly or indirectly, supply chains outside the EU.

#### 2.2.3. *Estimation and justification of the cost-effectiveness of the controls (ratio of "control costs ÷ value of the related funds managed"), and assessment of the expected levels of risk of error (at payment & at closure)*

Overall, the initiative requires staff expenditure, procurement and possibly administrative arrangements. Standard rules for this type of expenditure apply.

### 2.3. Measures to prevent fraud and irregularities

*Specify existing or envisaged prevention and protection measures, e.g. from the Anti-Fraud Strategy.*

Overall, the initiative requires staff expenditure, procurement and possibly administrative arrangements. Standard rules for this type of expenditure apply.

The main fraud risk relates to deliberate circumvention of the product requirements by economic operators. Preventing this relies on strengthening market surveillance activities and custom controls.

### 3. ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE

#### 3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected

- Existing budget lines

*In order of multiannual financial framework headings and budget lines.*

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number	Diff./Non-diff. <sup>88</sup>	from EFTA countries <sup>89</sup>	from candidate countries <sup>90</sup>	from third countries	within the meaning of Article 21(2)(b) of the Financial Regulation
	[XX.YY.YY.YY]	Diff./Non-diff.	YES/NO	YES/NO	YES/NO	YES/NO
1	03.02.01.01 - Operation and development of the internal market of goods and services	Diff.	YES	NO <sup>91</sup>	NO <sup>6</sup>	NO
3	09.02.02 LIFE Circular economy and quality of life	Diff.	YES	YES	YES	NO
3	09.02.04 LIFE Clean energy transition	Diff.	YES	YES	YES	NO

- New budget lines requested

*In order of multiannual financial framework headings and budget lines.*

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number	Diff./Non-diff.	from EFTA countries	from candidate countries	from third countries	within the meaning of Article 21(2)(b) of the Financial Regulation
	[XX.YY.YY.YY]		YES/NO	YES/NO	YES/NO	YES/NO

<sup>88</sup> Diff. = Differentiated appropriations / Non-diff. = Non-differentiated appropriations.

<sup>89</sup> EFTA: European Free Trade Association.

<sup>90</sup> Candidate countries and, where applicable, potential candidates from the Western Balkans.

<sup>91</sup> Negotiation of association of candidate and third countries to the Single Market Programme ongoing.

### 3.2. Estimated financial impact of the proposal on appropriations

#### 3.2.1. Summary of estimated impact on operational appropriations

- The proposal/initiative does not require the use of operational appropriations
- The proposal/initiative requires the use of operational appropriations, as explained below:

EUR million (to three decimal places)

<b>Heading of multiannual financial framework</b>	Number	Heading 1 (Single Market, Innovation and Digital)
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DG: GROW			Year 2022	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027	Post 2027	TOTAL
• Operational appropriations										
Budget line <sup>92</sup> 03.02.01.01 - Operation and development of the internal market of goods and services	Commitments	(1a)	3,402	4,056	3,770	3,370	4,370	4,370		23,338
	Payments	(2a)	1,021	2,237	3,709	3,764	3,830	3,970	4,807	23,338
Budget line	Commitments	(1b)								
	Payments	(2b)								
Appropriations of an administrative nature financed from the envelope of specific programmes <sup>93</sup>										
Budget line		(3)								
<b>TOTAL appropriations for DG GROW</b>	Commitments	=1a+1b+3	3,402	4,056	3,770	3,370	4,370	4,370		23,338
	Payments	=2a+2b	1,021	2,237	3,709	3,764	3,830	3,970	4,807	23,338

<sup>92</sup> According to the official budget nomenclature.

<sup>93</sup> Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former 'BA' lines), indirect research, direct research.

		+3								
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• TOTAL operational appropriations	Commitments	(4)	3,402	4,056	3,770	3,370	4,370	4,370		23,338
	Payments	(5)	1,021	2,237	3,709	3,764	3,830	3,970	4,807	23,338
• TOTAL appropriations of an administrative nature financed from the envelope for specific programmes		(6)								
<b>TOTAL appropriations under HEADING 1</b> of the multiannual financial framework	Commitments	=4+ 6	3,402	4,056	3,770	3,370	4,370	4,370		23,338
	Payments	=5+ 6	1,021	2,237	3,709	3,764	3,830	3,970	4,807	23,338

EUR million (to three decimal places)

<b>Heading of multiannual financial framework</b>	Number	Heading 3 (Natural Resources and the Environment)
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DG: ENV			Year 2022	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027	Post 2027	TOTAL
• Operational appropriations										
Budget line <sup>94</sup> 09.02.02 LIFE Circular economy and quality of life	Commitments	(1a)	2,276	2,948	2,180	2,680	3,680	3,680		17,444
	Payments	(2a)	0,683	1,567	2,449	2,637	2,780	3,280	4,048	17,444
Budget line 09.02.02 LIFE Circular economy and quality of life <sup>95</sup>	Commitments	(1b)	0	0	0,400	0,350	0,350	0,150		1,250
	Payments	(2b)	0	0	0,280	0,365	0,350	0,210	0,450	1,250

<sup>94</sup> According to the official budget nomenclature.

<sup>95</sup> The proposal foresees IT developments in the EU Single Window environment for Customs to facilitate enforcement of product requirements on imported products, and ensure interoperability with the digital product passport. Such work will need financial resources to be made available to DG TAXUD. Currently, the level of appropriate resources for such work cannot be determined with certainty, but it is estimated that it could require a maximum estimated budget of 1,250 million EUR for the period 2024-2027, while a maintenance

Appropriations of an administrative nature financed from the envelope of specific programmes <sup>96</sup>										
Budget line		(3)								
<b>TOTAL appropriations for DG ENV</b>	Commitments	=1a+1b +3	2,276	2,948	2,580	3,030	4,030	3,830		18,694
	Payments	=2a+2b +3	0,683	1,567	2,729	3,002	3,130	3,490	4,093	18,694

DG: ENER			Year 2022	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027	Post 2027	TOTAL
• Operational appropriations										
Budget line <sup>97</sup> 09.02.04 LIFE Clean energy transition	Commitments	(1a)	1,622	1,596	4,250	5,250	6,250	6,250		25,218
	Payments	(2a)	0,487	0,965	2,403	3,488	5,150	5,850	6,875	25,218
Budget line	Commitments	(1b)								
	Payments	(2b)								
Appropriations of an administrative nature financed from the envelope of specific programmes <sup>98</sup>										
Budget line		(3)								
<b>TOTAL appropriations</b>	Commitments	=1a+1b +3	1,622	1,596	4,250	5,250	6,250	6,250		25,218

fee of 0.160 million EUR will be needed annually thereafter. IT development and procurement choices will be subject to pre-approval by the European Commission Information Technology and Cybersecurity Board.

<sup>96</sup> Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former 'BA' lines), indirect research, direct research.

<sup>97</sup> According to the official budget nomenclature.

<sup>98</sup> Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former 'BA' lines), indirect research, direct research.

<b>for DG ENER</b>	Payments	=2a+2b +3	0,487	0,965	2,403	3,488	5,150	5,850	6,875	25,218

• TOTAL operational appropriations	Commitments	(4)	3,898	4,544	6,830	8,280	10,280	10,080		43,912
	Payments	(5)	1,170	2,532	5,132	6,490	8,280	9,340	10,968	43,912
• TOTAL appropriations of an administrative nature financed from the envelope for specific programmes		(6)								
<b>TOTAL appropriations under HEADING 3</b> of the multiannual financial framework	Commitments	=4+ 6	3,898	4,544	6,830	8,280	10,280	10,080		43,912
	Payments	=5+ 6	1,170	2,532	5,132	6,490	8,280	9,340	10,968	43,912

**If more than one operational heading is affected by the proposal / initiative, repeat the section above:**

• TOTAL operational appropriations (all operational headings)	Commitments	(4)	7,300	8,600	10,600	11,650	14,650	14,450		67,250
	Payments	(5)	2,191	4,769	8,841	10,254	12,110	13,310	15,775	67,250
TOTAL appropriations of an administrative nature financed from the envelope for specific programmes (all operational headings)		(6)								
<b>TOTAL appropriations under HEADINGS 1 to 6</b> of the multiannual financial framework (Reference amount)	Commitments	=4+ 6	7,300	8,600	10,600	11,650	14,650	14,450		67,250
	Payments	=5+ 6	2,191	4,769	8,841	10,254	12,110	13,310	15,775	67,250



<b>Heading of multiannual financial framework</b>	<b>7</b>	<b>'Administrative expenditure'</b>
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This section should be filled in using the 'budget data of an administrative nature' to be firstly introduced in the [Annex to the Legislative Financial Statement](#) (Annex V to the internal rules), which is uploaded to DECIDE for interservice consultation purposes.

EUR million (to three decimal places)

		Year 2022	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027	TOTAL
<b>DG: GROW</b>								
• Human resources		0,383	1,740	2,325	2,469	2,541	2,656	<b>12,113</b>
• Other administrative expenditure		0,005	0,005	0,096	0,097	0,097	0,090	0,390
<b>TOTAL DG GROW</b>	Appropriations	0,388	1,745	2,421	2,566	2,638	2,746	12,503
		Year 2022	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027	TOTAL
<b>DG: ENV</b>								
• Human resources		0,671	1,756	2,227	2,371	2,528	2,656	<b>12,208</b>
• Other administrative expenditure		0,005	0,005	0,097	0,096	0,097	0,090	0,390
<b>TOTAL DG ENV</b>	Appropriations	0,676	1,761	2,324	2,467	2,625	2,746	12,598
		Year 2022	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027	TOTAL
<b>DG: ENER</b>								
• Human resources		0,713	2,070	2,214	2,214	2,214	2,214	<b>11,639</b>
• Other administrative expenditure		0,005	0,005	0,097	0,097	0,096	0,090	0,390

<b>TOTAL DG ENER</b>	Appropriations	0,718	2,075	2,311	2,311	2,310	2,304	12,029
		<b>Year 2022</b>	<b>Year 2023</b>	<b>Year 2024</b>	<b>Year 2025</b>	<b>Year 2026</b>	<b>Year 2027</b>	<b>TOTAL</b>
<b>DG: TAXUD</b>								
• Human resources		0,000	0,236	0,314	0,314	0,314	0,314	1,492
• Other administrative expenditure		0	0	0	0	0	0	0
<b>TOTAL DG TAXUD</b>	Appropriations	0,000	0,236	0,314	0,314	0,314	0,314	1,492

<b>TOTAL appropriations under HEADING 7 of the multiannual financial framework</b>	(Total commitments = Total payments)	1,781	5,816	7,370	7,658	7,887	8,109	38,621
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EUR million (to three decimal places)

		<b>Year 2022</b>	<b>Year 2023</b>	<b>Year 2024</b>	<b>Year 2025</b>	<b>Year 2026</b>	<b>Year 2027</b>	<b>Post 2027</b>	<b>TOTAL</b>
<b>TOTAL appropriations under HEADINGS 1 to 7 of the multiannual financial framework</b>	Commitments	9,081	14,416	17,970	19,308	22,537	22,559		105,871
	Payments	3,972	10,585	16,211	17,912	19,997	21,419	15,775	105,871

### 3.2.2. Estimated output funded with operational appropriations

Specific objectives:

No 1: Improve products environmental sustainability and access to sustainability information along the supply chain

No 2: Incentivise more sustainable products and business models to improve value retention

No 3: Improve application of sustainable product legislative framework

Commitment appropriations in EUR million (to three decimal places)

Indicate objectives and outputs ↓			Year 2022		Year 2023		Year 2024		Year 2025		Year 2026		Year 2027 and following		TOTAL	
	OUTPUTS															
	Type <sup>99</sup>	Average cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost
SPECIFIC OBJECTIVE No 1 <sup>100</sup>			Improve products environmental sustainability and access to sustainability information along the supply chain													
- Output	Delegated acts (reviews)	0,300	-		-		7	2,100	6	1,800	5	1,500	5	1,500	23	6,900
- Output	Delegated acts (new products)	0,800	-		-		4	3,200	6	4,800	4	3,200	12	9,600	26	20,800
- Output	Implementing acts (market surveillance, unsold goods)	1,000	-		-		1	1,000	1	1,000	1	1,000			3	3,000
Subtotal for specific objective No 1			-		-		12	6,300	13	7,600	10	5,700	17	11,100	52	30,700
SPECIFIC OBJECTIVE No 2			Incentivise more sustainable products and business models to improve value retention													

<sup>99</sup> Outputs are products and services to be supplied (e.g.: number of student exchanges financed, number of km of roads built, etc.).

<sup>100</sup> As described in point 1.4.2. 'Specific objective(s)...'

- Output	Support to Circular Business Hub <sup>101</sup>	0,500 per year	-	-	-	-	1	0,500	1	0,500	1	0,500	1	0,500	4	2,000
Subtotal for specific objective No 2			-	-	-	-	1	0,500	1	0,500	1	0,500	1	0,500	4	2,000
SPECIFIC OBJECTIVE No 3			Improve application of sustainable product legislative framework													
- Output	Projects supporting market surveillance	1,000 per project	-	-	-	-	3	3,000	6	6,000	9	9,000	9	9,000	27	27,000
Subtotal for specific objective No 3			-	-	-	-	3	3,000	6	6,000	9	9,000	9	9,000	27	27,000
<b>TOTALS</b>			-	-	-	-	16	9,800	20	14,100	20	15,200	27	20,600	83	59,700

<sup>101</sup> The European circular business hub should support the exchange of experience between economic actors in integrating circularity in product design and manufacturing.

### 3.2.3. Summary of estimated impact on administrative appropriations

- The proposal/initiative does not require the use of appropriations of an administrative nature
- The proposal/initiative requires the use of appropriations of an administrative nature, as explained below:

EUR million (to three decimal places)

	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027	TOTAL
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<b>HEADING 7 of the multiannual financial framework</b>							
Human resources	1,766	5,801	7,080	7,368	7,597	7,839	37,451
Other administrative expenditure	0,015	0,015	0,290	0,290	0,290	0,270	1,170
<b>Subtotal HEADING 7 of the multiannual financial framework</b>	1,781	5,816	7,370	7,658	7,887	8,109	38,621

<b>Outside HEADING 7<sup>102</sup> of the multiannual financial framework</b>							
Human resources							
Other expenditure of an administrative nature							
<b>Subtotal outside HEADING 7 of the multiannual financial framework</b>							

<b>TOTAL</b>	1,781	5,816	7,370	7,658	7,887	8,109	38,621
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The appropriations required for human resources and other expenditure of an administrative nature will be met by appropriations from the DG that are already assigned to management of the action and/or have been redeployed within the DG, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

<sup>102</sup> Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former 'BA' lines), indirect research, direct research.

### 3.2.3.1. Estimated requirements of human resources

- The proposal/initiative does not require the use of human resources.
- The proposal/initiative requires the use of human resources, as explained below:

*Estimate to be expressed in full time equivalent units*

	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027 and following
<b>• Establishment plan posts (officials and temporary staff)</b>						
20 01 02 01 (Headquarters and Commission's Representation Offices)	8	28,5	38	42	44	45
incl. DG GROW	0	7	11	13	14	15
DG ENV	4	9	12	14	15	15
DG ENER	4	11	13	13	13	13
DG TAXUD	0	1,5	2	2	2	2
20 01 02 03 (Delegations)						
01 01 01 01 (Indirect research)						
01 01 01 11 (Direct research)						
Other budget lines (specify)						
<b>• External staff (in Full Time Equivalent unit: FTE)<sup>103</sup></b>						
20 02 01 (AC, END, INT from the 'global envelope')	6	15,5	13,0	9,0	8,0	9,0
incl. DG GROW	4,5	7,5	7	5	4	3,5
DG ENV	0,5	4	4	2	2	3,5
DG ENER	1	4	2	2	2	2
20 02 03 (AC, AL, END, INT and JPD in the delegations)						
<b>XX 01 xx yy zz</b> <sup>104</sup>	- at Headquarters					
	- in Delegations					
01 01 01 02 (AC, END, INT - Indirect research)						
01 01 01 12 (AC, END, INT - Direct research)						
Other budget lines (specify)						
<b>TOTAL</b>	<b>14</b>	<b>44,0</b>	<b>51,0</b>	<b>51,0</b>	<b>52,0</b>	<b>54,0</b>

**XX** is the policy area or budget title concerned.

The human resources required will be met by staff from the DG who are already assigned to management of the action and/or have been redeployed within the DG, together if necessary with any additional allocations to be granted to the managing DGs under the annual allocation procedure and in the light of budgetary constraints.

Description of tasks to be carried out:

<sup>103</sup> AC= Contract Staff; AL = Local Staff; END= Seconded National Expert; INT = agency staff; JPD= Junior Professionals in Delegations.

<sup>104</sup> Sub-ceiling for external staff covered by operational appropriations (former 'BA' lines).

<p>Officials and temporary staff</p>	<p><u>For desk officers:</u></p> <p>Preparation of external contracts to support preparatory studies, impact assessment, assessment of harmonised standards (terms of reference or AA, evaluation, monitoring)</p> <p>Supervision of preparatory, review studies or other studies in preparation of the working plan, implementing acts, delegated acts</p> <p>consultation of the Ecodesign Forum, consultation of WTO, internal adoption procedure,</p> <p>follow-up to delegated acts including standardisation mandate, monitoring and publication of harmonised standards,</p> <p>guidance to industry in implementation and to market surveillance authorities in surveillance activities</p> <p>contribution to horizontal tasks including evaluation of results, presentation of the legislation to stakeholders, preparation of briefings, correspondence...</p> <p><u>for assistants:</u></p> <p>organisation of meetings (agendas, invitations, administrative follow-up, minutes, registry of expert groups)</p> <p>decision procedures (Decide entries, calls for evidence, committees, preparation of documents including legal editing, requests for translation and publication)</p> <p>financial procedures (preparation of management plan, of calls for tender or service orders or AAs, evaluations, requests for commitments and payments, reporting)</p>
<p>External staff</p>	<p>Supervision of preparatory, review studies or other studies in preparation of the working plan, implementing acts, delegated acts</p> <p>consultation of the Ecodesign Forum, consultation of WTO,</p> <p>follow-up to delegated acts including standardisation mandate, monitoring and publication of harmonised standards,</p> <p>guidance to industry in implementation and to market surveillance authorities in surveillance activities</p> <p>contribution to horizontal tasks including evaluation of results, presentation of the legislation to stakeholders, correspondence...</p>

### 3.2.4. Compatibility with the current multiannual financial framework

The proposal/initiative:

- can be fully financed through redeployment within the relevant heading of the Multiannual Financial Framework (MFF).

The studies, procurement or projects supporting the implementation of the legislation will be funded by existing programmes and existing budgetary envelopes supporting policy implementation, under Headings 1 and 3 of the MFF. No reprogramming is needed. Budget needs will be integrated into annual management plans and follow standard procedures.

The budget lines concerned are those supporting already the implementation of the Ecodesign Directive in the DGs concerned:

03.02.01.01 - Operation and development of the internal market of goods and services for DG GROW

09.02.02 LIFE Circular economy and quality of life for DG ENV

09.02.04 LIFE Clean energy transition for DG ENER

- requires use of the unallocated margin under the relevant heading of the MFF and/or use of the special instruments as defined in the MFF Regulation.

Explain what is required, specifying the headings and budget lines concerned, the corresponding amounts, and the instruments proposed to be used.

- requires a revision of the MFF.

Explain what is required, specifying the headings and budget lines concerned and the corresponding amounts.

### 3.2.5. Third-party contributions

The proposal/initiative:

- does not provide for co-financing by third parties
- provides for the co-financing by third parties estimated below:

Appropriations in EUR million (to three decimal places)

	Year N <sup>105</sup>	Year N+1	Year N+2	Year N+3	Enter as many years as necessary to show the duration of the impact (see point 1.6)			Total
Specify the co-financing body								
TOTAL appropriations co-financed								

<sup>105</sup> Year N is the year in which implementation of the proposal/initiative starts. Please replace "N" by the expected first year of implementation (for instance: 2021). The same for the following years.



### 3.3. Estimated impact on revenue

- The proposal/initiative has no financial impact on revenue.
- The proposal/initiative has the following financial impact:
  - on own resources
  - on other revenue
  - please indicate, if the revenue is assigned to expenditure lines

EUR million (to three decimal places)

Budget revenue line:	Appropriations available for the current financial year	Impact of the proposal/initiative <sup>106</sup>				
		Year N	Year N+1	Year N+2	Year N+3	Enter as many years as necessary to show the duration of the impact (see point 1.6)
Article .....						

For assigned revenue, specify the budget expenditure line(s) affected.

Other remarks (e.g. method/formula used for calculating the impact on revenue or any other information).

<sup>106</sup> As regards traditional own resources (customs duties, sugar levies), the amounts indicated must be net amounts, i.e. gross amounts after deduction of 20 % for collection costs.



Brussels, 30.3.2022  
COM(2022) 142 final

ANNEXES 1 to 8

## ANNEXES

to the

**Commission proposal for a**

**Regulation of the European Parliament and of the Council establishing a framework for  
setting ecodesign requirements for sustainable products and repealing Directive  
2009/125/EC**

{SEC(2022) 165 final} - {SWD(2022) 81 final} - {SWD(2022) 82 final} -  
{SWD(2022) 83 final}

## ANNEX I

### Product parameters

The following parameters may, as appropriate, and where necessary supplemented by others, be used as a basis for improving the product aspects referred to in Article 5(1):

- (a) durability and reliability of the product or its components as expressed through the product's guaranteed lifetime, technical lifetime, mean time between failures, indication of real use information on the product, resistance to stresses or ageing mechanisms;
- (b) ease of repair and maintenance as expressed through: characteristics, availability and delivery time of spare parts, modularity, compatibility with commonly available spare parts, availability of repair and maintenance instructions, number of materials and components used, use of standard components, use of component and material coding standards for the identification of components and materials, number and complexity of processes and tools needed, ease of non-destructive disassembly and re-assembly, conditions for access to product data, conditions for access to or use of hardware and software needed;
- (c) ease of upgrading, re-use, remanufacturing and refurbishment as expressed through: number of materials and components used, use of standard components, use of component and material coding standards for the identification of components and materials, number and complexity of processes and tools needed, ease of non-destructive disassembly and re-assembly, conditions for access to product data, conditions for access to or use of hardware and software needed, conditions of access to test protocols or not commonly available testing equipment, availability of guarantees specific to remanufactured or refurbished products, conditions for access to or use of technologies protected by intellectual property rights, modularity;
- (d) ease and quality of recycling as expressed through: use of easily recyclable materials, safe, easy and non-destructive access to recyclable components and materials or components and materials containing hazardous substances, material composition and homogeneity, possibility for high-purity sorting, number of materials and components used, use of standard components, use of component and material coding standards for the identification of components and materials, number and complexity of processes and tools needed, ease of non-destructive disassembly and re-assembly, conditions for access to product data, conditions for access to or use of hardware and software needed;
- (e) avoidance of technical solutions detrimental to re-use, upgrading, repair, maintenance, refurbishment, remanufacturing and recycling of products and components;
- (f) use of substances, on their own, as constituents of substances or in mixtures, during the production process of products, or leading to their presence in products, including once these products become waste;
- (g) consumption of energy, water and other resources in one or more life cycle stages of the product, including the effect of physical factors or software and firmware updates on product efficiency and including the impact on deforestation;
- (h) use or content of recycled materials;
- (i) weight and volume of the product and its packaging, and the product-to-packaging ratio;

- (j) incorporation of used components
- (k) quantity, characteristics and availability of consumables needed for proper use and maintenance;
- (l) the environmental footprint of the product, expressed as a quantification, in accordance with the applicable delegated act, of a product's life cycle environmental impacts, whether in relation to one or more environmental impact categories or an aggregated set of impact categories;
- (m) the carbon footprint of the product;
- (n) microplastic release;
- (o) emissions to air, water or soil released in one or more life cycle stages of the product;
- (p) amounts of waste generated, including plastic waste and packaging waste and their ease of re-use, and amounts of hazardous waste generated;
- (q) conditions for use.

## ANNEX II

### **Procedure for defining performance requirements**

Performance requirements shall be set as follows:

- (1) A technical, environmental and economic analysis shall select a number of representative models of the product or products in question on the market and identify the technical options for improving the product performance in relation to the parameters referred to in Annex I - in view of product-specific or horizontal requirements - taking into account the economic viability of the options and avoiding any significant increase of other life cycle environmental impacts, and significant loss of performance or of usefulness for consumers.

The technical, environmental and economic analysis shall also identify, for the parameter under consideration, the best-performing products and technologies available on the market.

The performance of products available on international markets and benchmarks set in other countries' legislation shall be taken into consideration during the analysis referred to in the first subparagraph as well as when setting requirements.

Based on this analysis, and taking into account economic and technical feasibility, including the availability of key resources and technologies, as well as the potential for improvement, levels or non-quantitative requirements shall be defined.

Any concentration limit for substances as referred to in Annex I, point (f), shall be based on a thorough analysis of the sustainability of the substances and their identified alternatives, and shall not have significant adverse effects on human health or the environment. Any performance requirement on substances as referred to in Annex I, point (f), shall take into consideration existing chemical safety assessments performed by the relevant Union bodies for the substances concerned, as well as safe and sustainable by design criteria for chemicals and materials developed by the Commission. Proposed concentration limits shall also consider aspects of enforceability, such as analytical detection limits.

Where relevant, the analysis referred to in the first subparagraph shall take into account the likely impacts of climate change on the product during its prospective lifetime, and the product's potential to improve climate resilience throughout its life cycle.

A sensitivity analysis covering the relevant factors, such as the price of energy or other resources, the cost of raw materials and necessary technologies, production costs, discount rates, and, where appropriate, external environmental costs, including avoided greenhouse gas emissions, must be carried out.

- (2) For the development of the technical, environmental and economic analyses, relevant information available in the framework of other Union activities shall be taken into account and shall include technical information used as a basis for or derived from Regulation (EC) No 66/2010, Directive 2010/75/EU and Green Public Procurement criteria.

That shall also apply for information available from existing programmes applied in other parts of the world for setting the specific ecodesign requirement of products traded with the Union's economic partners.

- (3) The date of entry into force of the performance requirements shall, where relevant, take into account the time needed to adapt the product design and production processes.

**ANNEX III**  
**Digital Product Passport**  
**(referred to in Article 8)**

The requirements related to the product passport laid down in the delegated acts adopted pursuant to Article 4 shall specify what information shall or may be included in the product passport from among the following elements:

- (a) information required under Articles 7(2) and 8(2) or by other Union law applicable to the relevant product group;
- (b) the unique product identifier at the level indicated in the applicable delegated act adopted pursuant to Article 4;
- (c) the Global Trade Identification Number as provided for in standard ISO/IEC 15459-6 or equivalent of products or their parts;
- (d) relevant commodity codes, such as a TARIC code as defined in Council Regulation (EEC) No 2658/87<sup>1</sup>;
- (e) compliance documentation and information required under this Regulation or other Union law applicable to the product, such as the declaration of conformity, technical documentation or conformity certificates;
- (f) user manuals, instructions, warnings or safety information, as required by other Union legislation applicable to the product;
- (g) information related to the manufacturer, such as its unique operator identifier and the information referred to in Article 21(7);
- (h) unique operator identifiers other than that of the manufacturer;
- (i) unique facility identifiers;
- (j) information related to the importer, including the information referred to in Article 23(3) and its EORI number;
- (k) the name, contact details and unique operator identifier code of the economic operator established in the Union responsible for carrying out the tasks set out in Article 4 of Regulation (EU) 2019/1020, or Article 15 of Regulation (EU) [...] on general product safety, or similar tasks pursuant to other EU legislation applicable to the product.

The delegated acts adopted pursuant to Article 4 shall identify information relevant to ecodesign requirements that manufacturers may include in the product passport in addition to the information required pursuant to Article 8(2), point (a), including information on specific voluntary labels applicable to the product. That shall include whether an EU Ecolabel has been awarded to the product in line with Regulation (EC) No 66/2010.

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<sup>1</sup> Council Regulation (EEC) No 2658/87 of 23 July 1987 on the tariff and statistical nomenclature and on the Common Customs Tariff (OJ L 256, 7.9.1987, p. 1).

## ANNEX IV

### **Internal production control**

#### **(Module A)**

1. Internal production control is the conformity assessment procedure whereby the manufacturer fulfils the obligations laid down in points 2, 3 and 4, and ensures and declares on its sole responsibility that the product satisfies the requirements of the delegated act adopted pursuant to Article 4.

2. Technical documentation

The manufacturer shall establish the technical documentation. The documentation shall make it possible to assess the product's conformity to the requirements of the delegated act adopted pursuant to Article 4. The technical documentation shall specify the applicable requirements and cover, as far as relevant for the assessment, the design, manufacture and operation of the product. The technical documentation shall, wherever applicable, contain at least the following elements:

- a general description of the product and of its intended use,
- conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits, etc.
- descriptions and explanations necessary for the understanding of those drawings and schemes and the operation of the product,
- a list of the harmonised standards, common specification or other relevant technical specifications the references of which have been published in the Official Journal of the European Union, applied in full or in part, and descriptions of the solutions adopted to meet the requirements where those harmonised standards have not been applied. In the event of partly applied harmonised standards, the technical documentation shall specify the parts which have been applied,
- results of design calculations made, examinations carried out, etc.,
- the results of measurements carried out in relation to ecodesign requirements, including details of the conformity of these measurements as compared with the ecodesign requirements set out in the delegated act adopted pursuant to Article 4,
- test reports, and
- a copy of the information provided in accordance with the information requirements pursuant to Article 7,

3. Manufacturing

The manufacturer shall take all measures necessary so that the manufacturing process and its monitoring ensure compliance of the product with the technical documentation referred to in point 2 and with requirements of the delegated act adopted pursuant to Article 4.

4. CE marking and EU declaration of conformity

The manufacturer shall affix the required conformity marking to each individual product that satisfies requirements of the delegated act adopted pursuant to Article 4.



The manufacturer shall draw up a written declaration of conformity for each product model in accordance with Article 37 and keep it, together with the technical documentation, at the disposal of the competent national authorities for ten years after the product has been placed on the market or put into service. The declaration of conformity shall identify the product for which it has been drawn up.

A copy of the declaration of conformity shall be made available to the relevant authorities upon request.

5. Authorised representative

The manufacturer's obligations set out in point 4 may be fulfilled by his or her authorised representative, on his or her behalf and under his or her responsibility, provided that they are specified in the mandate.

## ANNEX V

### **EU declaration of conformity**

**(referred to in Article 37)**

The EU declaration of conformity shall contain the following elements:

- (1) No ... (unique identification of the product)
- (2) Name and address of the manufacturer and, where applicable, its authorised representative;
- (3) This EU declaration of conformity is issued under the sole responsibility of the manufacturer.
- (4) Object of the declaration (description of the product sufficient for its unambiguous identification and allowing traceability; it may, where necessary for the identification of the EU fertilising product, include an image);
- (5) The object of the declaration described above is in conformity with this Regulation, the delegated act adopted pursuant to Article 4 and, where applicable, other Union harmonisation legislation;
- (6) references to the relevant harmonised standards or to the common specifications used or references to the other technical specifications in relation to which conformity is declared;
- (7) where applicable, the notified body ... (name, number) performed ... (description of intervention) and issued the certificate or approval decision ... (number);
- (8) where appropriate, the reference to other Union legislation providing for the affixing of the CE mark that is applied; and
- (9) the identification and signature of the person empowered to bind the manufacturer or its authorised representative.
- (10) Additional information:

Signed for and on behalf of:

(place and date of issue):

(name, function) (signature):

## ANNEX VI

### Contents of delegated acts

#### (referred to in Article 4)

The delegated acts adopted pursuant to Article 4 are to specify the following technical elements:

- (1) the definition of the product groups covered;
- (2) the ecodesign requirements for the product groups covered, in line with Article 4 and based on the parameters referred to in Annex I;
- (3) where relevant, the parameters referred to in Annex I for which no ecodesign requirement is necessary;
- (4) the test, measurement or calculation standards or methods to be used pursuant to Article 32;
- (5) where relevant, the transitional methods, harmonised standards, the reference numbers of which have been published in the *Official Journal of the European Union*, or common specifications to be used;
- (6) the conformity assessment module to be used pursuant to Article 4, second subparagraph, as set out under Annex II to Decision 768/2008/EC. Where the module to be applied is different from the module set out in Annex IV, the factors leading to the selection of that specific procedure.

Where different conformity assessment modules, referred to in Annex II to Decision 768/2008/EC, are to be used pursuant to other Union legislation for the same product, the module defined in the delegated act adopted pursuant to Article 4 shall prevail for the ecodesign requirement concerned;

- (7) requirements on information to be provided by manufacturers, including on the elements of the technical documentation to enable the verification of compliance of the product with the ecodesign requirements. Where relevant, any additional information requirements pursuant to Articles 30 and 31;
- (8) implementation dates, any staged or transitional measure or periods, taking into account possible impacts on SMEs or on specific product groups manufactured primarily by SMEs;
- (9) the duration of the transitional period during which Member States are to permit the placing on the market or putting into service of products, which comply with the regulations in force in their territory on the date of adoption of the delegated acts adopted pursuant to Article 4;
- (10) the date for the evaluation and possible revision of the delegated act, taking into account technological progress.

## ANNEX VII

### Criteria for self-regulation measures

(referred to in Article 18)

The following non-exhaustive list of indicative criteria may be used to assess self-regulation measures as an alternative to a delegated act adopted pursuant to Article 4 of this Regulation:

#### **1. Openness of participation**

Self-regulation measures must be open to the participation of any operators placing on the market a product covered by the self-regulation measure, including third country operators, both in the preparatory and in the implementation phases. Economic operators intending to establish a self-regulation measure should make a public announcement of their intention to do so before the process of developing the measure is started.

#### **2. Sustainability and added value**

Self-regulation measures must respond to the policy objectives of this Regulation and must be consistent with the economic and social dimensions of sustainable development. Self-regulation measures must have an integrated approach to the protection of the interests of consumers, health, quality of life and economic interests.

#### **3. Representativeness**

Industry and their associations taking part in a self-regulation measure must represent a large majority of the relevant economic sector, in accordance with Article 18(3), first subparagraph, point (b). Care must be taken to ensure respect for Union competition legislation, in particular Article 101 of the Treaty on the Functioning of the European Union regarding anti-competitive agreements.

#### **4. Quantified and staged objectives**

The objectives defined by the signatories in their self-regulation measures must be set in clear and unambiguous terms, starting from a well-defined baseline. If the self-regulation measure covers a long time-span, interim targets must be included. It must be possible to monitor compliance with objectives and interim targets in an affordable and credible way using clear and reliable indicators.

#### **5. Involvement of civil society**

With a view to ensuring transparency, self-regulation measures must be publicised, including online and via other electronic means of disseminating information.

Stakeholders including Member States, industry, environmental NGOs and consumers' associations must be invited to comment on a self-regulation measure.

#### **6. Monitoring and reporting**

An independent inspector must monitor compliance of signatories with the self-regulation measure. The self-regulation measure must empower the independent inspector to verify compliance with the requirements of the self-regulation measure. It must also lay down the procedure to select an independent inspector and how it will be ensured that the inspector is free of conflict of interest and has the necessary skills for verifying compliance with the requirements set out in the self-regulation measure.

Every year, each signatory must report all the information and data necessary for the independent inspector to reliably verify the signatory's compliance with the self-regulation measure.

The independent inspector must draw up a compliance report at end of each one-year reporting period.

Where a signatory has not complied with the requirements of the self-regulation measure, it must take corrective action.

#### **7. Cost-effectiveness of administering a self-regulation measure**

The cost of administering the self-regulation measure, in particular as regards monitoring, must not lead to a disproportionate administrative burden, as compared to their objectives and to other available policy instruments.

## ANNEX VIII

### Correlation table

<b>Directive 2009/125/EC</b>	<b>This Regulation</b>
<b>Article 1</b>	<b>Article 1</b>
<b>Article 2</b>	<b>Article 2</b>
<b>Article 3</b>	<b>-</b>
<b>Article 4</b>	<b>Article 23</b>
<b>Article 5</b>	<b>Articles 37-39</b>
<b>Article 6</b>	<b>Article 3</b>
<b>Article 7</b>	<b>Articles 63 to 65</b>
<b>Article 8</b>	<b>Articles 21, 36</b>
<b>Article 9</b>	<b>Article 34</b>
<b>Article 10</b>	<b>-</b>
<b>Article 11</b>	<b>Article 5(6)</b>
<b>Article 12</b>	<b>Article 62</b>
<b>Article 13</b>	<b>Article 19</b>
<b>Article 14</b>	<b>Article 7</b>
<b>Article 15</b>	<b>Articles 4 and 5</b>
<b>-</b>	<b>Article 8-15</b>
<b>Article 16</b>	<b>Article 16</b>
<b>Article 17</b>	<b>Article 18</b>
<b>Article 18</b>	<b>Articles 17</b>
<b>-</b>	<b>Article 20</b>
	<b>Article 22</b>
	<b>Articles 24-33</b>
	<b>Article 35</b>
	<b>Article 40-61</b>
	<b>Article 66</b>
<b>Article 19</b>	<b>Article 67</b>
<b>Article 20</b>	<b>Article 68</b>
<b>Article 21</b>	<b>Article 69</b>
<b>Article 22</b>	<b>-</b>
<b>Article 23</b>	<b>-</b>

<b>Article 24</b>	<b>Article 70</b>
<b>Article 25</b>	<b>Article 71</b>
<b>Article 26</b>	-
<b>ANNEX I</b>	<b>Articles 5, 7, ANNEX I</b>
<b>ANNEX II</b>	<b>ANNEX II</b>
-	<b>ANNEX III</b>
<b>ANNEX III</b>	-
<b>ANNEX IV</b>	<b>ANNEX IV</b>
<b>ANNEX V</b>	-
<b>ANNEX VI</b>	<b>ANNEX V</b>
<b>ANNEX VII</b>	<b>ANNEX VI</b>
<b>ANNEX VIII</b>	<b>ANNEX VII</b>
<b>ANNEX IX</b>	-
<b>ANNEX X</b>	<b>ANNEX VIII</b>



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PART 1/4

**COMMISSION STAFF WORKING DOCUMENT**

**IMPACT ASSESSMENT**

*Accompanying the document*

**Proposal for a Regulation of the European Parliament and of the Council  
establishing a framework for setting ecodesign requirements for sustainable products  
and repealing Directive 2009/125/EC**

{COM(2022) 142 final} - {SEC(2022) 165 final} - {SWD(2022) 81 final} -  
{SWD(2022) 83 final}



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## 1. INTRODUCTION

This impact assessment considers the framework for improving the sustainability of products on the European market. It assesses the need for, and possible means of implementing, the sustainable product policy legislative initiative announced in last year's Circular Economy Action Plan<sup>1</sup> which, for the purpose of this impact assessment, will be referred to as the **Sustainable Products Initiative (SPI)**.

As the analysis explores, at this initiative's core is a possible revision of the Ecodesign Directive (ED)<sup>2</sup>, which currently covers energy-related products only. This impact assessment considers the additional products to which the Ecodesign Directive could usefully be extended<sup>3</sup>, how its provisions should best be reinforced and how its application could be adapted to ensure effectiveness. It also examines ways in which sustainable product choices, by consumers and public authorities, could be incentivised. In its essence, this impact assessment seeks to identify a series of priorities and tools for improving the sustainability of products placed on the EU market, as well as for ensuring that the future legislative framework allows work to be efficiently undertaken. Given the range of products that could eventually be targeted, many of the more specific product rules will be laid down in a second stage, via SPI measures<sup>4</sup> supported by impact assessments and stakeholder consultation, and underpinned by a prioritisation exercise that will identify the order in which to tackle the different products.

### 1.1. POLITICAL CONTEXT

Europe is facing the interlinked and cascading effects of climate change, biodiversity loss, and pollution – a triple planetary crisis. Developing a circular economy will contribute positively to the fight against all three. An essential objective of the circular economy is to drive Europe's internal market towards production and consumption of more sustainable products, reducing environmental and social pressures while retaining value.

This objective is reflected in the **European Green Deal**<sup>5</sup>, Europe's growth strategy to transform the EU into a fairer and more prosperous society, with a modern, competitive, climate neutral and circular economy. It recognises the advantages of investing in our competitive sustainability by building a fairer, greener and more digital Europe. This also entails engaging third countries and trading partners to ensure the sustainability of global value chains and ensuring that European emission reductions contribute to a global emissions decline, instead of pushing carbon-intensive production outside Europe. This will benefit citizens, providing them with high-quality products that are efficient and affordable, last longer and are better for the environment. The **European Industrial Strategy**<sup>6</sup> also clearly recognizes that Europe's industry must play a leading role in this transformation, reduce its carbon and material footprint and embed circularity across the economy.

The **Circular Economy Action Plan**<sup>7</sup> (CEAP) sets out what more needs to be done to speed up the transformation. It announces a sustainable product policy legislative initiative to make products fit for a climate neutral, resource efficient and circular economy, reduce waste and ensure that the performance of frontrunners in sustainability progressively becomes the norm – in particular via a

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<sup>1</sup> COM/2020/98 final

<sup>2</sup> Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products

<sup>3</sup> This assessment excludes food and feed as defined in the General Food Law (Regulation EC 178/2002), as well as raw materials as final products – all of which are to be considered outside the scope of the SPI impact assessment.

<sup>4</sup> The impact assessment report uses the term "SPI measures" to describe the secondary legislation to be adopted on the basis of the SPI basic act. Such SPI measures could be either implementing or delegated acts. To be decided when finalising the legal proposal.

<sup>5</sup> COM (2019) 640

<sup>6</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1593086905382&uri=CELEX%3A52020DC0102>

<sup>7</sup> COM/2020/98 final

revision and extension of the current Ecodesign Directive<sup>8</sup> to a wide range of products. The European Parliament and the Council strongly support these efforts to improve the sustainability of products in Europe<sup>9, 10</sup>.

Eurobarometer surveys<sup>11</sup> show that the public supports action: they suggest the most effective ways of tackling environmental problems are to ‘change the way we consume’ as well as to ‘change the way we produce and trade’; with responsibility shared by businesses, governments and the EU, as well as citizens themselves.

At international level, the EU has also committed to the implementation of the **UN 2030 Agenda for Sustainable Development**, including its **17 Sustainable Development Goals** (SDG). While a 2021 report<sup>12</sup> found that the EU has recently achieved moderate progress towards **SDG 12**, ‘*Ensure sustainable consumption and production patterns*’, it also highlighted that absolute decoupling of both energy and material use has not been achieved by the EU, that waste generation has been increasing, and that average CO<sub>2</sub> emissions from new cars are not falling fast enough to meet targets – all suggesting much work remains to be done.

The CEAP emphasises that the EU cannot deliver alone the ambition of the European Green Deal for a climate-neutral, resource-efficient and circular economy. Therefore, SPI will contribute to EU efforts to lead the way to a circular economy at the global level<sup>13</sup>. It should be seen as a **key instrument** for achieving EU climate goals: it will synergize with and complement instruments with more direct climate focus<sup>14</sup> by going beyond the production of basic materials/basic material components to cover **final products** themselves. This will allow for taking action on negative impacts generated along the entire life-cycle and value chain of a product – not only e.g. direct emissions generated during a product’s use phase, but also embedded emissions of a product throughout its lifecycle, or other negative consequences (e.g. on resource depletion; land use; ozone depletion etc.). This will directly support Green Deal objectives, by fostering the environmental optimisation of value chain management through footprint reduction.

## 1.2. LEGAL CONTEXT

Article 3.3 of the Treaty on the European Union (TEU) states that “The Union shall [...] work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment.”.

The EU’s existing product policy framework<sup>15</sup> only partially addresses the sustainability aspects of products. The Ecodesign Directive regulates energy efficiency, environmental impacts and some circularity features of energy-related products, with a focus on product design requirements. Whilst the Ecodesign Directive is recognised<sup>16</sup> as having contributed to significant efficiency gains for energy-related products since it was first adopted, it is one of the only existing pieces of legislation

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<sup>8</sup> Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products

<sup>9</sup> See for example [https://www.europarl.europa.eu/doceo/document/TA-9-2020-0318\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2020-0318_EN.html) ; [https://www.consilium.europa.eu/media/47583/st\\_13852\\_2020\\_init\\_en-1.pdf](https://www.consilium.europa.eu/media/47583/st_13852_2020_init_en-1.pdf), as well as Annex 5.

<sup>10</sup> It should also be noted that the new EU Strategy on Adaptation to Climate Change calls for improving water efficiency and reuse by raising the requirements for products subject to ecodesign and energy labelling.

<sup>11</sup> <https://europa.eu/eurobarometer/surveys/detail/2257>

<sup>12</sup> Monitoring report on progress towards the SDGs in an EU context, 2021 edition. <https://ec.europa.eu/eurostat/documents/3217494/12878705/KS-03-21-096-EN-N.pdf/8f9812e6-1aaa-7823-928f-03d8dd74df4f?t=1623741433852>

<sup>13</sup> In line with the Commission Staff Working Document “Leading the way to a global circular economy: state of play and outlook”. SWD(2020) 100

<sup>14</sup> Such as those included in the recently adopted Fit for 55 package, in particular the EU Emissions Trading System (ETS) and the Carbon Border Adjustment Mechanism

<sup>15</sup> For an overview of the EU product policy framework and its contribution to circular economy, see SWD (2019) 91: Sustainable Products in a Circular Economy

<sup>16</sup> In particular with regard to energy efficiency. See, e.g. Energy Efficiency Policies around the World: Review and Evaluation, p. 48, World Energy Council 2008.

focused on fostering the sustainability of a specific product group. As evidenced in the CEAP, the European Commission recognises that to deliver its Green Deal commitments, it should replicate the successful approach of the Ecodesign Directive for other product groups: the scope of the Ecodesign Directive thus needs to be widened, and its provisions reinforced to further emphasise the need for circular product design and a holistic, whole life-cycle approach to product regulation.

From an internal market point of view, as there is currently no legislation at EU level that addresses in full the sustainability aspects of products (as mentioned above), creating a regulatory framework to gradually introduce sustainability requirements for more products will help avoid potential regulatory barriers between Member States.

As for existing and emerging EU legislation covering products that would be in scope of SPI, the SPI regulatory framework will ensure consistency and complementarity with them, in a similar manner to how this takes place under the current Ecodesign framework. A number of sections throughout this impact assessment, including the following section and in particular Annex 14, provide further details on how SPI would interact with other related existing and emerging initiatives.

### **1.3. COHERENCE WITH OTHER RELATED INITIATIVES**

Due to its wide scope, both in terms of product coverage and type of legal requirements, SPI is intended to work in synergy with other initiatives announced in the CEAP or implementing the European Green Deal. These include, but are not limited to:

- the initiative on Empowering Consumers for the Green Transition<sup>17</sup> which, in particular, will improve information at the point of sale on the durability and reparability of products and provide better consumer protection against misleading practices in relation to sustainable purchases;
- the Green Claims Initiative<sup>18</sup>, on the substantiation of environmental claims, which aims at reducing the risk of greenwashing and at providing reliable, comparable and verifiable information that enables buyers to make more sustainable decisions, in particular by strengthening and harmonising the framework for establishing in a reliable and comparable manner the environmental performance of products;
- the revision of the Construction Products Regulation;
- the revision of the Packaging and Packaging Waste Directive;
- EU Strategy for Sustainable Textiles;
- the Sustainable Corporate Governance initiative, as regards the possibility of requirements of due diligence on value chains;
- Proposal for a Batteries Regulation;
- the Circular Electronics Initiative;
- the Chemicals Strategy for Sustainability;
- the Right to Repair Initiative;

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<sup>17</sup> [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12467-Consumer-policy-strengthening-the-role-of-consumers-in-the-green-transition\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12467-Consumer-policy-strengthening-the-role-of-consumers-in-the-green-transition_en)

<sup>18</sup> [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12511-Environmental-performance-of-products-&-businesses-substantiating-claims\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12511-Environmental-performance-of-products-&-businesses-substantiating-claims_en)

- the revision of the Industrial Emissions Directive;
- Proposal to reduce the release of microplastics in the environment and to restrict the addition of microplastics to product.

Together, these initiatives will help to foster a key objective of the CEAP and European Green Deal – namely to ensure that all products placed on the EU market become increasingly sustainable (*see also section 7.9 and Annex 14 for further details*).

## 2. PROBLEM DEFINITION

The main problem is that **consumption and production are not sustainable and not adequately addressed by existing EU product and internal market rules, leading to increasingly divergent national rules on the sustainability of products.**

Sustainable production and consumption<sup>19</sup> encompasses<sup>20</sup>:

- minimal use of natural resources and toxic materials during production and use;
- minimal pollution, including GHGs emissions, and minimal generation of waste over the product’s life cycle;
- design allowing for products to be kept in use for as long as possible;
- not negatively impacting on quality of life and human dignity (i.e. impacts on health, deterioration of social conditions, violation of human rights, including labour rights);
- minimal compromise of a product’s functionality and safety as a result of the above.

The above criteria provide a broad, working-level concept of sustainability – encompassing **environmental, social and economic** dimensions – for the purposes of this impact assessment. It follows that all of these dimensions should to be considered and addressed in a proportionate way when addressing the sustainability levels of a given product.<sup>21</sup>

### Box 1: Problem Context

(For further details on the below, please see Annex 7: Problem Definition, section *What is/are the main problem(s)?*)

While some products in the EU meet the criteria set out at the beginning of this section, many products do not. An examination of the wider context of this problem shows that:

- 1) resources are being used too inefficiently;**
- 2) some environmental impacts of the consumption of an average EU citizen are outside the safe operating space for humanity<sup>22</sup>;**
- 3) the EU economy remains largely ‘linear’ by design<sup>23</sup>;**

<sup>19</sup> Consumption includes the use phase of products

<sup>20</sup> See for example: <https://sustainabledevelopment.un.org/topics/sustainableconsumptionandproduction>

<sup>21</sup> This is without prejudice to the full set of criteria that will be used to select, prioritise and set requirements for the products to be regulated under the future SPI – which will nevertheless be required to take the environmental, social and economic dimensions firmly into account. Please see Annex 16 for further details.

<sup>22</sup> Sala, S. and Sanye Mengual, E., Consumption Footprint: assessing the environmental impacts of EU consumption, European Commission, 2022, JRC126257, <https://publications.jrc.ec.europa.eu/repository/handle/JRC126257>.



4) and production is sometimes taking place **in poor social conditions**<sup>24</sup>.

5) As a result of the above, attempts to improve the sustainability performance of products are being pursued individually by some Member States, leading to increasingly **divergent national approaches**.

\*\*\*\*\*

**1) Resources use:** According to latest UN projections, the global population is expected to grow to around 9.7 billion in 2050, meaning the equivalent of almost three planets would be required to provide the natural resources needed to sustain current lifestyles<sup>25</sup>. Partly as a result, annual global extraction of materials is growing<sup>26</sup>, posing a major environmental risk at global level. Natural resource extraction and processing generate about half of the total greenhouse gas (GHG) emissions and more than 90% of water stress and biodiversity loss<sup>27</sup>. European consumption trends in this respect are a cause for concern: if they persist, the European Green Deal goals of reaching zero net emissions of greenhouse gases by 2050 will be more difficult to meet. Europe is also relatively dependent on external sources of natural resources and energy, leading the Commission to develop policies to enhance “open strategic autonomy” when vulnerabilities were highlighted during the Covid pandemic.

One way to help tackle the above is to decouple economic growth from resource use. This occurs when resource use or pressures on the environment grow at a slower rate than the activity causing it (*relative* decoupling), or decline while the economic activity continues to grow (*absolute* decoupling).

**The EU’s progress in this respect in recent years is mixed:** despite some periods of absolute decoupling since 2000, starting from 2013 the use of material resources in the EU has been increasing again (e.g. 4 % in 2013-2017). As a result, we have moved from absolute decoupling to re-enter a phase of relative decoupling<sup>28</sup>. In addition Consumption Footprint<sup>29</sup> analysis shows that certain impact categories are showing a relevant impact *increase* (e.g. ozone depletion, mainly due to international cold chains transport; land use, due to increase of bio-based materials as input to different sectors, including textile, furniture etc.).

**2) Planetary boundaries:** The planetary boundaries (PBs) is a concept addressing Earth system processes which are affected by environmental boundaries in order to define a "safe operating space for humanity", as a precondition to achieve sustainable development. A recent JRC study<sup>30</sup> assessed the impacts of production and consumption in the EU and compared them with the PBs, finding that the impacts related to climate change<sup>31</sup>, particulate matter<sup>32</sup>, and fossil and mineral resources<sup>33</sup> were

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<sup>23</sup> [https://circulareconomy.europa.eu/platform/sites/default/files/circular\\_by\\_design\\_-\\_products\\_in\\_the\\_circular\\_economy.pdf](https://circulareconomy.europa.eu/platform/sites/default/files/circular_by_design_-_products_in_the_circular_economy.pdf)

<sup>24</sup> In violation of Fundamental Conventions of the International Labour Organisation (ILO). The 8 Fundamental Conventions of the ILO are: Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)

Right to Organise and Collective Bargaining Convention, 1949 (No. 98)

Forced Labour Convention, 1930 (No. 29) (and its 2014 Protocol)

Abolition of Forced Labour Convention, 1957 (No. 105)

Minimum Age Convention, 1973 (No. 138)

Worst Forms of Child Labour Convention, 1999 (No. 182)

Equal Remuneration Convention, 1951 (No. 100)

Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

<sup>25</sup> <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>

<sup>26</sup> OECD projects that global materials use will be more than double from 79 Gt in 2011 to 167 Gt in 2060. See <https://www.oecd.org/environment/waste/highlights-global-material-resources-outlook-to-2060.pdf>

<sup>27</sup> Global Resources Outlook 2019: Natural Resources for the Future We Want: The International Resource Panel.

<sup>28</sup> EEA, Resource efficiency and the circular economy in Europe 2019 — even more from less.

<sup>29</sup> A life cycle assessment-based indicator that evaluates the environmental impacts of EU consumption by assessing five areas of consumption, namely food, mobility, housing, household goods and appliances

<sup>30</sup> Sala, S. and Sanye Mengual, E., Consumption Footprint: assessing the environmental impacts of EU consumption, European Commission, 2022, JRC126257, <https://publications.jrc.ec.europa.eu/repository/handle/JRC126257>.

<sup>31</sup> Staying within a climate change planetary boundary (such as the Paris Agreement goal of limiting global warming to well below 2°C and pursuing efforts to limit the increase to 1.5°C) requires reducing CO2 emissions to net zero globally, and achieving declining net non-CO2 radiative forcing. In pursuit of this, the European Climate Law has set the objective of balancing greenhouse gas emissions and removals in the EU regulated in Union law at the latest by 2050.

close to or had already transgressed global boundaries, and that in all other impact categories a **negative environmental impact** was occurring. This means that, with less than 10% of the world's population, the EU was close to transgressing the global ecological limits for the impacts measures.

**3) The EU's linear economy:** While the shift toward the green transition has started, **the EU economy is still far from being circular and progress remains slow.** Linear systems involve a fast throughput of resources in the economy, with the value of those resources (in the form of products and assets) being lost rapidly. Resources exit the economy in the form of waste, pollution and emissions. The costs of dealing with waste, pollution and emissions do not fall on those putting products on the market. EU industry still accounts for 20% of the EU's greenhouse gas emissions<sup>34</sup>. It also remains too dependent on a throughput of primary materials: though the circular material use rate<sup>35</sup> has been growing, progress remains very slow (8.2 in 2004 to 11.8 in 2019<sup>36</sup>). Demand for recycled materials also remains low: only 9.5% (0.7 billion tonnes) of materials processed from 2010-2018 were from recycled materials<sup>37</sup>. The share of market demand met by secondary materials also differs starkly: 50% or over for lead and copper<sup>38</sup>, while for plastics it is only 6%<sup>39</sup> (of which only 2% is represented by single-use plastics<sup>40</sup>), and for materials such as indium<sup>41</sup>, used in the touchscreens of smartphones, it is well under 10%.

**4) Social conditions of production of products placed on EU market:** Products, including those consumed in the European Union, can be produced under conditions that violate fundamental human rights<sup>42</sup>. These violations can take place within the EU or along the global chains supplying the products placed on its market. A 2021 report<sup>43</sup> of the ILO and Unicef warns that the number of children in child labour continues to rise. Some cases have been identified in sectors directly or indirectly linked to the products likely to fall within the scope of SPI, such as agriculture (i.e. farming of raw materials such cotton), mining and quarrying, and garments and textiles<sup>44</sup>, while tens of thousands of children are reported to work in African open-pit mines, which supply niobium and tantalum to the global electronics industry<sup>45</sup>. Contemporary forms of slavery have also been cited as occurring in global supply chains of international brands in the garment and footwear sector,<sup>46</sup> and forced labour in the manufacturing of electronic goods has been the subject of recent research.<sup>47</sup>

<sup>32</sup> This refers to adverse impacts on human health caused by emissions of Particulate Matter (PM) and its precursors (e.g. NO<sub>x</sub>, SO<sub>2</sub>). Usually, the smaller the particles, the more dangerous they are, as they can go deeper into the lungs. The potential impact of is measured as the change in mortality due to PM emissions, expressed as disease incidence per kg of PM<sub>2.5</sub> emitted.

<sup>33</sup> The amount of fossil resources or mineral (e.g. metals) use for the production and the consumption of goods

<sup>34</sup> COM (2019), 640 final, p. 7.

<sup>35</sup> This measures the share of material recycled and fed back into the economy - thus saving extraction of primary raw materials - in overall material use. The circular material use rate, also known as circularity rate, is defined as the ratio of the circular use of materials to the overall material use.

<sup>36</sup> [https://ec.europa.eu/eurostat/databrowser/view/cei\\_srm030/default/line?lang=en](https://ec.europa.eu/eurostat/databrowser/view/cei_srm030/default/line?lang=en)

<sup>37</sup> Eurostat Experimental Sankey Diagrams of material flows for the years 2010-2018; Eurostat (2018) Material Flow diagram for the EU-27 2018

<sup>38</sup> <https://copperalliance.eu/benefits-of-copper/recycling/>

<sup>39</sup> A European Strategy for Plastics in a Circular Economy, COM(2018) 28 final

<sup>40</sup> <https://www.minderoo.org/plastic-waste-makers-index/>

<sup>41</sup> Foresight on Critical Raw Materials for European Industry, March 2020,

[https://ec.europa.eu/info/sites/default/files/foresight\\_newsletters\\_collection\\_online\\_2020.pdf](https://ec.europa.eu/info/sites/default/files/foresight_newsletters_collection_online_2020.pdf)

<sup>42</sup> In particular one or several of the 8 Fundamental Conventions of the International Labour Organisation (ILO). These are:

Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87); Right to Organise and Collective Bargaining; Convention, 1949 (No. 98); Forced Labour Convention, 1930 (No. 29) (and its 2014 Protocol); Abolition of Forced Labour; Convention, 1957 (No. 105); Minimum Age Convention, 1973 (No. 138); Worst Forms of Child Labour Convention, 1999 (No. 182); Equal Remuneration Convention, 1951 (No. 100); Discrimination (Employment and Occupation) Convention, 1958 (No. 111).

<sup>43</sup> International Labour Office and United Nations Children's Fund, Child Labour: Global estimates 2020, trends and the road forward, ILO and UNICEF, New York, 2021. <https://data.unicef.org/wp-content/uploads/2021/06/Child-Labour-Report.pdf>

<sup>44</sup> ILO, "Implementing the Roadmap for Achieving the Elimination of the Worst Forms of Child Labour by 2016: a training guide for policymakers" (2013), p. 9.

<sup>45</sup> B. Vivuya, Equal Times, 16 October 2020: "As incremental efforts to end child labour by 2025 persist, Congo's child miners – exhausted and exploited – ask the world to "pray for us"", available at: <https://www.equaltimes.org/as-incremental-efforts-to-end-child-labour-by-2025-persist-congos-child-miners-exhausted-and-exploited-ask-the-world-to-pray-for-us/>

<sup>46</sup> See, for example, Centre for Research on Multinational Corporations and India Committee of the Netherlands, "Flawed Fabrics: the abuse of girls and women workers in the South Indian textile industry" (2014) ([www.indianet.nl/FlawedFabrics.html](http://www.indianet.nl/FlawedFabrics.html)); **Anti-Slavery International**, "Slavery on the high street: forced labour in the manufacture of garments for international brands" (2012) ([www.antislavery.org/includes/documents/cm\\_docs/2012/s/1\\_slavery\\_on\\_the\\_high\\_street\\_june\\_2012\\_final.pdf](http://www.antislavery.org/includes/documents/cm_docs/2012/s/1_slavery_on_the_high_street_june_2012_final.pdf)).

<sup>47</sup> ILO referred to the response of a major United States electronics company to allegations of forced labour in factories in China in its publication *Combating Forced Labour: A Handbook for Employers & Business*, Good Practice Case Studies, Part 7 (2008), pp. 5–7. See

Within the EU itself, 610,000 are estimated to be victims of forced labour exploitation across a range of industries and economic sectors, including agriculture, manufacturing and construction (2012 figures<sup>48</sup>), with migrant workers more likely to be found in such vulnerable situations<sup>49</sup>.

**5) Diverging national approaches:** In the absence of overarching or harmonised rules at EU level, Member States (e.g. France, Germany, the Netherlands, and Finland) are pressing ahead with rules to foster the sustainability of the products placed on their markets and it is likely that the fragmentation of the internal market will continue to rise, as illustrated by the growing trend in the number of national environmental legislation entries that potentially have cross-border impact. Though Member State initiatives are a positive sign of their engagement with circular economy practices, they are leading to increasingly divergent national approaches, which is generating uncertainty for businesses. This in turn risks threatening their continued investment in innovation and sustainable product development (please see more information under sections on *Consequences* and *Drivers*, as well as in Annex 7).

Stakeholders agree to a large extent on topics closely related to the problem definition<sup>50</sup>:

- *Most respondents to the Public Consultation agreed or strongly agreed that **products do not sufficiently cover the costs of the harm that their production and use cause to the environment**, particularly in the non-industry-related stakeholder categories<sup>51</sup>. While less industry representatives shared this view<sup>52</sup>, only a small minority of them disagreed or strongly disagreed<sup>53</sup>.*
- *A clear majority of respondents to the Public Consultation, including SMEs<sup>54</sup>, agreed or strongly agreed that there are **no harmonized requirements to foster the sustainable design of products**<sup>55</sup> and that **diverging national rules and lack of a harmonized set of EU rules discourage large businesses, which operate across various EU Member States, from offering more sustainable products**, compared to much lower numbers that disagree or strongly disagree<sup>56</sup>.*

Three principle sub-problems can be identified as contributing to the main problem:

### **Sub-problem 1: Product design does not sufficiently take into account environmental impacts over the life cycle, including circularity aspects**

Around 80% of a product's environmental impacts is determined at the design phase<sup>57</sup>. Designing products in a more circular way<sup>58</sup> can offset the negative environmental impacts of products and

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also China Labor Watch, "Is Samsung Infringing Upon Apple's Patent to Bully Workers?" (2012) ([www.chinalaborwatch.org/upfile/2012\\_9\\_4/Samsung%20Report%200904-v3.pdf](http://www.chinalaborwatch.org/upfile/2012_9_4/Samsung%20Report%200904-v3.pdf)) and "Beyond Foxconn: Deplorable Working Conditions Characterize Apple's Entire Supply Chain" (2012) ([www.chinalaborwatch.org/upfile/2012\\_8\\_13/2012627-5.pdf](http://www.chinalaborwatch.org/upfile/2012_8_13/2012627-5.pdf)); and Verité, "Forced Labor in the Production of Electronic Goods in Malaysia: A Comprehensive Study of Scope and Characteristics" (2014) ([www.verite.org/sites/default/files/images/VeriteForcedLaborMalaysianElectronics2014.pdf](http://www.verite.org/sites/default/files/images/VeriteForcedLaborMalaysianElectronics2014.pdf)).

<sup>48</sup> ILO 2012 Global Estimate of Forced Labour – Regional Factsheet European Union. [https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-brussels/documents/genericdocument/wcms\\_184975.pdf](https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-brussels/documents/genericdocument/wcms_184975.pdf)

<sup>49</sup> European Union Agency for Fundamental Rights, Protecting migrant workers from exploitation in the EU: workers' perspectives, 2019. [https://fra.europa.eu/sites/default/files/fra\\_uploads/fra-2019-severe-labour-exploitation-workers-perspectives\\_en.pdf](https://fra.europa.eu/sites/default/files/fra_uploads/fra-2019-severe-labour-exploitation-workers-perspectives_en.pdf)

<sup>50</sup> For more information, please see Annex 2

<sup>51</sup> For example, 91% of EU citizens and consumer organisations (combined); 95% of environmental organisations and NGOs (combined); and 90% of EU public authorities.

<sup>52</sup> Overall, 40% of business associations and companies (combined) agreed or strongly agreed; isolating SMEs as a category, 58% agreed or strongly agreed

<sup>53</sup> 20% of business associations and companies (combined) disagreed or strongly disagreed

<sup>54</sup> Companies/business organisations with less than 250 employees were considered as SMEs in the context of the OPC

<sup>55</sup> 65% of business associations and companies (combined) agree or strongly agree (while only 18% of them disagree or strongly disagree); 66% of SMEs agree or strongly agree; 92% of environmental organisation & NGOs (combined) agree or strongly agree; and over 95% of EU public authorities agree or strongly agree.

<sup>56</sup> Over 65% or over of all of the following categories agreed or strongly agreed: business associations and companies (combined); environmental organisation & NGOs (combined); EU public authorities. 53% SMEs agreed or strongly agreed. Figures disagreeing or strongly disagreeing were far lower, e.g. 17% of business associations and companies (combined).

<sup>57</sup> "How to do EcoDesign?", a guide for environmentally and economically sound design edited by the German federal Environmental Agency, Verlag form, 2000

‘close the loop’ for different materials and products. **We are not yet there, however:** the 2020 Circularity Gap report identified poor design of products as one of the chief contributory factors to continued linearity and reliance on virgin materials<sup>59</sup>. In the EU, data on design-related dimensions such as *durability and reparability*, as well as *recyclability, reusability and re-manufacturability* appear to confirm this (please see Annex 7 for further details):

- *Durability and reparability*: reductions in the lifespan of some consumer products have been identified over recent years<sup>60</sup>, in part due to the fact that design does not always take into account the need for products to be easily repaired. Aside from any reputational damage to the brand, the producer normally bears no costs or consequences for the post-sale performance, repair and end-of-life costs of its products. For example, the growing tendency to produce more integrated products has made disassembly of parts, and therefore repair, more difficult: batteries in the best-selling smart-phones of 2019 (48% of the European market) were all found to be fastened with adhesives (e.g. instead of joining mechanisms), meaning that removal is not possible without the intervention of experienced repairers<sup>61</sup>.
- *Recyclability, reusability and re-manufacturability*: increasingly complex product designs (including substances of concern and compound substances) are creating barriers to recycling. In the case of plastics in products for example, mixtures of different polymers and additives or differing materials mean that recyclers are increasingly unable to separate components effectively, and the production of high quality secondary materials is being hampered<sup>62</sup>. For textiles, chemicals chosen during production sometimes remain in the products throughout the use phase, with implications for recovery potential<sup>63</sup>. In a market study<sup>64</sup> under the Horizon 2020 programme, one of the main barriers to wider roll-out of remanufacturing activities identified by the European Remanufacturing Network was “*poor design for remanufacturing: Particularly where remanufacturing is not embedded within the OEM culture, remanufacturing can sometimes be inhibited by poor design*”.

The net result is that products are being replaced more frequently than before, involving **significant energy and resource use** in order to produce and distribute new products and dispose of old ones<sup>65</sup>. Significant jobs potential is also being lost in the repair, recycling, re-use and remanufacturing sectors<sup>66</sup>. Evidence suggests that the environmental impacts from life cycle stages other than use are significant for many sectors<sup>67</sup>.

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<sup>58</sup> This would mean designing products in a way that facilitates the circular use of their materials (such as by ensuring recycling, reuse, refurbishment or remanufacturing can take place) and in a way that aims to reduce the generation of waste as well as our economy's dependence on extraction and imports of raw materials. See EEA, 2017, [Circular by design: Products in the circular economy](#)

<sup>59</sup> Circularity Gap Report 2020, p. 15, [https://assets.website-files.com/5e185aa4d27bcf348400ed82/5e26ead616b6d1d157ff4293\\_20200120%20-%20CGR%20Global%20-%20Report%20web%20single%20page%20-%2020210x297mm%20-%20compressed.pdf](https://assets.website-files.com/5e185aa4d27bcf348400ed82/5e26ead616b6d1d157ff4293_20200120%20-%20CGR%20Global%20-%20Report%20web%20single%20page%20-%2020210x297mm%20-%20compressed.pdf)

<sup>60</sup> See:

- Öko-Institut in Germany, Prakash S. e.a., 2016.

- EEB (2019) Coolproducts don't cost the earth -full report. [www.eeb.org/coolproducts-report](http://www.eeb.org/coolproducts-report);

- Report by the NGO “*Halte à l'obsolescence programmée – HOP*”, “Lave-linge : une durabilité qui prend l'eau ?” (2019), <https://www.halteobsolescence.org/wp-content/uploads/2019/09/Rapport-lave-linge.pdf>

- Report for the Greens group in the German *Bundestag*, Geplante Obsoleszenz: Entstehungsursachen, Konkrete Beispiele, Schadensfolgen, Handlungsprogramm - Gutachten im Auftrag der Bundestagsfraktion Bündnis 90 / Die Grünen (2013), <https://www.schridde.org/download/Studie-Obsoleszenz-aktualisiert.pdf>

<sup>61</sup> Cordella, M.; Alfieri, F.; Clemm, C.; Berwald, A.; 2020, Durability of smartphones: A technical analysis of reliability and reparability aspects, p.7.

<sup>62</sup> Plastics Recyclers Europe, <https://www.plasticsrecyclers.eu/challenges-and-opportunities>

<sup>63</sup> Schmidt, A., Watson, D., Roos, S., Askham, C., Gaining benefits from discarded textiles: LCA of different treatment pathways, 2016

<sup>64</sup> Remanufacturing Market Study (Horizon 2020) European Remanufacturing Network et al (2015), <https://www.remanufacturing.eu/assets/pdfs/remanufacturing-market-study.pdf>

<sup>65</sup> EEB, 2019, Cool Products Don't Cost The Earth, <https://mk0eeborgicuytuf7e.kinstacdn.com/wp-content/uploads/2019/09/Coolproducts-report.pdf>

<sup>66</sup> “How does the circular economy change jobs in Europe? Upskilling and reskilling for a just transition” SITRA, <https://www.sitra.fi/en/publications/how-does-the-circular-economy-change-jobs-in-europe/>

<sup>67</sup> E. Hertwich, and R. Wood, “The growing importance of scope 3 greenhouse gas emissions from Industry”, *Environ. Res. Lett.* 13 (2018) 104013

Stakeholders consulted in the context of this impact assessment agree to a large extent that the way products are currently designed can act as a barrier to increased sustainability<sup>68</sup>:

- *Most respondents to the Public Consultation agreed or strongly agreed that **many products are not designed to be easily repaired or upgraded**<sup>69</sup>. While EU citizens & consumer organisations showed overwhelming support for this view<sup>70</sup>, it was shared somewhat less strongly by representatives of **industry**<sup>71</sup>.*
- *Most respondents also agreed or strongly agreed that **materials used in products are more and more complex and difficult to recycle**<sup>72</sup>. EU citizens & consumers showed strong support for this view<sup>73</sup>, while representatives of **industry** did so to a lesser extent<sup>74</sup>.*

## **Sub-problem 2: Too difficult for economic operators and citizens to make sustainable choices in relation to products**

It is still too difficult for economic operators and citizens to make sustainable choices in relation to products given that relevant **information and affordable options** to do so are lacking. Information on product environmental characteristics is poor: 85% of people<sup>75</sup> are unsatisfied with the information available to them, yet most consumers want it so they can shift to buying more environmentally friendly products<sup>76,77</sup>. In a **business-to-business** context, economic actors along the supply chain report considerable problems related to product design, and information gaps, such as between suppliers, producers, and waste recovery managers on composition, recyclability and toxicological characteristics of product materials<sup>78,79</sup>. The magnitude of the problem is such that European industrial representatives have cited lack of available data as the main non-cost obstacle to higher demand and market competition for climate neutral basic materials and products<sup>80</sup>. This lack of information leads to missed opportunities for sustainability and for value-retaining operations, and negatively affects the quality of and demand for secondary materials<sup>81</sup>, including inhibiting the adoption of Circular Business Models<sup>82,83</sup> (CBM). The European Remanufacturing Network has identified “*lack of*

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<sup>68</sup> For more information, please see Annex 2

<sup>69</sup> Overall, approximately 66% agreed or strongly agreed with this statement, while 8% disagreed or strongly disagreed.

<sup>70</sup> Approximately 92% of EU citizens & consumer organisations (combined) agreed or strongly agreed, while only 4% disagreed or strongly disagreed.

<sup>71</sup> Approximately 47% of business associations and companies (combined) agreed or strongly agreed, while 12,5% disagreed or strongly disagreed.

<sup>72</sup> Overall, approximately 60% agreed or strongly agreed with this statement, while 14% disagreed or strongly disagreed.

<sup>73</sup> Approximately 77% of EU citizens & consumer organisations (combined) agreed or strongly agreed, while only 6% disagreed or strongly disagreed.

<sup>74</sup> Approximately 46% of business associations and companies (combined) agreed or strongly agreed, while 18% disagreed or strongly disagreed.

<sup>75</sup> See SWD(2019) 92 final, p. 66

<sup>76</sup> This is in line with the findings from the consumer survey conducted in preparation of the Empowering the consumers for the Green Transition, with between 42% and 60% of respondents (depending on the products category) reporting that they would be willing to pay about 5% of the price of a product to receive information on the environmental characteristics of the product. European Commission, *IA supporting study*, forthcoming. Binninger, A.S., Robert, I., Ourahmoune, N., *Etiquettes environnementales et consommation durable: des relations ambiguës en construction*. Revue de l'organisation responsable 9, 2014, p. 5-24.

<sup>77</sup> Nicolli F, Johnstone N, So'nderholm P (2012) Resolving failures in recycling markets: the role of technological innovation. *Environ Econ Policy Stud* 14:261–288

<sup>78</sup> [Circular Business Models: Overcoming Barriers, Unleashing Potentials \(squarespace.com\)](#); [Circular Business Models: Overcoming Barriers, Unleashing Potentials \(squarespace.com\)](#)

<sup>79</sup> Nicolli F, Johnstone N, So'nderholm P (2012) Resolving failures in recycling markets: the role of technological innovation. *Environ Econ Policy Stud* 14:261–288

<sup>80</sup> Sartor, O. (Agora Energiewende), Whittington, E., Markkanen, S. (University of Cambridge Institute for Sustainability Leadership (CISL)): Tomorrow's market today: Scaling up demand for climate neutral basic materials and products, 2021, [https://www.corporateleadersgroup.com/files/cisl-clg-agora\\_tomorrows\\_markets\\_today\\_report.pdf](https://www.corporateleadersgroup.com/files/cisl-clg-agora_tomorrows_markets_today_report.pdf)

<sup>81</sup> [Circular Business Models: Overcoming Barriers, Unleashing Potentials \(squarespace.com\)](#); [Circular Business Models: Overcoming Barriers, Unleashing Potentials \(squarespace.com\)](#)

<sup>82</sup> Adisorn, T.; Tholen, L.; Götzt, T. Towards a Digital Product Passport Fit for Contributing to a Circular Economy. *Energies* 2021, 14, 2289. <https://www.mdpi.com/1996-1073/14/8/2289>

<sup>83</sup> Some companies have used data from product life cycle assessment to identify environmental focal areas or improve circularity along the supply chain (See [Philips](#) or [Levi Strauss](#)) while others report significant cost avoidance secured through comparative life cycle assessment (see [Unilever](#) reports over €700m of cumulative cost avoidance since 2008 through measures focussing on water, energy,

*technical information on third party products...[where] the knowledge necessary to remanufacture products effectively is not readily available to non-OEMs” as one of the main barriers to wider roll-out of remanufacturing business models<sup>84</sup>.*

Stakeholders consulted in the context of this impact assessment agree to a large extent that lack of information is a barrier to more sustainable products and product choices in the EU<sup>85</sup>:

- *Most respondents to the Public Consultation agreed or strongly agreed that products sold in the EU are less sustainable because **economic actors do not have adequate and reliable information on their sustainability**<sup>86</sup>. This view was broadly shared amongst most **industry representatives**<sup>87</sup> as well as by **EU citizens & consumer organisations**<sup>88</sup>.*
- *Most respondents agreed or strongly agreed that **requiring producers/importers to ensure information on reparability is provided on or with a product** would foster the overall sustainability of products<sup>89</sup>. While **EU citizens & consumer organisations** showed strong support for this view<sup>90</sup>, it was shared to a lesser extent by representatives of **industry**<sup>91</sup>.*

Another issue is the price gap vis-à-vis conventional, less sustainable products. Sustainable products are in some cases intrinsically more costly to purchase (in part because of market failures): whilst some consumers are willing to pay more for environmentally-friendly products and higher upfront costs can often be offset by extended product lifetime and/or lower usage costs, they need to be confident about the product’s credentials.

Consumers make choices about whether or not to purchase a product. If it is a replacement this is associated with decisions about not repairing or choosing to discard an existing product, unless it is not possible to effectively choose repair. Evidence shows that a significant proportion of appliances are replaced when there is no functional reason to do so<sup>92</sup>, for various reasons<sup>93</sup>. A lack of information on e.g. product reparability or durability can be a factor in deciding whether to replace a product. Similarly, whether or not consumers can effectively repair a product and the rights they might have in this regard, can play an important role.<sup>94</sup> Many products are purchased by consumers, but used only intermittently. In such cases access to product as-a-service would be a less costly option, as well as being more optimal in resource-use. The provision of such servitised or sharing models is growing, but hindered through poor product design (intensive use leading to more frequent need for maintenance and repair) and poor information.

In addition, when choosing between products the consumer will make a decision based on multiple factors that are likely to include the functionality of a product and its price. An illustration of possible

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waste and materials, and a media company reached over €30m cost avoidance through a comparative life cycle assessment of packaging focussing on greenhouse gas emissions only)

<sup>84</sup> Remanufacturing Market Study (Horizon 2020) European Remanufacturing Network et al (2015), <https://www.remanufacturing.eu/assets/pdfs/remanufacturing-market-study.pdf>

<sup>85</sup> For more information, please see Annex 2

<sup>86</sup> Overall, approximately 58% agreed or strongly agreed with this statement, while 19% disagreed or strongly disagreed.

<sup>87</sup> 54% of business associations and companies (combined) agreed or strongly agreed; 22% disagreed or strongly disagreed. For SMEs, approximately 64% agreed or strongly agreed; 12.5% disagreed or strongly disagreed.

<sup>88</sup> 57% of EU citizens & consumer organisations (combined) agreed or strongly agreed, compared with 26% who disagreed or strongly disagreed.

<sup>89</sup> Overall, approximately 53% agreed or strongly agreed with this statement, while 12% disagreed or strongly disagreed.

<sup>90</sup> Approximately 74% of EU citizens & consumer organisations (combined) agreed or strongly agreed, while 11% disagreed or strongly disagreed.

<sup>91</sup> Approximately 40% of business associations and companies (combined) agreed or strongly agreed, while 13% disagreed or strongly disagreed.

<sup>92</sup> Premature Obsolescence Multi-Stakeholder Product Testing Programme: Product Lifecycle & Product Replacement reasons: replacement unrelated to reliability - 25% washing machines, 63% smartphones ; 63% TVs; 36% vacuum cleaners.

<sup>93</sup> <https://www.becomingminimalist.com/fooled/>

<sup>94</sup> The Commission is planning in 2022 an initiative to address consumers rights that promote a more sustainable use of products (‘right to repair’).

factors for the purchase of a washing machine are shown below<sup>95</sup>. Energy use and other environmental factors may be important considerations, although this research shows that they were not the most important ones. It also must be noted that the importance of different characteristics changes with the product under consideration. Nevertheless since it is clear that these characteristics are taken into consideration by consumers, reliable and accessible information is needed to have efficient consumer purchase behaviour.

Criteria	1. Priority	2. Priority	3. Priority
Price	31.8%	21.2%	15.9%
Equipment	19.2%	7.3%	8.6%
Energy Consumption	11.9%	25.2%	17.2%
Brand	9.3%	8.6%	8.6%
Water Consumption	7.9%	11.9%	13.9%
Wash Load Capacity	5.3%	10.6%	6.0%
Dimensions	4.6%	6.0%	4.0%
Design	1.3%	1.3%	3.3%
Short Wash Time	0.7%	3.3%	9.3%
Low Noise	0.7%	2.0%	7.3%
Dryer integrated	0.0%	0.7%	0.7%
Other	7.3%	1.3%	4.0%
<b>Total</b>	<b>100.0</b>	<b>99.3%</b>	<b>98.7%</b>
N	151	150	149

### Sub-problem 3: Sub-optimal application of the current Ecodesign legislation

Although the Ecodesign Directive is generally considered successful<sup>96</sup>, its full potential is not systematically realised. This has been for instance recognised by the European Court of Auditors, which concluded that EU actions contributed effectively to reaching the objectives of the Ecodesign and Energy Labelling policy, but that effectiveness was reduced by significant delays in the regulatory process and non-compliance by manufacturers and retailers<sup>97</sup>. Stakeholders have also raised concerns about the slow progress in reviewing Ecodesign product measures or addressing new products. A recent report<sup>98</sup> estimates the substantial potential benefits were product reviews not to have been delayed.

One of the reasons for this reduced effectiveness is the insufficient resources allocated within the Commission to manage the 29 product groups currently regulated. In addition, despite being identified as promising candidates, a number of energy related products are not yet regulated, largely because they have not yet been included in the Working Plan due to insufficient resources. For those regulated, a 2012 evaluation concluded that there may be additional “non-energy improvements” that have not been fully addressed as a result of the product scope, policy choices or the underlying technical analysis. These will not be addressed until the reviews can be carried out. There have also been significant delays in the adoption of new product regulations, leading to delays in achieving the increased energy savings and lower environmental impacts, in part due to the number and complexity of products that European Commission staff working on Ecodesign need to cover. Finally, lack of compliance is an issue, with some 10 to 25% of products estimated to be non-compliant, with around 10% of envisaged energy savings lost as a result<sup>99</sup>.

<sup>95</sup>[https://www.alexandria.unisg.ch/4941/1/A07\\_Sammer\\_Wuestenhagen\\_BSE\\_2006.pdf#:~:text=H1%3A%20The%20energy%20label%20positively%20influences%20consumers%E2%80%99%20buying,products%20that%20are%20characterized%20by%20low-involvement%20buying%20decisions.](https://www.alexandria.unisg.ch/4941/1/A07_Sammer_Wuestenhagen_BSE_2006.pdf#:~:text=H1%3A%20The%20energy%20label%20positively%20influences%20consumers%E2%80%99%20buying,products%20that%20are%20characterized%20by%20low-involvement%20buying%20decisions.)

<sup>96</sup> See, e.g. ECOS “Ecodesign is one of the greatest success stories of the EU climate policies in the last decades” ([https://ecostandard.org/news\\_events/2021-resolution-the-eu-must-advance-ecodesign-upgrades-to-reach-its-climate-objectives/](https://ecostandard.org/news_events/2021-resolution-the-eu-must-advance-ecodesign-upgrades-to-reach-its-climate-objectives/)) and Energy Efficiency Policies around the World: Review and Evaluation, p. 48, World Energy Council 2008. ECOS calls. More elements in Annex 6.

<sup>97</sup> ECA Special Report on EU action on Ecodesign and Energy Labelling (2020).

<sup>98</sup> Delays in eco-design implementation threaten 55% climate target and cost citizens billions; EEB & ECOS; September 2021

<sup>99</sup> Ecofys, Evaluation of the Energy Labelling Directive and specific aspects of the Ecodesign Directive: Background report I: Literature review, December 2013, p.9.

## 2.1. WHAT ARE THE CONSEQUENCES?

The problems identified give rise to inevitable negative consequences, for the **planet**, for **citizens** and for **markets**.

For the **planet**, this results in inefficient use of resources as levels of high quality recycling and uptake of secondary materials remain low. The per capita consumption footprint of products consumed in the EU internal market is outside the safe operating space for humanity for several categories of impacts, including climate change, pollution (e.g. particulate matter) and resource use (i.e. fossil fuels, minerals and metals)<sup>100</sup> and rose by 4% on average between 2010 and 2018<sup>101</sup>. These environmental impacts are also contributing significantly to biodiversity loss and impacting health. Waste levels generated in Europe have also been growing, and rose from 2.2 to 2.3 billion tons from 2010 to 2018<sup>102</sup>. Union-wide net greenhouse gas emissions, although 25% below their 1990 level<sup>103</sup>, need to fall to zero by 2050 in order to meet the climate neutrality objective of the European Climate Law and contribute to halting global warming. Finally, significant pollution is being generated – in particular at the production stage of products and along the product supply chain<sup>104</sup> - with short product life leading to high replacement rates and therefore further pollution. The most polluting production processes are regulated by the Industrial Emissions Directive, but this concerns only the production processes located in the EU, not in third countries.

For **citizens**, there are costs from reduced lifespan of their products and the difficulty to choose products tailored to their needs, including over the use phase. Whilst not wishing to incur the costs of replacing a product with a new replacement, consumers face a lack of relevant information on how to repair a product, lack of availability of spare parts and high repair costs, which act as dissuasive barriers to product repair<sup>105,106</sup>. On the whole, consumers are having to replace products sooner than expected, leading to indirect additional costs as well as to increased ‘hassle costs’<sup>107</sup>. Resale value of used products is also reduced as poor residual values are reflected by markets. The difficulty to make informed choices (in particular due to lack of information on a product’s environmental characteristics<sup>108</sup>) is also hindering them from fulfilling their growing levels of ‘green’ ambition<sup>109,110</sup> - i.e. their willingness to engage in sustainable practices and product choices. The loss of value and functionality to individual consumers is collectively a loss of wellbeing for society.

**Markets** are resulting in a sub-optimal consumption of sustainable products (see also section 2.2 *What are the problem drivers?*): producers are not sufficiently taking into account environmental impacts, and it is difficult for economic operators and citizens to make sustainable choices. Taken together, this leads to a sub-optimal market result, which is inefficient. In part this stems from an under-internalisation of externalities at the product level. In addition, in the absence of overarching or harmonised rules at EU level, the Single Market is also being hindered by fragmentation, with a number of EU Member States already pressing ahead with rules to foster the sustainability of the products placed on their markets – something which is already a cause for concern for businesses operating in the EU (see *Table on responses from businesses/business associations* in *Consequences* section, Annex 7). If left unchecked, such diverging approaches are likely to create further difficulties

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<sup>100</sup> Sala, Serenella, et al., Indicators and Assessment of the Environmental Impact of EU Consumption, Joint Research Center Science for Policy Report 2 (2019), figures 58 and 70b.

<sup>101</sup> Sala, S. and Sanye Mengual, E., Consumption Footprint: assessing the environmental impacts of EU consumption, European Commission, 2022, JRC126257, <https://publications.jrc.ec.europa.eu/repository/handle/JRC126257>.

<sup>102</sup> Eurostat. Generation of waste by waste category, hazardoussness and NACE Rev. 2 activity [ENV\_WASGEN]

<sup>103</sup> EU Climate Action Progress Report, November 2020 *Kick-starting the journey towards a climate-neutral Europe by 2050*.

<sup>104</sup> E.g. for electronic products, see

[https://ec.europa.eu/environment/enveco/resource\\_efficiency/pdf/studies/issue\\_paper\\_digital\\_transformation\\_20191220\\_final.pdf](https://ec.europa.eu/environment/enveco/resource_efficiency/pdf/studies/issue_paper_digital_transformation_20191220_final.pdf)

<sup>105</sup> European Commission, *Behavioural Study on Consumers’ engagement in the circular economy*, 2018, p. 86.

<sup>106</sup> LE Europe, VVA Europe, Ipsos, ConPolicy and Trinomics: “Behavioural Study on Consumers’ Engagement in the Circular Economy - Final Report” (2018), <https://op.europa.eu/en/publication-detail/-/publication/5de64de7-f9d3-11e8-a96d-01aa75ed71a1/language-en/format-PDF>.

<sup>107</sup> BEUC, 2015, Durable goods: More sustainable products, better consumer rights

<sup>108</sup> SWD(2019) 91 final, p. 66

<sup>109</sup> European Commission, *Behavioural Study on Consumers’ engagement in the circular economy*, 2018, p. 10.

<sup>110</sup> <https://www.ingwb.com/media/3076131/ing-circular-economy-survey-2020-learning-from-consumers.pdf>



for businesses and hamper the level playing field. This is likely to increase the administrative burden for companies operating on the internal market, leading to sub-optimal outcomes in terms of innovation and sustainable production. Finally, significant valuable resources are being lost, given that the contribution of recycled materials to raw material inputs is low (e.g. for materials needed in renewable energy technologies or high-tech applications, secondary production makes only a marginal contribution to EU's consumption<sup>111</sup>; for plastics it accounts only for 6%<sup>112</sup>); that many products are still being designed for single use<sup>113</sup>; that many products contain substances and compounds that are difficult to recycle and contaminate and hence lower the value of recyclates, and that in some cases consumer products that are not sold are being destroyed<sup>114,115</sup>.

Low rates of recycling lead to many lost **job** opportunities in the waste management sector, but far more job potential is foregone through poor product design and information reducing the viability of value retention activities before the waste phase. A study of examples in 16 countries by Gaia<sup>116</sup> revealed that the job intensity of re-use, repair and remanufacturing activities per 10,000 tonnes of waste is far higher than its disposal through landfill or incineration, with re-use generating more than 400 jobs, compared to 115 for recycling and 2 for incineration and landfill. A market study of remanufacturing in Europe estimated that in 9 sectors alone there is potential to generate between 450,000 and 600,000 jobs by 2030<sup>117</sup>. Looking at the production stage, a shift to higher resource efficiency implies a rebalancing of relative factor inputs, with more value being added to each unit of materials. This generally implies application of more labour input.

## 2.2. WHAT ARE THE PROBLEM DRIVERS?

### *Market failures*

There is a **market distortion** in the shape of uncorrected externalities: environmental, health, social or other impacts generated by a product and not reflected in its price. This means that competitive market forces are not resulting in efficient prices, but instead are biased towards externality-generating products or activities. These externalities are only partially corrected through economic incentives, such as taxes, or fees, to "internalise" these products' externalities. For example, for air pollution, the degree of internalisation is estimated to be around 44% with unpriced externalities of around EUR 400 billion per annum<sup>118</sup>. The 'polluter pays' principle is not consistently applied across the EU, further aggravating the problem<sup>119</sup>.

**Imperfect communication** in the supply chain about a product's energy and environmental information leads to market failure in terms of purchasing decisions (see also section 2 *Sub-problem 2: Too difficult for economic operators and citizens to make sustainable choices in relation to products*). Although many consumers want to make more sustainable product choices, they often cannot do so. The market response to this issue has resulted in a proliferation of methods and initiatives and has boosted the number of environmental claims – in many cases based on different, inconsistent methods, with a varied level of reliability and coverage. This market failure has been identified in accompanying proposals on Empowering Consumers for the Green Transition and the Green Claims Initiative. The three initiatives complement each other to ensure that information on the

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<sup>111</sup> Foresight on Critical Raw Materials for European Industry, March 2020, [https://ec.europa.eu/info/sites/default/files/foresight\\_newsletters\\_collection\\_online\\_2020.pdf](https://ec.europa.eu/info/sites/default/files/foresight_newsletters_collection_online_2020.pdf)

<sup>112</sup> A European Strategy for Plastics in a Circular Economy, COM(2018) 28 final

<sup>113</sup> Circle Economics, "Circularity Gap Report 2020", <https://www.circularity-gap.world/2020>

<sup>114</sup> M6, "Capital" enquiry of January 2019 on Amazon: <https://www.rtl.fr/actu/debats-societe/video-capital-quand-les-salaries-d-amazon-detruisent-des-tonnes-d-invendus-7796192959>

<sup>115</sup> ITV News Investigation "Amazon destroying millions of items of unsold stock in one of its UK warehouses every year", June 2021, <https://www.itv.com/news/2021-06-21/amazon-destroying-millions-of-items-of-unsold-stock-in-one-of-its-uk-warehouses-every-year-itv-news-investigation-finds>

<sup>116</sup> Gaia "Zero Waste and Economic Recovery - The Job Creation Potential of Zero Waste Solutions" (2021)

<sup>117</sup> European Remanufacturing Network (2015)

<sup>118</sup> "Green Taxation and other economic instruments: Internalising environmental costs to make the polluter pay", IEEP et al, 2021 (forthcoming, will be published before the Summer)

<sup>119</sup> ECA, Special report 12/2021: "The polluter pays principle: inconsistent application across EU environmental policies and actions".

sustainability performance of products is reliable, credible, and clear (see *Annex 14: Articulation with existing legislation and other initiatives* for more details).

Overall, given that the market appears not to properly reward sustainability, and there is no direct request to pay for pollution (see recent report of the European Court of Auditors<sup>120</sup>), there is a **lack of incentive for producers to produce more sustainable products**.

As part of the latter two drivers, there is a **failure of markets and product design to properly enable the development of Circular Business Models (CBM)**. It is not easy acting as a circular business in linear markets, value chains, regulatory and financial frameworks. CBMs include notably product service systems (product-based services, use-oriented services and result-oriented services), value retention and product life-extension activities. These CBMs face significant barriers, the principle ones being, firstly, split incentives in value chains which mean that (for example) a producer has little or no interest in designing a product for future value retention (repair, servicing, component harvesting, remanufacturing, recycling) or for multiple users. Secondly, organisational challenges in the supply chain, in particular related to loss of upstream information, and loss of contact with stakeholders further down the value chain, is also hindering progress. Developing these activities therefore depends to a large extent on physical design attributes of products, and on access to relevant data. The result is that sectors such as furniture, high impact intermediary products (e.g. chemicals, steel) and electronics & ICT have particularly low CBM market penetration: 3%, 4% and 4% respectively<sup>121</sup>.

#### *Regulatory and administrative failures*

**The EU regulatory framework for sustainable production and consumption is insufficiently developed.** As outlined in previous section, there is currently no overarching, integrated EU policy instrument capable of covering the sustainable production and consumption of all products and/or the availability and reliability of sustainability information on these products. Rather, a ‘patchwork’ regulatory situation exists, which allows only certain aspects related to product sustainability and circularity to be addressed, and leaves certain highly relevant sectors (such as textiles and furniture) almost wholly unaddressed in this respect. This situation leaves room to national initiatives: as illustrated in Annex 7 (see in particular *Table on national level initiatives*), Member States have begun to press ahead with national-level rules to foster the sustainability of the products placed on their markets. While such initiatives are indicative of the growing momentum at national-level to engage with circular economy practices to foster sustainable products, they risk leading to growing uncertainty for businesses, increased administrative burden and potential barriers to the development of their economic activities (something businesses themselves have drawn attention to, see *Consequences*), thus exacerbating the main problem SPI intends to address.

Despite its successes, the Ecodesign regulatory framework could also benefit from a greater political focus and adjustments based on experience and evolutions of the wider legislative framework, from the Lisbon Treaty to reviewed Market Surveillance rules. Evaluations and stakeholders point to some **shortcomings of implementation and enforcement that lead to a sub-optimal application of the Ecodesign Directive**. Upstream, significant delays in the regulatory process, linked partly to its complexity and primarily due to the limited available staff resources, reduce the effectiveness of the policy, leading to delayed or missed opportunities as requirements become outdated or are applied too late. Downstream, there is a general agreement that the level of market surveillance and customs enforcement is too low and should be increased as it is economically beneficial for society (current investments in enforcement are estimated to be 0.05% of the value of lost energy savings<sup>122</sup>). Apart from the level of resources allocated to market surveillance and customs authorities, timely access to

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<sup>120</sup> ECA, Special report 12/2021: “The polluter pays principle: inconsistent application across EU environmental policies and actions”

<sup>121</sup> Analysis of sectoral distribution of 2380 European companies with CBMs carried out in the context of the study to support this initiative.

<sup>122</sup> Ecofys final technical report p.159 referring to P. Waide et al., Enforcement of energy efficiency regulations for energy consuming equipment: findings from a new European study, Proceedings of the 6th International Conference EEDAL'11 Energy Efficiency in Domestic Appliances and Lighting

product documentation and EU Market Surveillance Authorities (MSA) cooperation could be improved.

### *Behavioural biases*

Behavioural biases – including cognitive biases – are also relevant for better understanding the main problem and need to be taken into account in possible solutions. Such biases include the fact that some consumers take consumption decisions based on short-term costs and disregard the long-term costs of their choices (myopic behaviour). In addition, for consumers, a transition to more environmentally sustainable choices often requires a behaviour change, which is difficult because of resistance to change and the status quo bias. The result can sometimes be consumer choices that appear irrational, both at the individual level and in consumer trends, due for instance to perceived obsolescence, where despite being functional, a product is no longer perceived to be stylish or appropriate, so it is rendered obsolete by perception, rather than by function. In Annex 7: Problem Definition, four types of behavioural biases have been identified as important drivers for the problems analysed above: social norms, bounded rationality, myopic behaviours, and linear production and consumption patterns as the default options. While increased availability of information on the sustainability characteristics of products cannot be expected to remedy such behavioural biases in full, it is expected to play a role in increasing awareness and nudging consumers towards more sustainable choices over time. This may be of relevance in particular for undecided consumers (i.e. those who do not usually buy environmentally-friendly products but intend to/are considering doing so), given that the ease with which a sustainable product can be differentiated from other products appears to play a role in encouraging sustainable product choice<sup>123</sup>.

## **2.3. HOW WILL THE PROBLEM EVOLVE?**

The underlying drivers of the problem will continue, and show signs of strengthening rather than abating. As a result, the problems would also worsen over time in the absence of new policies. There is however an ongoing evolution of the EU policy landscape with a number of product related regulatory instruments (beyond the Ecodesign Directive) expecting revisions by 2022 (e.g. construction products, packaging and packaging waste, vehicles, chemicals in electric and electronic products, batteries and industrial emissions). In addition, new EU initiatives e.g. on Empowering Consumers for the Green Transition, the Green Claims Initiative, the Circular Electronic Initiative, and the Strategy for Sustainable Textiles will promote a clean and circular economy approach for selected products and increase transparency around sustainability of various products. The development of taxonomy screening criteria relating to circularity and other sustainability objectives will also incentivise access to finance for more sustainable production and products. Furthermore, a set of EU voluntary instruments (e.g. EU Ecolabel, Green Public Procurement (GPP), Environmental Technology Verification (ETV)<sup>124</sup>) and funding programmes for innovation, research, development and market uptake will continue to promote innovative products, solutions, and business models. The recently adopted Zero Pollution Action Plan<sup>125</sup> as well as the Chemicals Strategy for Sustainability<sup>126</sup> will also drive the development of cleaner, less polluting products or alternative services (e.g. through the ‘safe and sustainable by design’ approach).

Nevertheless, whilst these will all contribute positively to addressing the problem, and can be justified individually, they will not resolve the problem or its underlying drivers in full – actually the effectiveness of some of the above-mentioned initiatives (such as the initiative on Empowering Consumers for the Green Transition, the textiles strategy and the Right to Repair) will be enhanced

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<sup>123</sup> *Flash Eurobarometer 367*, p. 6: “Respondents who do not buy environmentally-friendly products but intend to, are significantly less likely to believe that environmentally-friendly products are easily available compared with those who sometimes buy them (42% versus 54%). This suggests that environmentally friendly products should be more carefully presented so that they could be more easily differentiated from other products.”

<sup>124</sup> [https://ec.europa.eu/environment/ecoap/etv\\_en](https://ec.europa.eu/environment/ecoap/etv_en)

<sup>125</sup> COM(2021) 400 final

<sup>126</sup> COM(2021) 667

by the presence of a regulatory framework setting sustainability requirements on products or groups of products, including for non-energy related products.

Importantly, the absence of an overarching framework to ensure product sustainability in the EU will undoubtedly mean that fragmentation of the EU Internal Market gains further momentum, as individual Member States continue their attempts to tackle the problem at national level.

Sub-problem 3 on the sub-optimal application of the current Ecodesign Directive is also unlikely to evolve positively: with no increase in resources, its application will be mostly restricted to updating existing legislation, with limited opportunities to cover a significant number of new energy related products or increase delivery speed in Option 1 (the Business as Usual).

More elements and analysis are in Annex 7: Problem Definition.

### **3. WHY SHOULD THE EU ACT?**

#### **3.1. LEGAL BASIS**

The legal basis is Article 114 of the Treaty on the Functioning of the European Union. On the basis of this provision, the Union can take action to ensure the functioning of the internal market.

Section 2 *Problem definition* of this impact assessment demonstrated that a number of problems hindering both the uptake of sustainable products and the functioning of the internal market currently exist. The absence of adequate and comprehensive internal market rules to regulate sustainable consumption and production, leaves room for solutions currently being developed by Member States or by industries and which contribute to the dysfunctionality of the internal market by generating potential barriers, fragmentation and incoherent approaches. Measures based on Article 114 TFEU aiming to build an internal market for sustainable products and ensuring that national initiatives do not hamper its functioning are therefore appropriate.

In addition to pursuing internal market objectives, the proposal will contribute to a high level of environmental protection (Article 3 TFEU), by unlocking opportunities for the circular and sustainable economy. However internal market objectives are predominant and environmental and social benefits are complementary.

Moving from the aims to the nature of the initiative, the main content of the future legal provisions is a mechanism for the setting of harmonised requirements for products to be placed on the internal market. The future legal instrument is therefore product-centred, built on a free movement clause and will contribute to the establishment and functioning of the internal market for sustainable products.<sup>127</sup>

As a consequence, Article 114 is the appropriate and correct legal basis, even if other considerations (environmental and social) are decisive for the choices made within that measure.

#### **3.2. SUBSIDIARITY: NECESSITY OF EU ACTION**

The necessity test is the question of whether the objectives can be sufficiently achieved by action taken by Member States alone. In this case, they cannot. In order to ensure a level playing field for manufacturers, recyclers, importers and economic operators more broadly in terms of the requirements to be met when placing products on the EU market, it is essential to put in place a common set of rules, which include harmonised requirements to ensure product design sufficiently takes into account environmental impacts and the obligation to provide reliable information to end-users. For these reasons, EU-wide legislation is necessary. Without an EU-level initiative and its

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<sup>127</sup> This is a continuation of the approach used by the current Ecodesign Directive 2009/125/EC (although wider in scope and richer in aspects addressed) which also has Article 114 as legal basis.

effective application, the problems assessed in this impact assessment could not be fully and consistently addressed across the EU. National initiatives, while bringing certain benefits at national level, would inevitably further fragment the internal market and render consumer choices more complicated. Member States have indeed already started to address the issue as shown *inter alia* by the steep increase of notifications for national products measures linked to environmental considerations, and by various already adopted national legislation setting product requirements.<sup>128</sup>

This circumstance apart from substantiating the main condition, considered by the ECJ for the legitimate use of Article 114<sup>129</sup>, justifies the necessity of the EU action: not only to prevent the likely emergence of such obstacles but also to address a fragmentation that is already visible and to eliminate the distortions of competition deriving from it.

### 3.3. SUBSIDIARITY: ADDED VALUE OF EU ACTION

There is clear added value in setting common requirements at EU level, as this will ensure a harmonised and well-functioning internal market across all Member States and, therefore, a level playing field for businesses. With harmonised minimum and information requirements set at EU level, sustainable products and circular practices and business models will be promoted in all Member States, creating a larger and more efficient market and hence greater incentives for the industry to develop them.

In addition, the internal market size provides a critical mass enabling the EU to promote product sustainability and to influence product design and value chain management worldwide. Supporting measures to actively promote the uptake of these standards globally should also be envisaged.

The proposed measures will not go beyond what is necessary to provide regulatory certainty while ensuring a high level of protection of health and of the environment. EU action is therefore justified and necessary.

## 4. OBJECTIVES: WHAT IS TO BE ACHIEVED?

The general objective is to **reduce the negative life-cycle environmental and social impacts of products and improve the functioning of the internal market.**

This general objective responds to the problems and their underlying drivers. In particular, it reflects the fact that the EU's internal market includes products that are associated with unnecessary environmental and social impacts. The general objective builds on experience gained under the current Ecodesign Directive, which has proven that product performance can be improved, whilst usually delivering overall benefits for citizens. SPI also addresses the objectives of industrial policy. The industry needs harmonised requirements applicable across the board and adequate enforcement and reinforced market surveillance and customs controls. SPI will enable the EU industry to deliver on sustainable production strengthening a level-playing field and the demand for sustainable goods.

Following from the general objective, **the specific objectives** are to:

- Improve products sustainability
- Better access to sustainability information along the supply chain
- Incentivise more sustainable products and business models to improve value retention
- Improve application of sustainable product legislative framework

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<sup>128</sup> See Annex 7, under the problem drivers related to regulatory and administrative failures, the extracts from the TRIS Database and the Table on national level initiatives. See also the Table on excerpts from the business replies to the consultation on the Inception Impact Assessment that underline the relevance of the market fragmentation issue.

<sup>129</sup> The likely emergence of obstacles to trade, together with the need to eliminate the related distortions of competition (Case C-376/98 *Tobacco Advertising*, paras 84-88)

The specific objectives relate either to the problems directly or to their underlying drivers. For the behavioural drivers, it should be noted that these cannot be addressed directly but that their negative consequences can be tackled by the options (e.g. by restricting harmful choices). The progress to achieving the specific objectives can be measured through the monitoring indicators described in section 8 (and Annex 13). All specific objectives help to promote more sustainable consumption patterns in the EU. Operational objectives for specific product groups will be determined at a later stage and on the basis of impact assessments that accompany future SPI measures (see box 2 below).

#### **4.1. THE INTERVENTION LOGIC**

The intervention logic sets out the underlying reasoning of this Impact Assessment. The objectives are intended to channel the response to the problems within scope. Given the breadth of scope, problems and underlying drivers at hand, and their sometimes independent nature, **six options** for action (in addition to a 'Business As Usual' option) have been identified, with various sub-options considered under each. Based on an individual assessment of these sub-options, a preferred sub-option per main option is selected. The combination of the preferred sub-options for each of the main options forms the basis for the **overall preferred option**, which is then also assessed.

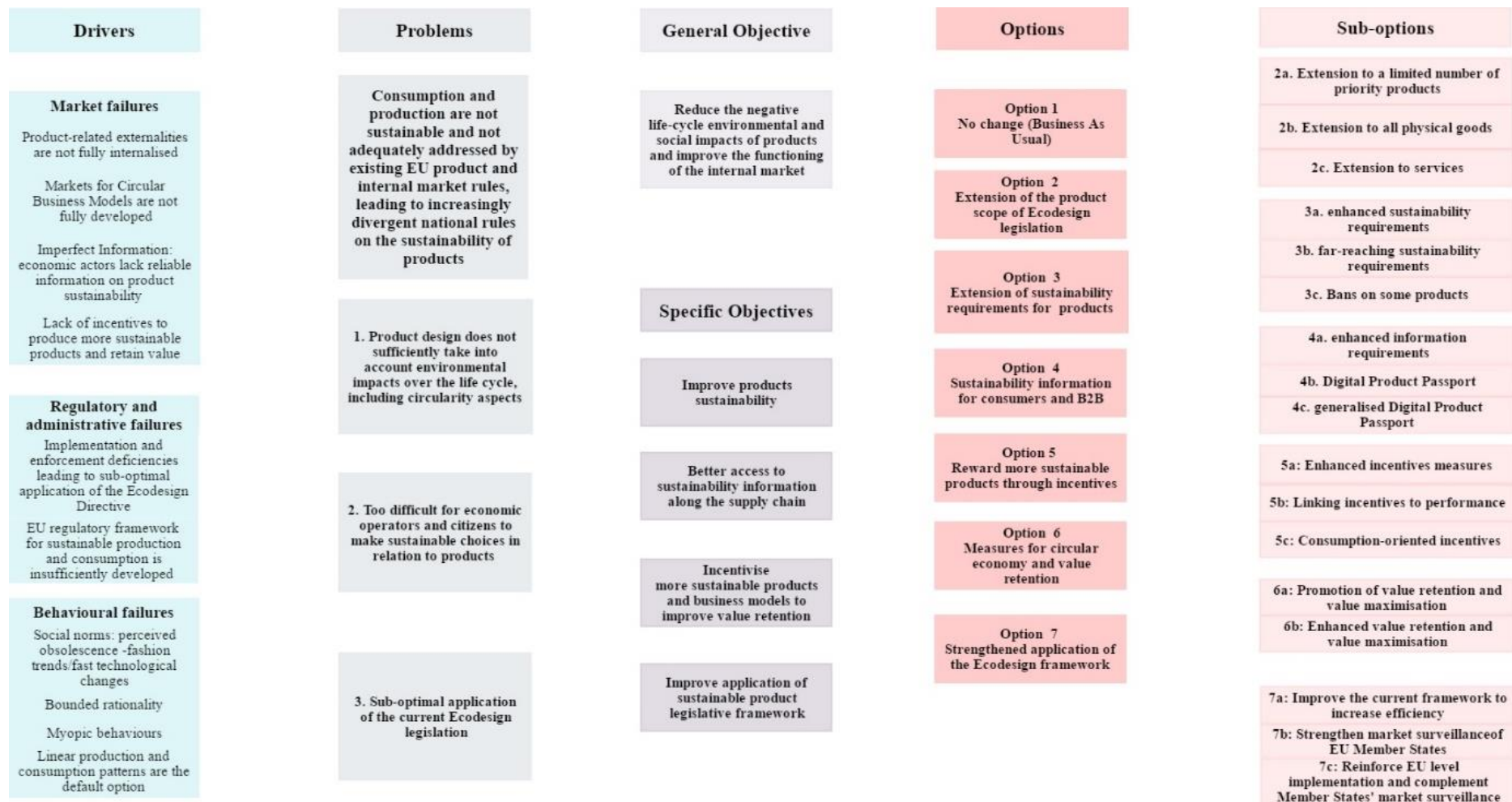


Figure 1 Intervention logic

The specific objectives aim either to address the identified problems directly or – where possible – to address the underlying problem drivers. As explained above for behavioural drivers, some of them can only be addressed indirectly. All retained options also aim to address the general objective.

## 5. WHAT ARE THE AVAILABLE POLICY OPTIONS?

Each option from Figure 1 (as further detailed in Table 1) responds to a Specific Objective, and through that to a problem or underlying driver. The options are not mutually exclusive but rather tackle separate issues. The content of each sub-option (i.e. the detailed measures that make them up) is the result of underlying analyses and/or stakeholder consultation. Sub-options group measures to keep the analysis manageable, but analysis of each individual measure is included in Annex 10. The groupings reflect step ups in ambition (i.e. effectiveness), and allow for coherent sets of measures.

Not considered explicitly as an option, but central to the delivery of the preferred option, is the question of the **administrative setup**. Essentially, ambitious choices can only be delivered if there are adequate resources in place to implement them (see section 7.10 and 7.11 below).

### **Box 2: Preamble to description of the policy options**

#### **Architecture of the future SPI instrument**

Given the centrality of the extension of the Ecodesign Directive to this initiative, it is important to note that the design of the future SPI instrument is likely to closely resemble that of the existing Ecodesign Directive. In essence, this means that detailed product rules (*such as on the minimum durability of a washing machine; what fibres a T-shirt should be designed with to ensure it can undergo high-quality recycling; or what sustainability information should be made available when a product is placed on the market, etc.*) will not be set out in the main legal act, but rather laid down in a second stage, via **SPI measures** dedicated to a particular product or to groups of products.

This architecture is thus built on product-specific rules, which allows taking into account the specificities of a particular product or group of products with sufficient commonalities. A theoretical alternative would be to introduce general horizontal rules that would apply to all products. Yet, given the huge number of different types of products and the large variety of their characteristics (and possible trade-offs), a set of horizontal rules would create legal uncertainty regarding what this would mean in practice for a particular product and ultimately require guidance for each product or group. Moreover, the risk of market fragmentation would remain as general rules would likely be interpreted differently across Member States for particular products. In light of these considerations, general horizontal rules would be unlikely to solve the problems identified and are clearly inferior to product-specific rules, which can be tailored to the characteristics of the products and the sustainability issues pertaining to them.

The SPI measures will in all cases be preceded by a thorough preparatory process, including inclusive stakeholder consultation and impact assessment. This reflects how the current Ecodesign Directive operates today, and acknowledges that such steps are necessary before the adoption of effective, proportionate and product-appropriate rules can take place.

Taking this architecture into account, it should be pointed out that certain decisions regarding the parameters of the future SPI framework legal instrument (e.g. its future scope and the categories of sustainability and information requirements it will lay down; *see options 2, 3 and 4*) are not in themselves expected to have a direct impact on the product sectors concerned. Rather their effects will be felt following the adoption of the above-mentioned SPI measures, to be preceded by a thorough preparatory process as outlined above.



Table 1 Policy options, sub-options and related measures

Sub-Problems	Specific Objectives	Option 1 - Business As Usual			
1) Product design does not sufficiently take into account environmental impacts over the life cycle, including circularity aspects  And	SO1: Improve products sustainability	<b>Option 2: Extension of the product scope of Ecodesign legislation</b>	<b>2a Extension to a limited number of priority products</b> (not addressed through separate legislation). <b>Energy Related products + Textiles, Furniture, High impact intermediary products, Chemicals</b>	<b>2b Extension beyond sub-option 2a to all physical goods</b>	<b>2c Extension beyond sub-option 2b to all services</b>
		<b>Option 3: Extension of sustainability requirements for products</b>	<b>3a Enhanced sustainability requirements</b> (for specific products in SPI measures <sup>130</sup> ): <ul style="list-style-type: none"> <li>• minimum requirement on the <b>durability</b> or <b>reliability</b> of the product or its components</li> <li>• minimum requirements on <b>reparability</b> and <b>upgradability</b></li> <li>• restricting the presence of <b>substances</b> hindering circularity</li> <li>• minimum requirements on <b>recycled content</b> on the product or its components</li> <li>• minimum requirements to <b>reduce carbon and environmental footprints</b></li> <li>• Requirements enabling <b>high-quality recycling</b></li> </ul>	<b>3b Far-reaching sustainability requirements</b> Sub-option 3a plus: <ul style="list-style-type: none"> <li>• Adoption of <b>SPI measures</b> setting out <b>requirements</b> covering <b>groups of products</b> (e.g. reparability for electronics)</li> <li>• Minimum requirements on <b>re-manufacturability</b></li> <li>• Requirements of <b>due diligence on the supply chain of products</b></li> </ul>	<b>3c Bans on some products</b> Sub-option 3b plus: <ul style="list-style-type: none"> <li>• <b>Measures banning some products or some materials</b> in specific products</li> </ul>
2) Too difficult for economic operators and consumers to make sustainable choices in relation to products	SO2: Better access to sustainability information along the supply chain	<b>Option 4: Sustainability information for consumers and B2B</b>	<b>4a Enhanced information requirements</b> <ul style="list-style-type: none"> <li>• <b>information requirement</b> on the <b>durability</b> or <b>reliability</b> of the product or its components</li> <li>• <b>information requirements</b> on <b>reparability</b> and <b>upgradability</b>, including a reparability scoring</li> <li>• <b>informing</b> on the presence of <b>substances of concern</b> and <b>tracing</b> them</li> <li>• <b>information requirements</b> on <b>recycled content</b> on the product or its components</li> <li>• <b>Information requirements</b> on the <b>environmental impacts</b> along the life-cycle of the product, for example in</li> </ul>	<b>4b European Digital Product Passport</b> Sub-option 4a plus: <ul style="list-style-type: none"> <li>• <b>Information requirements</b> in the form of a <b>European Digital Product Passport</b> through SPI measures</li> <li>• <b>Integrating the SCIP Database</b> (implementing Article 9 (1) (i) of the Waste Framework Directive) <b>with SPI information requirements</b></li> </ul>	<b>4c Generalised European Digital Product Passport</b> Sub-option 4b plus: <ul style="list-style-type: none"> <li>• Direct implementation of “cross-sectoral” information requirements in a <b>European Digital Product Passport</b> applicable to all products in scope and based on <b>horizontal requirements</b> already included in the legislative act</li> </ul>

<sup>130</sup> Could be implementing or delegated acts. To be decided when finalising the legal proposal.

			<p>the form of an Ecological profile</p> <ul style="list-style-type: none"> <li>• <b>Information requirements</b> in the form of <b>sustainability performance classes</b></li> <li>• <b>Information requirements</b> on a set of <b>social indicators</b></li> </ul>		
	SO3: Incentivise more sustainable products and business models to improve value retention	Option 5: Reward more sustainable products through incentives	<p><b>Sub-option 5a: Enhanced incentive measures</b></p> <ul style="list-style-type: none"> <li>• <b>Member States encouraged</b> to introduce <b>reputational and economic incentives</b> and supported by the provision of <b>guidelines</b></li> <li>• <b>Mandatory Green Public Procurement</b> requirements in SPI product-specific rules</li> </ul>	<p><b>Sub-option 5b: Linking incentives to performance</b></p> <p>Sub-option 5a plus:</p> <ul style="list-style-type: none"> <li>• <b>Member States obliged to use classes of performance</b> to introduce <b>reputational and economic incentives</b></li> <li>• <b>Modulation of EPR fees</b> to classes of performance</li> </ul>	<p><b>Sub-option 5c: Consumption-oriented incentives</b></p> <p>Sub-option 5b plus:</p> <ul style="list-style-type: none"> <li>• <b>Bonus for EU citizen</b> to reduce carbon footprint.</li> <li>• Introduction of an <b>excise proportional to the life cycle environmental performance</b></li> </ul>
		Option 6: Measures for circular economy and value retention	<p><b>Sub-option 6a: Promotion of value retention and value maximization</b></p> <ul style="list-style-type: none"> <li>• Provide <b>guidelines</b> on supporting circular business models</li> <li>• <b>EU-wide hub</b> supporting the uptake of circular business models</li> </ul>	<p><b>Sub-option 6b: Enhanced value retention and value maximization</b></p> <p>Sub-option 6a plus:</p> <ul style="list-style-type: none"> <li>• Introduce transparency obligation on the destruction of unsold consumer products, and a <b>ban on destruction</b> via SPI measures</li> </ul>	
3) Sub-optimal application of the current Ecodesign legislation	SO4: Improve application of sustainable product legislative framework	Option 7: Strengthened application of the Ecodesign framework	<p><b>Sub-option 7a: Improve the current framework to increase efficiency</b></p> <ul style="list-style-type: none"> <li>• <b>Streamline the procedures</b> for the development and adoption of Ecodesign implementing regulations</li> <li>• Introduce possibility to <b>collect data from manufacturers and retailers</b> regarding regulated products sales and usage</li> <li>• Expand provisions related to <b>third party conformity assessment</b></li> </ul>	<p><b>Sub-option 7b: Strengthen market surveillance by EU Member States</b></p> <p>Sub-option 7a plus:</p> <ul style="list-style-type: none"> <li>• Make <b>product information digitally available</b> to Market Surveillance Authorities (MSA) and to customs authorities</li> <li>• <b>Structural technical support</b> to improve cooperation between MSAs and ensure sufficient capacities</li> <li>• Organise <b>common trainings</b> for staff of notified bodies, notifying authorities and MSAs</li> <li>• <b>Publish MSA penalties</b> decisions</li> <li>• Benchmark and <b>reporting</b> obligation for MSs</li> <li>• Establish <b>requirements for market surveillance checks</b></li> </ul>	<p><b>Sub-option 7c: Reinforce EU level implementation and complement Member States' market surveillance</b></p> <p>Sub-option 7b plus :</p> <ul style="list-style-type: none"> <li>• <b>Complement national market surveillance</b> where needed</li> <li>• Product <b>monitoring and EU testing</b> capacity</li> <li>• <b>Assistance</b> to implementation for suppliers and MSAs</li> <li>• <b>Third party channel</b> for market <b>surveillance</b></li> </ul>

## 5.1. WHAT IS THE BASELINE FROM WHICH OPTIONS ARE ASSESSED?

Under the Business As Usual (Option 1), all relevant EU level and national policies and measures are envisaged to remain in force within the time horizon of 2030. The situation and problems would evolve as described in *Annex 9: Policy Options and Measures*, with a positive trend towards sustainable consumption recognisable, but progress remaining slow, as the rising trends of waste generation, consumption and environmental impacts detailed in Annex 7: Problem Definition indicate.

The Ecodesign Directive Work Plan for 2016-2019 added additional groups of energy related and ICT products<sup>131</sup>. However, because of the constraints explained in Sub-problem 3 (see section *Sub-problem 3: Sub-optimal application of the current Ecodesign legislation*), the number of new products that could effectively be regulated by 2030 will remain limited, with existing resources being rather focused on the necessary reviews of the most significant existing product regulations. It is likely that an increasing number of circularity and sustainability requirements will be covered for these product regulations.

Beyond that, the baseline also assumes that other EU and Member States' policies in preparation and relevant to sustainable products would be implemented. However, the impacts of those initiatives proposed in the context of the CEAP (in parallel to SPI) are described in a qualitative way only. Information on the baseline is provided in *Annex 9: Policy Options and Measures*, including further details each of the options.

## 5.2. WHAT ARE THE POLICY OPTIONS?

*Option 1: Business As Usual (see section 5.1 above)*

*Option 2: Extension of the product scope of Ecodesign legislation*

In order to achieve the objectives of this initiative, in particular specific objective 1 to 'Improve products sustainability', the first option relates to extending the product scope of the Ecodesign Directive beyond energy-related products, taking into account previous analysis indicating that significant sustainability benefits could be gained from such an approach, as well as general support from stakeholders<sup>132</sup>. The sub-options retained for analysis consider **2a**) an extension of the scope to a limited number of priority products; **2b**) a wide extension to all physical goods; and **2c**) an extension to all services.

Presented below are the three approaches to extending the scope of the Ecodesign Directive that have been retained for analysis. It should be noted from the outset that, given the architecture of the Ecodesign instrument (with detailed product rules laid down only in a second stage via implementing measures – please see Box 2 on *Architecture of the future SPI instrument*, section 7.3 and Annex 6), the decision to extend the scope is not in itself expected to have a direct impact on the sectors concerned. Rather the effects will be felt following the adoption of the SPI measures for particular products or groups of products, which in all cases will be preceded by thorough analysis, consultation with stakeholders and impact assessment.

In the case of all three sub-options, the order of product (or service) prioritisation will be decided based on specific criteria, similar to those already foreseen in Article 15 of the current Ecodesign Directive, such as their environmental, energy and social impacts and related potential for cost-

<sup>131</sup> Building Automation and Control Systems; Electric kettles (*currently in the legislative process*); Hand dryers; Lifts; Solar panels and inverters; High-pressure cleaners; Gateways (home network equipment); Mobile/smart phones and tablets (*currently in the legislative process*); Base stations.

<sup>132</sup> See for example (SWD(2019)91); see also additional details in Annex 9.

effective reduction of these impacts<sup>133</sup>. The selection will follow a fully transparent process culminating in (multi-annual) work programmes outlining the priorities for the development of SPI measures. These SPI measures will set out product/service-specific requirements, or requirements for a wide group of products (if sub-option 3b is retained), following an analysis of the product/service group in question and an impact assessment of the proposed requirements.

**Under sub-option 2a: Extension to a limited number of priority products**, a targeted extension of the Ecodesign Directive, to a *limited* number of priority products<sup>134</sup>, is envisaged. The products in question have been identified taking into account their **sustainability credentials** as well as their **general potential for improvement** from a sustainability point of view, including their circularity potential. This builds notably on the results of a series of studies detailed in the annexes.<sup>135,136</sup>

Following analysis based on the above-referenced sources, a key final decision criterion for inclusion of a product in the priority list was the **extent to which their sustainability dimensions are already covered, or capable of being covered, by existing EU level instruments**. While e.g. *certain* environmental impacts of some of the products included in the priority list are covered through existing EU level legislation (see *Annex 9* as well as *Annex 14*), **those for which significant regulatory gaps vis-à-vis sustainability dimensions still exist have been included**.

Based on the above, this sub-option proposes to extend the scope of the current Ecodesign Directive to enable the adoption of SPI measures for the following product categories (*further justification for each of the below is set out in Annex 9*):

- Energy related products (including means of transport<sup>137</sup>);
- Textiles;
- Furniture;
- High impact intermediary products;
- Chemicals<sup>138</sup>.

As previously mentioned, detailed impact assessments will precede the adoption of any SPI measures for the above-mentioned products. SPI will only intervene for issues that no other instrument is addressing or addressing sufficiently.

Together, throughout their lifetime, the option 2a products are estimated to cover an additional 14% of GHG emissions, 38% of human toxicity impacts and 15% of primary energy consumption compared to the baseline as discussed in Annex 10. In total, including the baseline, the SPI would cover 63 % of

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<sup>133</sup> Annex 16 sets out the criteria and process for prioritisation of products, building on the approach in Article 15 of the Ecodesign Directive. Application of this prioritisation would lead to an assessment of the value added for different product groups.

<sup>134</sup> This excludes food and feed as defined in the General Food Law (Regulation EC 178/2002) and raw materials, except as intermediary products for the production and use of goods that are placed on the market.

<sup>135</sup> See details on the findings and sources that have been used to identify these priority products in **Error! Reference source not found.** (section **Error! Reference source not found.**). Annex 10 illustrates that for most environmental impacts, the products theoretically covered under Ecodesign (BAU) make up a sizeable fraction of EU-wide environmental impacts, while the addition of the product groups in sub-option 2a would further increase the coverage considerably, indicating that they are highly relevant for a wide range of environmental impacts.

<sup>136</sup> This impact assessment excludes food and feed as defined in the General Food Law (Regulation EC 178/2002), which are addressed through the Farm to Fork Strategy and raw materials as final products, meaning that raw materials are included only when they are embedded in other intermediate or final goods in scope of SPI.

<sup>137</sup> This corresponds to the product coverage of the Ecodesign Directive, with the addition of means of transport, which are energy-related products but currently excluded from Ecodesign scope.

<sup>138</sup> Understood as intermediate products (e.g. industrial solvents) or final products e.g. such as detergents or cosmetics. Where chemicals are destined/used for food related purposes and are not considered as food or feed, they will be subject to the relevant sectoral legislation, including the future sustainable food systems framework legislation, as announced in the Farm to Fork Strategy

GHG emissions, and 66 % of primary energy use and 60 % of human toxicity impacts resulting from European consumption<sup>139</sup>.

**Sub-option 2b: Extension to all physical goods** would allow for the possibility, in principle, of adopting SPI measures for any physical good placed on the EU market<sup>140</sup>. As under sub-option 2a, such measures would only be adopted based on clear criteria, for instance where significant improvement potential from a sustainability point of view can be identified. As under sub-option 2a, this would only take place when EU sectoral legislation does not provide for requirements on similar product parameters or is not capable of achieving the objectives of sustainability pursued by SPI. The SPI multiannual working plan and preparatory studies for specific SPI measures would allow for this assessment, and for prioritising products based on their estimated environmental, economic and social impacts. In practice, the first priorities would likely be the products identified under 2a, based on an assessment of potential value-added<sup>141</sup>: but this sub-option leaves flexibility to also cover other products not included in 2a, including through horizontal measures. Articulation with other EU level legislation would follow the same principles as under 2a.

This sub-option was also developed taking into account the experience and limitations of the current Directive, and the likelihood that novel products will emerge in the future whose impacts are as yet unknown: sub-option 2b therefore provides for more future-proof legislation, capable of responding to the evolution of products and our understanding of them, and present the added value of not requiring a revision of the overarching legislative framework, should action need to be taken for new or future product categories. It would therefore lessen the likelihood of problematic regulatory gaps, such as those that currently exist, occurring in the future, by helping to prevent situations in which justified action at EU level is inhibited from taking place (as is currently the case). It was also developed with the internal market objective of this initiative in mind, given that a broader product scope would increase the potential of having harmonised rules where the need for regulatory action emerges, thus decreasing potential fragmentation.

Based on best current estimates, throughout their lifetime, the products considered under option 2b *could* cover an additional 16% of GHG emissions, 42% of human toxicity impacts and 18% of primary energy consumption compared to the baseline as discussed in Annex 10. In such a case, including the baseline, the SPI would cover 65 % of GHG emissions, and 69 % of primary energy use and 64 % of human toxicity impacts resulting from European consumption<sup>142</sup>. It should nevertheless be underlined that, given the wide scope of this sub-option, and the possible emergence of novel products with as yet unknown impacts, the full coverage potential of this sub-option cannot be calculated with accuracy and may be higher than the above-mentioned figures.

**Under sub-option 2c: Extension to services**, SPI would be extended to cover services (in addition to all physical goods), and their significant environmental impacts. Services have been considered under a separate sub-option due to their specificities compared to physical goods: the inclusion of services follows a different logic from goods as they do not necessarily imply the transfer of a physical article. Nonetheless, service provision often relies on infrastructure and on products which have their own environmental impacts. Services may either be provided in the context of goods so that sustainability features of that good could become relevant (e.g. “product as a service” or services incidental to manufacturing), or rather based on equipment and personal skills of the service provider (e.g. repair service, advisory service).

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<sup>139</sup> As modelled in the SPI Impact Assessment Supporting Study.

<sup>140</sup> As mentioned, this would nevertheless exclude food and feed as defined in the General Food Law (Regulation EC 178/2002) and raw materials, except as intermediary products for the production and use of goods that are placed on the market. Where justified, a limited number of other product exemptions may also be required (e.g. military equipment). For a more detailed description of the potential product coverage and the interaction with existing product specific legislation, please see Annex 14.

<sup>141</sup> Annex 16 sets out the criteria and process for prioritisation of products, building on the approach in Article 15 of the Ecodesign Directive. Application of this prioritisation would lead to an assessment of the value added for different product groups.

<sup>142</sup> As modelled in the SPI Impact Assessment Supporting Study.

### Option 3: Extension of sustainability requirements for products

The existing Ecodesign Directive provides for the setting of generic or specific requirements on the energy efficiency and other environmental aspects of energy-using products. In order to achieve the objectives of this initiative, in particular specific objective 1 to ‘Improve products sustainability’, these requirements will need to be complemented or reinforced.

The three sub-options retained to respond to this are: **3a)** enhanced sustainability requirements; **3b)** far-reaching sustainability requirements, and **3c)** bans on some products. The sub-options are cumulative: all measures included in sub-option 3a are also part of 3b and 3c; all measures included in sub-option 3b are also part of sub-option 3c.

The sub-options have been divided according to the following logic: sub-option 3a *reinforces requirements* of the existing Ecodesign Directive. Sub-option 3b *goes further beyond* the scope of the current Ecodesign Directive (e.g. by including measures enabling the remanufacturing of components and the setting of due diligence requirements in relation to specific human rights risks along the value chain of products). Sub-option 3c includes all measures presented in sub-option 3a and 3b, and *in addition* would include the possibility to introduce explicit prohibitions on some products.

Under **sub-option 3a: Enhanced sustainability requirements**, requirements to strengthen the environmental sustainability of products would be set, via SPI measures specific to individual product categories. Requirements would be set as appropriate to the product and would build on those possible under current Ecodesign rules.

The enhanced requirements would focus in particular on extending products’ *durability or reliability* (where e.g. a minimum life duration for a product’s use phase, or minimum reliability - e.g. expressed as Mean Time Between Failures - could be set), as well as ensuring their *reparability and upgradeability* (building on existing requirements under Ecodesign in relation to disassembly and spare parts and going further, e.g. requiring modular design, or a specific choice of materials to be used in a product). The requirements would also seek to *restrict substances in products that hinder circularity* (such as substances that inhibit recyclability, upgradability, durability etc.), *set minimum levels of recycled content in products* (or in their components), *reduce carbon and environmental footprint* (e.g. based on a full life cycle assessment of the product, possibly defined and calculated using the Environmental Footprint methods) and *enable high-quality recycling* (e.g. by restricting the variety of alloys in a product, so as to enable high-purity sorting).

The choice of which requirements to apply will be decided on a product by product basis, with no commitment to apply a type of requirement for all products. Through consideration in the preparatory studies (as discussed in Annex 16), they will be impact assessed in order to make sure that requirements are appropriate and proportionate.

**Sub-option 3b: Far-reaching sustainability requirements** would build on measures under sub-option 3a, and in addition introduce the possibility of setting *horizontal requirements, applicable to large groups of products sharing common characteristics* (e.g. *minimum recycled content*), in the same SPI measure, as well as requirements to further boost *re-manufacturability* (such as requiring availability of a Bill of Materials, mechanical drawings / 3D printing files, software code etc.).

This sub-option is also intended as a more complete response to the working concept of ‘sustainability’ used for the purposes of this impact assessment (and set out in section 2), given that it encompasses not only the environmental but also the *social* dimension of sustainability, via concrete product requirements. It would allow for the setting of *due diligence requirements in relation to specific social or human rights risks – where such risks are identified at the level of the product* (for example, linked to the specific materials, components or production processes *of the product itself*). This empowerment is intended to be used where an SPI preparatory study identifies such specific risks and finds that other instruments, in particular the Sustainable Corporate Governance initiative (SCGI), are not in a position to sufficiently address them alone. The aim is to progressively reduce the risk that products available on the EU market are linked to human rights violations - identified on a product-per-product basis as most relevant for products’ individual supply chains. Where specific risks exist for certain products that are not sufficiently addressed through existing instruments,

product-specific due diligence obligations will be able to ensure due diligence efforts are undertaken by the companies placing on the market a product linked to those risks. SPI due diligence requirements would be formulated with a view to ensure that companies already having due diligence systems in place are able to integrate compliance with SPI due diligence obligation into their overall system.

**Sub-option 3c: Bans on some products** would build on sub-option 3b, by also including the possibility to *prohibit the placing on the market of some products, or products containing certain materials*. This would build on what *de facto* happens with the current Ecodesign Directive<sup>143</sup>, by explicitly allowing for such a possibility, in cases where a set of clear criteria (to be defined in legislation) are met (see *Annex 9: Policy Options and Measures*).

#### *Option 4: Sustainability information for consumers and B2B*

In order to achieve the objectives of this initiative, in particular specific objective 2 to enable ‘Better access to sustainability information along the supply chain’, the following three sub-options have been retained for assessment: **4a)** enhanced information requirements; **4b)** the establishment of a European digital product passport at product group level; and **4c)** generalised application of a European digital product passport for all products in scope. The sub-options are cumulative: measures considered in sub-option 4a are also part of sub-options 4b and 4c. Sub-option 4c builds on sub-option 4b by complementing Measure 4b.1.

**Sub-option 4a: Enhanced information requirements** would create an obligation for those responsible for placing products on the EU market to make available the information necessary for consumers and economic operators along the value chain. The information requirements would, to the extent possible, reflect the sustainability requirements to be set for products under sub-option 3a, and where needed go beyond this<sup>144</sup>. Requirements, including the way the information should be made available, would be defined in SPI measures. This means that information requirements could be placed on the durability or reliability of the product or its components (e.g. taking the form of a requirement for a durability index, with classes of durability or reliability), on the product’s reparability and upgradability (e.g. taking the form of a requirement for a reparability score), on the presence of substances of concern in the product and their tracing, on the recycled content in the product or its components (e.g. setting an open requirement to communicate recycled content levels, where a minimum requirement in that respect is not feasible), as well as the product’s environmental impacts along the life-cycle (e.g. reflecting a requirement set in this respect, at process level or for the full life cycle, or setting an open requirement to communicate life-cycle environmental impacts, possibly in the form of a product’s ecological profile<sup>145</sup>). Building on the latter, this sub-option would also allow for information requirements to be set in the form of classes of performance (i.e. the establishment of categories of product performance, to enable comparison of an individual product with other similar products on the basis of their environmental performance, in addition to functionality or price alone) and possibly displayed in the form of a label, in a manner similar to how the energy label allows for the setting of energy classes (for the articulation with the energy label and EU Ecolabel, please see Annex 14; for the articulation with Consumer Empowerment and Green Claims, please see section 7.9 and Annex 14).

In addition, this sub-option would enable the adoption of SPI measures to require information on a *set of social indicators*. These will be based on an assessment of social aspects in the value chain of products, with a view to identifying hotspots (i.e. points along the value-chain that may have

<sup>143</sup> The Ecodesign legislation does not lead to banning products as such (neither materials nor technologies): it sets requirements to be respected in order for the products to be placed on the market. Products not meeting these requirements are *de facto* excluded from the market, unless their design is revised and improved to meet the requirements.

<sup>144</sup> Some measures will be implemented in synergy with measures foreseen in the Impact Assessment of the “Empowering consumers for the green transition” initiative and the “Green Claims Initiative”. See *Error! Reference source not found.* for details.

<sup>145</sup> As provided in Annex I, Part 3 of the Ecodesign Directive. This has never been implemented so far: a review of the ecological profile definition and the use of e.g. the Product Environmental Footprint method could facilitate its implementation.

significant positive or negative social impacts). The specific set of social indicators would be established within the product specific SPI measures, in close coordination with relevant existing legislation (see Annex 14).

**Sub-option 4b: European Digital Product Passport (EU DPP)** goes further and would require that, in addition to any information to be provided in physical format under sub-option 4a, the information requested should be made available via a *European Digital Product Passport*. The EU DPP would not automatically replace the information provided to consumers on printed labels. This is particularly important for the digitally excluded. It will rather complement this information and be more permanently available than tags or packaging that are removed after purchase. Moreover, the EU DPP would include a limited number of information requirements, common to all products, allowing extended visibility along the value chain (tracking & tracing information). Therefore, the EU DPP would consist in a structured collection of product-related data (with clear data ownership and access rights), and would be linked to products via a unique identifier (unique to each individual product or set at batch/model level). When relevant and appropriate, the EU DPP would also include dynamic data, thus allowing the collection and storage of product-related data along the entire lifecycle of the product. The data in question should reflect the data required under sub-option 4a (i.e. including the classes of performance), and where justified go further, e.g. requiring information on the product's origin, status, and other specific attributes. In addition to better informing consumers<sup>146</sup> and supply chain actors, the EU DPP would also be intended to facilitate customs and market surveillance authorities in their enforcement duties. The EU DPP requirements would be set out through the SPI measures, which would also determine the products in scope (see Annex 18 for more details).

It should be underlined that, while it will be possible to lay down certain key elements governing the EU DPP in the main SPI legal instrument, it will be necessary to complement these with more targeted technical precisions and details – e.g. adjusted to the needs of a particular product group – when laying down SPI measures in a second stage. For example, certain high-level principles – such as the need to connect the product passport to a unique identifier via a data carrier; the need to ensure this data carrier is physically present on a product/its packaging; and the need to ensure that all data included in the passport is written in standard, open, interoperable format etc. – are generally agreed on, and their inclusion in the main legal text is therefore likely to bring added value and clarity. The more technical solutions related to IT infrastructure and how the DPP will operationally work should be developed through global open standards. Other dimensions – such as where exactly the data carrier should be present on a given product; the type of data that should be accessible, and to whom (taking into account the data that may be particularly relevant, or sensitive, for a given product category) – are likely to require detailed examination, on a product-specific basis. These would be more appropriately laid down in a second stage, via SPI measures. The exact content of the information to be included in each product passport also merits consideration in a second stage, so that product-specificities can be adequately taken into account: while information content requirements may therefore vary across product groups – depending on the information deemed most relevant for a given product – products belonging to the same product group will have the same DPP information requirements, to be calculated and reported in the same way. For example, while DPP information requirements for washing machines and sofas will vary (given their different functionalities), requirements set for washing machines will be common to all of these products, and the same is true for sofas.

Also under this sub-option, synergies with existing chemicals and waste legislation would be built on, by *linking to the extent possible information requirements, where they relate to substances of concern, and the Substances of Concern In Products (SCIP) Database* (which implements Article 9 (1) (i) of the Waste Framework Directive), to ensure complementarity and reduce administrative burden for stakeholders. In particular, the EU DPP could include links to SCIP data and this would

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<sup>146</sup> The provision of information to consumers under this option would be done in synergy with the measures foreseen in the Impact Assessment of the “Empowering consumers for the green transition” initiative. See Annex 9 for details.



reinforce the availability of information relevant to the management of chemicals and recycled materials, and be especially relevant for waste managers.

**Sub-option 4c: Generalised European Digital Product Passport** includes measures of sub-options 4a and 4b. The difference is that, under option 4c, there would already be in the main legal act, specific provisions identifying horizontal requirements (such as on governance, stakeholder obligations, technical features etc.) and a list of cross-sectoral attributes that each product in scope shall include in its EU DPP at the time of being placed on the market. The legislation could if needed provide for a differentiated schedule of EU DPP application, to take account of the various levels of complexity of its implementation for different products.

#### *Option 5: Reward more sustainable products through incentives*

In order to achieve the objectives of this initiative, in particular specific objective 3 to ‘Incentivise more sustainable products and business models to improve value retention’, this Option looks to reward more sustainable products. The sub-options retained for analysis are **5a)** enhanced incentive measures; **5b)** linking incentives to performance; and **5c)** consumption-oriented incentives. The sub-options are cumulative<sup>147</sup> and each correspond to an increasing level of ambition as well as complexity, while building on the information requirements and classes of performance developed under Option 4. Sub-option 5a and 5b build on already-existing national and EU-level mechanisms (e.g. Member States incentives; Green Public Procurement; Extended Producer Responsibility schemes), while sub-option 5c proposes a set of innovative instruments, which have not been implemented to date. All incentives considered under Option 5 need to be implemented in a way to avoid discrimination between the goods produced in the EU and imported goods.

**Sub-option 5a: Enhanced incentive measures** focuses on enhancing existing reputational and economic incentives, encouraging Members States to reward products based on their sustainability performance, **making use of the classes of performance developed under sub-option 4a**. This would be supported by the provision of *guidelines* including exchange of best practices and training between/for public authorities.

To boost demand for sustainable products, this sub-option would also include **mandatory Green Public Procurement** (GPP) requirements, to be set out in product-specific SPI measures that would go beyond the minimum requirements for placing products on the market. This would mean that, when contracting authorities and contracting entities are procuring products covered by an SPI measure, they would be obliged to follow a set of mandatory criteria (award criteria or technical specifications) in their procurement procedures in order to ensure the environmental and social impacts over the life-cycle of the product(s) in question are considered, with a view to ensuring that those finally selected have minimal negative impacts.

**Sub-option 5b: Linking incentives to performance** requires Member States - if they provide incentives for products covered by an SPI measure - to **target those incentives at the highest performance classes** in the same way that incentives for products with an energy label should target the products at the highest two significantly populated classes of energy efficiency. This has precedents, for example national taxes on vehicles where the vehicles are incentivised (or disincentivised) according to their emission class<sup>148</sup>. This sub-option would also include the possibility to require Member States – through product specific SPI measures – to **modulate fees** paid by producers in the context of existing or new extended producer responsibility schemes **according to the performance class of the relevant products**.

<sup>147</sup> Except for measure 5b.1, which is alternative to 5a.1 – please see Annex 9

<sup>148</sup> There is also the case of the EU Energy labelling framework regulation that states that “where Member States provide incentives for a product specified in a delegated act, those incentives shall aim at the highest two significantly populated classes of energy efficiency, or at higher classes as laid down in that delegated act.”

**Sub-option 5c: Consumption-oriented incentives** would involve a *bonus for EU citizens who reduce their carbon footprint*. For each product covered, the environmental profile of a ‘representative product’ would be made available. Each product in scope would be assigned a carbon footprint score according to the methodology that will be selected and in full compatibility with other legislative instruments, and included in the European digital product passport (EU DPP). When the product is purchased, the bill would give the difference between the carbon footprint of the ‘representative product’ and the product bought. At the end of each fiscal year, each household could calculate the amount of carbon “saved” and Member States would then be allowed to compensate each of them proportionate to the amount of carbon saved (e.g. through eco-cheques or other financial incentives).

In addition, this sub-option would introduce *an excise proportional to the life cycle environmental performance of the products placed on the EU market*. The EU-level excise - calculated on the basis of the environmental performance of products- would be levied on the products placed on the EU market, irrespective of where they are produced. It would need to be first implemented at the pilot level for a few strategic products.

#### *Option 6: Measures for circularity and value retention*

In order to achieve the objectives of this initiative, in particular specific objective 3 to ‘Incentivise more sustainable products and business models to improve value retention’, this Option looks at measures for circular business models and value retention, in addition to those measures in Options 3, 4 and 5 which contribute already to circularity and value retention (for example requirements on reparability or product passport). The sub-options retained for analysis are **6a)** Promotion of value retention and value maximisation; **6b)** Enhanced value retention and value maximisation. All measures included in sub-option 6a are also part of 6b.

**Sub-option 6a: Promotion of value retention and value maximisation** would include the provision of *guidelines on supporting Circular Business Models* (CBM): such as product-as-a-service, maintenance, repair, re-furbishing, re-manufacturing, reverse logistics upgrading, and collaborative and/or sharing economy. The guidelines would present existing EU-level instruments and share best practices from national programmes, such as financial and technical support, reduced VAT rates for repair services, material brokerage services, public procurement, identification of circular opportunities and target setting. The guidelines could be used in combination with venture capital funding of the European Innovation Council (EIC) fund in projects eligible for the EIC accelerator supporting specific types of CBMs.

The Guidelines would be supported by an *EU-wide hub supporting the uptake of circular business models*, channelling information and services including awareness raising, cooperation, provision of training, exchange of best practices, etc. This could follow the model of a one-stop shop that gathers existing information and services hosted / managed by other programmes and agencies at the EU and Member States level.

**Sub-option 6b: Enhanced value retention and value maximisation** would go further and introduce an obligation for economic operators to disclose information on the destruction of unsold consumer products as a dis-incentive for this practice, and would introduce a *ban on the destruction of unsold consumer products*, via secondary legislation (SPI measures). This would include the prohibition of the destruction of returned/unsold products (making them instead available for donation, (re)sale or remanufacturing). The SPI measures would also determine possible exemptions to the ban on the destruction of unsold products (e.g. if justified for health, safety, quality or other reasons). In order to facilitate enforcement and dis-incentivize circumvention of such measures, they will be accompanied by ‘light’ transparency obligations, obliging economic operators to disclose - in a manner appropriate to their business environment - information on the fate of unsold products, in cases where they are

destroyed under applicable exemptions. Similar measures are already implemented in some Member States, for instance France and Germany<sup>149</sup>.

### *Option 7: Strengthened application of the Ecodesign framework*

In order to achieve the objectives of this initiative, in particular specific objective 4 to ‘Improve application of sustainable product legislative framework’, this Option considers sub-options to strengthen the application of the Ecodesign framework: **7a)** Improve the current framework to increase efficiency; **7b)** Strengthen market surveillance of EU Member States; and **7c)** Reinforce EU level implementation and complement Member States' market surveillance. The sub-options are cumulative: all measures included in sub-option 7a are also part of 7b and 7c; all measures included in sub-option 7b are also part of 7c.

The three sub-options progressively extend the number of actors directly involved: the first (7a) focuses on improving the processes leading to the adoption of SPI measures; the second (7b) focuses on better enforcement, with measures that focus on market surveillance; and the third (7c) proposes a model under which the European Commission is provided with executive capacities, to prepare SPI measures and to support and complement Member States in fulfilling their role.

**Sub-option 7a: Improve the current framework to increase efficiency** would focus on improving processes leading to the adoption of SPI measures. It would include measures such as *streamlining of the procedures* for the development and adoption of implementing regulations (changes in sequencing; ensuring information is collected efficiently; etc.). It would also introduce the possibility to *collect data from manufacturers and retailers* regarding regulated products sales and usage. The collection of sales data is part of the preparatory studies. Collecting them directly from manufacturers or retailers would allow for better estimation of market penetration of product types linked to sustainability characteristics at EU level, better informing the studies for the revision of product specific regulations. Trade secrets and other confidential information would be treated in a confidential manner. The sub-option would also expand provisions related to *third parties in conformity assessment* procedures to provide an extra safeguard for the correct application of those requirements to which they are applied, thereby increasing compliance and ensuring the availability of complete and verified documentation.

**Sub-option 7b: Strengthen market surveillance of EU Member States** would focus on better enforcement, with measures concentrating on market surveillance to ensure the effectiveness of all rules SPI, will set and ensure a level playing field for economic operators. The measures foreseen aim to take account of the specific challenges associated with enforcing sustainability requirements on products (rather than the challenges associated with enforcing product legislation as a whole). Specific measures would include: *making relevant product information digitally available to market surveillance authorities* (MSAs) and possibly to Customs authorities; providing *structural technical support to improve cooperation between MSAs and ensure they have sufficient capacities*; organising *common trainings for staff of notified bodies, notifying authorities and MSAs*; *publishing MSA penalties decisions*; creating a *benchmark and a reporting obligation for Member States* and establishing *requirements for market surveillance checks*.

While sub-options 7a and 7b would rely on the strengthening and reinforcement of existing capacities, **sub-option 7c: Reinforce EU level implementation and complement Member States' market surveillance** would allow the European Commission, where needed and appropriate while respecting the principle of subsidiarity, to organise and carry out *complementary market surveillance*. This

<sup>149</sup> « Loi anti-gaspillage », <https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000041553759?r=C3q8dVQuQS>. The German Federal Government has agreed on a draft bill amending the Circular Economy Act (Kreislaufwirtschaftsgesetz, “KrWG”). Germany intends to introduce a so-called “duty of care” (Obhutspflicht) which will require distributors in case of distance sales to ensure that the goods remain usable if returned by the customer and do not become waste.

could be supported by reinforced **product monitoring and testing capacity** at European level<sup>150</sup>, to assist with both upstream definition of product requirements and downstream market surveillance. There would also be a **third party channel for market surveillance** so citizens can report suspected cases of non-compliance. Finally, there would be **assistance to implementation for suppliers and MSAs** provided by a central EU level service (going beyond the current assistance that can be provided by the services of the European Commission in charge of Ecodesign), answering specific queries through non-binding advice, but also in the form of trainings and presentations for stakeholders, to facilitate the correct understanding and implementation of rules.

### *Discarded measures*

Three measures are discarded and not analysed further in the main report. See also *Annex 9: Policy Options and Measures*.

Firstly, to have far reaching value retention and value maximisation in the form of **an obligation for companies to take back, or donate for use, unsold products** and to introduce detailed reporting requirements on the fate of unsold goods to foster greater transparency (this would have been a measure under Option 6). This would require creating dedicated registries in Member States for specific product groups to monitor the quantities of unsold products, leading to administrative burdens that are significantly higher than what results from the transparency obligation proposed under option 6b. It would also set obligations on relevant actors in the value chain (e.g. producers, importers, retailers) of all consumer products to take back or donate for use unsold products and to monitor and report their quantities to national relevant authorities. As a measure that is generally applicable to all products covered by the SPI scope, it would lead to considerable administrative burden, including for economic operators in supply chains for which destruction of unsold consumer products might not be prevalent. Overall, this measure seems to largely duplicate the ban on destruction, but in an inefficient manner.

The sub-option has been discarded at an early stage due to the costs and the administrative burden associated with it, which are not proportionate to the environmental and social benefits it could generate.

Secondly, to put in place a **Sustainable Products Framework**: this would have been a measure of Option 3 (building on sub-options 3a, 3b and 3c). This would take a longer-term view by establishing an overarching *framework legislation*, including a legally-binding set of *sustainability principles*<sup>151</sup> (intended to guide product design and foster sustainability and circularity of supply chains) and *long-term targets* for EU and Member States product policies, as well as requiring national implementation plans.

This sub-option has been discarded as it was concluded that the SPI instrument would not be best placed to ensure its effective implementation. For example, in order to fix and effectively implement the overarching *targets* foreseen, multi-layered policy intervention – including a combination of instruments active not only on the production but also on the consumption side – was deemed to be necessary. Even if it is expected that SPI rules will contribute to fostering more sustainable consumption choices in relation to products, it will remain a product-oriented policy tool, primarily capable of laying down rules at product level. It will therefore be unable to take the purely consumption-oriented measures that would be required for the success of this sub-option, such as to limit total amount of products produced/consumed in the EU. In addition, in order to be applicable to all products in scope of SPI, analysis indicated that legally-binding *sustainability principles* would need to remain relatively general in nature, leading to an increased risk from an enforcement perspective, including increased difficulty to verify product compliance and increased risk of non-

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<sup>150</sup> E.g. relying, where necessary, on external laboratories, and acting in a coordinated manner with national market surveillance actors.

<sup>151</sup> Such as the principle that all materials should be sustainably sourced, or that information on the environmental characteristics of products should always be made available (see *Error! Reference source not found.* for more details)

compliance. In addition, a substantial risk of diverging approaches being adopted across Member States – due to potentially different interpretations of the sustainability principles – was identified, raising concerns that the general objective of this initiative would be jeopardised. All in all, while it is envisaged that SPI will contribute to long-term current or future sustainability targets at national or EU level (such as EU climate targets), the scope and nature of the envisaged instrument are deemed unsuitable for implementation of the above-mentioned sub-option.

## 6. WHAT ARE THE IMPACTS OF THE POLICY OPTIONS?

### 6.1. INTRODUCTION

This section presents the analysis of the policy options described in the preceding section, and assesses how they contribute to reaching the specific objectives. Each policy option has three sub-options, except for Option 6. Overall, approximately 50 specific measures are analysed individually in Section 10 and 11, but are presented here in sub-options to keep the analysis manageable. More details are provided in *Annex 10: Impacts of the policy options* and *Annex 11: Comparison of the options*.

For each of these policy options this section includes a proportionate analysis of:

- economic impacts (positive and negative) including opportunity costs, compliance costs and administrative burden (for businesses and for public authorities)
- environmental impacts,
- social impacts,
- stakeholder views.

The analysis considers the sub-options in a given policy option in isolation (i.e. 2a compared to 2b, and to 2c) and does not at this stage consider the interaction between sub-options across options. This is considered reasonable as the options have been constructed to be largely independent, but an analysis of the synergies between them and hence of the **overall preferred option** is presented later.

### 6.2. ANALYSIS OF POLICY OPTION 2

#### *Economic impacts*

As outlined in the previous section, taking into account the expected architecture of the future SPI instrument, the decision to extend the scope of the Ecodesign Directive is not in itself expected to have a direct impact on the sectors concerned. Rather, the concrete impacts of the chosen sub-option will be felt at a second stage, as SPI measures are laid down for the products concerned. In general terms, however:

For **businesses** the extension of Ecodesign to the products identified for **sub-option 2a** is likely to entail price increases due to product improvements and would likely lead to a reduction in the demand for primary materials and new products. At the same time the demand for spare parts and repair services – and related business opportunities – may increase, following the provisions for recycled content and extended product lifetimes. Where the scope extension affects products placed on the market by SMEs, it is likely to entail an additional burden on these companies due to limited resources. Other SMEs, in particular the many active in value-retaining sectors such as repair, servicing and maintenance are expected to benefit from the widened scope (and associated requirements) foreseen under this sub-option. In all cases, however, the administrative burden on economic actors will depend on the stringency of products requirements (see Option 3).

Contrary to the products currently in scope of Ecodesign, **consumers** of non energy-related products would not experience savings through energy demand reductions, but rather in the form of fewer purchases of new products (because products can be kept longer in use). At the same time the expenditure for spare parts and repair services will likely increase.

For **public authorities**, administrative burden will increase under this sub-option, e.g. as the European Commission will have to develop the relevant SPI measures. The scope extension under option 2a would imply a doubling of the number of products effectively regulated as of July 2021: the additional administrative costs would equal about EUR 5.8 million per year for the European Commission. For Member States, the new requirements may entail additional administrative burden and costs relating to market surveillance and controls performed by customs. However, compared to sub-option 2a, this sub-option would present the added value of not having to revise the overarching legislative framework should action need to be taken for new or future product categories.

The market share is expected to increase by about 13% as a result of the addition of the remaining physical products in **sub-option 2b**. However, the remaining product groups would add 3% of European domestic final demand (compared to sub-option 2a, increasing it to 26% overall) and 2% of employment (again compared to sub-option 2a, increasing it to 24%)<sup>152</sup>. In practice, whilst the first priorities would likely be the products identified under 2a, this sub-option leaves flexibility to also cover other products including through horizontal measures. As such sub-option 2b could be implemented in a more proportionate manner. It is this increased potential for flexibility to respond to new opportunities and new information which allows sub-option 2b to score higher for efficiency than sub-option 2a.

Both sub-options 2a and 2b would apply criteria for prioritisation that include (see annex 16 for more detail):

- Contribution to meeting environmental, climate and energy targets and political priority, including EU international commitments;
- the environmental impact of the product along its life cycle (including resource use)
- energy consumption;
- whether there are significant differences in environmental impacts within the product group;
- the potential for improvement in terms of its environmental impact, energy efficiency and circularity aspects without entailing excessive costs (notion of affordability);
- social impacts along its value chain;
- economic benefits expected from the product improvement;
- EU added value, by producing results beyond what would have been achieved by Member States acting alone.

The economic assessment for **sub-option 2c**, which adds to the scope services on top of all products in sub-option 2b, is challenging. Adding services would extend the scope of Ecodesign dramatically, with an additional 52% of European domestic final demand (compared to sub-option 2b, increasing it to 78% overall) and 53% of employment covered (compared to sub-option 2b, increasing it to 77% overall)<sup>153</sup>. The administrative burden is difficult to estimate for such a new measure (as for services so far only voluntary schemes exist). The impact would have to be assessed when looking at service-specific SPI measures.

In terms of impacts on the internal market, the broader the scope of the options, the bigger the potential to have harmonised rules that can avoid fragmentation. It should be borne in mind that the product scope of the Ecodesign Directive was therefore not restricted to specific categories of products but to all energy-related products. For this reason, sub-option 2b would have the potential to prevent fragmentation better than sub-option 2a and have the added value of not having to revise the

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<sup>152</sup> See Annex 10 for more details

<sup>153</sup> See Annex 10 for more details

overarching legislative framework should action need to be taken to address the environmental impacts of new or future product categories. Sub-option 2c would have an even higher potential (as it would cover services).

### *Environmental impacts*

As shown in Figure 2, all sub-options would improve coverage of all the analysed environmental impact categories. The improvement in **sub-option 2a** would range between 4 and 16%. The largest increase in absolute coverage, and hence largest scope for environmental improvements would be emissions affecting human toxicity, airborne particulate matter concentrations and ecotoxicity. The increase in coverage of GHG emissions is around 7%. Nevertheless, for this and the other sub-options, until further assessment has been done it is uncertain how large the actual improvement potential is for each specific product. This means that it is undesirable to artificially restrict the product scope.

Due to the additional product groups included in the scope, **sub-option 2b** displays a slight improvement in terms of environmental impacts compared to sub-option 2a in all categories, ranging from 5 to 18%. However, the wide scope of sub-option 2b – which may in the future include novel products whose impacts remain as yet unknown – makes it impossible to accurately calculate its full coverage potential, which could be far higher than the above-mentioned figures. In terms of readying the EU to address possible future (as yet unknown) product sustainability challenges, and lessening the likelihood of problematic regulatory gaps occurring (as is now the case), this sub-option scores better in terms of efficiency and it is more suitable than sub-option 2a due to being more future proof. There would also be additional positive impacts from developing horizontal measures applying to the products groups not covered in 2a. In practice, under this sub-option, following a prioritisation exercise, the first product groups tackled would likely be those identified under sub-option 2a (as not all products will be tackled at once, rather turned into a workplan over a number of years).

The marginal environmental improvement potential of **sub-option 2c** appears higher again, ranging from 7 to 22%.

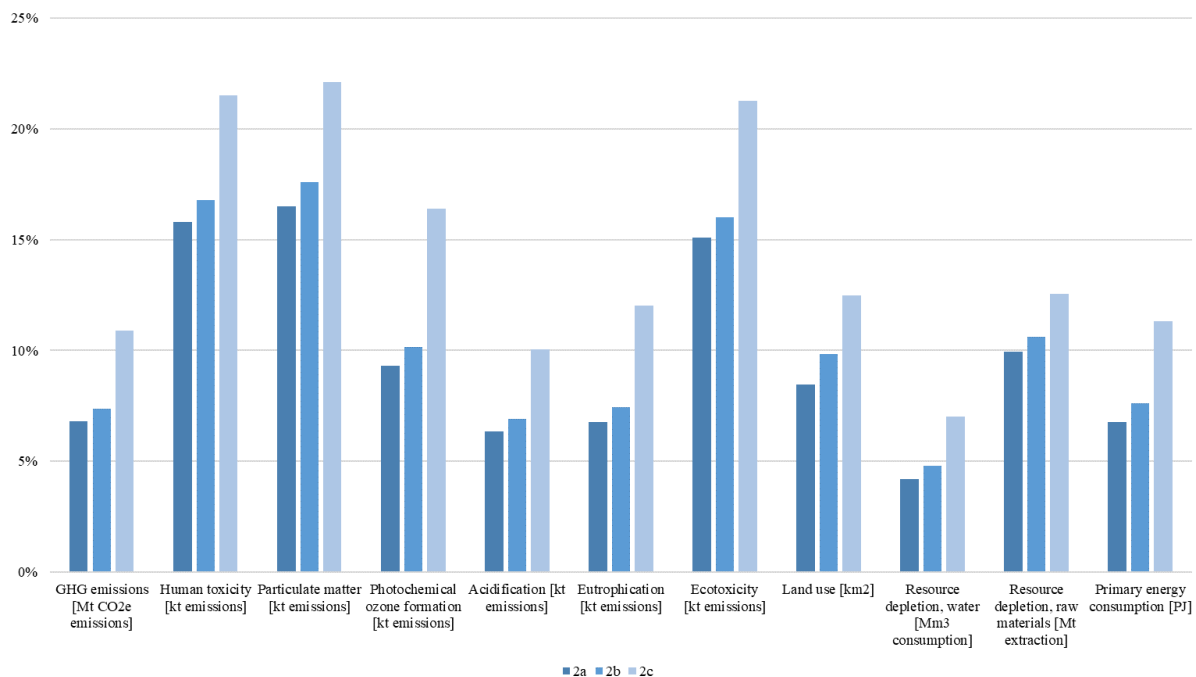


Figure 2 Yearly environmental reduction potential of the policy sub-options relative to baseline as percentages of EU totals; own calculations based on EXIOBASE v.3.8.1

### *Social impacts*

Additional labour demand in the EU is likely to occur from the application of circular economy measures, e.g. in the recycling and repair sectors, but other job profiles could be affected (e.g. around extraction/import/management of raw materials). The impact would have to be assessed based on the exact requirements to be laid down under the product specific SPI measures.

### *Stakeholder views*

Stakeholders showed some different views: while quite broad support for extension of the ecodesign instrument emerged from a number of stakeholder categories, some asked for the (initial) focus of SPI to be on the priority sectors of the CEAP, while others called for a broad extension to all products and for the future framework to retain flexibility so that updates to rules remain possible where needed. No particular support for extension to services emerged.

**Industry** representatives tended to cautiously support the extension of Ecodesign Directive in general, but many underlined the need to retain a product-specific approach if the needs and complexities of different sectors are to be taken into account. They called for individual assessments to be carried out before laying down concrete rules for each new product added to the scope.

In a dedicated workshop, **Member State** representatives expressed support for a wide SPI scope, while generally agreeing with the list of products suggested for priority action. They also felt the inclusion of services at this point in time would be premature. Other national level representatives – in particular Ecodesign practitioners from the public authorities – tended to be more conservative regarding the scope of Ecodesign: they considered that energy-related products have different features deserving different legislative tools to others products.

**Stakeholders across the categories** underlined the need to ensure synergies with existing EU legislation and avoid overlap on sustainability or design aspects, so as to avoid extra administrative burden. Enforcement within the single market and at the EU external borders and market surveillance activities (e.g. inspections or audits) are also viewed by all as necessary to accompany the implementation of the SPI: their robustness has an impact on how far to go to extend the scope.



In general, a majority of respondents to the Public Consultation, including **SMEs**, considered that products sold in the EU are not sustainable because there is no harmonised set of requirements to foster sustainable design of products – suggesting that a wider scope for the future regulatory instrument may bring added value.

### *Overall comparison*

Table 2 Comparison of sub-options under PO2<sup>154</sup>

<b>Overall comparison</b>	<b>Sub-option 2a</b>	<b>Sub-option 2b</b>	<b>Sub-option 2c</b>
Effectiveness in delivering specific objectives	++	++	+++
Efficiency	++	+++	+
Coherence	++	++	++
<b>Overall economic impacts (including benefits)</b>	+/-	+/-	+/-
Administrative costs for Commission and MSs	-	-	--
Compliance costs for businesses	-	-	--
Costs / Savings for consumers	+/-	+/-	+/-
<b>Overall environmental impacts</b>	++	++	+++
<b>Overall Social Impacts</b>	+/-	+/-	+/-

## **6.3. ANALYSIS OF POLICY OPTION 3**

### *Economic impacts*

For **businesses**, **sub-option 3a** will likely entail some increased *compliance costs*. These could be offset in part for businesses by costs passed to consumers (though these in turn are likely to be reduced in other ways – see below), and via a potential reduction in the overall number of products manufactured per year (due to more durable and reliable products). Importantly, the requirements under this sub-option are likely to support and encourage businesses in developing new revenue streams and avenues of business such as in repair, refurbishing and remanufacturing. Additional administrative burden can be expected, for example for provision of information for market surveillance. For public authorities, administrative burden will likely increase under this sub-option, e.g. as the European Commission will have to develop the relevant SPI measures. For Member States, the new requirements may entail additional administrative burden and costs relating market surveillance and controls performed by customs. For SMEs, there are indications that some of the product sustainability requirements foreseen under 3a could give rise to medium to high administrative or compliance costs, but that these may be offset overtime due to material savings, reputation benefits etc. (see ‘stakeholder views’). In addition, as the requirements under 3a are expected to increase the opportunities to further develop and harness the market for repair and refurbishment, this sub-option is likely to bring clear benefits for SMEs, as these are already predominant in these sectors. Consumers are expected to benefit positively from increased ease of reparability. Though the initial cost of new products could become higher, these additional costs are expected to be offset by extended product lifetime and/or lower usage costs in general. The impact assessments preceding adoption of detailed product rules will need to establish what costs are reasonable and proportionate from a consumer perspective, also taking into account the expected time

<sup>154</sup> See annex 10 for a more detailed breakdown of the scores

horizon for expected savings (e.g. from increased durability etc.) to take effect. While experience under the current Ecodesign Directive – where the cost increase in 2020 for Ecodesign products (21bn Euro) was about 5% of the total acquisition costs of these products (395bn Euro)<sup>155</sup> – is of interest, it cannot be said to be fully indicative of what may arise as a result of SPI rules, given its primary focus on energy savings. In addition, the time horizon for such a “break-even” point is product-specific and so are affordability aspects. Therefore the time horizon cannot be generalised and needs to be looked at in future impact assessments for detailed product rules.

**Sub-option 3b** would include all impacts listed above for sub-option 3a, though businesses have indicated (see *Annex 2: Stakeholder consultation*) that increased costs are likely to be incurred in particular for the measures relating to remanufacturing and due diligence. In relation to the latter, it should again be underlined that SPI will only take action where specific risks, at the *level of the product*, have been identified during preparatory studies, and where it is judged that these risks cannot be adequately addressed by other instruments – in particular the Sustainable Corporate Governance Initiative (SCGI). In essence this means that SPI will act as *lex specialis* to SCGI’s more horizontal rules (see Annex 14). As such, given the close alignment between the two initiatives that will need to be ensured, certain opportunities for alleviating unnecessary burden for companies can be foreseen – for example, via provision of sectoral guidance to ensure coherence, and by formulating SPI due diligence requirements with a view to ensuring that companies already having due diligence systems in place under SCGI are able to integrate compliance with SPI due diligence obligation into these. For **SMEs** (who will not be subject to SCGI due diligence requirements, but who may be subject to future SPI due diligence requirements, depending on the products they place on the market), separate dedicated analysis of appropriate and proportionate measures will be foreseen in the context of the impact assessments that will precede adoption of all SPI rules. When deciding on these rules, the Commission will take account of the size of the companies the rules will apply to and the proportionality of the compliance costs they entail. Whether such requirements are feasible and whether the envisaged benefits (e.g. for the environment, but also for competitiveness including for SMEs) weigh up against the costs will be decided on a case-by-case basis, based on product-specific information and analysis. These decisions will be made also with input from industry (including SMEs and their representatives). *Where justified* based on this, certain mitigation measures could be considered: for example, SPI due diligence obligations could exclude specific steps for SMEs, or adjust those steps to decrease the associated administrative burden, e.g. by simplifying the reporting step or adjusting the required deadlines or timelines (see annex 14 for more details). **Sub-option 3c** would include all impacts listed above for 3a and 3b, plus costs associated with explicit bans on some products or materials in products. Where this takes place, it could lead to costs for businesses and consumers, and restrict the choices available on the market. As such, these bans would need careful justification.

In terms of impacts on the internal market, sub-option 3a would have a positive impact by establishing clear requirements. Sub-option 3b would extend this to additional aspects and thus further reduce the risk of fragmentation through national rules. Finally sub-option 3c would ban certain products or materials, thus restricting their access to the internal market, which could be justified for instance if these products compete on unfair terms with more sustainable ones.

All the sub-options under 3, are designed to be flexible as a means to ensuring proportionality. For this reason, no minimum requirement or bans will be applied unless they are justified on the basis of analysis. The alternative would be, for example, to committing to setting minimum environmental or carbon footprints under all SPI measures, which could lead to disproportionate requirements.

### *Environmental impacts*

**Sub-option 3a** would effectively reduce environmental impacts compared to the baseline scenario. Products will be less frequently replaced, and their inherent value would be better made use of. The

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<sup>155</sup> [Ecodesign impact accounting annual report 2020](#)

possibility for consumers to choose unsustainable products would also gradually reduce. In addition, the option is expected to increase the demand of secondary raw material (thus reducing primary resource use and waste generation), and the measure on high-quality recycling also included in this sub-option will help to feed the supply required for this. Overall the environmental benefits of option 3a are expected to be significant.

**Sub-option 3b** include all environmental impacts mentioned above but goes further because of more ambitious sustainability requirements and greater efficiency in their application. Minimum requirements on remanufacturing<sup>156</sup> would contribute to further reducing life cycle impacts and will bring benefit in third countries as well as in the EU.

Under **sub-option 3c**, the possibility to prohibit certain products/materials with significant environmental impacts would have immediate impact, but clear criteria would need to be met to make use of this possibility.

### *Social impacts*

**Sub-option 3a** could trigger a shift in employment from manufacturing sectors to repair and refurbishing sectors, and an increase in employment in the second-hand sector (repair, refurbishment, remanufacturing), likely requiring new workforce skills. It is possible that this could provide increased job opportunities, including for people from vulnerable social groups. It is also possible that vulnerable sections of society with limited purchasing power could face difficulties in purchasing more expensive new products, though it is expected that better durability and increased repair opportunities will compensate for this over time, and more second-hand products of better quality should also be available. As mentioned, the impact assessments preceding adoption of detailed product rules will need to investigate what is reasonable and proportionate in terms of price increases for consumers, taking expected savings over time into account.

For **sub-option 3b**, the additional social impacts compared to 3a are due to the introduction of requirements on due diligence (3b) and are expected to result in improvement of working conditions across the value chains, both within and outside the EU, in particular if relevant SPI measures synergise well with other related requirements (e.g. under related initiatives) and are well enforced. The minimum requirements on re-manufacturability will create additional jobs.

**Sub-option 3c:** The social impacts for this sub-option are similar in nature in some respects to 3a and 3b but of higher magnitude. The possibility of introducing prohibitions on certain products could affect certain citizen groups more than others (see Annex 10, case of incandescent lamps), even if the necessary preparatory procedures (including consultation process and assessment of impacts) would help to ensure that any action taken in this respect is justified and proportionate.

### *Stakeholder views*

As outlined under sub-problem 1, most respondents to the Public Consultation agree or strongly agree that many products are not designed to be easily repaired or upgraded, though agreement levels vary across stakeholders, being much stronger amongst **EU citizens** and **environmental organisations** than **industry** representatives, for example. Building on this, there appears to be **overall support for establishing binding rules on actions to be taken by producers to improve durability, re-usability, upgradability and reparability**: 59% of all respondents support or strongly support this action, but once again support is far higher amongst EU citizens and environmental organisations (87% and 91% respectively) than industry representatives<sup>157</sup> (36% only). For SMEs, just over a half (56%) would support or strongly support it. Other measures with strongest overall support from stakeholders include prioritising design to facilitate easy repair, upgrade, remanufacture etc.; and restricting substances inhibiting circularity - even if levels of support for these measures varied across to stakeholder categories along the same lines as described above.

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<sup>156</sup> Reuse and remanufacturing, while less meaningful than delayed replacement, may still deliver significant environmental benefits (-1.36% GWP; -1.40% RME; -0.33% LU; -2.33% (source donate et al.)

<sup>157</sup> Business associations and companies

The targeted stakeholder consultation exercise found that introducing minimum sustainability requirements on products (e.g. via a revision and extension of current ecodesign rules) is considered by some – in particular **NGOs** and **consumer associations** – as the most effective means of reducing products’ environmental impact, because not enough consumers are ready to pay more for sustainability. Some **industry** representatives expressed concerns about potential costs involved in testing such requirements (e.g., product lifespan or product environmental footprint requirements) and potential increases in the administrative burden (e.g. because of due diligence requirements). In general, however, corporate interviewees supported a product-specific approach to the requirements to be placed by the SPI and expressed readiness to comply with additional requirements, provided these are grounded in a robust prior assessment.

In a dedicated workshop, **Member State** representatives expressed general support for requirements under 3a, and were cautiously supportive of including the due diligence requirements foreseen under 3b, underlining the need to ensure coherence with other initiatives.

For **SMEs**, responses from a targeted survey of SME representative organisations suggest that while product sustainability requirements (such as those foreseen under 3a) may give rise to some negative impacts (such as medium to high administrative or compliance costs), these are likely to be offset over time due to factors such as reduced material use and expenditure, increased customer loyalty and increased reputational benefits etc. Compared to 3a, replies suggest that the impact of sub-option 3b on SMEs may be higher, due to the due diligence requirements it entails: while a fifth of survey respondents envisage that negative impacts of this measure could be offset over time with possible added value ensuing, just under a fifth point to the possibly high negative impact of this option for SMEs.

Further details on the above are set out in *Annex 2 and 10*.

### *Overall comparison*

Table 3 Comparison of options under PO3<sup>158</sup>

<b>Overall comparison</b>	<b>Sub-option 3a</b>	<b>Sub-option 3b</b>	<b>Sub-option 3c</b>
Effectiveness in delivering specific objectives	++	+++	+++
Efficiency	++	+++	++
Coherence	+++	+++	+++
<b>Overall economic impacts (including benefits)</b>	+/-	+/-	+/-
Administrative costs for Commission and MSs	-	-	--
Compliance costs for businesses	--	--	---
Costs / Savings for consumers	+/-	+/-	+/-
<b>Overall environmental impacts</b>	++	+++	+++
<b>Overall Social Impacts</b>	+/-	+/-	+/-

<sup>158</sup> See annex 10 for a more detailed breakdown of the scores

## 6.4. ANALYSIS OF POLICY OPTION 4

### *Economic impacts*

Sub-option 4a will require product manufacturers, suppliers, and importers to collect, store, and make available information. While some information required is expected to already be available to manufacturers and suppliers, it is possible that new information necessary to comply with SPI requirements will have to be generated. A digital product passport (as included in 4b and 4c) would streamline information sharing compared to the situation in 4a which does not include a harmonised digital infrastructure. Measure 4b.2 improves the provision of information requirements included in measure 4a.3, and ensures that tracing substances of concern is not duplicated between chemical and Ecodesign legislations. This should therefore result in higher efficiency for companies, limiting the risk of double reporting, and reducing their administrative burden.

An increase of costs for economic actors, compared to the baseline, can be expected for each of the three sub-options (see **Annex 11: Comparison of the options** for more details). **SMEs**, like other businesses, will have to face the cost of new information collection and reporting: for example, the respondents to the second targeted SME survey suggested that administrative and compliance costs associated with the requirement to provide information on the ecological profile of products could be medium to high for SMEs, even if there is a chance that these could be absorbed and offset over time. Option 4a would lead to a relatively higher administrative burden for **Member States** compared to the other two options, due to the lower level of harmonisation requirements related to which information to display and how to communicate it. The opposite would be true for **economic operators**, for which option 4b and 4c would lead to higher costs compared to 4a, as some of them<sup>159</sup> would need to set up an internal IT system to store the data to be made available through the EU DPP. However, this must be put in perspective with the overwhelming support, across all stakeholders (including SMEs) for a digital product passport and the potential reduction of administrative burden thanks to simplified compliance processes through the DPP. 42% of SME respondents expect higher economic return for EU businesses. In order to keep administrative costs for business and administrations to the minimum necessary, the DPP will have to rely as much as possible on already existing and used standards related to data format and transfer. Moreover, by linking the information included in already existing centralised database (e.g. EPREL or SCIP), the duplication of information provision and control would be avoided. The costs for the European Commission would be higher under sub-options 4b (and to a lesser extent 4c) due to the cost of deploying the necessary infrastructure to support the decentralised digital product passport, its supervision and ensuring the integration or coordination with existing EU databases. However, the EU DPP is expected to reduce the costs for market surveillance, also through possible synergies with the EU Single Window Environment for customs.

Under all sub-options, citizens will have access to a wider set of information than they currently enjoy when purchasing products. While the cost of providing information incurred by companies is likely to be transferred to the customer, they will be capable of choosing items that increasingly offer better value for money (longer lasting, easily repairable). Depending on their willingness to pay more for more durable products, consumers will see more or less benefit in the measure. According to a recent study, which measured willingness-to-pay based on information on reparability and durability, consumers will see the greatest benefits in large and expensive items. For other products such as clothing, the benefit is lower, but still positive.

In terms of impacts on the internal market, all sub-options create additional transparency facilitating well-informed choices, yet sub-option 4b would be more beneficial than 4a as it would allow market players to easily build on the information received digitally from others in the value chain and would follow more harmonised requirements. Sub-option 4b would also be more beneficial than 4c due to the importance of providing information that is specific and relevant to the products for which the EU DPP will be introduced.

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<sup>159</sup> Many medium-large companies already have such systems in place.

### *Environmental impacts*

The estimation of environmental gains that could be achieved through option 4, independently from the sub-option chosen, is as follows:

- Facilitation of more sustainable choices by consumers, thus reducing the overall impact of consumption
- Facilitation of the work of all players that intervene in the product lifecycle (maintenance, repair, recycling) due to:
  - 5% cost reduction of maintenance and repair<sup>160</sup>
  - 4-25% increase in the maintenance and repair rates<sup>161</sup>
  - reduction in the number of durable goods being sold per year by 0.1 to 0.2%, and hence a proportional reduction of their environmental impacts upon production<sup>162</sup>
  - increase in the quantity of high-purity recycled materials, leading to a potentially significant increase of the contribution rate of recycled materials to raw materials demand from 6% to 78% for plastics, from 13% to 84% for aluminium and from 24% to 81% for steel<sup>163</sup>.

For sub-option 4a, the generation, storage and display of information will require the use of material and energy, which will generate some negative environmental impact, especially in the case of digitalisation of information (which is expected to happen, even in the absence of a digital product passport). In addition to the environmental impact estimated in sub-option 4a, further impacts would be added to account for the infrastructure needed to operate the decentralised system needed to implement sub-options 4b or 4c. Several technologies are available, with variable impacts. Nonetheless, benefit may also outweigh the costs, especially for sub-option 4b.

### *Social impacts*

As purchasing practices and production processes change towards more sustainability, there will be a shift in the workforce from declining sectors and jobs towards growing sectors. For example, repair services are expected to be boosted by the proposed initiative. This results in an increased need to re-skill the workforce and mitigate the territorial aspects of the economic transition.

The introduction of information requirements on social indicators are expected to help improving working conditions across the value chains, both in and outside the EU.

### *Stakeholder views*

There is **overall support for the introduction of information requirements** to improve the situation compared to the baseline: approximately 58% of respondents to the public consultation (PC) agree or strongly agree that economic actors do not have adequate and reliable information on the sustainability of products – a view broadly shared amongst most **industry** representatives as well as by **EU citizens & consumer organisations**. On the producers' side lack of awareness of sustainable production practices and methods was mentioned. On the consumers' side, the lack of education among citizens on issues related to sustainability was mentioned as a barrier to making products sustainable. Further, lack of adequate information for example, on the embedded carbon footprint in materials was considered a challenge.

There is **overall support for the introduction of a digital product passport** (therefore going beyond 4a): when asked which information should be included in a digital product passport, each of the 17 propositions received a positive answer of between 46 to 90% of respondents to the PC.

In the PC, stakeholders were also invited to choose which were **the biggest challenges to a successful establishment and implementation of a digital product passport**. The results provide an

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<sup>160</sup> Deloitte Environment et al. (2016) "Study on socioeconomic impacts of increased reparability"

<sup>161</sup> SPI Impact Assessment supporting study

<sup>162</sup> Deloitte Environment et al. (2016) "Study on socioeconomic impacts of increased reparability"

<sup>163</sup> SPI Impact Assessment supporting study. Based on end-of-life recycling input rates (EOL-RIR), Eurostat

insight into what they consider to be of critical importance. Interestingly, the cost and the (negative) environmental impact of a digital product passport came last (with 147 respondents choosing it). The two biggest challenges identified were: “managing the complexity of products and value chains and the quantity of data that is required to make such a passport effective” (count: 469) and “Ensuring the relevance and reliability of the information included in the passport” (count: 440)

**Member State** representatives who attended the different stakeholder workshops related to this topic expressed a general view that increased product information will be key for advancing the objectives of SPI, and that consumers should also be a key target here. The idea of a European Digital Product Passport (EU DPP) was well received by participants, but some cautioned that such a passport should not be overloaded with too much information, and that it should remain simple to understand, also for consumers. General support was expressed for the possibility of setting classes of performance for products, and attempting to reduce administrative burden for economic operators by exploring if certain obligations (e.g. in relation to chemicals tracing) could be reduced via integration with the EU DPP/SPI requirements.

**SMEs** expressed cautiously optimistic to mixed views on certain measures foreseen under 4a: in the survey of SME representative organisations, for example, more than half foresaw that the potentially negative impacts stemming from the requirement to provide information on the ecological profile of products would likely be absorbed over time and bring added value from a business point of view. Approximately one fifth, however, signalled risk of potentially high negative impact from this measure. SMEs expressed quite high levels of support for introduction of a digital product passport (sub-options 4b and 4c) across consultations, even if the potential for some additional burden was recognised: in the first SME survey, for example, approximately three times more SME respondents agreed or strongly agreed that introduction of a DPP ‘could contribute to higher economic returns for EU companies’ than those that disagreed or strongly disagreed with this statement. According to respondents to the second targeted SME survey, the four most likely impacts of its introduction were identified, in the following order, as: promotion of greater transparency along the supply chain; better knowledge of own supply chain; encouragement to consumers to opt for more sustainable products; and possible additional IT costs/administrative costs to access the market.

### *Overall comparison*

Table 4 Comparison of options under PO4<sup>164</sup>

<b>Overall comparison</b>	<b>Sub-option 4a</b>	<b>Sub-option 4b</b>	<b>Sub-option 4c</b>
Effectiveness in delivering specific objectives	++	+++	++
Efficiency	+	++	+
Coherence	+	++	++
<b>Overall economic impacts (including benefits)</b>	+/-	+	+
Administrative costs for Commission and MSs	-	-	-
Compliance costs for businesses	-	+/-	+/-
Costs / Savings for consumers	+/-	+/-	+/-
<b>Overall environmental impacts</b>	++	+++	+++
<b>Overall Social Impacts</b>	+/-	+/-	+/-

<sup>164</sup> See annex 10 for a more detailed breakdown of the scores

## 6.5. ANALYSIS OF POLICY OPTION 5

### *Economic impacts*

**Sub-option 5a** may result in additional administrative burdens for economic operators as GPP and other pricing mechanisms typically require manufacturers to produce the information necessary to certify that their products meet the necessary requirements, as well as all operators along the value chain to keep the associated records and documents. In parallel, it will generate administrative burden for public authorities, in particular because of the need to monitor and enforce compliance with the new incentives and GPP requirements. The costs and the administrative burden for the European Commission to draft the legislative measure, the guidelines and supporting tools for the implementation of GPP in Member States are expected to remain limited. The direct economic impact for the more sustainable businesses and on contracting public authorities is expected to be positive. By sustaining demand for “greener” products, public procurement creates markets for environmentally friendly products and services. It also provides incentives for companies to develop innovative solutions with lower environmental impacts, creating markets and jobs, notably for SMEs. Depending on the product group, green public procurement can provide competitive advantage to environmentally-aware suppliers.

**Sub-option 5b** would reinforce the positive economic impacts identified for sub-option 5a, especially the increase of companies’ turnover offering sustainable products, but would also entail further costs for companies (e.g. setting up information collection process, including access to testing facilities and training) and administrative burden. The gains would exceed the expenditure, as numerous companies have established that qualifying for reputational incentives is beneficial despite its cost. The increase in administrative burden for Member States is higher compared to sub-option 5a due to the mandatory nature of measure 5b.1 (e.g. costs will also be incurred with monitoring uptake for the different products groups), however such costs are expected to remain limited in comparison to current product and waste statistics.

Similarly to sub-options 5a and 5b, **sub-option 5c** would imply an increased burden for companies, Member States and the European Commission. The administrative burden will increase significantly to manage, deploy and verify the three measures proposed, although a part of it could be offset for Member States with revenues from the excise duty under measures 5c.2. However, such measures have the potential to generate the largest negative impacts on companies, as the additional tax burden would unlikely be fully passed on to consumers.

In terms of internal market impacts, all sub-options would have a positive (and increasing from 5a to 5c) impact as they would lay down increasingly harmonised rules on how Member States would be able to incentivise the purchase of more sustainable products, thereby reducing the scope for national rules to fragment the internal market.

A more detail analysis of impacts on trading partners, citizens and SMEs for the three sub-options is provided in **Annex 10: Impacts of the policy options**.

### *Environmental impacts*

**Sub-option 5a** is expected to have positive environmental effects compared to the baseline, in particular thanks to measure 5a.2: GPP is often identified as a tool that can address environmental problems such as deforestation, greenhouse gas emissions, water use, energy efficiency, waste, etc. As shown in Annex 10, for almost ten product groups frequently procured by public institutions in the European Union, the use of GPP produced a reduction of GHG emissions.

**Sub-option 5b** builds on sub-option 5a and is expected to generate larger positive environmental effects compared to 5a, due to the mandatory nature of measures 5b.2 compared to 5a.1. Moreover, Measure 5b.2 is expected to have additional positive environmental impacts: the literature reckons the effectiveness of Extended Producer Responsibility (EPR) schemes to address environmental goals and influence product design (e.g. reduced waste, increased recycling).



**Sub-option 5c** is expected to enhance the reduction of the environmental impacts more than under sub-option 5a and 5b. For instance, the excise duty, by encouraging companies to improve their product's environmental performance over its life cycle, is expected to generate effects similar to carbon taxation. When comparing Member States that have implemented a carbon tax with those that did not, it has been found that this mechanism has a positive and significant impact on stimulating the reduction of carbon emissions. A more detailed analysis is provided in **Annex 10: Impacts of the policy options**.

### *Social impacts*

**Sub-options 5a** is expected to have positive effects in terms of job creation. Furthermore, economic and reputational incentives and GPP aim at influencing consumption habits and can assist consumers in drawing attention towards environmental impacts of products and services. However, the introduction of incentives may lead to price increases in the short term (if supply is inelastic), which are expected to decrease over time. Therefore, the issue of affordability of more sustainable products should be only temporary.

**Sub-option 5b** will significantly enhance the social effects identified for measure 5a.1. Incentives and eco-modulation in EPR schemes will be introduced at a faster pace, thus enhancing the job creation potential on the EU market in related fields, such as recycling or eco-design.

**Sub-option 5c** is expected to have a positive social impact as it would encourage a behavioural change leading to the selection of products of greater sustainability (measure 5c.1), while measure 5c.2, if accompanied by a shift of taxation on labour, has the potential to support the uptake of more labour-intensive and less resource-intensive activities, which would trigger job creation.

### *Stakeholder views*

Overall, stakeholders express quite high levels of support for measures foreseen under **sub-option 5a**: in the Public Consultation, approximately 67% believed introducing mandatory Green Public Procurement criteria is either important or very important, with approximately 55% of **industry** representatives, 81% of **EU citizens & consumer organisations** and 58% of **SMEs** believing so. The second targeted SME survey appeared to confirm the results for this latter category, with 40% of respondents foreseeing a positive impact for SMEs from mandatory GPP criteria (6% foresaw either no or neutral impact and 9% potentially negative impact). In a dedicated workshop, **Member State** representatives also expressed cautious support for this measure, while underlining that mandatory criteria should be clear and easily applicable for procurements bodies, and should still facilitate innovation. They were supportive of the guidelines foreseen under this sub-option, indicating that additional information on successful economic instruments already in place in some EU countries would be useful.

Stakeholders also appear to have a positive view of measures linked to those under **sub-option 5b**: overall approximately 62% of Public Consultation respondents believed increasing transparency by identifying performance classes was important or very important, with this figure approximately 50% for **industry**, 74% for **EU citizens & consumer organisations**, and 59% for **SMEs**. Related to the latter, a majority of respondents to the second targeted SME survey indicated that linking incentives to classes of product performance may bring positive benefits for SMEs (with lower figures foreseeing either no or neutral impact - 11% - or potentially negative impact - 9%). **Member State** representatives also expressed support for this measure, even if the need to ensure smooth interaction with existing incentives was also underlined. High support for modulation of Extended Producer Responsibility schemes was also evident amongst stakeholders: overall approximately 66% of Public Consultation respondents supported or strongly supported it – around 58% from industry, 76% of EU citizens and consumer organizations and 64% of SMEs.

**On sub-option 5c**, though stakeholders tend to agree that the low cost of many products is a barrier to more sustainable product choices, some stakeholders (in particular Member State representatives) cautioned against extending the SPI instrument in this direction, given the risk of increasing complexity and questions surrounding legal base.

### Overall comparison

Table 5 Comparison of options under PO5<sup>165</sup>

Overall comparison	Sub-option 5a	Sub-option 5b	Sub-option 5c
Effectiveness in delivering specific objectives	++	+++	+++
Efficiency	++	+++	++
Coherence	+	++	++
<b>Overall economic impacts (including benefits)</b>	+	++	+++
Administrative costs for Commission and MSs	-	--	---
Compliance costs for businesses	+	-	---
Costs / Savings for consumers	+	++	++
<b>Overall environmental impacts</b>	+	++	++
<b>Overall Social Impacts</b>	++	++	++

## 6.6. ANALYSIS OF POLICY OPTION 6

### *Economic impacts*

**Sub-option 6a** is expected to generate positive -though limited- economic impacts, as the market for circular business is expected to grow. According to the analysis in **Annex 10: Impacts of the policy options**, the adoption of explicit policies to promote the circular economy will contribute to higher growth and employment levels in Europe by 2030. The provision of guidelines and the creation of an EU wide hub would incur limited administrative burden for economic operators, Member States and the European Commission. Economic operators as well as citizens would benefit from sub-option 6a measures to increase their knowledge on circular business models and they are expected to use them more frequently for their economic interactions.

**Sub-option 6b**, being cumulative to 6a, is expected to generate an additional increase in economic impacts as companies incur some costs relating to value chain management and stock management due to the ban on the destruction of unsold products and the transparency obligation. The measure may incentivize innovations to further prevent product surpluses by matching supply and demand, which could generate positive economic impacts. Compliance with the ban on the destruction of unsold products and the transparency obligation will lead to an increase in administrative burden (negligible in sub-option 6a) for economic operators. Limited impacts due to the transparency obligation are expected due to the flexibility provided to disclose required information by economic operators in a manner appropriate to their business environment, and because economic operators are likely to already keep an account of the number of unsold products they discard. Estimations (see **Annex 10: Impacts of the policy options**), by consulted industry associations, quantified a cost increase of less than 1% (estimated by 57% of industry associations) or between 1% and 5% (estimated by 43% of industry associations). The Member States are expected to incur administrative burden in terms of enforcement and compliance checks. The actual economic impacts of a ban on destruction will depend on the product scope of SPI measures that introduce a ban on the destruction of unsold products in practice and applicable exemptions. This shall be considered in the context of the impact assessment of these SPI measures.

In terms of internal market impacts, sub-options 6a would be neutral, while sub-option 6b would have a positive impact in terms of level playing field.

<sup>165</sup> See annex 10 for a more detailed breakdown of the scores

### *Environmental impacts*

**Sub-option 6a** is expected to have positive environmental impacts, however the exact magnitude of such positive environmental improvements attributable directly to the policy sub-option and for all product groups within the scope of SPI may vary, as explained with several examples cited in the literature. The environmental potential of circular business models is found to be broadly positive (see **Annex 10: Impacts of the policy options**) as value retention activities extend product lifetimes, hence reducing material and energy requirements (and related impacts) from production of replacement products, whereas product-as-a-service and sharing models increase the optimisation and intensity of product use.

**Sub-option 6b**, being cumulative to 6a, is expected to have the same environmental impacts, plus some additional positive effect due to the ban on the destruction of unsold products and the transparency obligation. For instance, it is expected to reduce GHG emissions, by reducing resource consumption, limiting production as well as the end-of-life treatment. While no fully conclusive estimations on the total amount of unsold products being destroyed in the EU are available, the impact assessment accompanying the recent ban introduced in France estimated that the measure could avoid the destruction of 10,000 to 20,000 tonnes of textile a year (see **Annex 10: Impacts of the policy options**).

### *Social impacts*

**Sub-options 6a** is expected to have largely positive social impacts. Value retention circular business models (CBMs) prevent waste, and are far more job intensive than waste management, with analysis of evidence from 16 countries suggesting more than 400 jobs generated through re-use and repair activities per 10,000 tonnes of waste, compared to 2 jobs in landfill and incineration activities and 115 in recycling<sup>166</sup>. Repair and servicing activities enable low-income families to continue to benefit from the functionality of products without the need to purchase replacements, whilst reuse activities provide access to pre-owned products at prices based on their residual value. Servitisation CBMs increase the affordability of more durable high-quality products as an alternative to low-cost, but less durable and less efficient products. Many circular economy enterprises are also engaging the socially excluded or vulnerable. This is true particularly in collection, sorting, repair, resale and upcycling operations, for example in textiles and food. Providing support for training in circular business models can open varied employment opportunities in the market, particularly as some sectors lack skills and staff (please see Annex 10 for more details and examples).

**Sub-option 6b**, being cumulative to 6a, is expected to have the same largely positive social impacts. They can be larger if companies increase their donations or sales at reduced prices as a result of the the ban on the destruction of unsold consumer products. Such donations and price reductions could have a positive social effect, making products more accessible for a segment of the population.

### *Stakeholder views*

Based on Public Consultation results and discussions at a dedicated workshop, it appears that stakeholders would in general be relatively supportive of measures such as those foreseen under **sub-option 6a** to promote circular business models. **Member State** representatives also indicated that the idea of additional EU-level guidance on how to foster circular business models would be useful for them, as would the establishment of an information service (EU hub) on the subject.

There also appears to be solid level of support from some categories of stakeholders for the ban on destruction of unsold consumer products foreseen under **sub-option 6b**: Member State representatives, for example, saw merit in this measure. Most respondents to the second SME survey indicated that it would either have a positive overall impact on some SME business models, or have

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<sup>166</sup> Gaia (2021)

neutral or no overall affect. Approximately one fifth nevertheless suggested such a measure could entail some additional burden for SMEs, while 6% indicated that destruction may be the only viable option for some SMEs in order to deal with these goods. Respondents to the first SME survey, however, indicated that incinerating or landfilling (i.e. destruction) were among the least likely options to be pursued by SMEs for dealing with unsold products.

### *Overall comparison*

Table 6 Comparison of options under PO6<sup>167</sup>

<b>Overall comparison</b>	<b>Sub-option 6a</b>	<b>Sub-option 6b</b>
Effectiveness in delivering specific objectives	+	++
Efficiency	+	+
Coherence	+	++
<b>Overall economic impacts (including benefits)</b>	+	-
Administrative costs for Commission and MSs	+/-	-
Compliance costs for businesses	+/-	--
Costs / Savings for consumers	+	+
<b>Overall environmental impacts</b>	+	++
<b>Overall Social Impacts</b>	+	++

## **6.7. ANALYSIS OF POLICY OPTION 7**

### *Economic impacts*

**Sub-option 7a** is expected to decrease the administrative cost of preparing regulations for the European Commission. Member State market surveillance might be somewhat easier if third-party conformity assessment is used to a larger extent. This conformity assessment would however lead to additional cost for economic operators. This option should lead to more and better regulations and ultimately more economic benefits for consumers (estimated at a minimum of around EUR 3 billion annually, increasing depending on the number and kind of products additionally regulated)<sup>168</sup>.

**Sub-option 7b** will increase administrative costs for the European Commission and the Member States, even if some efficiency gains might be achieved from better coordination of market surveillance at European level. This will however be largely compensated by the economic benefits stemming from reduced non-compliance in the internal market and from imported products, which will also benefit compliant businesses which will have to face less distortion from non-compliant products, while benefiting from increased support. For energy related products, the Ecodesign Impact Accounting Status Report of 2019 estimates the economic benefit for consumers from avoiding non-compliance to be in the order of EUR 12 billion in 2020<sup>169</sup>. Achieving 50% of these benefits from sub-option 7b would lead to additional savings compared to 7a of around EUR 6 billion annually (EUR 9 billion in total compared to baseline)<sup>170</sup>.

Depending on the administrative setup used, **sub-option 7c** might lead to a significant increase in administrative costs for the European Commission related to setting up the necessary capacities for the wide range of products in scope. Businesses and consumers will benefit from a decreased market penetration of non-compliant products. As with sub-option 7b, the economic benefits from reduced non-compliance would be significant and probably higher with more involvement at a European level

<sup>167</sup> See annex 10 for a more detailed breakdown of the scores

<sup>168</sup> Estimation based on the 2015 Ecodesign and Energy labelling Impact Assessment.

<sup>169</sup> Ecodesign Impact Accounting Status Report 2020

<sup>170</sup> Estimation based on the 2015 Ecodesign and Energy labelling Impact Assessment.

(at an assumed level of reduction of non-compliance of 70%, benefits would amount to around EUR 2.5 billion in addition to 7b (EUR 11.5 billion in total compared to baseline).

As regards impacts on the internal market, the increasing stringency of the sub-options regarding market surveillance is expected to lead to increasing levels of compliance, thereby levelling the playing field in the internal market.

### *Environmental impacts*

Better regulation from streamlining the Ecodesign process (**sub-option 7a**), will lead to regulations that are adopted earlier and are better suited to the current market situation, for example in terms of available technology. For energy related products, the current delays in the ecodesign process, which is on average 24 months, theoretically neglects 2.6% of regulation-driven energy demand reductions. Addressing these savings would allow a reduction of up to 1.3% of GHG emissions compared to EU totals.

By lowering non-compliance, **sub-option 7b and 7c** will have a direct positive impact on the environment. For energy related products, reducing non-compliance by 50% would lead to an overall decrease in GHG emissions of up to 1.6%, as well as other environmental benefits, such as a reduction of particulate matter emissions by 0.8% and of primary energy consumption by 1.7%. Assuming a reduction of non-compliance by 70% would bring a 1.8% reduction in GHG emissions, 0.9% for particulate matter emissions and 1.8% for primary energy consumption. It should be noted that these impacts are cumulative to the ones highlighted under sub-option 7a. Overall, the reduction of non-compliance could reduce GHG emissions by around 22 Mt CO<sub>2</sub>e in 2030, 8% of the GHG emission reduction from energy savings in that year.

### *Social impacts*

As better regulation and market surveillance are a consequence of **sub-options 7a to 7c**, the market share of compliant enterprises could increase, as well as employment. For sub-options 7b and 7c, if it is assumed that companies complying with product regulations are also more likely to comply with labour laws, the overall social impact could be positive, promoting a level playing field.

### *Stakeholders' views*

Stakeholders are generally supportive of the improvement of the ecodesign process, the reduction of delays and better market surveillance<sup>171</sup>.

### *Overall comparison*

Table 7 Comparison of options under PO7<sup>172</sup>

<b>Overall comparison</b>	<b>Sub-option 7a</b>	<b>Sub-option 7b</b>	<b>Sub-option 7c</b>
Effectiveness in delivering specific objectives	+	++	+
Efficiency	+	++	++
Coherence	++	++	++
<b>Overall economic impacts (including benefits)</b>	+	++	++
Administrative costs for Commission and MSs	-	--	---
Compliance costs for businesses	+/-	+/-	+/-

<sup>171</sup> See for example statement from ECOS [https://ecostandard.org/news\\_events/industry-associations-challenge-ecodesign-package-measures-before-eu-court/](https://ecostandard.org/news_events/industry-associations-challenge-ecodesign-package-measures-before-eu-court/), Applia <https://www.applia-europe.eu/topics/121-joint-industry-letter-on-ecodesign>.

<sup>172</sup> See annex 10 for a more detailed breakdown of the scores

Costs / Savings for consumers	+	++	++
<b>Overall environmental impacts</b>	+	++	++
<b>Overall Social Impacts</b>	+	+	+

## 7. PREFERRED OPTION

### 7.1. THE PREFERRED COMBINATION OF POLICY OPTIONS

Based on the assessment and comparison of sub-options and their impacts, the overall preferred option package is a combination of sub-options **2b, 3b, 4b, 5b, and 6b**. For Option 7, **sub-option 7b** is considered preferred for the purposes of the impact assessment. This package of measures is the best performing (including in terms of effectiveness and proportionality), with all of the different sub-options being coherent together: the different sub-options are all either independent of each other, or strengthen each other. Please see Annex 12 for more details, including two case studies describing how SPI would work in practice.

The sub-option retained for **Option 2** – extension of the scope of Ecodesign Directive – is **sub-option 2b**: Extension to all physical products. This will allow for the potential coverage of any products placed on the EU market, on the basis of clear criteria and a working plan, thus enabling prioritization of the most important categories and making the framework flexible and futureproof at the same time. In terms of the prioritisation, the products identified under sub-option 2a are likely to offer most value-added and so be tackled first. For construction products, the CEAP and SPI goals shall be mainly realised by means of the Construction Products Regulation (CPR). The CPR shall be able to mirror all obligations and requirements able to be set through the SPI, but for construction products – the same is explained in the Impact Assessment (IA) on the CPR revision.

For **Option 3** – extension of sustainability requirements for products – **sub-option 3b is preferred**. This means that the product scope extension will be complemented by **new and strengthened provisions on minimum requirements for sustainability and circularity** to be adopted through product-specific SPI measures. In addition, it will include the possibility to adopt **horizontal requirements, applicable to a group of products sharing common characteristics**, for example setting reparability and upgradeability requirements for all electronic devices or minimum information requirements for all products containing substances of concern. Sub-option 3b will also allow the European Commission to spearhead work on **social requirements**, a dimension of sustainability so far not directly tackled through Ecodesign. This new dimension and the use of environmental profiles will build on the reinforcement of the provisions related to third party conformity assessment under Option 7 and build on synergies with the improved consumer and business information provisions under Option 4. To ensure proportionality, each individual requirement will need to be justified for any product group before being applied.

For **Option 4** – sustainability information for consumers and B2B – **sub-option 4b is preferred**. The extension of the scope of Ecodesign to products that are not energy-using products will make the **provision of information related to the environmental impacts and circularity of products increasingly relevant**, so businesses can demonstrate that they meet relevant sustainability requirements and select sustainable inputs in their production processes, and so consumers can make sustainable choices more easily. This sub-option would also allow for information requirements to be set in the form of classes of environmental performance and will create links with existing databases, like EPREL or the SCIP Database on substances of concern in products. The revised horizontal framework legislation will introduce a **European Digital Product Passport**, and likely lay down some key objectives and principles governing this. As set out in previous sections, the operational details and IT infrastructure design will be developed through secondary legislation (and associated impact assessments), in close collaboration with stakeholders and also building on the results of a

number pilot projects currently funded under the Digital Europe and Horizon Europe programmes. These projects will represent a “proof of concept”, applied to at least three product groups (batteries, ICT and a third group to be proposed by the participating consortia). The content of each EU DPP will be decided when developing product-specific SPI measures, with the objective of only requiring the most relevant information, additional to what is already requested through existing legislations. The quantity and typology of information could be minimal at the beginning and increase progressively with time, depending on product groups and the experience gathered when deploying the EU DPP concept. The EU DPP will be used for sustainability aspects of products where relevant and, when relevant and technically feasible, also as a tracking & tracing tool to bring transparency along the value chains and facilitate the role of enforcement authorities. Annex 18 presents some possibilities currently available in terms of “design options” of the EU DPP. This is not meant to prejudice the future decision, but only to provide some examples to allow better understanding of the concept.

For **Option 5** – Reward more sustainable products through incentives – **sub-option 5b is preferred**. This means that Member States, whenever they aim at boosting the demand for sustainable products through incentives, they will be required (as is the case for Energy Labelling) to link their product incentives to classes of performance (developed under Option 4). Public authorities will also be required to align their procurement with specific Green Public Procurement criteria or targets, to be set out in measures adopted under SPI, thereby leveraging the weight of public spending to support more systematically a sustainable and circular economy. They will also be invited to expand their existing Extended Producers Responsibility (EPR) schemes to products covered by the framework and to ensure that fees are modulated as a function of the environmental performance of products, with rules in this respect also to be set out in product-specific measures adopted under SPI.

For **Option 6, sub-option 6b is preferred**, which includes measures under sub-option 6a to support circular business models as well as the introduction of a transparency obligation and bans on the destruction of unsold consumer products through SPI measures.

For **Option 7** – Strengthened application of the Ecodesign framework – **sub-option 7b** is considered preferred for the purposes of the impact assessment. The extended scope of the Ecodesign framework with even higher sustainability ambitions can only be successful if resources of both the European Commission and Member States are strengthened to a level commensurate with the ambitions. The European Commission (directly or through an executive agency, see section 7.10 *European Commission Administrative setup* below), can play a stronger role to support the design and enforcement of Ecodesign for sustainable product measures.

## 7.2. IMPACTS OF THE PREFERRED POLICY PACKAGE

The different sub-options chosen all combine well: none of the preferred sub-options needs to be changed as a result of another one. In more detail, building on the extension of scope (2b):

- The addition of sustainability requirements (sub-option 3b) will increase costs for producers, but this should be more than offset by the environmental benefits and financial savings for citizens. The impact assessments preceding adoption of detailed product rules will need to establish what cost increases are reasonable and proportionate from a consumer perspective, also taking into account the expected time horizon for expected savings (e.g. from increased durability etc.) to take effect. Additional administrative burden can be expected, for example for provision of information for market surveillance, though the possible introduction of a EU DPP (4b) is expected to help reduce this burden
- The wider scope of products and sustainability requirements means there is further benefit to the enhanced information requirements and the European Digital Product Passport (sub-option 4b). For example, minimum requirements to reduce environmental footprints (under 3b) combines well with provision of information on this footprint through an Ecological profile or EU DPP (4b): the sub-options chosen are mutually reinforcing.

- Similarly, the enhanced incentive measures in 5b will allow for more efficient and effective delivery of the objectives for the product groups in scope, and the wider sustainability requirements.
- Sub-option 6 will assist with delivery of the environmental benefits, and support the effectiveness of the other measures. For instance by supporting the uptake of circular business models, for instance in the second-hand market, the actual effects of requirements on reparability and durability (sub-option 3b) could be enhanced by keeping products in use longer.
- Sub-option 7b is similarly consistent with the other sub-options. The extended scope of the Ecodesign framework can deliver benefits commensurate to resources dedicated to its implementation.

### **Box 3: The SPI business case**

Concerning impacts on businesses and SMEs, in general SPI is expected to generate some additional costs, which would be likely to be absorbed over time, and to bring several benefits from a business perspective, especially for SMEs, including:

- **Reduced material use and expenditure.** EU manufacturing firms spend on average 40% on materials<sup>173</sup>. The reduction of material use that close loops (Option 3) and circular business models (Option 6) are expected to increase their profitability. This is confirmed by the targeted SME survey where 43% of the respondents (for sustainability requirements) and 53% (for requirements on minimum recycled content) indicated reduced material use as one of the factors that will offset the costs linked to those requirements being introduced by SPI.
- **Better functioning of the Internal Market and level playing field.** Harmonised sustainability performance and information requirements at EU level would replace several existing national requirements or prevent planned ones; this would result in easier compliance and in reduction of compliance costs for firms that are selling across the EU that would not have to face different and/or diverging requirements for their products. Manufacturers would benefit from an improvement of the level playing field through classes of environmental performance and harmonised requirements.
- **New business opportunities.** It is expected that in all manufacturing sectors there would be an expansion of business opportunities from production towards maintenance. Growth in the sector of repair services, refurbishment, and remanufacturing and thus jobs in these sectors to be expected as well. This would specifically favour SMEs as they are strongly represented in those sectors. Economic operators would benefit from the information made available by SPI measures<sup>174</sup> to increase efficiency (and hence lower costs and higher quality) of value retention activities.
- **Reputational benefits.** Less material dependency and sustainable circular business models, would increase manufacturers' reputation and their market share. For SMEs, responses from the targeted survey suggest that costs linked to sustainability requirements are likely to be offset over time also due to factors such as increased customer loyalty and increased reputational benefits. In addition, a better image of the manufacturing sector as contributing to the resolution of major environmental challenges would also attract young, qualified talent having a positive impact on innovation and would create opportunities for attracting significant long-term investments.

Thanks to this preferred approach, the Ecodesign scope will be extended to cover 65% of total GHG emission from products consumption in the EU, 64% of particulate matter emissions and 70% of resource depletion. Looking at GHG emissions only, assuming an improvement of 15% of

<sup>173</sup> 2020 Circular Economy Action Plan

<sup>174</sup> See for instance the "Business Case" section in Annex 18 dedicated to the EU DPP.



environmental impacts over the entire scope from SPI measures, would lead to globally reducing GHG emissions by around 471 Mt CO<sub>2e</sub>, the equivalent of the annual emissions of Italy and Belgium.

The impact assessments of the SPI measures for the various product groups will examine the best combination of measures for that particular product group. The impact assessments of the implementing measures will also analyse in a proportionate way to what extent third countries are affected by the EU measures. Deeper knowledge of these impacts will allow the EU to better assist partner countries in reaching higher sustainability standards.

### 7.3. RELATIONSHIP BETWEEN LEGAL ACT AND SUBSEQUENT SPI MEASURES

Considering the chosen combination of sub-options, and without prejudice to the Commission's decision on the legal proposal and to the legislators' decision on the final legislative text, the future SPI legislation should be implemented in a similar way as the current Ecodesign directive, with

- a legal act defining the framework for the application of sustainability requirements to products in the scope of the legislation, allowing their placing on the EU internal market,
- SPI measures, adopted by the Commission on the basis of the objectives and criteria defined in the legal act, and adopted in accordance with the procedure set out in the legal act, for specific products or groups of products sharing common characteristics.

The actual impact of SPI should therefore materialise when SPI measures enter into force, after dedicated impact assessments, consultations and adoption procedures. The preparation and implementation of SPI measures typically include the following actions:

- the prioritisation of product groups to be covered by SPI measures, so as to maximise the impact of the legislation and address policy priorities; this prioritisation will take the form of a (multi-annual) work programme to organise the Commission's work and inform stakeholders for their own anticipation;
- the assessment of product groups in specific studies, gathering all the information and data needed on the technical and market characteristics, environmental and social impacts over their life cycle, technologies and improvement potential, costs and benefits to be expected from regulation, opinions of stakeholders, so as to define potential sustainability requirements and impact assess different options implementing sets of requirements; The assessment of products will also investigate the existence of **potential policy trade-offs** (for example, if a potential SPI restriction on the presence of chemicals in a given product would limit the possibility of extending that product's lifetime, or of reducing its other negative environmental impacts). Should such trade-offs be identified, these should be presented transparently, and the most appropriate solution pointed out, while providing clear information on the pros and cons of alternatives. The assessment phase – in particular given that it will include targeted consultation with relevant stakeholders – will be key for identifying optimum ways forward in these cases. During that phase, the several “design options” for that product and their impacts will be evaluated. This analysis and evaluation will yield the most beneficial option, including trade-offs within the environmental field and between fields (such as social and environmental), and will be reflected in the Impact Assessment reports of the product specific rules. The final decision on requirements and the right balance between objectives is to be taken at the level of the Commission based on the conclusions of the full assessment including stakeholder consultations;

It should be noted that, given the need to ensure consistency of approach and avoid unduly delays to SPI rules for the products already regulated, or soon to be regulated<sup>175</sup>, under the existing Ecodesign Directive, the methodology to be adopted under SPI will enable certain distinctions to be made, in particular between *energy-related products for which energy consumption in the use*

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<sup>175</sup> E.g. in the 2019 Ecodesign and Energy Labelling Working Plan, and 2022-2024 Ecodesign and Energy Labelling Working Plan

*stage is dominant*, and other products. Lifecycle assessment is likely to be the predominant methodological approach underpinning the assessment and regulation. For energy-related products for which energy consumption in the use stage is dominant, a dedicated life cycle assessment, in accordance with the MEERP methodology (and its ongoing revision<sup>176</sup>) currently used under the Ecodesign Directive, should be used ensuring a focus on energy without neglecting other product aspects or SPI objectives (for example reparability, durability or reuse). The different assessment methods will be jointly evolving to address all the SPI objectives considering the nature of the product groups in question as new rules are rolled out. Due to the variety of products in the scope of the proposed legislation and their different nature, not all requirements can be envisaged for every product group<sup>177</sup>. **Nevertheless, the clear objective will be to maintain a similarly high level of environmental ambition across all product groups regulated.** This will be achieved, amongst other factors, by placing clear emphasis on whole lifecycle analysis and fostering circularity for all products. The ongoing revision of the MEERP methodology will help further integrate such approaches for relevant energy-related products, and the proposed overall approach, presented in detail in **Annex 16**, seeks to ensure this.

- the implementation will follow the provisions of the legal act, in terms of obligations for relevant economic actors, verification and enforcement by Market Surveillance Authorities and Customs authorities, use of standardisation or self-regulation tools where appropriate; these provisions may be further detailed or complemented by provisions in the SPI measures as provided in the legal act;
- implementation of the legislation, as a whole and through each SPI measure, is monitored and evaluated so as to report on the results and review the legislation.

**Annex 16** outlines the methodological considerations for enabling these actions, for instance the set of criteria to decide the order of priority for the development of SPI measures for products.

The measures identified in the chosen sub-options will materialise as follows:

- The product scope, as defined in sub-option 2b, should lead to the definition of the scope in the legal act and, at the same time, the assessment of impacts per product category undertaken in this IA should feed into the prioritisation exercise and work programme;
- Sustainability requirements, as defined in sub-option 3b, should be detailed as possible requirements in the legal act, and selected or not as actual requirements in SPI measures after the detailed assessment and consultation; sub-option 3b includes the possibility of SPI measures covering a large number of products having common characteristics;
- Information requirements, as defined in sub-option 4b, should follow a similar route as sustainability requirements of sub-option 3b. For the European Digital Product Passport, certain key principles and infrastructure rules should be defined in the legal act (e.g. the principle that all data should be written in standard, open, interoperable format) while the content specific to product groups (e.g. where exactly the data carrier should be located) should also be defined in product-related SPI measures;
- Measures on incentives, as defined in sub-option 5b, should be integrated into the legal act where such provisions are necessary for their implementation, and into SPI measures where incentives are linked to specific requirements such as performance classes. Policy measures such as guidance to stakeholders do not require a specific legal provision;
- Measures on the promotion of value retention and value maximisation, as defined in sub-option 6b, should follow a similar route as the measures on incentives; in particular, the ban

<sup>176</sup> <https://susproc.jrc.ec.europa.eu/product-bureau/product-groups/521/home>

<sup>177</sup> For example, a limit on the energy efficiency during use is appropriate for a boiler, it is probably not for a mattress

on the destruction of unsold consumer products should be introduced through SPI measures, while the guidelines and hub supporting circular business models will not need a specific legal provision in order to be implemented (but they could be called for in the SPI basic act);

- Measures to improve the efficiency of EU implementation and strengthen market surveillance, as defined in sub-option 7b, should be integrated into the legal act -where necessary- and implemented using empowerments granted in the legal act. Measures on market surveillance should also be reflected in the relevant provisions of SPI measures. Additionally, some measures foreseen in Option 7 will not need to be integrated in the SPI legal act.

#### **7.4. FEASIBILITY AND PROPORTIONATE IMPLEMENTATION**

Whilst the changes made through Option 7 and the improved administrative set-up including capacity will improve implementation, it will still be a challenge to respond to the expanded scope of the Ecodesign Directive. The longer list of product groups and environmental impacts to be tackled will require prioritisation: the SPI will use clear, transparent and effective methodological criteria for the selection of the product groups for which the SPI measures will be developed, based on those already foreseen in Article 15 of the current Ecodesign Directive and set out in Annex 16 to this IA (e.g. environmental, energy and social impacts and related potential for cost-effective reduction of such impacts). The selection will follow a fully transparent process, involving stakeholders, culminating in working plans outlining the priorities to give predictability to economic actors.

Importantly, the existing Ecodesign Directive approach of implementing measures being based on impact assessments carried out in line with the European Commission's Better Regulation Guidelines will continue. As such, there will be an analysis of the economic, social and environmental impacts of different options for each set of product requirements. This will allow for proportionality to be maintained in future actions: for example, the analysis will examine the use of different design measures, the EU digital product passport product-specific requirements, minimum requirements or defining performance scales etc. This means that the assessment and identification of improvement options will be done on a product by product basis or for a group of products sharing common characteristics, underpinned by a sound analysis, and that this will largely determine the ultimate impacts for producers and citizens.

The various consultation activities carried out in the context of this impact assessment have provided useful indications of the expected impact of future SPI requirements on **SMEs**, as well as the type of support most likely to help alleviate any potentially negative impact on these businesses (see Annex 2 and 19). Taking these findings into account, each impact assessment for an SPI measure will examine whether the impacts for SMEs are proportionate, and the possibility of accompanying the SPI measure with mitigating measures. As a result, impacts are expected to remain proportionate for SMEs, with any impacts offset over time by benefits.

This analysis is supported in particular by the findings of the second targeted SME survey<sup>178</sup> which, though pointing to possible negative impacts for SMEs notably linked to implementation of some of the product and information measures outlined under preferred sub-options 3b and 4b respectively, suggested that certain benefits could also accrue, both from these measures as well as those under other sub-options, such as 5b. This survey also suggested that appropriate support, such as assistance with environmental and carbon footprint calculation/life cycle assessment methods<sup>179</sup>, dedicated SME provisions in the legal text (e.g. longer transitional periods or exhaustion of stock provisions), as well as simplified procedures for SMEs (e.g. for reporting), could be effective in offsetting negative effects and assisting SMEs, allowing the 'Think small first' principle to be applied. These aspects will be

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<sup>178</sup> See Annex 2 for more details

<sup>179</sup> The Commission is considering possible measures to facilitate the preparation of PEF studies by SMEs, including free IT calculation tools to reduce the costs for carbon footprint calculation.

further analysed in the preparation of SPI measures and where appropriate, relevant mitigating measures foreseen. See Annex 2, 12 and 19 for more detail.

## **7.5. REGULATORY BURDEN AND SIMPLIFICATION**

In terms of the overall **regulatory burden**, the financial costs and benefits of the overall package will depend on the SPI measures that follow. The experience from the Ecodesign Directive until now though is relatively positive, with win-win measures being identified. Overall, there are higher costs for business from applying the requirements and these translate into upfront costs for citizens that are more than offset over time. The cumulative costs for business (and citizens) are unlikely to be significant, being spread over a large market, and with the issue of cumulative costs revisited for the different product groups.

The preferred option includes **simplification measures**, in the context of policy option 7. This will allow for example for streamlining of the procedures for the development and adoption of Ecodesign implementing regulations (changes in sequencing; ensuring information is collected efficiently; etc). Policy option 7 ensures that the structures put in place allow for efficient implementation, market surveillance and enforcement.

This preferred option makes maximum use of the potential of **digitalisation** to ensure efficient application. In particular, the use of a digital product passport will allow for efficient delivery of its objectives by ensuring that information failures are corrected by passing the right information downstream in a way that can be understood and accessed. Digital measures are also explored to facilitate efficient implementation and enforcement with policy option 7, for example, including making relevant product information digitally available to market surveillance authorities (MSAs) and possibly Customs authorities.

Table 8 European Commission's regulatory fitness and performance programme (REFIT) Cost savings

<i>REFIT Cost Savings – Preferred Option(s)</i>		
<i>Description</i>	<i>Amount</i>	<i>Comments</i>
Streamlining of the procedures for the development and adoption of Ecodesign implementing regulations		Savings will depend on the number of products covered
Collecting data from manufacturers and retailers regarding regulated products sales and usage		Savings will depend on the number of products covered

The approach of implementing measures being based on impact assessments carried out in line with the European Commission's Better Regulation Guidelines means that there will be a systematic analysis of administrative costs generated for businesses, citizens and administrations. Administrative costs for businesses and citizens will be considered as part of the Commission's 'one in, one out' programme along with the possibility of their offsetting. Clearly, administrative costs will vary across sectors and businesses, but will be minimised and allowed only if proportionate (for example if necessary to generate significant benefits). Examples of possible administrative costs will include calculation of environmental footprints and provision of information by business through a Digital Product Passport, and labelling. Consideration will also be given to the reduction of administrative costs when one EU rule replaces diverging rules across the 27 Member States, which can lead to net benefits as the internal market is strengthened.

The Fit for Future Platform's opinion on Ecodesign<sup>180</sup> recognised the need to improve sustainability of products, and the necessity to introduce new obligations whilst keeping the burden on business to the minimum. The Platform made nine suggestions to ensure value added and proportionality: on scope; need to concentrate on key aspects of the environmental performance; that information requirements should be clear, comprehensible and comparable for consumers; need to consider implementability of the legislation and the roles of all the different actors; access to information and standardisation as a tool to reduce burden; planned obsolescence; transition periods; support for SMEs. These suggestions fed into the impact assessment process and were reflected where appropriate in the preferred policy option.

## 7.6. OVERVIEW OF COSTS AND BENEFITS

The overall impacts of the preferred policy option are assessed in Annexes 10 and 12. They include, **firstly**, the setting up of the overall framework, for which the main costs will be associated with setting up the European Digital Product Passport and strengthening of enforcement.

Strengthening of enforcement will take place through market surveillance and customs controls. It is assumed to require 210 FTEs of staff in the EU 27, with an administrative cost of around EUR 10.5 million per annum. In the Commission, there will be an additional 8 FTEs associated with market surveillance, customs controls and support to EU testing capacity.

With regards to the European Digital Product Passport, it is important to understand that the current proposal is a radically new approach and does not have precedents that would provide a good proxy for cost estimates. The costs for the Commission to set up the European Digital Product Passport are estimated at around EUR 8 million as one-off investment and at least EUR 1 million as annual maintenance cost. However, this is a preliminary estimate based on the information collected and the extrapolation of the costs for other decentralised systems currently under development. The costs for business will depend on the SPI measures and the lessons from first experiences (which will act as a

<sup>180</sup> [https://ec.europa.eu/info/sites/default/files/final\\_opinion\\_2021\\_sbgr2\\_10\\_ecodesign.pdf](https://ec.europa.eu/info/sites/default/files/final_opinion_2021_sbgr2_10_ecodesign.pdf)

form of piloting). Additional costs will be incurred to support enabling measures needed for SMEs to adapt to new standards to be able to interact with the EU DPP. The European Digital Product Passport will though help saving money in terms of administrative burden for companies and of enforcement for public authorities, and improve the efficiency of information flows.

Under Option 7c, consumer savings through shorter lead times and through reduction of non-compliance could be EUR 11.5 billion per annum and would reduce GHG emissions by around 22 Mt CO<sub>2</sub>e in 2030.

**Secondly**, the administrative process for preparing SPI measures (not the implementation) for an additional 30 product groups (or horizontal issues) will trigger additional costs of around EUR 25 million per annum. These costs will be largely for manufacturers and Member States, and are a doubling from current levels. The timing of the costs will depend on the timing for the delivery of the 30 additional SPI measures they relate to.

Most significantly, **thirdly**, the impacts that result from those SPI measures for the Member States, EU businesses, EU consumers and the environment as well as impacts outside the EU on businesses, citizens and the environment. It is challenging to identify the overall costs and benefits before the analysis to underpin them is undertaken, but tentatively the additional costs of another 30 SPI measures (to deliver sub-option 2b) could be in a range of 30 to 60 billion Euros per annum when fully incurred. The Ecodesign Directive experience has been that costs of production are more than offset by financial savings for consumers. Under SPI, there is also clear potential for benefits from life extension and improvements in the production process. Furthermore, production cost increases could also be offset by savings along the value chain for other businesses.

There is likely to be net economic benefits overall at a global level; and any SPI measure with net economic costs will only go ahead if justified on the basis of its environmental impacts. Overall, a reduction of 15% of environmental impacts over the increased (i.e. just the additional) scope due to implementation of SPI measures would lead to reduced GHG emissions of around 117 Mt CO<sub>2</sub>e, with a monetary value of around EUR 12 billion per annum. Adding on the improvements from option 7, these figures increase to around 139 Mt CO<sub>2</sub>e, with a monetary value of around EUR 14 billion per annum.

It is not possible to place an illustrative monetary value on the wider environmental impacts, but assuming a 15% efficiency it would reduce 6% of EU particulate matter and 3% of EU resource depletion<sup>181</sup>. If the new initiative delivered environmental improvement over the whole scope, by improving sustainability for energy related products, these figures could of course be higher.

## 7.7. INTERNATIONAL COMPETITIVENESS

An assessment of the economic impact demonstrates that the proposed initiative would not affect production costs in a significant manner in the long term. As seen in the problem definition, more sustainable products in general imply more production costs compared to less sustainable alternatives. It is expected that the companies selling products in the EU will have to face a cost increase in the short term due to the compliance to the revised Ecodesign legislation. However, the SPI would generate a level playing field in the EU. Furthermore, in the medium/long term the requirements introduced by the SPI measures could become an international benchmark for the product groups concerned, as it is currently happening for products falling under the current Ecodesign Directive<sup>182, 183</sup>.

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<sup>181</sup> SPI Impact Assessment Study, based on EXIOBASE

<sup>182</sup> “[...] Many developing countries could model their regulations on existing ones (those of the European Union, for instance) [...]”, IEA (2020), Appliances and Equipment, IEA, Paris <https://www.iea.org/reports/appliances-and-equipment>

<sup>183</sup> “At least 45 countries outside the European Union have adopted minimum energy efficiency requirements for products, some of them in fact implementing ecodesign regulations in the context of association agreements or EU membership negotiations.”, SWD(2015) 139 final

Requirements would not be more trade restrictive than necessary, and apply in a non-discriminatory manner to EU and non-EU companies, thus ensuring a level playing field for sustainable products in the EU market. Likewise, European producers would not be disadvantaged in their ability to function inside or outside Europe. In line with current EU international cooperation, the EU will provide continuous support to developing and least developed countries for the green transition. In particular, efforts will be made to mitigate possible adverse effects (via technology transfer and capacity building). Moreover, the SPI measures of the revised legislation will be developed in a transparent manner and third countries will be fully informed in the process. The preparation of the implementing measures will analyse in a proportionate way the potential impact of the measures in producing countries, including the possible effects on trade and investment flows.

The SPI measures would strike a proper balance between predictability and legal certainty and allowing for technological progress. This is important for products in fast changing markets, where there is a need to facilitate adaptability and regulatory responsiveness in line with technological and market developments.

## 7.8. IMPACT ON CONSUMER BEHAVIOUR

Consumer behaviour refers to the study of how consumers<sup>184</sup> make decisions about what they need, want, and desire and how they buy, use, and dispose of goods. The Sustainable Product Initiative will change consumer behaviour. It will respond to the problem (see 2.2) that it is still too difficult for economic operators and citizens to make sustainable choices given that relevant information and affordable options to do so are lacking. It will also nudge consumers towards more environmentally friendly purchases, by correcting market failures (see 2.5.1).

The legislation will restrict consumer choices through Option 3 by introducing minimum requirements for specific products on for instance the carbon and environmental footprints or minimum requirements on the aspects that affect the lifetime of a product such as reparability. These minimum requirements respond to cognitive biases such as myopic behaviour and bounded rationality (see 2.5.3) by excluding the least sustainable products from the market (therefore simplifying consumers' choices).

The legislation will aim to change how consumers actively behave. Price and quality are the most important decision factors for consumers when **buying products**. The majority of EU consumers consider themselves “occasional” consumers of environmentally-friendly products (56%) and more than a quarter pay attention to the environmental impact of all or most goods and services (23%). 67% EU citizens buy products that are better for the environment even if they cost more<sup>185</sup>. 43% of EU consumers declared that they would be willing to pay for environmental information<sup>186</sup>, and 56% of consumers would use the information to buy more environmentally friendly products<sup>187</sup>. Providing more information on the environmental characteristics of products that is perceived to be robust may help to turn this willingness into actual sustainable choices. Moreover, this information would complement future measures<sup>188</sup> developed to incentivise sustainable consumer's behaviour when using products, by encouraging for example repairs or the purchase of second hand goods. Option 4 will respond and facilitate greener consumer behaviour by clearer and more accessible information, including for some products their classes of performance and possibly related labels.

The Digital Product Passport (*see annex 18*) would further enable and shift green consumer behaviour by changing the information available. In addition, digital product information, for example QR

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<sup>184</sup> Consumer here is used as general term and includes economic actors along the value chain (including B2B).

<sup>185</sup> *Consumer conditions survey*, European Commission, 2021.

<sup>186</sup> Data extrapolated from the consumer survey for the impact assessment on Consumer Empowerment [*add reference when published*].

<sup>187</sup> Impact assessment on Consumer Empowerment [*add reference when published*].

<sup>188</sup> New Legislative Initiative on the Right to Repair as announced in the Commission Working Programme for 2022 ([https://eur-lex.europa.eu/resource.html?uri=cellar%3A9fb5131e-30e9-11ec-bd8e-01aa75ed71a1.0001.02/DOC\\_2&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar%3A9fb5131e-30e9-11ec-bd8e-01aa75ed71a1.0001.02/DOC_2&format=PDF))

codes, would allow private providers to develop apps and services that greatly improve the ability of consumers to assess products and compare them.

Option 5 will be a further ‘nudge’ policy, working for example through reputational and economic incentives to shift consumer behaviour and respond to the underlying market failures.

The greening of consumer behaviour could be limited if there is an issue with the affordability of the more sustainable products on the market. The mechanisms affecting prices will be complex, and work in different directions. The economic measures proposed under sub-option 5b (mandatory GPP and Member States incentives assigned to best performing products) are meant to sustain the demand for more sustainable products. Moreover, increased reliability, reparability, and durability will extend the potential lifetimes over which purchase costs can be spread, including for some by facilitating repair, resale and second lives. Increased sustainability will often come at an increase in up-front costs. The current Ecodesign Directive has removed the poorest performing energy related products and led to significant savings for customers over the lifetime of energy related products, but with some upfront costs (around a half to a third of their energy savings)<sup>189</sup>. However, these upfront costs do not appear to have led to social impacts related to affordability, perhaps because the pay off period in terms of savings can be short for energy related products. However, affordability issues will differ between product groups and so the impact assessments accompanying implementation measures will examine this on a product-by-product basis. These issues will need to be looked at on a case by case basis in the impact assessments accompanying future measures, considering changes in upfront costs, quality, and lifetimes (taking into account the different impacts over the time horizon).

## 7.9. COHERENCE OF THE PREFERRED COMBINATION OF OPTIONS WITH OTHER INITIATIVES

Even if the success of SPI does not depend on the implementation of other related initiatives in preparation, the assessment of the preferred combination of policy options has confirmed the positive synergies that exist between them.

Indeed, in addition to playing a central role in achieving the objectives set in the European Green Deal, **SPI will contribute to ensuring overall coherence between these initiatives**: it will act as a key link between many of them and help to maximise their overall coverage. This will be achieved in number of ways:

- **It will fill key regulatory gaps**: SPI will be in a position to cover products whose sustainability aspects are currently unaddressed, or under-addressed, at EU level (e.g. textiles; furniture). This will remedy the existing ‘patchwork’ situation<sup>190</sup>, which is resulting in certain products falling through the regulatory cracks<sup>191</sup>. In addition, with the wide scope preferred for SPI (sub-option 2b), it will be in a position to respond to novel products and future product trends, thereby avoiding the occurrence of problematic regulatory gaps in the future. This will also allow it to intervene with specific, complementary requirements, even for products whose sustainability dimensions are primarily regulated by other instruments. One example could be to define digital product passport requirements for products, in cases where the primary legislation that regulates them is not appropriate for doing so.
- **It will act as a bridge between horizontal and product-level rules** (see figure 3 below): SPI will be in a position to take targeted action, tailored to specific product/product value chain needs or problems. It will therefore be ideally suited to complement and concretely reinforce

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<sup>189</sup> Under the current Ecodesign Directive there has been a EUR 60 billion (5% of the baseline) saving in 2020 on consumer expenditure (EUR 76 billion energy cost saving, EUR 7 billion consumables saved, EUR 23 billion extra acquisition costs). This is a direct savings per household of EUR 210 in user expenditure in 2020, expected to increase to EUR 350 per year per household in 2030 (See Annex 6)

<sup>190</sup> See SWD(2019) 92 final

<sup>191</sup> Conversely, products already covered or proposed to be covered by a comprehensive set of sustainability requirements (e.g. batteries) are unlikely to be priorities under SPI



horizontal initiatives (such as the initiative on Empowering Consumers for the Green Transition; the Sustainable Corporate Governance initiative; the Packaging and Packaging Waste Directive<sup>192</sup>), by acting as *lex-specialis* to their more general rules. In cases where product-specific sustainability problems are identified (e.g. related to the packaging of a *specific* product category, or the human rights risks of a *specific* product's value chain), or where more detailed rules on the provision of durability or reparability information to consumers for a *specific* product are possible, SPI will be able to elaborate on and further complement the general obligations set on these aspects in other instruments, at the level of the product itself.

- It will **synergise with and foster the objectives of other CEAP initiatives**: While the Green Claims Initiative will cover environmental claims made voluntarily on products and SPI's requirements will be mandatory, the two will nevertheless work in synergy to ensure reliable information on the sustainability and environmental performance of products is always provided to consumers and supply chain operators. SPI will also be the main instrument to develop the ecodesign measures that are central to achieving the EU Textile Strategy's objectives as well as the objectives of the Circular Electronics Initiative.

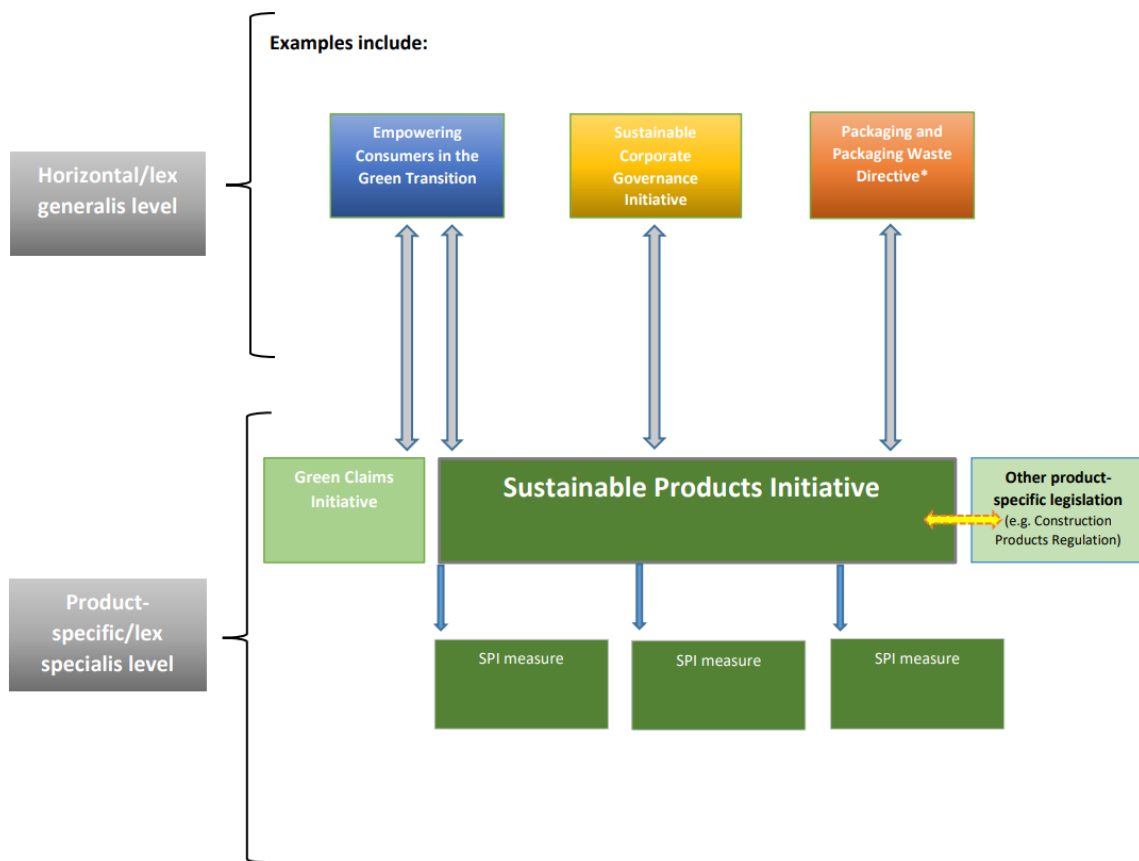


Figure 3 Illustration of horizontal and product level interaction with SPI as key bridge

\* While the Packaging and Packaging Waste Directive will lay down both horizontal rules and rules for **packaging as a final product in itself**, SPI will take action on packaging associated with *specific* products.

<sup>192</sup> It should be noted that while the Packaging and Packaging Waste Directive will be in a position to lay down rules for packaging as a final product in itself, SPI is intended to take action on packaging associated with *specific* products

### Ensuring coherence

While the envisaged future interaction between SPI and other initiatives (including those mentioned above) has been set out in detail in Annex 14, it is clear that careful and continuous coordination will be needed, as well as legal and procedural clarity.

Such coordination has already begun internally within the Commission and will continue to be developed and expanded as the various initiatives come forward, with appropriate coordination structures to be set in place and formalised, for example through creation of a “sustainable product centre” (see also section 7.10 and 7.11 on future administrative set-up). Also, as the JRC will have a technical support role in SPI, the Green Claims Initiative, the EU Ecolabel<sup>193</sup>, the IED revision and developments relating to Green Public Procurement and Environmental Footprint methods, this will be a source of coherence between these initiatives. Finally, preparation of the SPI measures – which will include targeted stakeholder consultation and dedicated impact assessments – will allow any remaining coherence issues to come to the fore and be addressed in good time and in advance of laying down product-specific rules. While concrete details of these future interactions are set out in Annex 14, some examples of the clearest synergies are set out below:

Table 9 Synergies between other initiatives and SPI preferred policy option

Other initiatives forming or supporting the SPPF	Their synergies with SPI preferred policy option
Initiative on Empowering Consumers for the Green Transition	<ul style="list-style-type: none"> <li>• <b>Gradual, product-specific reinforcement</b> of the initiative on Empowering Consumers for the Green Transition’s horizontal information requirements on durability and reparability (via SPI sub-options 3b and 4b) and reinforcement of its <b>general aim</b> of enhancing availability of product sustainability information (via SPI sub-option 4b’s additional information requirements, e.g. on substances of concern; recycled content etc.); synergies between the SPI’s DPP, which will require sustainability information to be available to consumers in digital format connected to the product, and the initiative on Empowering Consumers for the Green Transition, which will require certain information on durability and reparability to be provided to the consumer in a clear and comprehensible way before purchasing the product (via SPI sub-option 4b)</li> <li>• The initiative on Empowering Consumers for the Green Transition reinforces (enforcement of) possible SPI requirements on product’s durability, reparability and availability of software updates, for example by defining as an unfair commercial practice the marketing of products that do not allow repair in accordance with product legal requirements established under the future SPI. Confirmed cases of such unfair commercial practices could allow the harmed consumers to have access to proportionate and effective consumer remedies.</li> </ul>
Green Claims Initiative	<ul style="list-style-type: none"> <li>• While SPI will set mandatory information requirements and prescribe the method to calculate the relevant information only for the products for which there will be SPI measures, GCI will <b>set requirements for voluntarily-made claims</b> on all types of products.</li> <li>• Both contribute to the <b>overall objective</b> of providing reliable, comparable and verifiable information to stakeholders on the sustainability and environmental performance of products, SPI through mandatory product information requirements (via SPI sub-option 4b) and GCI through</li> </ul>

<sup>193</sup> Please see further details in Annex 14 and here: <https://ec.europa.eu/environment/ecolabel/>

	<p>substantiation, verification and communication requirements on voluntary claims.</p> <ul style="list-style-type: none"> <li>• <b>Methodological synergies</b> expected, with PEF method used by GCI to substantiate green claims on specific impacts, life cycle or environmental performance, and likely to be used to underpin relevant SPI requirements. The development of the methods based on which GCI would establish further requirements in future (for example on reparability) will be done in synergy with the development of SPI requirements. The aim is to ensure coherence of methodological approach, without overlap or contradiction of actual measures.</li> </ul>
Sustainable Corporate Governance Initiative	<ul style="list-style-type: none"> <li>• Gradual, product-specific reinforcement of SCGI’s horizontal due diligence rules, where specific social or human rights risks linked to a particular product (or its value-chain) and not sufficiently addressed through SCGI are identified in SPI preparatory studies (via SPI sub-options 3b)</li> <li>• Where SCGI is not sufficient to address specific risks SPI product-specific due diligence obligations are able to ensure targeted due diligence efforts on the part of the companies placing on the market a product linked to specific social or human rights risks.</li> <li>• SPI product-specific due diligence obligations will be tailored to the relevant risk and product to increase effectiveness and will be set in line with SCG’s main definitions and procedures to allow for integrated compliance where relevant</li> </ul>

**Example regarding coffee machines: illustration of possible interaction between initiatives**

Assuming there is an SPI measure on **coffee machines**, the interaction of that measure with the Green Claims Initiative (GCI) and the initiative on Empowering Consumers for the Green Transition (ECGT) could be described as follows (for an example related to the SCGI please refer to *Annex 14.1*):

*1. In so far as related to the sustainability information on products:*

An SPI measure could require that to be placed on the market, coffee machines must have a Digital Product Passport indicating, amongst other possible aspects, their (i) reparability score and (ii) carbon footprint<sup>194</sup>.

Should the manufacturer of a coffee machine wish to voluntarily make claims on its environmental impacts in addition to these elements, the GCI would require them to observe certain requirements regarding substantiation and communication of the claim. E.g., if a coffee machine is advertised with a claim showcasing the reduced human toxicity impacts achieved during its production, such a claim needs to be underpinned by a PEF study quantifying a coffee machine’s life-cycle environmental impacts and showing the relevance of human toxicity impacts.

The ECGT would lay down a general obligation on sellers to provide consumers, at the point of sale, with a coffee machine’s reparability score, or where there is no such score established by EU law, other relevant repair information where available. The ECGT would also oblige the seller to provide the consumer with information on the existence (or absence) and length of a commercial guarantee of the coffee machine’s durability if longer than two years.

*2. In so far as related to the sustainability characteristics and performance of products:*

An SPI measure (in addition to minimum requirements on e.g. energy efficiency and recycled content) could, for example:

<sup>194</sup> Using PEF as the baseline method to be used in compliance with Recommendation 179/2013 and its updates.

- exclude a specific technical solution found to be detrimental to the durability of coffee machines;
- require the availability of a list of spare parts;
- require that a coffee machine can be disassembled with a list of commonly available tools.

To reinforce this, the ECGT would define as an unfair commercial practice prohibited under Directive 2005/29/EC, amongst other things, the marketing of coffee machines without informing the consumer about the existence of a feature of the coffee machine introduced to limit its durability, or of the fact that the coffee machine does not allow repair in accordance with legal requirements. As a consequence, marketing coffee machines not complying with the listed SPI requirements can be confirmed as an unfair commercial practice, when the consumer is not informed thereof. Confirmed cases of such unfair commercial practices would allow the harmed consumers to have access to proportionate and effective consumer remedies.

## **7.10. EUROPEAN COMMISSION ADMINISTRATIVE SETUP**

The preferred option, which enlarges the scope of the current Ecodesign framework, requires resources to prepare, adopt, implement, monitor and review product specific or horizontal product regulations. The key issue is to determine what level of resources is necessary for the level of ambition desired. The actual managerial arrangements is a matter for the Commission's internal decision-making.

### **Resource needs in the European Commission**

Human and financial resources needed to prepare and follow-up on SPI rules depend on, in particular, the complexity of the product and requirements set and the exact definition of products subject to a measure<sup>195</sup>. The planning exercise that takes place when looking at the multiannual Working Plan is a key step to define product groups that make sense from a functional and regulatory point of view.

Between 2022 and 2026, the Commission needs to review 33 Ecodesign Regulations and the adoption of 5 new Regulations is planned under the current Ecodesign Directive. A reasonable estimate based on experiences is that around 0.5 FTE policy officers, on average, to cover one product, including work on standardisation. With around 11,5 Full-Time Equivalents (FTE) currently allocated to all aspects of Ecodesign<sup>196</sup>, delays are experienced in the management of existing energy related product groups, and no new product can currently be tackled. Additional resources needed to deliver this properly would be around 24 FTEs, plus costs for studies.

The number of additional non-energy related product groups that can be regulated – and the speed at which they can be regulated - is a direct function of the resources available to deliver the preferred option of the additional around 30 SPI measures. The table assumes around 0.9 FTE per non-energy related product and envisages preparatory work to allow for 4 new SPI measures in 2024, 6 in 2025 and then starting work on 4 new SPI measures every subsequent year. The following table gives an indication of how human resource needs could evolve. This leads to an estimated need of 16 FTEs in 2023 and increasing progressively up to 28,5 FTEs in 2027, in addition to the redeployment of 8,5 FTEs currently allocated to the preparation of SPI or other tasks in the 3 lead DGs. Overall, the human resources available in the Commission would then need to increase considerably, phasing in with the adoption through co-decision of the SPI expected by 2023: eventually up to 54 FTEs would be required in addition to existing resources to deliver this level of ambition.

<sup>195</sup> The MEErP methodology provides an introduction to the issue under its task 1 section.

<https://ec.europa.eu/docsroom/documents/26525/attachments/1/translations/en/renditions/pdf>. See also infra, under Annex 6, Methodology.

<sup>196</sup> Some of these resources are allocated to EPREL, support to Member State market surveillance, international cooperation and court cases

Table 10: Additional Human Resource requirements over time, European Commission

	2022	2023	2024	2025	2026	2027	2028	2029	2030
<i>SPI Eco-design legacy products</i>	13	24	23	21	20	19	18	17	17
<i>SPI new products</i>	0	16	21.5	23.5	25.5	28.5	29	29	29
<i>Digital Product Passport</i>	0.5	2	2	2	2	2	2	2	2
<i>Circular business model hub</i>			0.5	0.5	0.5	0.5	0.5	0.5	0.5
<i>Support to market surveillance</i>	0.5	0.5	2	2	2	2	2	2	2
<i>TAXUD customs control</i>		1.5	2	2	2	2	1.5	1.5	1.5
<b>TOTAL</b>	<b>14</b>	<b>44</b>	<b>51</b>	<b>51</b>	<b>52</b>	<b>54</b>	<b>53</b>	<b>52</b>	<b>52</b>

### 7.11. ADMINISTRATIVE SETUP OPTIONS

Within the European Commission, different administrative setups can be envisaged to implement the new legislative framework. A key element underpinning all options is an increase in staff resources commensurate with the objectives. As detailed above, in any case, **each additional product specific regulation, contributing to the objectives, requires human resources allocations, but provides a high return on investment.**

A **first option** would be to build upon the current situation, with competences spread among 3 DGs, and mobilising additional staff and financial resources in line with the increase of product groups and individual products and the activities which will need to be performed related to the adoption of SPI measures, their revision; preparation of guidelines; preparatory studies etc. While this option would enable to continue the current work, it would likely miss out on streamlining opportunities, knowledge sharing and synergies that could be brought from the other options.

A **second option** is to delegate some of the activities to an external agency. Under this option, the European Commission would delegate some of the work to an agency, including for example contract/studies management, some technical support to stakeholders, standardisation activities and DPP support. The ability to delegate a significant portion of the work to an agency should however not be overestimated as most of the work currently done by the European Commission under ecodesign is already related to core policy work that cannot be delegated. Only work that is currently subcontracted could be to a large extent delegated to an agency. On that basis, the estimated number of FTEs needed to implement the SPI does not warrant the overhead costs linked to the setting up of an agency. However, the mandate of an existing agency could be modified to add this function. Alternatively, an analysis of needs and potential efficiency gains in related policy areas could justify setting up such agency. This could be done in time for the mid-term review of the multiannual financial framework.

A **third option** would be to create a “sustainable product centre” within the European Commission. The difference would be that staff allocated to the sustainable product policy will function under a virtual “Sustainable Products Centre” inside the European Commission. While European Commission staff would remain under their DG of origin, they would also be part of a permanent centre/task force, with an overall coordination ensuring knowledge sharing and with responsibility for horizontal tasks. In that context, the delegation of the some of the workload to an agency could remain a possibility, mainly for the type of activities that are currently sub-contracted. This option could also build on and fully integrate the technical know-how of JRC which already contributes to ecodesign preparatory studies and horizontal/methodological work on circular economy strategies and carbon and environmental footprint.

## 8. HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED?

Monitoring will start right after the adoption of the SPI, focused on its **implementation**. A plan will be designed, allowing for a tracking of the implementation of actions and measures required against a specific timeframe. The objective is to have the SPI measures under the revised Ecodesign legislation adopted within two years from its entry into force – at least for a first set of product groups. Implementation reports by the European Commission should allow for an adequate monitoring of the SPI implementation.

**Progress against impacts** will likely be monitored on an annual basis at the level of a product group, starting two to three years after the entry into force of the SPI for the specific product group. Reporting by the Member States on the results of market surveillance, reputational and economic incentives, and green public procurement will provide the European Commission with data on enforcement actions and compliance rates. A comprehensive evaluation of the SPI, eight years after its entry into force, should build upon the product group-specific review studies and focus on the attainment of an enhanced environmental and social sustainability of non-food products in the EU market. The evaluation would also look into any potential need to extend the scope as regards the inclusion of services. See annex 13 for more detail.

The table below presents the **core indicators** that could be used to monitor the SPI progress in the attainment of the desired impacts and to evaluate whether the objectives of this initiative are being met. To ensure that the selected policy measures actually deliver the intended results and to inform possible future revisions, the monitoring and evaluation process includes indicators assessing the evolution of environmental and social impacts of product production and consumption, the use of secondary raw materials in product production and enhancement of circularity, the lifetime of non-food products, abiotic waste generation, and the socio-economic effects on industry sectors as well as consumers and users.

The indicators will build on existing data, possibly including Eurostat circular economy indicators<sup>197</sup>, waste statistics, environmental accounting and business statistics. In most of the cases, these data will require further development on their scope and purpose to ensure that the indicators reflect the extended scope and requirements set on products and product groups in the SPI compared to current legislation. Additional coordination will be needed for this: at Commission level, such coordination is already ongoing, with the JRC fulfilling a technical support role, and further legal and procedural clarity will be provided via the main SPI legal text. Additional data will come from product-specific review studies.

Table 11: Core SPI indicators

Desired impacts	Indicator	Source
<b>Coverage</b>		
<b>Increased number of products covered</b>	Number of product groups covered by Ecodesign implementing measures	Ecodesign Impact Accounting, VHK for the EC

<sup>197</sup> For instance the Monitoring Framework for the Circular Economy, <https://ec.europa.eu/eurostat/web/circular-economy/indicators/monitoring-framework>

Desired impacts	Indicator	Source
<b>Results in the environmental sphere</b>		
<b>Lower environmental impact of industrial processes manufacturing basic metals, materials and chemicals</b>	Pollutants and Greenhouse Gas (GHG) emissions by the manufacturing value chains feeding the EU Internal Market	Eurostat (ENV_AC_AINAH_R2)
<b>Lower primary material use in manufacturing processes</b>	Increase in circular material use rate	Eurostat (ESMS-IP) on circular material use rate
<b>Better energy and resource efficiency in the use phase of non-food products</b>	Energy efficiency of durable goods placed or put in service in the EU Internal market; Water efficiency of those durable goods using water, placed or put in service in the EU Internal market; resource productivity (material efficiency)	Ecodesign Impact Accounting, VHK for the EC
<b>Longer lifetime of non-food products</b>	Average life duration of the durable products as a consequence of (1) its intrinsic durability, (2) the maintenance, repair and upgrade operations it was subject to, and (3) the number of its successive users	To be gathered by product-specific review studies for each implementing measure
<b>Higher levels of sustainably-sourced renewable content</b>	Contribution of post-consumer recycled materials to raw materials demand of the EU Internal Market - for non-precious metals, Critical Raw Materials, and plastics.	Eurostat (cei_srm010)
	Circular material use rate - Share of material demand satisfied by secondary raw materials (% of total material use)	Eurostat (online data code: env_ac_cur)
<b>Less abiotic waste generation in EU</b>	Volume of abiotic waste generated in the EU by manufacturing sectors and households	Eurostat (ENV_WASGEN)
	Generation of waste excluding major mineral wastes per capita and per domestic material consumption (DMC) / Percentage	Eurostat (cei_pc033)
<b>Results in the socio-economic sphere</b>		
<b>Increase in investment expenditures for the design,</b>	Value added and its components by activity, ISIC rev4	OECD.Stat

Desired impacts	Indicator	Source
<b>production &amp; after-sales services of non-food products</b>		
<b>Higher market share for more sustainable non-food products</b>	Supply table at basic prices incl. transformation into purchasers' prices, filtered by industries categories of final uses and imports and categories of products and gross value added components.	Eurostat (NAIO_10_CP15)
	Green public procurement - the share of public procurement procedures above the EU thresholds (in number and value) that include environmental elements	Eurostat Circular Economy Indicators - under development
	Savings for consumers thanks to higher costs of products compensated by a higher use-value	To be gathered by product-specific review studies for each implementing measure
<b>Increased economic value of the recycling and repair and reuse sectors</b>	"Gross investment in tangible goods", "Number of persons employed" and "Value added at factor costs" in the recycling sector and repair and reuse sector.	Eurostat (cei_cie010)
	Number / evolution of enterprises involved in the repair of computers and personal and household goods"	Eurostat, Annual detailed enterprise statistics [SBS_NA_1A_SE_R2]
<b>Improvement in working conditions across the value chains of non-food products</b>	"Share of the working time performed along the value chains of the non-food products sold on the EU Internal Market where: - At least one worker is elected as their representative; - At least one collective bargaining agreement is applicable"	ILO Statistics on collective bargaining / ILO Annual review under the follow-up to the 1998 Declaration
<b>Desired impacts</b>		
<b>Increase in environmental sustainability of products consumed in the EU</b>	Reduced environmental impact associated with consumption of sustainable products covered by (revised) Ecodesign Directive, measured by: - CO-emissions - Organic Gaseous Carbon (OGC)-emissions	Ecodesign Impact Accounting



Desired impacts	Indicator	Source
	<ul style="list-style-type: none"> <li>- Particulate Matter (PM)-emissions</li> <li>- Primary material contents</li> </ul>	
<b>Increase in social sustainability of products consumed in the EU</b>	Number of occupational fatal injuries and deaths in the Value Chains supplying the consumption of non-food products in the EU	ILO - Data on fatal injuries and deaths in the mining and the manufacturing sectors



Brussels, 30.3.2022  
SWD(2022) 82 final

PART 2/4

**COMMISSION STAFF WORKING DOCUMENT**

**IMPACT ASSESSMENT**

*Accompanying the document*

**Proposal for a Regulation of the European Parliament and of the Council  
establishing a framework for setting ecodesign requirements for sustainable products  
and repealing Directive 2009/125/EC**

{COM(2022) 142 final} - {SEC(2022) 165 final} - {SWD(2022) 81 final} -  
{SWD(2022) 83 final}

# Annex 1: Procedural information

## LEAD DG, DECIDE PLANNING/CWP REFERENCES

The preparation of this file was co-led by three Directorates-General: DG Environment (ENV), DG Internal Market, Industry, Entrepreneurship and SMEs (GROW) and DG Energy (ENER). It was included as the following items in the DECIDE/Agenda Planning database: PLAN/2020/7714, Sustainable Products Initiative.

## ORGANISATION AND TIMING

The initiative is a deliverable under the European Green Deal and was further set out in the **Circular Economy Action Plan**<sup>1</sup> (CEAP); see *Annex 5: Political Context* for details.

The **Inception Impact Assessment Roadmap** was published on 14 September 2020 with a feedback period until 16 November 2020<sup>2</sup>.

The Inter Service Steering Group (ISSG) for the Impact Assessment was set up by the Secretariat-General (SG). It included the following DGs and services: AGRI (Agriculture), BUDG (Budget), CLIMA (Climate Action), CNECT (Communications Networks, Content and Technology), COMM (Communication), COMP (Competition), DEFIS (Defence Industry and Space), EAC (Education, Youth, Sport and Culture), ECFIN (Economic and Financial Affairs), EMPL (Employment, Social Affairs and Inclusion), ENER (Energy), ESTAT (Eurostat), FISMA (Financial Stability, Financial Services and Capital Markets Union), FPI (Foreign Policy Instruments), I.D.E.A. (Inspire, Debate, Engage and Accelerate Action), INTPA (International Partnerships), JRC (Joint Research Centre), JUST (Justice and Consumers), MARE (Maritime Affairs and Fisheries), MOVE (Mobility and Transport), OLAF (European Anti-Fraud Office), REGIO (Regional and Urban policy), RTD (Research and Innovation), SANTE (Health and Food Safety), SJ (Legal Service), TAXUD (Taxation and Customs Union) TRADE (Trade), NEAR (Neighbourhood and enlargement) as well as EEAS (European External Action Service). Meetings were organised between autumn 2020 and autumn 2021.

The ISSG discussed the Inception Impact Assessment and the main milestones in the process, in particular the consultation strategy and main stakeholder consultation activities, key deliverables from the support study, and the draft Impact Assessment report before the submission to the Regulatory Scrutiny Board.

## CONSULTATION OF THE RSB

An informal upstream meeting with the Regulatory Scrutiny Board (RSB) took place on 30 April 2021. After final discussion with the Inter-Service Group (ISG), a draft of the IA was submitted to the RSB on 20 July 2021 and discussed at a meeting with the RSB on 15 September 2021.

Following the negative opinion of the RSB from 17 September 2021, changes were made to the IA in order to reflect the recommendations of the Board. Table below presents an overview of the RSB's comments and how these have been addressed.

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<sup>1</sup> COM(2020) 98 final

<sup>2</sup> [Sustainable products initiative \(europa.eu\)](https://european-council.europa.eu/media/en/press-communications/infographic/infographic_sustainable_products_initiative_en.pdf)

Table 12: How RSB comments of 17 September 2021 have been addressed.

<i>Comments</i>	<i>Actions</i>
<b>RSB Opinion - Summary of findings</b>	
<p><b>B1.a The report is not sufficiently clear on what will be addressed by the Sustainable Products Initiative, or by the subsequent implementing legislation and other related initiatives. It is not clear on how full coverage and coherence between all these initiatives will be ensured.</b></p>	<p>Interplay among related and existing initiatives (e.g. Green Claims, Consumer Empowerment, Corporate Sustainable Governance, Construction Products Regulation, Packaging, etc.) better explained in the Introduction (clearer and expanded section 1.3 on “Coherence with other Sustainable Product Initiative (SPI)-related initiatives”); in section 7.8 (new table) and in a revised Annex 14 (see section 14.1)</p> <p>A new paragraph 7.3 (“Relationship between legal act and subsequent SPI measures) has been added in the main report, explaining the interplay between the SPI basic act and SPI measures.</p> <p>The 2 case studies have been improved to better show how SPI will work in practice</p>
<p><b>B1.b There is also no clarity on the precise role, scope and delivery instrument of the digital product passport.</b></p>	<p>In response to the RSB comments, it has been decided to set out the objectives and principles in the SPI main legal act. The technical details of the EU digital product passport will follow through empowerment, and so the operational details will be provided in a dedicated Impact Assessment.</p> <p>A new Annex 18 has been added, clarifying the role and scope of the EU digital product passport. More details about governance, design principles, and deployment strategy have been added.</p> <p>More details about the design of the EU DPP has been added in Section 7.1, describing the preferred option.</p>
<p><b>B2.a The report does not sufficiently elaborate on the options and their relative merits.</b></p>	<p>Better elaboration of the each policy option and the relative merits, both in Annex 9 and Annex 10 and in the main report (section 5.2)</p> <p>Box 2 explains the architecture of the options in the main report</p>
<p><b>B2.b It does not sufficiently justify the preferred package of sub-options, in particular as regards product scope and</b></p>	<p>Improved assessment of the various sub-option, in particular of options 2 and 3. This is reflected in Annex 9, 10, 11 and Section 6.2 and 6.3 of the</p>

sustainability requirements.	main report
<b>B3.a The report does not sufficiently consider the costs and benefits</b>	A new section 7.6 (Overview of cost and benefits) added in the main report and most extensively in a new dedicated section Annex 12 (Preferred Option). The revised Annex 10 includes more input from stakeholders, including on cost and benefits for each option.
<b>B3.b It does not provide sufficient indication of the order of magnitude of expected impacts and whether they would be positive or negative</b>	A new section 7.6 (Overview of cost and benefits) added in the main report and most extensively in a new dedicated section Annex 12 (Preferred Option).  The revised Annex 10 includes more input from stakeholders, including on the magnitude of expected impacts.
<b>B3.c The analysis of impacts on SMEs is insufficient</b>	Summary of Annex 19 (SME test) added in section 7.4 of the main report (Feasibility and proportionate implementation).  Additional elements in section 6 of main report.  Additional section on SMEs added to Annex 12  Annex 19 (SME test) has been further developed, by extracting more elements from the first SME survey and by adding a new section dedicated to mitigation measures.  In addition, a supplementary SME survey ('second targeted SME survey') has been carried out and the results have been included in the revised IA report (see Annex 2; section 7.4; Annex 19)
<b>B3.d The expected compliance and administrative costs are not clearly presented</b>	The revised Annex 10 includes a more elaborated analysis and additional input from stakeholders on expected compliance and administrative costs.
<b>RSB Opinion - What to improve</b>	
<b>C1.a The report should better demonstrate the specific problems the Sustainable Products Initiative aims to tackle (including clear evidence and improved explanation of the link to the underlying internal market issues)</b>	The main problem has been better articulated, including a clearer reference to internal market:  <i>Consumption and production are not sustainable and not adequately addressed by existing EU products and internal market rules, leading to increasingly divergent national rules on the sustainability of products.</i>  The general objective has been expanded, making a clearer link to the internal market issues: <i>to reduce the negative life-cycle environmental and social impacts of products</i>

	<p><i>and improve the functioning of the internal market</i></p> <p>A new “Box 1: Problem Context” added in the main report, bringing some elements from Annex 7</p> <p>A new driver (Insufficient EU regulatory framework for sustainable production and consumption) added under the regulatory and administrative failure, both in the main report and more extensively in Annex 7, including a new table presenting diverging national initiatives.</p> <p>A new section (“Increasing market fragmentation”) added under “Consequences for Markets” in Annex 7, including a table presenting the views of stakeholders supporting EU action.</p> <p>A better elaboration of “Why should the EU act?” in Annex 8</p>
<p>C1.b It should better explain how the initiative is intended to interact and work together with related initiatives (such as on Green Claims, Consumer Empowerment, Corporate Sustainable Governance) and how potential overlaps, gaps and inconsistencies (for instance as regards social due diligence requirements or sustainability concepts) will be avoided. This should be made clear upfront but also detailed when it comes to the problem description and later in the scope, objectives and measures considered</p>	<p>Interplay among related and existing initiatives (e.g. Green Claims, Consumer Empowerment, Corporate Sustainable Governance, Packaging, etc.) better explained in the Introduction (clearer and expanded section 1.3 on “Coherence with other Sustainable Product Initiative (SPI)-related initiatives”); in section 7.8 (new table) and in a revised Annex 14 including new section on the Sustainable Corporate Governance Initiative.</p>
<p>C2.a The report needs to be clearer about what would be determined in the Sustainable Products Initiative and what in the subsequent implementing legislation and the reasoning behind it</p>	<p>A new section (7.3) on ‘Relationship between legal act and subsequent SPI measures’, has been added in the main report explaining the interplay between the SPI basic act and SPI measures.</p>
<p>C2.b As regards the digital product passport, it should clarify its precise role (including for other initiatives) and scope as well as envisaged delivery form (e.g. horizontal instrument, exclusive specification in implementing measures)</p>	<p>A new Annex 18 has been added. It provides more information on the design principles and the implementation strategy</p>
<p>C3.a With a view to bringing out more clearly the available policy choices, the report should better present the sub-options</p>	<p>The presentation of all sub-options has been improved, both in section 5.2 of the main report and more extensively in Annex 9</p>

<p>C3.b It should explain how the Ecodesign process, which would be the basis for the initiative, could be sufficiently improved and accelerated to ensure the objectives are successfully achieved</p>	<p>Description of the necessary administrative set-up has been expanded in the main report, showing how the Ecodesign process could be further improved, and how processing of the necessary workload could be accelerated.</p> <p>Description of measure 7.a.1 in Annex 9 has been improved.</p>
<p>C3.c It should justify why the environmental footprint methodology is not better integrated, also in view of its envisaged role under the Green Claims initiative</p>	<p>Annex 16 has been revised and expanded. In line with the Green Claims initiative, PEF will be incorporated in the new SPI methodology when a LCA is needed, but it is not the only assessment method to be used. Other alternatives will be allowed in particular for energy-related products when the use phase is the dominant one in the life cycle. For aspects not covered by PEF, other assessment methods will be used and further elaborated if needed.</p> <p>Measure 3a.5 (Minimum requirements to reduce carbon and environmental footprints set at process and/or life cycle environmental impact(s) level) has been further elaborated to better explain the role of PEF in assessing products' environmental impacts along their life cycle</p>
<p>C3.d The report should also improve its description and analysis of the proposed due diligence requirements and how full coherence with the Sustainable Corporate Governance initiative will be ensured</p>	<p>Measure 3b.3 has been revised and elaborated to better explain complementarity with respect to existing legislation and instruments on due diligence.</p> <p>A revised Annex 14 including a new section on the Sustainable Corporate Governance Initiative provides further detail</p>
<p>C3.e It should explain how possibly conflicting objectives would be tackled in a coherent way in the implementing legislation (e.g. between early replacement of products to reduce energy use and minimal use of natural resources; between technical or economic feasibility and how are these defined)</p>	<p>This is addressed in a new section (7.3) on '<i>Relationship between legal act and subsequent SPI measures</i>', as well as in Annex 16.</p>
<p>C4.a The report should strengthen its analysis of costs and benefits and of impacts (notably on SMEs)</p>	<p>The revised Annex 10 includes a more elaborated analysis and additional input from stakeholders on costs and benefits, based on an additional targeted consultation with business</p>

	<p>associations on costs.</p> <p>A supplementary SME survey has been carried out (including focus on cost and benefits) and the results have been included in the revised IA report (see section 6 and 7.4; Annex 2; Annex 19)</p> <p>New elements also added in Annex 12</p>
C4.b While acknowledging the uncertainties and difficulties in estimating some of these aspects, the report should at least give an indication of whether the expected overall economic impact would be positive or not	<p>New dedicated paragraph in the section 7.5 (<i>overview of costs and benefits</i>) of the main report</p> <p>New dedicated section in Annex 12 (preferred option)</p>
C4.c It should also provide a more developed analysis of the expected compliance and administrative costs	<p>A supplementary SME survey has been carried out and the results have been included in the revised IA report (see section 6 and 7.4; Annex 2; Annex 19)</p>
C4.d The main report should include an assessment of the impacts on SMEs, including possible mitigating measures and how it has applied the ‘think small first’ principle	<p>Analysis of SME impact has been strengthened in the main report (as well as in the Annexes). Please see various sections on stakeholder feedback in section 2; stakeholder views in section 6; and section 7.4)</p>
C4.e It should explain better the role of consumer choices, whether this initiative intends to change consumer behaviour and how it plans to do so	<p>Sub-problem 2 in the main report (Too difficult for economic operators and citizens to make sustainable choices in relation to products) have been expanded with a section dedicated to consumer choices</p> <p>A new section 7.8 (Impact on consumers choices) has been added analysing SPI impact on consumer behaviour, and better linking to the behavioural biases. In addition, information about the Right to Repair Initiative, which will further promote repair and sustainable use of products, has been added to the report.</p>
C5 The report should better explain the performance scoring and the justification of the preferred package of sub-options. It should, for instance, better demonstrate, on the basis of the collected evidence, why an all-encompassing product scope is preferable to a narrower product scope likely to deliver similar benefits in a more efficient manner. It should better assess the overall proportionality of the preferred option package	<p>Concerning prioritization and hence proportionality, new explanations have been added in section 6.2 and 6.3 of the main report. Annex 9 provides additional elements as well.</p> <p>The new Annex 11 provides a better explanation the performance scoring and the justification of the preferred package of sub-options. Also Annex 12 has been improved to address this question.</p>
C6.a The views of different categories of stakeholders should be presented more systematically throughout the main report	<p>Done both in the main report (e.g. in the problem definition) and in Annex 10, with new boxes presenting stakeholders’ views on each option,</p>



	including diverging views. Added a new section in Annex 2 (Stakeholder consultation) on main stakeholders' views divided by categories.
C6.b The report should explain how it took relevant minority views into account	Done in Annex 10, with new boxes presenting stakeholders' views on each option, including diverging views.

Following the resubmission of the revised impact assessment, the RSB issued a second opinion on 21 January 2022. This opinion was positive with reservations. The impact assessment has been revised to respond to the second opinion as follows:

Table 13: How RSB comments of 21 January 2022 have been addressed.

<i>Comments</i>	<i>Actions</i>
<b>RSB Opinion - Summary of findings</b>	
<b>B.1</b> <i>The report does not sufficiently justify the choice of options regarding the scope and the sustainability requirements of the Sustainable Products Initiative (SPI).</i>	Please see the detailed points discussed below under C.1, C.2 and C.3
<b>B.2</b> <i>The report does not sufficiently define (1) the methodology and standards that will be used to prioritise and assess products, including for social and due diligence aspects, (2) its definition of 'sustainability', and (3) trade-offs between competing objectives. (4) It is not clear how policy coherence across the products in scope will be ensured.</i>	<b>(1)</b> Please see the detailed points discussed below under C.4.1 and C.4.2
	<b>(2)</b> Please see the detailed points discussed below under C.4.3
	<b>(3)</b> Please see the detailed points discussed below under C.4.4
	<b>(4)</b> Please see the detailed points discussed below under C.4.5
<b>B.3</b> <i>The report is not sufficiently explicit about the horizontal principles and objectives of the digital product passport and which of its elements need to be determined on a product-by-product basis.</i>	Please see the detailed points discussed below under C.6

RSB Opinion - What to improve	
<p><b>C.1</b> The more complete problem description now focusses on the risk of diverging regulation in Member States, resulting from a lack of EU regulation. The report should clarify <b>why this regulatory failure should be addressed by introducing product-specific rules</b>, instead of general rules applicable to all products and services.</p>	<p><i>A paragraph has been added in box 2 in section 5, explaining why product-specific rules are clearly superior to general horizontal rules and what the risks and drawbacks are of the latter.</i></p>
<p><b>C.2</b> (1) The report should be clearer on the <b>choice between, and arguments supporting, applying the Sustainable Products Initiative to a limited number of priority products and to all products.</b></p> <p>(2) The report should better explain <b>how it takes into account the higher administrative burden for businesses and administrations of the full-scope option.</b></p>	<p>(1) <i>Text has been added in section 6.2 on the assessment of option 2 noting that Ecodesign addressed all energy-related products, not specific ones, that it is important to be able to take action where appropriate without changing legislation and that actual improvement potential is only knowable when the analysis is done. All three argue against artificially constraining the scope.</i></p> <p><i>Some of this text also added to description of option 2b in section 5.2, as well as to analysis of sub-options in sections 6.2 and 6.3.</i></p> <p>(2) <i>Paragraph added at the end of Section 7.5 and in Annex 3</i></p>
<p><b>C.3</b> (1) The report should <b>better justify the choice of a wider set of sustainability requirements, that include due diligence.</b></p> <p>(2) It should <b>demonstrate how it has taken into account the higher compliance costs for businesses, especially SMEs.</b></p>	<p>(1) <i>Some additional clarification added to description of option 3a (in section 5.2) – to better clarify link with the IA’s working concept of ‘sustainability’</i></p> <p>(2) <i>Additions have been made to the description of sub-option 3b (in section 5.2) as well as to the analysis of the economic impact of this sub-option (in section 6.3), including to better reflect impact on SMEs how these will be taken into account</i></p>
<p><b>C.4</b> (1) The report should <b>be more explicit on the methodology, standards and requirements that will be used to prioritise and assess products, including social</b></p>	<p>(1) <i>Brief new section on possible methodological approach to assessment of social aspects added to Annex 16</i></p>

<p><b>sustainability and due diligence aspects.</b></p> <p>(2) Where this is not yet possible, it should <b>clarify why, explain the remaining steps to be followed, the decisions still to be taken, as well as summarise the nature of the document setting out the SPI methodology and its evidence base.</b></p> <p>(3) It should <b>state clearly the definition of ‘sustainability’</b> to be used, or <b>justify why different definitions can be used for different products.</b></p> <p>(4) The report should also <b>explain the analytical framework that will be used to resolve policy trade-offs</b> between competing objectives (such as between energy vs resource efficiency or jobs vs social standards).</p> <p>(5) It should <b>explain how policy coherence across the products in scope will be ensured.</b></p> <p>(6) In this context, it should also <b>justify why a less-ambitious methodology will be used for energy-related products.</b></p>	<p>(2) <i>Please see additions and clarifications in sections 7.3 of the main report as well as Annex 16</i></p>
	<p>(3) <i>Please see adjustments to problem definition (section 2)</i></p>
	<p>(4) <i>This issue of potential policy trade-offs has been further addressed in section 7.3, where an attempt is made to elaborate the approach that will be taken to resolving them in the future.</i></p>
	<p>(5) <i>Please see additions and clarifications in section 7.3 and Annex 16</i></p>
	<p>(6) <i>See additional clarification in section 7.3 of the main text</i></p>
<p><b>C.5 (1)</b> Considering the difficulty of estimating the costs and benefits of what will likely be a costly measure, the methodology should be more explicit as to <b>what would be ‘acceptable’ cost increases.</b></p> <p>(2) It should clarify whether there is an <b>expected time horizon for durability savings to offset increased product prices</b> resulting from the sustainability requirements.</p>	<p>(1) <i>Some clarifications added to analysis of relevant sub-options (in section 6.3), as well as to impact of preferred policy package (in section 7.2)</i></p>
	<p>(2) <i>The main text clarifies in section 6.3 and 7.2 that affordability aspects, including the time horizon over which possibly increased purchase prices are offset by savings, will be analysed in the impact assessments for future measures.</i></p>

<p><b>C.6 (1)</b> While the report now provides more information on the digital product passport, it is not clear what will be determined already in the main legal act. The report should be more explicit on the <b>specific objectives, principles and infrastructure of the digital product passport that should feature in the horizontal SPI legal instrument.</b></p> <p><b>(2)</b> It should explain and justify <b>what will be regulated in a possible ‘horizontal SPI measure’.</b></p> <p><b>(3)</b> The report should also clarify how the envisaged regulatory digital product passport design <b>will make it easier to create such passports for products outside the SPI scope.</b></p> <p><b>(4)</b> It should better explain how the envisaged implementation arrangements of the digital product passport will <b>keep administrative costs for business and administrations to the minimum necessary.</b></p>	<p><i>(1) Some additional elements added to description of this sub-option (in section 5.2); and to description of relationship between legal act and subsequent SPI measures (section 7.3).</i></p> <p><i>(2) Reference to a possible ‘horizontal SPI measure’ on the digital product passport has now been removed</i></p> <p><i>(3) This reference has been deleted (as it did not reflect the final preferred set of sub-options, which includes extension of SPI to a wide range of goods, with only a few limited exceptions).</i></p> <p><i>(4) Some additional explanations added in section 6.4</i></p>
<p><b>C.7</b> The <b>scoring of options</b> should be better explained and justified in the main report.</p>	<p><i>Footnotes with references to annex 10 for more detail added for each table in section 6, when presenting the scores of the respective option.</i></p> <p><i>Scores on administrative burdens for option 2b adjusted to be in line with option 2a in table 2 and in annex 10.</i></p>
<p><b>C.8</b> As the implementation of the SPI will require substantial additional <b>human resources</b>, the report should explain how their availability will be ensured.</p>	<p><i>Additional details on the human resource implications of the preferred option are provided in section 7.10 and in further details in the financial fiche annexed to the SPI legal proposal. The availability of these resources is a political and management decision to be taken by the College.</i></p>

<p><b>C.9 (1) The report should specify when an evaluation will be carried out.</b></p>	<p><i>(1) The main text now clarifies in section 8 that an evaluation of the framework would be carried out eight years after entry into force. Annex 13 has been revised to provide further explanation.</i></p>
<p><b>(2) It should clarify whether a review as regards the possible inclusion of services under the scope of the SPI is envisaged.</b></p>	<p><i>(2) Section 8 of the main text and annex 13 have been revised to clarify that the evaluation after eight years would also investigate whether there is a need to increase the scope to include services.</i></p>

### **EVIDENCE, SOURCES AND QUALITY**

To support the analysis of the different options, the European Commission awarded a **support contract** to external experts - Economisti Associati srl (Consortium Lead) Trinomics B.V. (Lead for the Specific Assignment).

These experts worked in close cooperation with the European Commission throughout the different phases of the study.

## **Annex 2: Stakeholder consultation**

The Impact Assessment accompanying the Sustainable Products Initiative was subject to a thorough consultation process that included a variety of different consultation activities aiming to gather the views of all relevant stakeholders and to ensure that the views from different organisations and stakeholder types were presented and considered.

These activities included a period during which it was possible to provide feedback on an Inception Impact Assessment<sup>3</sup> (193 responses) and an Open Public Consultation<sup>4</sup> (626 responses). In addition, a targeted consultation exercise was carried out to further enhance the evidence base through the collection of more specialized feedback from targeted stakeholder groups. This was done via the organisation of seven different stakeholder workshops, targeted stakeholder surveys tailored for different stakeholder groups (138 responses), a survey for small and medium-sized enterprises (339 responses) as well as 49 interviews.

This synopsis report presents a summary of these consultation activities and their results.

### **FEEDBACK ON THE INCEPTION IMPACT ASSESSMENT**

The Inception Impact Assessment on SPI was published on 14 September 2020 and the period to provide feedback closed on 16 November 2020.<sup>5</sup> A total of 193 responses were submitted through the online Better Regulation Portal, most of which were provided by business associations (46%), followed by business organisations/companies (27%), NGOs (9%), EU and non-EU citizens (6%), public authorities (5%), academic and research institutions (2%), trade unions and “others” such as social organisations (2%), consumer organisations (1%) and environmental organisations (0,5%).

#### **Scope of the SPI framework**

Most stakeholders advocated for a comprehensive scope for the SPI framework that includes all products and their whole lifecycle (LCA approach). Across stakeholder groups, some also asked for the (initial) focus to be on the priority sectors outlined in the Circular Economy Action Plan (CEAP), namely on the high-consumption and -impact products.

#### **Sustainability requirements**

A majority of all stakeholders stressed the importance of a Life Cycle Assessment (LCA) approach that should be reflected in the assortment of sustainability requirements (both horizontal and vertical/sector-specific).

#### **Coherence with other initiatives**

It has been stressed across all stakeholder groups that unaligned overlapping or doubling of policies should be avoided; policies should be harmonised and aligned.

#### **Labelling & digital product passports**

Mandatory labelling was perceived as an important means to bring more transparency into the supply chain, providing a benchmark (e.g. an EU-wide recycling label, the Ecolabel, the Product

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<sup>3</sup> [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12567-Sustainable-products-initiative\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12567-Sustainable-products-initiative_en)

<sup>4</sup> [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12567-Sustainable-products-initiative/public-consultation\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12567-Sustainable-products-initiative/public-consultation_en)

<sup>5</sup> [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12567-Sustainable-products-initiative\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12567-Sustainable-products-initiative_en)

Environmental Footprint (PEF)). Digital product passports are generally supported by clear majorities across all stakeholder groups.

### **Eco-design Directive**

There was consensus across all stakeholder groups about the need to extend the current Eco-design Directive from energy-related products to all products or initially to CEAP priority sectors.

### **Sustainable procurement**

A large majority of all stakeholders is in favour of Green Public Procurement as it will allow for more products that have the best environmental and sustainability performance to be purchased by the public sector. Here, mandatory minimum criteria and targets were demanded.

### **Extended Producer Responsibility (EPR) including eco-modulation fees**

Some stakeholders indicated that EPR should be applied to all products on the market where appropriate, while also allowing take-back systems developed by individual businesses to co-exist with mandatory regulated systems. Most organisations argue that EPR schemes should include eco-modulation fees.

### **Enforcement and market surveillance**

Enforcement and market surveillance activities (e.g. inspections or audits) are seen as necessary to accompany the implementation of the SPI. Stakeholders recommend exploring both fast screening methods to detect products most likely not to comply, as well as more comprehensive or even dissuasive measures.

## **OPEN PUBLIC CONSULTATION**

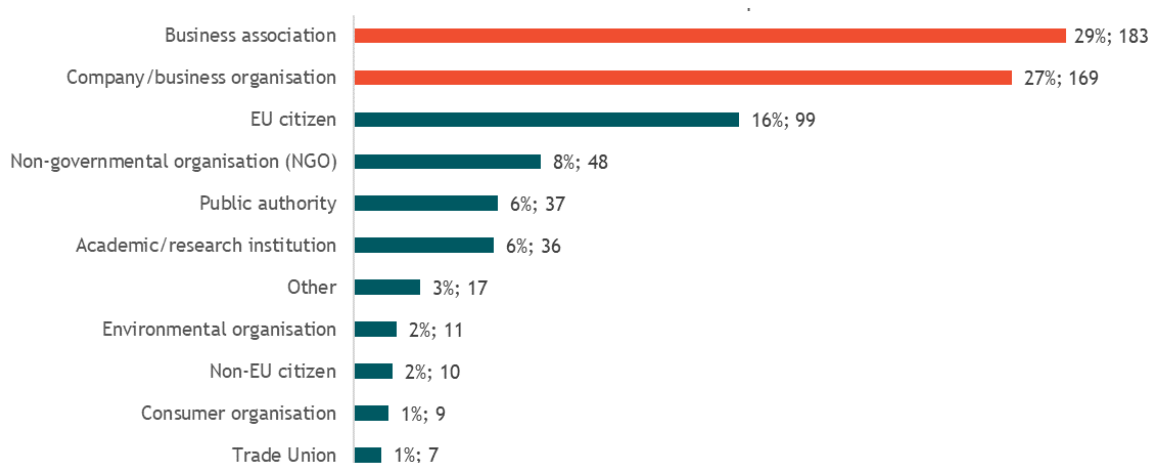
In the context of the preparation of the Impact Assessment, an open public consultation was accessible to the public for 12 weeks from 17 March 2021 to 9 June 2021. During this time, the survey received 626 responses. The majority (56%) of respondents to the survey represented, directly or indirectly, business interests<sup>6</sup>, with a predominance of energy- and resource-intensive sectors. EU citizens represented 16% of respondents, while organised civil society (NGOs, environmental organisations, consumer organisations, trade unions) represented 12% of respondents. Public authorities (mainly at national level) and academic institutions represented 6% each of the respondents. Respondents from outside the EU (mainly European Environment Agency, Turkey, the United Kingdom and the United States<sup>7</sup>) represented 16.5% of answers.

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<sup>6</sup> Composed of ‘business associations’ and ‘company/business organisation’. For the purposes of this summary, only ‘business associations’ are compared to other stakeholder groups.

<sup>7</sup> A limited number of responses were also received from: Brazil, China, Georgia, Japan, Russia, Serbia and UAE.

Figure 1 Type and number of respondents to the OPC



## General Summary of OPC results

### *Challenges to making products sustainable*

Majorities across all stakeholder groups agreed that products placed on the EU market could, for a variety of reasons, be more sustainable. When asked about the reasons why products are not more sustainable, there was a general consensus among respondents that this relates to product design or to the cost of sustainable solutions. The responses on the effects of lacking guarantees on second-hand products or of (technical or “planned”) obsolescence were less consensual, with opinions differing among different stakeholder groups. Whereas 50% of NGOs disagreed or strongly disagreed that the quality of second-hand goods cannot be guaranteed or is difficult to assess, only 22% of business associations thought the same. Similarly, 81% of Non-Governmental Organisations (NGO) representatives strongly agreed or agreed that some products are designed to break down after a certain period of time (planned obsolescence). In contrast, only 24% of business associations had the same opinion on this.

Majorities across all stakeholder groups agreed that policy-related reasons that explain why products sold in the EU are not more sustainable include the lack of incentives rewarding sustainable products as well as diverging national rules and the absence of harmonisation on the EU Internal Market. Whether voluntary approaches, such as labelling, suffice as incentives was marked by differences in opinion. On this question, only 27% of stakeholders representing business associations either strongly agreed or agreed, whereas it was the case for 83% of NGOs and 91% of environmental organisations<sup>8</sup>.

Answers to the open question mentioned other reasons why products in the EU Internal Market are not more sustainable: competition from external producers subject to lower social or environmental requirements, “greenwashing”<sup>9</sup>, missing technologies and infrastructure for recycling, advertising and other practices promoting over-consumption.

<sup>8</sup> Further analysis of this and certain other OPC questions is set out in annex 10.

<sup>9</sup> To be addressed in the Green Claims Initiative.



### *Measures to make sustainable products the norm*

There was less agreement among respondents regarding the measures to be taken to improve the sustainability of products. Binding rules via sustainability requirements that would also focus on actions to be taken by producers to improve durability, re-useability, upgradability and reparability were generally better accepted with 32% of business associations agreeing or strongly agreeing, compared to 88% of NGOs and 91% of environmental organisations. This was much less the case for the requirement to set up a repair network where only 18% of business associations provided support or strong support (4 and 5 out of 5) compared to 36% of NGOs and also 36% for environmental organisations. On the question on whether to require producers/importers to publish information on how they have prioritised materials that are safe and sustainable-by-design and have substituted chemicals of concern with safer ones whenever possible only 18% of business association respondents provided support or strong support, whereas this was the case for 38% of NGOs and 36% of environmental organisations.

The requirement to provide information on the product, e.g. in the form of a Digital Product Passport, was generally very well accepted across all stakeholder groups, specifically regarding how the user should interact with the product, as well as on the information to be contained in the Digital Product Passport such as the product's environmental performance, information on compliance with ecolabels, standards and legislation, on safe use and recyclability, and on the economic actors at the origin of the information. With regards to including information on the social conditions along the value chain, 31% of business associations agreed or strongly agreed, compared to 88% of NGOs and 100% of environmental organisations. On the other hand, requirements to disclose information that could be of use to other operators for repair, remanufacture or recycling, or to market surveillance authorities, was not so well supported by business associations where only 18% agreed or strongly agreed in comparison to 71% of NGOs and 73% of environmental organisations. Similarly, on the need to include information on the quantities of materials and substances contained in the product, 25% of business associations agreed or strongly agreed, compared to 87% of NGOs and 100% of environmental organisations. The greatest challenge identified to the implementation of the Digital Product Passport related to the complexity of the value chains.

The category of products for which most respondents considered that a potential ban on the destruction of unsold consumer products should not apply, were those that pose a health or safety risk.

All four Circular Business Models proposed (reverse logistics, product-service systems, collaborative and sharing economy, on-demand production) were similarly supported across all stakeholder groups. The main obstacle to the uptake of these business models was seen in legislation, with concerns on profitability and investment level coming next. The most approved measures supporting the Circular Business Models (CBM) "product-service system", "collaborative & sharing economy" and "reverse logistics" related to Green Public Procurement and obligations to producers for take-back and repair/maintenance. The CBM "on-demand production" was considered to be best supported by tools to measure the benefits and financial viability of CBMs. Other CBMs were suggested in the open answers, such as producer ownership (incl. lend/lease, rental), models encouraging consumers to return products (buy-back, deposit) and those supporting secondary use of products (trusted marketplaces, re-manufacturing). The empowerment of consumers in repair / do-it-yourself activities with open resources, as well as that of producers in cooperatives, were suggested.

Across all stakeholder groups, the most supported incentives for circularity relate to access to finance for the production and consumption of sustainable products, hence underlining that these constitute an investment. Transparency and standards were also well supported, as well as mandatory Green Public Procurement criteria. Voluntary schemes such as the Ecolabel were the least supported measure.

Other incentives were suggested by the open answers, such as a tax on virgin / fossil materials or a tax on environmental impact.

### *Compliance with and enforcement of sustainability requirements for products*

The best supported measure put forward across all stakeholder groups to enhance compliance was for the European Commission to provide guidance and support to Member States. Also very well supported was the proposal to set verification targets for products most likely to be non-compliant. On the other hand, distributing the enforcement per sector among Member States was generally rejected. The answers to the open question highlighted in addition that Market Surveillance should focus in priority on imports and online sales.

## **OPC results: views by main stakeholder category**

### **1. Business association and company views**

**Problem definition:** *general support from industry for the main lines of the problems analysed in this impact assessment: a high number of respondents agreed that products are not currently designed to be easily repaired or upgraded (51% agree or strongly agree; 13% disagree or strongly disagree); a high number also agreed that products do not sufficiently cover the costs of the harm that their production and use cause to the environment (40% agree or strongly agree; 20% disagree or strongly disagree). More also believe that products sold in the EU are less sustainable because economic actors do not have adequate and reliable information on the sustainability of products (54% agree or strongly agree, while 22% disagree or strongly disagree with this statement).*

**Problems related to the internal market are seen as significant contributors to the problem:** *a lack of harmonized requirements to foster the sustainable design of products was perceived by many (65% agreed or strongly agreed; 18% disagreed or strongly disagreed), and 65% agreed or strongly agreed that diverging national rules and lack of a harmonized set of EU rules discourage large businesses from offering more sustainable products, compared to only 17% who disagree or strongly disagree.*

**Views on options:** *industry support varied depending on action in question: support for requiring a reparability score on products was comparatively low (23% favouring or strongly favouring; 34% disagreeing or strongly disagreeing), as was support for banning substances inhibiting recyclability (35% versus 37% respectively). In contrast, the idea of requiring information on environmental footprint in a Digital Product Passport was well received (68% agree or strongly agree; 9% disagree or strongly disagree), as was that of requiring information on social conditions along the value chain (44% agree or strongly agree; 23% disagree or strongly disagree).*

**Quite high support on options to incentivise sustainable products:** *61% supported or strongly supported the idea of modulating producer fees under Extended Producer Responsibility schemes based on the sustainability of products (compared to 32% who expressed middle, low or very low preference for this). The idea of identifying classes of product performance was supported or strongly supported by 53%, while 41% expressed middle, low or very low preference for this. The idea of introducing mandatory Green Public Procurement criteria received quite high support: 59% supported or strongly supported it, while 27% expressed middle, low or very low preference for this.*

**On monitoring and enforcement,** *low support for requiring third-party certification or inspection to simplify the work of Member State enforcement authorities: 53% expressed middle, low or very low support, while 28% were supportive or very supportive.*

## **2. EU citizens and consumer organisations views**

**Problem definition:** *very strong support on aspects related to the problem definition:* 93% agree that products are not currently designed to be easily repaired or upgraded (only 4% disagree or strongly disagree); 91% agree that products do not sufficiently cover the costs of the harm that their production and use cause to the environment (4% disagree or strongly disagree). 87% agree or strongly agree that product repair costs are too high compared to buying new products (8.6% disagree or strongly disagree). 75% agree or strongly agree that voluntary approaches, such as labelling, do not provide sufficient incentives for businesses to offer more sustainable products (7.5% disagree or strongly disagree).

**Views on options:** *strong support for a majority of the measures included in the preferred options of this impact assessment:* 69% favoured or strongly favored the possibility of requiring a reparability score on products (15% disagreed or strongly disagreed with this), and 71,5% favoured or strongly favored banning substances inhibiting recyclability (15% disagreed or strongly disagreed). 88% agreed or strongly agreed with requiring information on environmental footprint in the Digital Product Passport (6% disagreed or strongly disagreed), and 85% agreed or strongly agreed with requiring information on social conditions along the value chain (6% disagreed or strongly disagreed). 78% supported or strongly supported the idea of modulating producer fees under Extended Producer Responsibility schemes based on the sustainability of products.

**Strong support for options on incentives:** 76% also expressed support or strong support for the idea of identifying classes of product performance. The idea of introducing mandatory Green Public Procurement criteria received overwhelming support (84% supported or strongly supported it).

**On monitoring and enforcement,** support for requiring third-party certification or inspection to simplify the work of Member State enforcement authorities was relatively high: 60% were supportive or very supportive while 31% expressed middle, low or very low support.

## **3. Environmental organisation and NGOs**

**Problem definition:** *very strong support for problems identified:* 95% agree or strongly agree that products do not sufficiently cover the costs of the harm that their production and use cause to the environment and 88% agree or strongly agree that many products are not designed to be easily repaired or upgraded. 76% agree or strongly agree that materials used in products are more and more complex and difficult to recycle, and 78% that agree or strongly agree that that economic actors do not have adequate and reliable information on the sustainability of products.

**This stakeholder category also recognized that issues related to the internal market are contributing to the problem:** 92% agreed or strongly agreed that there is a lack of harmonized requirements to foster the sustainable design of products (only 7% disagreed or were neutral, with no respondent strongly disagreeing), and 69% agreed or strongly agreed that diverging national rules and lack of a harmonized set of EU rules discourage large businesses from offering more sustainable products, compared to 24% who disagreed, strongly disagreed or were neutral.

**Views on options:** *very strong support for a majority of the measures included in the preferred options of this impact assessment:* 70% favoured or strongly favored requiring a reparability score on products (19% disagreed, strongly disagreed or were neutral). 76% favoured or strongly favored banning substances inhibiting recyclability (17% disagreed, strongly disagreed or were neutral), and requiring information on a product's average expected lifespan to be provided with a product was supported or strongly supported by 53% (39% disagreed, strongly disagreed or were neutral). 92% agreed or strongly agreed that information on environmental footprint should be collected as part of the Digital Product Passport, and 90% agreed or strongly agreed with

requiring information on social conditions along the value chain. 91% supported or strongly supported the idea of introducing mandatory Green Public Procurement criteria.

#### **4. EU Public Authorities**

**Problem definition: Public authorities in the EU expressed very strong overall agreement with the main problems identified in this impact assessment:** 80% agreed or strongly agreed that economic actors do not have adequate and reliable information on the sustainability of products (only 17% disagreed, strongly disagreed or were neutral), and 100% agreed or strongly agreed that many products are not designed to be easily repaired or upgraded (with none disagreeing). 90% agreed or strongly agreed that products do not sufficiently cover the costs of the harm that their production and use cause to the environment (with none disagreeing). 90% also said that materials used in products are more and more complex and difficult to recycle.

**Internal market fragmentation is recognised by EU authorities as an issue:** Over 95% agreed or strongly agreed that there is no harmonized set of requirements to foster the sustainable design of products placed on the EU market, and 70% agreed or strongly agreed that diverging national rules and lack of a harmonized set of EU rules discourage large cross-border businesses from offering more sustainable products.

90% agreed or strongly agreed that voluntary approaches, such as labelling, do not provide sufficient incentives for businesses to offer more sustainable products.

**Views on options: Strong support for action on reparability:** 87% favoured or strongly favored requiring information on reparability to be provided on or with a product and 73% expressed the same responses for requiring a reparability score on products (20% disagreed, strongly disagreed or were neutral here). 83% support or strongly support requiring modular design of their products.

**Action on product content also strongly supported:** 93% favored or strongly favored banning substances inhibiting recyclability, and 87% agreed or strongly agreed that information on recycled content of each material present in a product should be collected as part of the Digital Product Passport.

**Positive views on options on incentives:** 90% supported or strongly supported modulating producer fees under Extended Producer Responsibility schemes based on the sustainability of products, and 83% supported or strongly supported the idea of identifying different classes of sustainability performance for products at EU level. 87% supported or strongly supported introduction of mandatory Green Public Procurement criteria.

**More mixed views on monitoring and enforcement:** requiring third-party certification or inspection had mixed levels of support - 50% supported or strongly supported while 50% expressed low, very low or neutral support levels. 87% supported or strongly supported the idea of the European Commission providing accompanying measures to Member States (e.g. guidance, support etc.). It should also be noted that there was low support for the idea of distributing of surveillance tasks amongst Member States per product category: 80% expressed low, very low or neutral support levels.

## **WORKSHOPS**

Between 15 April and 15 June 2021, six dedicated workshops were organised on different topics. The seventh workshop dedicated to Member States took place on 9 July 2021. The workshops were widely attended by participants from a number of different stakeholder groups, including business associations, company/business organisation representatives, academics, NGOs, environmental and

social organisations, as well as Member State representatives. A short summary of each workshop is provided below.

### **Workshop #1 - Introduction to Impact Assessment work on the SPI**

The first workshop took place on 15 April 2021, with 460 registered participants. The aim of the introductory workshop was to present to a broad audience of stakeholders the work being carried out by the external contractors in the context of the study to support the preparation of the current Impact Assessment, including each of the study's tasks. Stakeholders also received information on upcoming consultation activities and how they could participate in them. Stakeholders were also able to engage and ask questions in relation to SPI.

### **Workshop #2 - Policy support for Circular Business Models**

The second workshop took place on 27 April 2021 and aimed at receiving feedback from stakeholders on the analysis carried out in the context of the above-mentioned study on Circular Business Models (CBM), and to discuss how policy mixes can be used to support the envisaged revision of the Eco-design Directive to achieve the SPI objectives. 78 stakeholders participated in the workshop.

Overall, the discussions showed that, in relation to CBM, there is a need to design policies that are not too prescriptive and to focus on improving incentives for circular product design. Further, the need for developing better indicators to determine what success means for CBM was also highlighted. In addition, there is a need to ensure that there are no contradictions between instruments (e.g. eco-modulation and provisions of Ecodesign Directive in the case of the lighting products industry). There was consensus on the need to focus on driving demand and for independent product assessments to ensure that instruments fulfil their purpose. It was also agreed that it was necessary to address the need for additional investments.

### **Workshop #3 - Digital Product Passport**

The third workshop focused on the Digital Product Passport and was held on 29 April 2021, with around 180 stakeholders attending. The workshop included breakout sessions, where four main themes concerning the Digital Product Passport were discussed in 9 different parallel sessions, covering four different topic areas. Topic area A covered Use cases: potential applications for companies, users and authorities; Topic area B was on Governance, standards and international dimension; Topic area C on Technological approaches and solutions, including the role of blockchain; and Topic area D on Data access, accountability and management, including existing building blocks that could be used for sharing public and private data.

### **Workshop #4 - Social Aspects**

The fourth workshop focused social aspects and was held on 6 May 2021, with around 75 stakeholders attending. The workshop was made up of a plenary session that also included a Q&A session, as well as three parallel breakout sessions. The parallel sessions considered discussion questions on the practical implementation of social aspects into SPI. Stakeholders were split in their opinion on whether it is feasible to address social aspects through product policy tools or on whether requirements on product value chains can complement/add value to requirements on companies. Stakeholders agreed that addressing social aspects is feasible, but it is difficult to monitor. Therefore, the complexity of implementation and enforcement should be considered. Others pointed out that, for public authorities, access to product-level information on social dimensions would facilitate making more sustainable procurement choices, as procurement rules often stipulate that only product-level criteria can be taken into account (rather e.g. than company-level criteria). Social aspects that could be addressed in the context of product policy tools mentioned included consumer rights (e.g. right to

repair), labour conditions, rights of indigenous people and child labour. The DPP was suggested as the tool for gathering the information to assess the social aspects of a product. It was suggested that assessments could also be carried out independently in order to ensure transparency.

### **Workshop #5 - Revision of Ecodesign Rules**

The fifth workshop on the ‘Revision of Ecodesign Rules’ was held on 17 May 2021. During this workshop, around 180 stakeholders attended. The workshop was made up of a plenary session that included a Q&A session, followed by seven parallel breakout sessions. The parallel sessions considered discussion questions about the measures and processes related to Ecodesign rules, and how they could be changed/improved for the varying industries represented in the session. During this workshop, there was disagreement among participants on whether regulations should be product-specific or generalised. However, there was a general call for clarity on definitions of sustainability, durability and how circularity will consider standards for material efficiency. There was also consensus that circularity should be based on existing scientific methods, such as through life cycle assessments. There was a broad consensus on the need for recycling to be integrated in the Ecodesign legislation, but a challenge in doing so is that there simply is not enough data to enforce or check how much of the content is recycled. Some stakeholders argued that Ecodesign needs to be careful in expanding to other non-energy related product sectors, such as construction materials, for which comparable legislation, that addresses many sustainability aspects, already exists. Instead, there should be a recognition and coherence with sectoral legislation. A package approach should be dropped to facilitate adoption of specific production measures.

### **Workshop #6 - EU Member State Ecodesign practitioners**

The sixth workshop was dedicated to EU Member States Ecodesign practitioners and took place on 15 June 2021, with 109 participants registered. The workshop aimed at collecting the experience of EU Member State representatives in the Ecodesign Process, including market surveillance authorities, as well as authorities involved in third party conformity assessment (in their personal capacity as practitioners). The workshop consisted of two sessions. During the morning session, the perspective from an upstream look at the Ecodesign regulations set up in the framework of the SPI was discussed. In the afternoon session, the downstream requirements for implementing and enforcing the Ecodesign Directive were discussed.

### **Workshop #7 - EU Member State workshop on SPI**

The seventh workshop was focused on the views of Member State experts with regards to key topics of the SPI. The workshop took place on Friday, July 9th, 2021. 73 stakeholders registered for this workshop. The workshop consisted of a short, general introduction to the SPI, followed by an interactive plenary session based on questions shared in advanced with the participants on the policy options and measures considered in the Impact Assessment for SPI. The options discussed related to the extension of the scope of the Ecodesign Directive; to sustainability requirements for products; to sustainability information for consumers and supply chain actors; to rewarding more sustainable products through incentives; and measures for circular economy and value retention. On the whole, participants expressed support for a **scope (Option 2)** for SPI that would be open, and agreed with the list of products suggested for priority action (*see list in sub-option option 2a*). They felt the inclusion of services at this point in time might be premature. In relation to **sustainability requirements** for products (**Option 3**), there was general support for requirements on durability and reparability, and a number of participants underlined the importance of requirements on recycled content, as well as high-quality recycling. General support for the use of the Product Environmental Footprint (PEF) method was expressed, even if some advised that setting minimum requirements on

carbon/environmental footprint for products might be complex and require additional time. Participants were supportive of the idea of having a set of sustainability principles applicable to all products, but advised that a product-specific approach will also be needed to complement and implement these in concrete terms. In general participants were also supportive of including due diligence requirements within SPI, underlining that coherence with other initiatives in this area (such as the upcoming Sustainable Corporate Governance initiative) should be ensured. On **sustainability information requirements (Option 4)**, there was a general feeling that increased product information will be key for advancing the objectives of SPI, and that consumers should also be a key target here. The idea of a European Digital Product Passport (EU DPP) was well received by participants, but some cautioned that such a passport should not be overloaded with too much information, and that it should remain simple to understand, also for consumers. General support was expressed for the possibility of setting classes of performance for products, and attempting to reduce administrative burden for economic operators by exploring if certain obligations (e.g. in relation to chemicals tracing) could be reduced via integration with the DPP/SPI requirements. In relation to **incentives (Option 5)**, general support for EU-level guidance was expressed, with some indicating it would be useful for them to receive information on successful economic instruments already in place in some EU countries. Linking these incentives to classes of performance was also well received, even if one participant expressed concern about how this would interact with excising incentives linked to the EU Ecolabel. Several participants said that mandatory Green Public Procurement criteria and targets set at EU level would be effective and welcome, but that these should be clear and easily applicable for procurements bodies, and should still facilitate innovation. In relation to measures on pricing, though many participants agreed that the low cost of many products is a barrier to more sustainable product choices, they strongly cautioned against SPI extending its focus in this direction, given the complexity of this area and political sensitivity. Finally, on measures for **circular economy and value-retention (Option 6)**, the idea of additional EU-level guidance for Member States (MS) on how to foster circular business models was deemed useful, as was the establishment of an information service on the subject. In general, there was support for the suggestion of an EU-wide prohibition on the destruction of unsold goods, but one participant underlined that this should be accompanied by the collection of more data on this issue on the European level.

## FIRST SME SURVEY

The objective of the SME survey was to gather the views of small and medium-sized enterprises (SME) with a higher degree of detail in comparison to the Open Public Consultation. As part of this SME Survey, a tailored questionnaire was developed, focusing on company environmental/social impact and engagement in sustainable products, circular business models, economic and reputational incentives for product sustainability, the Digital Product Passport and management of unsold consumer products.

Over the course of the 6-week period, from 26 April until 15 June the survey received 332 responses, with 90% of the respondents being Enterprise Europe Network<sup>10</sup> (EEN) members. Over 50% of the respondents were located in four EU Member States: France (15%), Germany (15%), Poland (15%), and Romania (12%). In total, respondents from 17 different countries were represented. More than half of the companies who responded are active in industry (56%), followed by services (21%) and

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<sup>10</sup> <https://een.ec.europa.eu/>

wholesale and retail trade (11%). 43% of the companies deal with final products, 11% with intermediary products and 40% with both. 41% of the responding SMEs operate cross-border at EU level, followed by national level (29%) and local/regional level (29%). 8% are self-employed (0 employees); 35% are micro (1-9 employees); 32% are small (10-49 employees); and 24% are medium sized (50-249 employees).

## **Summary of first SME survey**

### *Company environmental/social impact and engagement in sustainable products*

Overall, SMEs who responded to the survey are quite engaged in the sustainable product transition and are to some extent aware of their impact. Most of them can estimate their environmental and social impacts at least to some extent, with 53% fully or to a large extent. Almost half of the SMEs surveyed are currently introducing more sustainable products to the European market frequently (24%) or almost always (21%). In terms of innovation activities, they are more frequently engaged in sustainable product innovation compared to regular product renovation. The SMEs surveyed are less frequently engaged in innovation concerning circularity, and to a lesser extent with innovation concerning social aspects and eco-design.

### *Circular business models*

In order to drive the uptake of circular business models, regulation and incentives to incentivise innovation in sustainable products and enable circular business models are valid options, in addition to sufficient access to financing. SMEs are not very familiar with new circular business models. Though, of the new models, they are most familiar with green supply chain management, shorter supply chains and product-service systems where buyers do not necessarily buy a product but rather services associated with the product. SMEs are least familiar with eco-design models and social models (giving model, social mission model, etc.). Of the established circular business models, SMEs are most familiar with recycling/ upcycling, reuse network, industrial symbiosis and customer advice on repairs. Of the established models, SMEs are the least familiar with closed-loop production systems.

### *Economic and reputational incentives for product sustainability*

According to the SMEs surveyed, the economic incentives with the greatest benefit are direct subsidies and other financial incentives (tax exceptions/VAT reductions) linked to products that meet certain sustainability criteria. This is followed by conditions attached to EU financing instruments and state aid; circular innovation vouchers; eco-vouchers; and product standards based on International Organization for Standardization (ISO) guidelines. Particularly, procurement measures (public procurement of innovation, green public procurement, circular public procurement) would have average/limited benefits. Modulated producer responsibility fees are expected to have the least benefits. According to the SME respondents, minimum ratio requirements of sustainable products in total public procurement would have no (29%) or only a moderate (23%) impact on their sales. Eco-labelling based on environmental impact of products and services as well as sustainability labelling based on environmental, social and circularity impact as a reputation incentive are expected to have high benefits. To a lesser extent SME respondents also support facilities for development of circular business models patterns and 'green deals' that combine support for the removal of regulatory barriers and R&D funding. The Product Environmental Footprint (PEF) is seen as having higher benefits than the Organisation Environmental Footprint (OEF). EU Eco-management, audit schemes, sustainability oriented non-financial disclosure requirements are seen to have limited benefits.



### *Digital Product Passport*

Introducing a European Digital Product Passport (EU DPP) is expected to have some environmental, social and economic impacts. The main environmental impacts expected by SME respondents are increasing the amount of products with low greenhouse gas emissions and lowering pollution levels, followed by gradually phasing out the use of environmentally harmful materials in products on the EU market and mitigating biodiversity loss. The main social impact expected is that of increasing consumer empowerment due to greater availability of product information, followed by improving working conditions and reducing environmental crime at a global level. The main economic impact expected is that of an increasing administrative burden due to higher monitoring and reporting obligations, followed by increasing economic returns for EU companies and decoupling of economic growth from environmental impact in the EU.

### *Unsold consumer products*

SME respondents are most likely to handle unsold consumer products by systematically discounting the price until they are sold to a customer or recovering materials from unsold products (or sending them to professional recovery/recycling services) and they are *least likely* to send them to be incinerated or landfilled or return them to suppliers (or manufacturers).

## **SECOND TARGETED SME SURVEY**

A second **targeted SME survey** was held from 20 October to 4 November 2021. This survey built on the first SME survey outlined above, and drew primarily on the knowledge and expertise of organisations representing SMEs (Enterprise Europe Network (EEN) contact points and other SME representative bodies) to gain a better understanding of the potential impact on SMEs of some of the main options examined in the current impact assessment.

Respondents were requested to reply on behalf of the SMEs that they represented, based on their familiarity with SMEs and their business practices.

The targeted survey received 35 replies. Responding organisations indicated they were located in the following EU Member States: Belgium, Denmark, Germany, Spain, Italy, Poland and Portugal.

**Below is a summary of main results of this survey:**

### **A. Sustainability requirements for products**

**Indication that product sustainability requirements (such as relating to *reparability, durability and reusability*) may give rise to some negative impacts for SMEs (such as medium to high administrative or compliance costs) but bring added value over time:**

- 43% believe that the introduction of product sustainability requirements (such product relating to *reparability, durability and reusability*) would have **some negative impacts on SMEs, but that these would likely be offset over time** (e.g. due to reduced material use and expenditure; increased customer loyalty; better access to the market for greener products; reputational benefits etc.);
- 23% said it would have **mostly positive impacts** (for instance the increase in maintenance and repair activities induced by these requirements will specifically favour SMEs, as these are

strongly represented in these activities); and 17% foresaw **more benefits than negative impacts**.

- 9% believed such requirements would result in some negative impacts (e.g. with no added benefits), while no respondent believed such requirements would bring purely negative impacts.
- **Administrative costs:** 31% of respondents suggested such requirements would option entail **medium levels of administrative costs for SMEs** (i.e. 3/5 on a scale of 1 to 5<sup>11</sup>). However, those indicating **high** (i.e. 5/5 on the scale) **or quite high** (i.e. 4/5 on the scale) **administrative costs** were 11% and 29% respectively, making a total of 40%.
- **Compliance costs:** 40% of respondents suggested such requirements would option entail **quite high levels compliance costs for SMEs** (i.e. 4/5 on the scale). 29% suggested medium levels of compliance costs (3/5) while 14% suggested high compliance costs (5/5).

**Indication that minimum recycled content requirements are likely to cause some negative impacts for SMEs (such as medium to high administrative or compliance costs) but bring added value over time:**

- 57% believe that introducing requirements on minimum recycled content in products would have **some negative impacts, but these would likely be offset over time** (e.g. due to reduced material costs etc.).
- 17% foresaw **some negative impacts only**.
- 11% foresaw **more benefits than negative impacts**.
- **Administrative costs:** 40% of respondents indicated that such requirements would entail **medium levels of administrative costs for SMEs** (number 3/5 on a scale of 1 to 5). Those indicating **high** (i.e. 5/5 on the scale) **or quite high** (i.e. 4/5 on the scale) administrative costs were 9% and 26% respectively.
- **Compliance costs:** 34% indicated that such requirements would entail **quite high levels compliance costs for SMEs** (i.e. 4/5 on the scale). 31% suggested medium levels of compliance costs (3/5) while 9% suggested high compliance costs (5/5).

## **B. Information requirements for products**

**Mixed views on likely impact on SMEs of requirements to provide information on the ecological profile of products:** strong indication that though these may cause some negative impacts (such as medium to high administrative or compliance costs) they may bring added value over time; risk nevertheless signalled by some of potential for high negative impact:

- Almost half of respondents (49%) indicate ecological profile information requirements are likely to cause **some negative impacts, but these would likely be absorbed over time and bring added value from a business point of view** for SMEs.
- Approximately a fifth (17%) nevertheless believe that this could entail **very high negative impact, including high additional costs**.
- 11% indicate that this would entail **positive overall impact**.
- 86% of **respondents** indicated that ‘a small number’ of SMEs would currently be able to measure the impact of the products they place on the market using a Life-Cycle Assessment method (such as PEF).

<sup>11</sup> Where 1 indicates low cost and 5 indicates high costs, e.g. over 5% of a company's total administrative or operating costs

**Mixed views on impact of requiring SMEs to provide information on social conditions of production:**

- 20% believe this would lead to **some negative impact, but it would likely be offset over time and bring added value from a business point of view**;
- 17% believe **there would be little or no negative impact involved in complying with these rules (e.g. because such requirements are already being applied)**, while 14% believe this would be **impossible to comply with given the complexity of the supply chain** and another 14% that this would entail **very high negative impact: much effort would be required and there would be little added return from a business point of view**.
- 11% believe it would bring **positive overall impact**.

**Indication that the administrative and compliance costs associated with the above-mentioned information requirements would be would be medium to high for SMEs:**

- **Administrative costs:** 31% of respondents indicated that such requirements would entail **medium levels of administrative costs for SMEs** (number 3/5 on a scale of 1 to 5). Those indicating **high** (i.e. 5/5 on the scale) **or quite high** (i.e. 4/5 on the scale) administrative costs were 20% and 23% respectively, together outweighing the medium response category.
- **Compliance costs:** 37% indicated that such requirements would entail **medium levels of compliance costs for SMEs** (i.e. 3/5 on the scale). Those indicating **high** (i.e. 5/5 on the scale) **or quite high** (i.e. 4/5 on the scale) compliance costs were 20% and 23% respectively, together outweighing the medium response category.

### **C. Digital Product Passport**

The following three **impacts** on SMEs were deemed most likely to result from the introduction of a digital product passport:

1. Promote **greater transparency** along the supply chain
2. **Encourage consumers** to opt for more sustainable products
3. Better **knowledge of own product supply chain**

In close fourth place was the response: ‘**Generate additional IT costs/administrative costs to access the market**’.

### **D. Incentives for sustainable products**

**Indication that mandatory Green Public Procurement criteria may bring positive benefits for SMEs:**

- 40% believe that mandatorily GPP would **bring positive impact for SMEs, as it would help boost demand for SME products**. 26% indicated that this could potentially bring benefits for SME products, but this cannot be guaranteed.
- 9% see **potentially negative impact**, as SME products would be less likely to be procured by public authorities; 6% foresee **neutral or very little overall impact**.

**Indication that linking incentives to classes of product performance may bring positive benefits for SMEs:**

- 37% indicated that linking incentives in this way **may bring potential benefits for SME products, but this cannot be guaranteed**, while 34% believe it would bring **positive impact by helping to boost demand for some SME products and incentivise sustainable product innovation**.
- 11% foresee **neutral or very little overall impact** while 9% see **potentially negative impact**, as SME products would be less likely to benefit from these schemes and would therefore be purchased less.

**Mixed to poor indication that modulation of EPR fees according to classes of performance would be of benefit for SMEs:**

- 34% indicated that such a measure could **potentially have positive impacts on SMEs but this cannot be guaranteed**.
- Closely behind this, however, 29% indicated that it would have a **negative impact, as SMEs would be less likely to benefit from such fee modulation and would therefore miss out**.
- 17% foresaw a **purely positive impact** from this measure for SMEs.

#### **E. Measures for circular economy and value retention**

**Suggestion that an EU-wide ban on destruction of unsold durable goods may have a positive overall impact on some SME business models, while others many remain largely unaffected by such a ban. Risk nevertheless signalled that some SMEs may experience negative effects due to the need to find alternative options for these goods:**

- 37% indicated that such a measure would have **positive impact** on SMEs, as it could help foster new business models and approaches. 29% indicated there would be **neutral or no impact**, as destroying unsold durable goods is not a widespread practice amongst SMEs.
- 20% indicated such a measure could lead to **some negative impact for SMEs**, as other methods of dealing with unsold durable goods would need to be identified, while 6% foresaw a **purely negative impact**, given that for some SMEs, destruction is the only viable option for dealing with unsold durable goods.

#### **F. Market surveillance and enforcement**

**Indication that improved market surveillance and enforcement of product compliance would benefit SMEs:**

- 51% indicated that improved surveillance and enforcement would have a **positive impact on by creating a level playing field** for them.
- 11% foresaw **purely negative impacts for SMEs, as it would imply additional administrative burden** for them, while 14% foresaw **some negative impact** for SMEs.

## ***G. Mitigation measures for SMEs***

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The following three **mitigation measures** were deemed most likely to be of assistance to SMEs in complying with future product sustainability requirements:

1. **Assistance with environmental and carbon footprint calculation/life cycle assessment methods, including PEF** (such as the availability of simplified calculation tools, access to low-cost expertise Life Cycle Assessments, access to software and databases enabling the performance of Life Cycle Assessments, and support through existing funding and financing tools);
2. **Dedicated legal provisions:** such as longer transitional periods for SMEs
3. **Simplified SME procedures:** e.g. for reporting

### **TARGETED STAKEHOLDER SURVEY**

To gather views of expert stakeholders, tailored questionnaires were developed for stakeholder groups particularly relevant for the preparation of SPI. This targeted consultation was open from 20 May 2021 to 9 June 2021 and received 136 responses, of which 35% came from manufacturers/importers<sup>12</sup>, followed by *other*<sup>13</sup>(26%), NGOs (11%), public authorities (10%), waste operators<sup>14</sup> (7%), retailers (6%) and academic/research institutions (5%). Most of the organisations operate at global (43%) or EU (38%) level and most are SMEs (<250 employees) (66%), with the rest being large ( $\geq 250$ ) (33%).

### **Stakeholder comparison**

Across the tailored questionnaires, some aspects overlapped, including sustainable product drivers and hurdles, drivers of unsustainable products, sustainable product requirements, circular business models, Digital Product Passport (DPP), environmental footprint calculation, and existing social impact assessment frameworks.

***Drivers of the sustainable product transition*** - Both manufacturers and retailers agree that the presence of market opportunities and incentives (which enable circular business models and innovation in sustainable products) are key drivers.

***Drivers of unsustainable products*** - NGOs and academia tend to agree that unsustainable products are greatly driven by market-related, legislative as well as consumer behavioural aspects. Financial incentives (i.e. malus schemes, taxation) could be used to phase out unsustainable products.

***Sustainable product transition hurdles*** - Lack of clear, comprehensive and binding legislation and of trustworthy information on working and environmental conditions along the supply chain are all big hurdles for manufacturers, retailers and waste operators. Generating new business opportunities and inadequate enforcement of sustainability requirements are also big challenges for manufacturers.

***Sustainable product requirements*** - Requirements already foreseen in the existing Ecodesign directive are expected to elicit the most effort from manufacturers, though these are expected to

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<sup>12</sup> From now on referred to as “manufacturers”.

<sup>13</sup> Mostly business associations.

<sup>14</sup> And value-retaining and -recovering operators.

provide the highest benefit (via NGOs) and have a large impact on reducing the environmental/social impact of products (via academic/research institutions).

***Circular Business Models*** - The sectors with the highest circularity potential are packaging, plastics, textiles and electronics & ICT. Manufacturers see the greatest potential in recycling and repair, whereas retailers see potential in a larger variety of CBMs, such as product-service systems, repair, recycling, refurbishment and upcycling.

***Digital Product Passport (DPP) information*** - Including *identity information* in DPP would elicit high effort<sup>15</sup> and provide low competitive advantage to manufacturers as well as limited benefits to consumers (via retailers), though it would be beneficial (via NGOs), and have a large impact on reducing the environmental/social impact of products (via academia).

***Technical information*** would elicit medium effort with medium competitive advantage and limited benefits to consumers, but high benefits (via NGOs) and large impact.

***Environmental/social sustainability information*** would elicit high effort and low competitive advantage, some benefits to consumers, high benefits (via NGOs) and have a large/medium impact.

***Information to other players along the lifecycle*** would elicit some effort for certain aspects (i.e. material composition) and provide low competitive advantage and would provide low benefit to consumers.

***Environmental footprint*** - Product Environmental Footprint (PEF) and Organisation Environmental Footprint (OEF) are considered appropriate for setting product performance requirements to some extent for manufacturers, academia and public authorities and to a large extent for NGOs.

***Social impact assessment frameworks*** – NGOs, academia and public authorities suggest social LCAs<sup>16</sup>, due diligence criteria<sup>17</sup>, sustainability certifications<sup>18</sup> and interest groups<sup>19</sup> as existing frameworks to assess social impact of products.

***Legislative overlap*** - Some stakeholders want to ensure there is no overlap between different EU initiatives that are related to product design to reduce administrative burden.

## **Manufacturers/importers**

Manufacturers are greatly involved in sustainable/circular product innovation and roughly half are involved in CBMs. A pan-European facility to support CBMs should provide technical support, advisory services, and financial support. Several manufacturers explained that reverse logistics models and additional mandatory product labelling/information requirements are not very effective and could have negative economic and administrative impacts. On-demand and modular production models on the other hand hold large potential. Some recommend that SPI legislation should be business model neutral by setting sustainability goals while giving manufacturers the flexibility to select business models to fulfil these goals. Quite a few manufacturers also highlighted the

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<sup>15</sup> Mainly developing unique ID number of part assembled would elicit high effort.

<sup>16</sup> UNEP-SETAC-Life Cycle Initiative; UNEP Guidelines for social LCA.

<sup>17</sup> OECD Practical Tool on Environmental Due Diligence in Mineral Supply Chains; min. Do Not Significant Harm criteria.

<sup>18</sup> Fair trade certification or the Cradle to Cradle Platinum level Certification.

<sup>19</sup> Interest Group for Circular and Green Economy (IG-CGE).

importance of assessing positive and negative impacts of circular economy models per sector/product group.

DPP is expected to lead to a reduction of the greenhouse gas emissions of products, though it would have limited social impact and increase administrative burden. At its core, the DPPs should foster the transition to a circular economy by gathering data on reuse, sorting, recycling and new CBMs and consolidate sustainability/socio-economic product information. DPP can also improve harmonisation and reduce regulatory compliance costs. Alternatively, a simple design of DPPs would make administrative costs more feasible. DPP should be applied to imported products to create a level playing field and be based on existing legislation to reduce burden. Several manufacturers think that DPP is more appropriate for B2C and not B2B. There is also concern that DPPs would impact the privacy of sensitive company information. Sector-specific issues with DPP implementation are also highlighted. Additionally, certain sectors express opposition to being included in SPI entirely, including cement, packaging, portable batteries and safes (i.e. vaults).

### **Retailers**

For retailers, the sustainable product transition is expected to enhance cooperation with manufacturers and waste operators, but disproportionately increase administrative burden. Information provided by manufacturers to dealers meant to empower consumers needs to be accessible, understandable, but also comprehensive. Some optional tools for consumer awareness are a *performance scale* including a baseline and comparative tool, combined with a *layered approach* to not overwhelm consumers. New information access solutions are needed for the digital age in various formats and various channels. Additionally, they are of the view that industry-led innovation should be trusted by the European Commission.

### **Value-retaining and -recovering operators and waste operators**

The transition to sustainable products is expected to create new business opportunities in this sector. The main barriers for repair and reuse are low prices of new products and limited availability of spare parts. The transition will mainly impact this sector by enhancing cooperation with manufacturers and increasing business/job opportunities and profitability. Incentives are needed to stimulate further repair and recycling of products. Some examples and best practices are: *minimum mandatory recycled content*, deposit return schemes, penalising/rewarding based on environmental impact of materials, design-for-recycling, standardisation bodies providing guidelines and assessment for new packaging types, VAT reductions, repair bonus/vouchers, and repair pop-ups.

### **NGOs**

According to NGOs, the main problems with sustainability of products are: too much focus on simple indicators instead of more complicated aspects such as marketing and consumer motivations; need more feasible, holistic circular pathways; need to focus on overconsumption; how consumer preferences will translate to circular practises; and lack of combining technology and design innovation. On social aspects, more reliable information and targeted policy is needed.

### **Academic/research institutions**

Academia expects that the transition will have a macroeconomic impact by harmonising the EU internal market and increasing technological development. In terms of a socioeconomic impact, the transition will increase the average lifespan of products on the EU market, increase the level of consumer empowerment and increase consumer access to more sustainable/circular products at a global level.

## **EU and Member States authorities**

GPP mandatory ratios are expected to cause problems for public procurers by the lack of properly trained personnel. Further, effectively enforcing product policies is hindered by high complexity of supply chains as well as high resource needs, insufficient testing budgets and lack of consensus about the need of these types of requirements. Market surveillance and policy enforcement by Member States could be further improved with more fiscal support, an EU-wide central database, clear verification methods and efficient information sharing between Member States. According to public authorities, more attention needs to be given to consumer awareness and needs, as well as developing management measures, limiting hazardous substances and developing clear definitions and robust verification methods for recycled material content calculations.

## **STAKEHOLDER INTERVIEWS**

Stakeholder interviews were conducted with representatives of corporate interests, either with individual companies or with associations representing industrial sectors. Other interviewees included government representatives at Member State or municipal level, academics, and three representatives of civil society organisations (environmental and consumers NGOs). The interviews served to help further interpret the consultation results, discuss particularly complex or controversial issues (e.g. areas of strong disagreement between stakeholders), explore ways in which the options could be refined in order to address key concerns, or other new and emerging developments.

A total of 49 interviews were performed:

- 15 interviews on the priorities and key measures of the SPI;
- 11 interviews on existing initiatives to inspire the Digital Product Passport;
- 12 interviews on Circular Business Models;
- 11 interviews on economic incentives.

## **Priorities and key measures of SPI**

Interviewees provided their views on the areas of measures foreseen in SPI: Scope of the Ecodesign legislation, Extension of sustainability requirements, Information requirements, Economic incentives for sustainable products, Support to Circular Business Models, Stronger application of the Ecodesign framework.

### *Scope of the Ecodesign legislation*

Interviewees tended to be conservative regarding extension of the scope of Ecodesign requirements: the energy-related products and the others are considered to have different features deserving different legislative tools. The priority sectors cited for SPI include electronics, textiles and construction.

### *Extension of sustainability requirements*

Sustainability requirements on products are considered as the most effective means to reduce their environmental impact, because not enough consumers are ready to pay more for sustainability. Corporate interviewees supported a product-specific approach to the requirements placed by SPI. They expressed readiness to comply with additional requirements, provided these are grounded in a robust Impact Assessment and the verification of compliance relies on high-quality testing standards. An expressed fear in the case of more requirements is the loss of competitiveness compared to non-



compliant products, because interviewees consider that Market Surveillance and customs authorities do not ensure sufficient compliance levels of products.

Some existing Ecodesign requirements are considered as difficult to assess upon placement of the product on the market (e.g. availability of spare parts). Some sustainability requirements foreseen in SPI are considered to be too costly to test (e.g. lifetime) or to comply with (e.g. remanufacturing information, recycled content). SMEs may find it challenging to test the durability of products, and may be in a difficult condition if the test fails. The introduction of requirements on recycled content would require investment, and hence time, to set up the relevant infrastructure for the collection, sorting and processing of end-of-life products to satisfy this new demand.

A key concern for NGOs is the cost of sustainable products compared to less sustainable ones, and that of maintenance / repair. There may be a conflict to access recovered products between the players of re-use / remanufacturing and recyclers. Some sustainability requirements can lead to a very deep transformation, even a re-invention for some sectors, which would come to an economic and social cost. Also the cost of verifying the sustainability claims along the value chain may be very high.

The EU skills base for the processing of materials, including secondary raw materials, has diminished in the 1980s and 1990s. This can hinder the deployment of circular solutions. Beyond this, no big shift in skills or jobs is expected, but rather a “greening” of existing occupations. A key issue is the enforceability of the measures foreseen, considering the low resources available in Member States for Market Surveillance and customs, specifically considering the large number of imported products with low sustainability.

#### *Information requirements*

The volume of data collection on the environmental and social sustainability along the value chain is considered to be potentially high, specifically in global, fragmented value chains. There is a strong need for uniform requirements regarding the nature of the data collected, and for robust systems ensuring its veracity. The basis of the system is the unique identifier of the product. There is a huge need for digital product passport to enable companies and consumers to know which materials have been used and how these products could be repaired and maintained.

#### *Economic incentives for sustainable products*

The economic support for sustainable products would need to be restricted to only those products that demonstrate their low environmental impact, along LCA-based methods.

Green Public Procurement would benefit from being mandatory and would benefit from pooling expertise between several administrations, because competence of procurers is still low. Taxation measures would need to consider their distributional impacts. The modulation of VAT and of EPR fees bears on small amounts and has thus limited effect. The current proliferation of labels is seen as reducing their effectiveness.

#### *Support to Circular Business Models*

Greater impact can be expected from large companies converting to CBM, rather than from circular-native start-ups. Product-Service Systems require more capital, and no support is available. They also create more transaction costs. Sensors and Internet of Things are technical enablers. The transmission of skills is also an enabler, provided the business case for CBM is there. The second-hand market is booming already for textile products. The repair café movement has risen fast but remains marginal. However, the price of many new products is often so low that it makes no sense to maintain or repair

them. Maintenance and repair are often hindered by the lack of necessary information. Industrial Symbiosis and re-use / remanufacturing would need to be supported by rules that enable an easier movement of secondary materials and of discarded products.

### *Stronger application of the Ecodesign framework*

The process for defining the current Ecodesign work plan is considered as good but delayed by supposed capacity constraints at the European Commission.

### **Existing experiences to inspire the design of the Digital Product Passport**

The interviews provided an insight into the features of existing initiatives that can be relevant for designing the Digital Product Passport. The recommendations received that were supported by a consensus of interviewees were:

1. A decentralised system would be more applicable to the DPP developed under the SPI than a centralised one;
2. Bringing together and building upon existing initiatives when developing the DPP under the SPI;
3. The DPP needs an international perspective and approach;
4. The DPP should be based on open source, interoperability and ensure access for everybody;
5. Clarify and harmonise the terminology used and standardisation applied.

Other recommendations were provided by specific interviewees:

1. Include social and environmental impacts;
2. Resolve potential resistance beforehand;
3. Confidentiality needs to be considered in the design phase of the DPP already;
4. For the specification of the system, it is crucial to have IT developers and database experts on board;
5. For the long-term implementation, consider to include independent parties to ensure trustworthiness;
6. Regulation should prescribe the data that is mandated in the DPP in order to facilitate its uptake and be clear regarding what is optional.

## **Annex 3: Who is affected and how?**

### **PRACTICAL IMPLICATIONS OF THE INITIATIVE**

The vast majority of impacts of the preferred option would materialise through the adoption of SPI measures for specific products or product groups, setting out concrete requirements and obligations for economic actors. At this point in time, it is only possible to give a rough idea about the nature of the costs and benefits and it has to be kept in mind that these are dependent on concrete elements and modalities still to be decided in the future at the level of SPI measures (which will be accompanied by separate impact assessments, and preceded by inclusive consultation processes). Moreover, the longer the timeframe, the bigger the uncertainties in any assessment. It is therefore not possible to provide a fully meaningful quantitative assessment of impacts, as even the sign of the impacts (increase + or decrease -) is in many cases not possible to predict.

Having said that, this annex tries to provide an overview of the main consequences for different types of stakeholders that are likely to stem from the preferred option.

The extension of the product scope of the Ecodesign framework (option 2) and of the sustainability requirements (option 3) beyond energy use together with the introduction of the digital product passport (option 4) will imply additional administrative burdens and compliance costs for economic actors involved in the production and selling of products covered by SPI measures. Where harmonised requirements at EU level replace several existing or planned national requirements, however, this could result in an overall reduction of compliance costs. More sustainable product design will also require an increase in product R&D costs. However, it is likely that most of the costs will be passed on to consumers, who are likely to face somewhat higher prices for those goods when purchased as new, but who are also likely to benefit from those goods having for instance increased durability and higher resale value. Moreover, enhanced circularity will not only imply additional business for repairers, second-hand resellers etc. many of which are SMEs. It also offers consumers better access to second-hand products of high quality, which are expected to be cheaper than new ones. It is expected that enhanced circularity of products and increased implementation of circular business models will also – all else being equal – lead to a reduction in the demand for primary materials and for new products. Finally, enhanced recyclability of products, as well as possible future minimum requirements on recycled content in products, will offer additional business opportunities for the recycling sector. There is likely to be net economic benefits overall at a global level but it is clear that there will be winners and losers from individual SPI measures; if any individual SPI measure has net economic costs then it will only go ahead if justified on the basis of its environmental impacts.

For administrations, it implies the need for additional resources. The Commission will need additional human and financial resources to deliver the SPI measures envisaged and for the complementary EU level implementation and enforcement support capacities (option 7). Similarly, Member States authorities will require additional resources for market surveillance and customs enforcement while profiting from the EU level support capacities. Establishing linkages between classes of performances and economic incentives (option 5) and the promotion of circular business models (option 6) will also require some additional resources, including for monitoring uptake.

Extending the scope and sustainability requirements for new products will lead to environmental and social benefits (e.g., in terms of health and safety but also in terms of employment conditions), not only in the EU but also in third countries. Workers in the supply chains will have to acquire new skills. Employment effects are overall uncertain, except for primary resource production, where – ceteris paribus – a reduction in demand would be expected to entail a reduction in employment. On the opposite, additional employment could arise for recyclers of raw materials and repairers, as well

as for third party verifiers and certification providers. The new product requirements may encourage existing businesses to switch to or develop new revenue streams and avenue of business<sup>20</sup>.

As regards impact on third countries, the preferred option will introduce requirements that are not more trade restrictive than necessary, to be applied in a non-discriminatory manner to European and non-European producers. Likewise, European producers would not be disadvantaged in their ability to function inside or outside Europe. In line with current EU international cooperation, the EU will provide continuous support to developing and least developed countries for the green transition. In particular, efforts will be made to mitigate possible adverse effects (via technology transfer and capacity building). Moreover, the measures of the revised Ecodesign legislation will be developed in a transparent manner and third countries and trading partner will be fully informed in the process.

At this stage, there are no obvious administrative costs generated for businesses and citizens that need to be considered as part of the Commission's 'one in, one out' programme. The initial administrative costs are limited to public authorities, and so are outside the scope of the exercise. Where administrative costs are identified below, these will follow from the implementing measures and so be analysed and reported (including offsetting) in the accompanying impact assessments carried out in line with the European Commission's Better Regulation Guidelines.

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<sup>20</sup> Some businesses in France (Darty and FNAC) have started investing in the repair sector to generate additional revenue

Table 13 Summary of costs and benefits

<i>I. Overview of direct and indirect Benefits and estimated costs (total for all provisions) – Preferred Option vs BAU</i>			
	<i>Businesses</i>	<i>National Authorities</i>	<i>Citizens and Consumers</i>
<b>Option 2b</b>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>To the extent that the scope extension replaces national laws (or prevents their emergence) with harmonised EU requirements, this would facilitate compliance and reduce costs for producers selling across the EU.</li> </ul> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>Signalling function to businesses, “green” image etc.</li> <li>Savings along the value chain</li> </ul> <p><b>Costs:</b></p> <ul style="list-style-type: none"> <li>For producers of the products/product groups newly coming under the scope, there will be additional compliance costs for products falling under future SPI measures. The additional costs of another 30 SPI measures could be in a range of 30 to 60 billion Euros per annum when fully incurred</li> </ul>	<p><b>Direct benefits:</b> n.a.</p> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>Potentially, additional tax income from increased European market activity</li> </ul> <p><b>Costs:</b></p> <ul style="list-style-type: none"> <li>Need for additional staff. All Member States highlighted the issue of understaffing (especially in federal countries) that might imply an even larger number of additional FTEs needed. The costs for preparing additional SPI measures of around additional costs of around EUR 25 million per annum (costs spread across business and national authorities).</li> </ul>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>Possibility for sustainable choices for a range of products beyond energy-using products</li> </ul> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>Reduction of yearly electricity consumption</li> <li>Reduction of yearly emissions of relevant substances leading to positive health effects.</li> <li>Benefits are likely to be larger than the 30 to 60 billion Euros of costs per annum for businesses.</li> </ul>

<p><b>Option 3b</b></p>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• Improvement of the level playing field between companies in Europe.</li> <li>• In all manufacturing sectors: a shift in activity from production towards maintenance and more sustainable design leading to material savings</li> <li>• Availability of high-quality recycled materials</li> <li>• For recyclers: growth in the market of recycled materials and of their quality</li> <li>• Growth in the sector of repair services, refurbishment, and remanufacturing and thus jobs in these sectors, in particular social and solidarity economy organisations and SMEs</li> <li>• Positive impacts on innovation</li> </ul> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>• Better image of the manufacturing sector as contributing to the resolution of major environmental challenges, with benefits on attracting young, qualified talent</li> </ul> <p><b>Costs:</b></p> <ul style="list-style-type: none"> <li>• The three top cost drivers are the minimum requirements on recycled content on the product or components, imposing minimum requirements on remanufacturability and minimum requirements to reduce carbon and environmental footprints and imposing</li> </ul>	<p><b>Direct benefits:</b> n.a.</p> <p><b>Indirect benefits:</b>n.a.</p> <p><b>Costs:</b></p> <ul style="list-style-type: none"> <li>• Compliance and enforcement of effective bans of products (Measure 3c.2) would imply the highest additional costs (significantly more than 2 FTEs). The complexity of enforcement and high costs related to it might be correlated to a low level of compliance from industries.</li> </ul>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• Availability of more durable products, of better quality</li> <li>• Lower priced refurbished goods</li> <li>• Improved working conditions across the value chains</li> <li>• Higher probability of avoiding the catastrophic consequences of the planetary system crossing tipping points to irreversible evolution towards environmental conditions unsuitable for human civilisation or human life.</li> <li>• Health and environmental benefits because of reduction in pollution. Reduced GHG emissions of around 117 Mt CO<sub>2</sub>e, with a monetary value of around EUR 12 billion per annum. In addition, reduction of 6% of EU particulate matter and 3% of EU resource depletion.</li> </ul> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>• Avoiding early failure of products prevents their early replacement and therefore reduces environmental impacts related to the production, transport, and disposal of new products.</li> </ul>
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	<p>minimum requirements on recycled content on the product or components.</p> <ul style="list-style-type: none"> <li>• More specifically costs would additionally be driven by the need to increase testing capacities (investment in test equipment and space), the adaptation of production technology and (extensive) LCA to be performed for each type of product (time intensive). Verification costs of incoming raw materials would also significantly increase (according to two industry associations from the home appliance sector).</li> <li>• Overall industry associations estimate that more staff will be needed in the field of testing, quality management, warehouse management and marketing.</li> <li>• Decreasing activity for mining and quarrying sector</li> </ul>		
<p><b>Option 4b</b></p>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• A long list of economic operators benefits from the information made available (maintainers, repairers, refurbishers, re-manufacturers, recyclers, logistics companies, retailers including on-line sellers, 2nd-hand retailers).</li> <li>• Increased efficiency (and hence lower costs and higher quality) of maintenance, repair and recycling</li> <li>• Market likely to reward good performers</li> </ul>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• Increased efficiency of Market Surveillance and customs authorities</li> </ul> <p><b>Indirect benefits:</b> n.a.</p> <p><b>Costs:</b></p> <ul style="list-style-type: none"> <li>• Implementation and enforcement costs for the digital passport. In particular, costs and complexity of verifying social requirements.</li> <li>• The costs for the Commission to set up the European Digital Product Passport are</li> </ul>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• Reduced asymmetry of information helps making better informed choices</li> <li>• Availability of longer-life products, of better quality</li> </ul> <p><b>Indirect benefits:</b> n.a.</p>

	<p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>• Possible front-runner position in the transition of manufacturing towards sustainability</li> <li>• Possible EU leadership in the development of IT solutions for the secure end-to-end communication of industrial data along the value chain and the product lifecycle, as a foundational stone of Industrial Internet of Things, in the framework of the European Data Space for Smart Circular Applications (EDSCA)</li> </ul> <p><b>Costs:</b></p> <ul style="list-style-type: none"> <li>• According to industry associations the two top cost drivers are the costs related to information requirements on a set of social indicators and Information requirements in the form of a Digital Product Passport.</li> <li>• Industry associations foresee upgraded IT systems to be put in place with an increase in testing staffing and personnel to keep data up-to-date and run the system. Some associations also fear unfair competition from non-complying (cheating) companies (false declaration).</li> <li>• Only one industry association declared that the SCIP Database implies high OPEX and administrative costs. All others agreed that this would not lead to significant costs as their sectors already</li> </ul>	<p>estimated at around EUR 8 million as one-off investment and at least EUR 1 million as annual maintenance cost. The costs for business will depend on the SPI measures and the lessons from first experiences (which will act as a form of piloting).</p>	
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	show a high readiness level.		
<b>Option 5b</b>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• Increased demand for sustainable products, including recycled / sustainable substitutes</li> <li>• Reduction of waste and increased availability of recycled material and of their quality</li> <li>• Improved information in terms of environmental impact of products and improvement of the level playing field between companies in Europe through classes of performance</li> <li>• Greater accessibility of repair services and growth in the sector of repair services</li> <li>• Competitive advantage for companies providing sustainable products</li> <li>• Increased research and development activities to develop sustainable products / services leading to innovative products and production processes</li> </ul> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>• Competitive advantage through operational performance improvement and better reputation</li> </ul> <p><b>Costs:</b></p> <ul style="list-style-type: none"> <li>• The main costs drivers are the investments required to comply with classes of performance. According to industry associations EPR schemes do</li> </ul>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• Savings resulting from green public procurement</li> <li>• Increased efficiency of Market Surveillance and customs authorities</li> <li>• Job creation</li> </ul> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>• Skills development in relation to product life-cycle analysis</li> <li>• Potential fiscal revenues</li> </ul> <p><b>Costs:</b></p> <ul style="list-style-type: none"> <li>• According to Member State Representatives, the most important cost driver is the compliance with the new Ecodesign framework: it implies the recruitment of more than 5 FTEs.</li> </ul>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• Increased number of collection points for specific products (e.g. batteries), easing the collection and recycling processes</li> <li>• Improved consumer satisfaction</li> <li>• Increased environmental awareness</li> <li>• Improved information in terms of environmental impact of products and services</li> <li>• Greater affordability of sustainable products in the medium term</li> <li>• Improved working conditions</li> </ul> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>• New employment opportunities (e.g. recycling)</li> <li>• Improved safety, as labels often include requirements regarding chemicals and other hazardous products</li> <li>• Reduction in packaging waste</li> </ul>

	<p>not seem to significantly impact businesses.</p> <ul style="list-style-type: none"> <li>• Increase in staffing will mostly result from the need to document the amounts of recycled materials in products.</li> </ul>		
<b>Option 6b</b>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• New business opportunities for companies in terms of products or services provided, but also of partnerships</li> <li>• Competitive advantage through operational performance improvement and better reputation</li> </ul> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>• Greater B2B confidence</li> <li>• Savings from evolution of production and stock management practices</li> </ul> <p><b>Costs:</b></p> <ul style="list-style-type: none"> <li>• The main cost drivers according to industry associations are the ones related to the ban of the destruction of unsold/returned goods.</li> </ul>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• Reduction of the waste collection and management costs of unsold goods</li> </ul> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>• EU funding instruments being used for sustainable / circular projects developing local economies</li> </ul> <p><b>Costs:</b></p> <p>At the MS level monitoring and enforcement cost on compliance with the ban on destruction of unsold goods.</p>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• Reduced environmental impact for goods and services by considering the whole life cycle</li> <li>• Increased accessibility of second-hand and donated products</li> </ul> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>• Greater B2C confidence</li> <li>• New employment opportunities (e.g. reverse logistics; repair; reuse; recycling, etc.)</li> </ul>
<b>Option 7c</b>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• Streamlining processes can save time, make interactions in process more efficient</li> <li>• Provides opportunity for niche firms focused on sustainability</li> </ul>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• Improved information and data sharing improves understanding of products and markets and MSA activities and possibly customs enforcement</li> </ul>	<p><b>Direct benefits:</b></p> <ul style="list-style-type: none"> <li>• New routes to signal non-compliance</li> <li>• Consumer savings through shorter lead times and through reduction of non-compliance could be 11.5 billion Euros per annum.</li> </ul>

	<p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>• Improvements to process, faster adoption, better coherence, standardisation, facilitate compliance for firms.</li> <li>• Better MSA coordination creates more level playing field.</li> <li>• Measures position manufacturers as 'high-quality / green' producers in global markets.</li> </ul> <p><b>Costs:</b></p> <ul style="list-style-type: none"> <li>• Two measures imply high costs increase according to industry associations: the collection of data regarding regulated products sales and usage and the provisions related to third party certification</li> <li>• More specifically, costs would be driven by data management IT systems to be put in place and a need to increase staffing to keep the data up-to-date and run the system. Third party certification would imply outsourcing costs of tasks, which are currently performed in-house (as well as managing the contacts with third parties).</li> </ul>	<ul style="list-style-type: none"> <li>• Better trained staff at MSA and national authorities, and clearer understanding of performance (benchmarked)</li> <li>• Support from EC on application of Ecodesign legislation and market surveillance</li> <li>• Support with product testing</li> </ul> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>• In the case of centralised EC-level testing, possible MS level cost-savings</li> <li>• Common training, task sharing, 3rd party support to MSA, could all improve compliance, potentially save costs</li> </ul> <p><b>Costs:</b></p> <p>Strengthening of enforcement through market surveillance and customs controls requires 210 FTEs of staff in the EU 27, with an administrative costs of around EUR 10.5 million per annum</p>	<ul style="list-style-type: none"> <li>• Reduced GHG emissions of around 22 Mt CO<sub>2</sub>e, with a monetary value of around EUR 2.2 billion per annum.”</li> </ul> <p><b>Indirect benefits:</b></p> <ul style="list-style-type: none"> <li>• Improved market surveillance reduces 'bad' products on market, increases benefits to consumers</li> </ul>
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*Note: Qualitative information on benefits is collected from literature review, desk research and interviews with industry associations and Member State representatives.*

*The identification of cost drivers and required number of additional FTE for businesses and administrations have been performed through consultations and surveys of industry associations and member state representatives.*

## Annex 4: Analytical methods

Due to the breadth of the Sustainable Product Initiative, the Impact Assessment is not based on a uniform methodology but a variety of qualitative and quantitative approaches. Most Policy Options likely induce a multitude of effects on businesses, consumers and public bodies, which cannot be fully quantified at the EU level. The assumptions and methods used for the assessment of these impacts are described in the respective sections in Annex 10.

### *Overall assessment of proportionality*

The analysis was designed to be proportionate to the impacts that will result (economic, environmental and social) and the nature of the proposal. In relation to the second issue, the SPI whilst a legal proposal does not lead to binding requirements for different product groups. Instead, these binding requirements will follow after a deepening of the analysis (in line with the Commission's Better Regulation Guidelines and applying the methodology set out in Annex 16). As such, this analysis is considered proportionate for this stage in the process, and includes a commitment to deepen it for the SPI measures through more detailed impact assessment work.

### *The methodological framework including data triangulation*

This section outlines the methodological framework for the determination of the economic, environmental and social characteristics of the product groups to be covered by the SPI. This framework is also used to quantitatively estimate the environmental impacts of Policy Option 2, which consists of an extension of the product scope of the Ecodesign legislation and thus derives its environmental improvement potential from an increased coverage of products and their respective environmental characteristics. This framework needs to be based on a coherent assessment methodology covering all relevant environmental indicators, which allows for comparability between different sub-options. In principle, two different methodological approaches are available for this purpose. On the one hand, impacts can be determined in detailed analyses (of individual products, processes, policy measures etc.) and subsequently aggregated to a more general level. This corresponds to a so-called "bottom-up" approach, which is characterised by high accuracy, but remains partially incomplete due to the high data requirements when a multitude of products and measures is to be covered and the results are to be applied to larger systems. On the other hand, a so-called "top-down" approach can be used, which starts from a larger system and assumes general relationships between the system components. This approach often has lower accuracy due to its aggregate nature, but can be considered complete and its individual results are comparable because they are based on a systems perspective (Rivers and Jaccard 2006<sup>21</sup>; Wilson and Swisher 1993<sup>22</sup>). These approaches are increasingly used in combination as so-called "hybrid" approaches in order to make use of the respective strengths for specific research questions (cf. Lutter et al. 2016<sup>23</sup>; Sala et al. 2019<sup>24</sup>).

For the estimation of the environmental impacts of Policy Option 2, a top-down approach is chosen based on Environmentally Extended Multi-Regional Input-Output (EE-MRIO) Analysis,

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<sup>21</sup> Rivers, N.; Jaccard, M. (2006): Useful models for simulating policies to induce technological change. In *Energy Policy* 34 (15), pp. 2038–2047.

<sup>22</sup> Wilson, D.; Swisher, J. (1993): Exploring the gap: top-down versus bottom-up analyses of the cost of mitigating global warming. In *Energy Policy* 21 (3), pp. 249–263.

<sup>23</sup> Lutter, S.; Pfister, S.; Giljum, S.; Wieland, H.; Mutel, C. (2016): Spatially explicit assessment of water embodied in European trade. A product-level multi-regional input-output analysis. In *Global Environmental Change* 38, pp. 171–182.

<sup>24</sup> Sala, S.; Benini, L.; Beylot, A.; Castellani, V.; Cerutti, A.; Corrado, S. et al. (2019): Consumption and consumer footprint. Methodology and results : indicators and assessment of the environmental impact of European consumption. Luxembourg: Publications Office of the European Union (JRC technical reports).

which is complemented by select bottom-up information. EE-MRIO tables provide information on the interconnection between economic sectors and the products they produce, the environmental and social effects associated with that production and final demand in a given geographical region. They are based on a comprehensive theoretical and empirical framework, which ensures compatibility with established systems of national economic and environmental accounting (Tukker et al. 2006<sup>25</sup>; Schaffartzik et al. 2014<sup>26</sup>). Among the available EE-MRIO databases, EXIOBASE (cf. Stadler et al. 2018<sup>27</sup>) is especially well suited for the analysis of environmental, economic and – to some degree – social impacts due to its comparatively high sectoral resolution and detailed environmental extensions. The current version of EXIOBASE (v.3.8.1)<sup>28</sup> is based on detailed economic and environmental accounts at an aggregation level of 200 products (from 163 industries), 44 countries and 5 world regions. The environmental extensions cover over 400 categories of emissions, 20 categories of land use, over 200 categories of raw material extraction and energy use, and over 100 categories of water consumption. The original EXIOBASE 3 data series ends in 2011, but newer EE-MRIO tables have been estimated with the help of mainly macroeconomic and trade data. The end years of real data points of the environmental extensions are: 2015 energy, 2019 all GHGs (non-fuel, non-CO<sub>2</sub> are nowcasted from 2018), 2013 raw materials, 2011 most others, including land and water. Based on these end years, it was decided to use the 2015 product by product version of the data series, since it contains enough new data points to reflect structural change but does not rely too heavily on extrapolations. EE-MRIO databases generally have time lags because they require compilation from various sources and subsequent extensive harmonisation.

The EE-MRIO-based methodology can thus be used in a first instance to characterise different product groups with respect to their environmental, economic and – to some degree – social dimensions. In addition to the environmental dimension, the economic dimension can be expressed through various indicators, such as final demand, gross output and trade. The social dimension is so far only portrayed in EXIOBASE through employment, which is differentiated by gender and three different skill levels, as well as vulnerable employment.<sup>29</sup> The potential environmental impacts of Policy Option 2 are closely related to the environmental characteristics of the products that are covered by it. As will be seen further below, the information of the environmental characteristics of products can thus be directly used to determine the potential environmental impacts of Policy Option 2. This is not the case for economic and social impacts since they do not necessarily relate to the economic or social characteristics of the respective product groups.

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<sup>25</sup> Tukker, A.; Huppes, G.; Guinée, J.B.; Heijungs, R.; Koning, A.; Oers, L. et al. (2006): Environmental Impacts of Products (EIPRO). Analysis of the life cycle environmental impacts related to the final consumption of the EU-25. European Commission, Joint Research Centre, Institute for Prospective Technological Studies and European Science and Technology Observatory (Technical Report Series, EUR 22284 EN). Available online at [http://ec.europa.eu/environment/ipp/pdf/eipro\\_report.pdf](http://ec.europa.eu/environment/ipp/pdf/eipro_report.pdf).

<sup>26</sup> Schaffartzik, A.; Eisenmenger, N.; Krausmann, F.; Weisz, H. (2014): Consumption-based Material Flow Accounting. In *Journal of Industrial Ecology* 18 (1), pp. 102–112.

<sup>27</sup> Stadler, K.; Wood, R.; Bulavskaya, T.; Södersten, C.-J.; Simas, M.; Schmidt, S. et al. (2018): EXIOBASE 3. Developing a Time Series of Detailed Environmentally Extended Multi-Regional Input-Output Tables. In *Journal of Industrial Ecology* 45 (3), p. 539.

<sup>28</sup> See <https://zenodo.org/record/4588235#.YKovTJAzZqM> for more information.

<sup>29</sup> According to the definition of the ILO (International Labor Organization): 2013a. Guide to the new Millennium Development Goals Employment indicators: Including the full decent work indicator set. [www.ilo.org/wcmsp5/groups/public/—ed\\_emp/documents/publication/wcms\\_11051](http://www.ilo.org/wcmsp5/groups/public/—ed_emp/documents/publication/wcms_11051)

Table 14 Environmental impact categories of BR Toolbox #64 and correspondence with indicators in EXIOBASE; GWP<sup>100</sup> based on Intergovernmental Panel on Climate Change (IPCC) AR 5<sup>30</sup>

Impact category	Indicator	
Climate change	Greenhouse gas (GHG)	Global warming potential (GWP <sub>100</sub> )
	CO2	1
	CH4	28
	N2O	265
	NOx	1 (AR 5 does not provide single estimate)
	SOx	1 (AR 5 does not provide single estimate)
	SF6	23500
	HFCs	10740
	PFCs	8748
Ozone depletion	-	
Human toxicity, cancer effects	As	
	Cd	
	Cr	
	Ni	
	PCB	
	PAH	
	Benzo(a)pyrene	
	Benzo(b)fluoranthene	
	Benzo(k)fluoranthene	
Indeno(1,2,3-cd)pyrene		
Human toxicity, non-cancer effects	HCB	
	PCDD/F	
	Hg	
	Pb	
Particulate matter/Respiratory inorganics	TSP	
	PM10	
	PM2.5	
Ionising radiation, human health	-	
Ionising radiation, ecosystems	-	
Photochemical ozone formation	CO	
	NOx	
	NMVOC	
Acidification	CO2	
	CH4	
	NOx	
	SOx	
	NH3	
Eutrophication, terrestrial	N	
	NOx	
	NH3	
	P	
	Pxx	
Eutrophication, aquatic	N	

<sup>30</sup> [https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5\\_Chapter08\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf); weighted factors for HFCs and PFCs calculated based on <https://www.epa.gov/ghgreporting/fluorinated-greenhouse-gas-emissions-and-supplies-reported-ghgrp#production>

Impact category	Indicator
	P
	NH3
	NO2
Ecotoxicity (freshwater/terrestrial and marine)	As
	Cd
	Cr
	Ni
	PCB
	PAH
	Benzo(a)pyrene
	Benzo(b)fluoranthene
	Benzo(k)fluoranthene
	Indeno(1,2,3-cd)pyrene
	HCB
	PCDD/F
	Cu
	Hg
	Pb
Zn	
Se	
Land use	Arable land (9 categories)
	Permanent pasture
	Used forest land
	Used other land
	Infrastructure land
Resource depletion, water	Water consumption green (13 categories)
	Water consumption blue (103 categories)
	Water withdrawal blue (78 categories)
Resource depletion, mineral, fossil and renewable	Domestic extraction used, biomass, metallic/non-metallic minerals, fossil (227 categories)
	Unused domestic extraction, biomass, metallic/non-metallic minerals, fossil (223 categories)

The environmental impacts of the Policy Options are calculated using a demand-based perspective, which allocates environmental impacts of a production-consumption system to the different final demand categories per product (i.e. household consumption, government consumption and investment), based on their demand for inputs from preceding production processes, which are accompanied by environmental pressures (Tukker et al. 2006). This approach is thus able to portray the full environmental impacts along the supply chains of products that are finally placed on the EU market in the form of consumption or investment goods and which do not undergo further transformation in production processes (in which value is added).

However, the approach does not allocate environmental impacts during the use phase and after (e.g. for disposal) to the respective products. Instead, use phase impacts, consisting predominantly of energy consumption of relevant products, are accounted for as final demand for energy by households or intermediate demand for energy by firms. Likewise, disposal and recycling of products is accounted for in the form of final or intermediate demand for corresponding services. The energy consumption during the use phase is thus manually re-allocated from final demand of households and firms to the energy-using product groups *computer, electronic and optical products* (no. 26 in the CPA 2.1 classification), *electrical equipment* (27) and *machinery and equipment* (28) based on household energy consumption

statistics from Eurostat<sup>31</sup> and the results from the Ecodesign Impact Accounting (EIA) Status Report 2019.<sup>32</sup> For households, 87% of the environmental impacts of their demand for *electricity, gas, steam and air conditioning* (35 in the CPA 2.1 classification) are thus re-allocated by a share of 98.5% to *electrical equipment* (mainly consisting of household appliances and heating equipment) and by a share of 1.5% to *machinery and equipment* (mainly consisting of other appliances that are less widely used in households). The energy consumption of the energy-using products employed by firms is accounted for as intermediate energy demand of the respective industries (and not of the products themselves). In order to re-allocate energy consumption and the corresponding environmental impacts, the total amount of energy used by the above three product groups is first extracted from the EIA Status Report 2019 and the already re-allocated household energy consumption is subtracted from this value (with approx. 30,000 PJ remaining). Subsequently, scaling factors for the other environmental impact categories according to their distribution of environmental impacts of the *electricity, gas, steam and air conditioning* product group are calculated. The energy consumption of the energy-using product groups together with the scaling factors are then used to subtract energy consumption and related environmental impacts from all other product groups (since energy use in the supply chain is allocated to them through the demand-perspective calculations outlined above). This energy consumption is then re-allocated to the above three energy-using product categories with the following shares, which are also taken from the EIA Status Report 2019: 20% for *computer, electronic and optical products*, 9% for *electrical equipment* and 71% for *machinery and equipment*. Due to a lack of adequate data, this re-allocation is not performed for product-related environmental impacts beyond the use phase.

The above calculations thus yield the life cycle environmental impacts of all product groups up to and including their use phase. Product groups with higher environmental impacts theoretically also contain a higher potential for impact reductions. The IA approach is thus based on the product scope as the main lever of potential impact reductions. In addition to these potentials based on the product scope, the level of sustainability of the products on the EU market (from a production perspective) and the level of sustainability of the use and end-of-life treatment of these products determine their overall environmental impacts. The latter two factors are influenced by the level of ambition and the supposed effectiveness of the various measures within Policy Options 3 to 6. A simple illustration of the approach is provided in Figure 1.

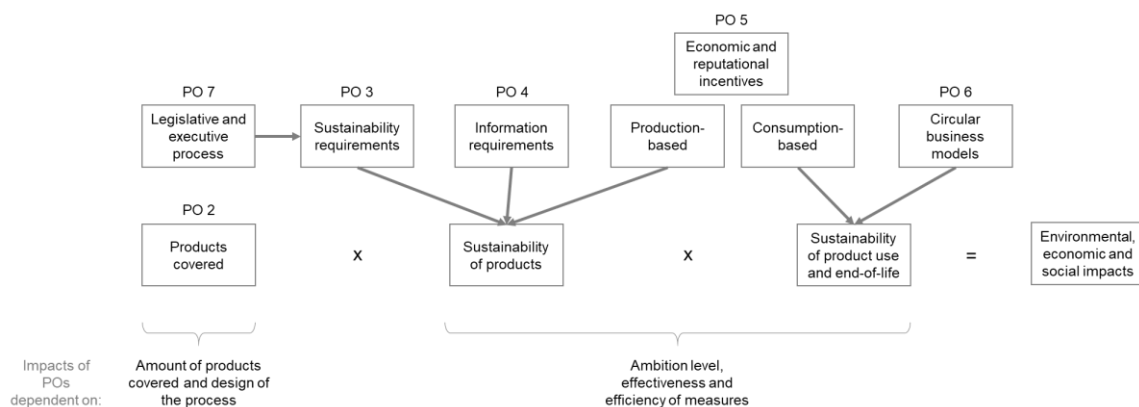


Figure 1 Schematic illustration of the modelling approach

While the potential impacts based on the product scope can be quantitatively determined according to the aforementioned logic, the Policy Options do not contain explicit ambition levels,

<sup>31</sup> [https://ec.europa.eu/eurostat/statistics-explained/images/f/f2/Energy\\_consumption\\_households\\_data2018\\_.xlsx](https://ec.europa.eu/eurostat/statistics-explained/images/f/f2/Energy_consumption_households_data2018_.xlsx)

<sup>32</sup> Ecodesign Impact Accounting Status Report 2019

(<https://www.vhk.nl/downloads/Reports/EIA/EIA%20Status%20Report%202019%20-%20VHK20201028.pdf>)



and the effectiveness of the measures can only be based on isolated evidence. We use a single metric to represent ambition levels and effectiveness of the measures based on best-case scenarios in the literature, which for simplicity, we call improvement potentials. Such broad improvement potentials have so far mainly been quantified for selected impact categories and in selected areas, while only a small number of meta studies provide – albeit qualitative – overviews on improvement potentials across several areas (e.g. Böckin et al. 2020<sup>33</sup>). In addition, different methods are used with different levels of scientific robustness. Due to the complexity of the mechanisms involved and the effects triggered by improvement measures, a mix of methods is often used that combines (partly qualitative) estimates of technical potentials with socio-economic diffusion scenarios and quantitative assessment methods (cf. Le Den et al. 2020<sup>34</sup>). These scenarios are generally not linked to policy options but rather assume that the technical potentials are realised at some point, regardless of the means by which they are realised. The studies are often summarised as circular economy actions, though they often also include product improvements related to, e.g., more efficient production processes or sustainable input materials, without being “circular” in the strictest sense. Studies with this orientation therefore appear suitable for a general quantification of the environmental improvement potentials within the Policy Options. However, most of these studies focus mainly on the GHG reduction potential of circular economy actions. The improvement potential of the other environmental impact categories are for simplicity assumed to be proportional to the GHG reduction potential. The GHG reduction potentials found in the literature are summarised in **Error! Reference source not found.**

Table 15 Maximum improvement potentials for select relevant product groups found in the literature

<b>Generic product category</b>	<b>Product group in CPA 2.1 classification</b>	<b>GHG reduction potential</b>	<b>Source</b>
Communication	26 - Computer, electronic and optical products 61 – Telecommunications services	6%	Circle Economy (2021) <sup>35</sup>
Electrical and electronic equipment	26 - Computer, electronic and optical products 27 - Electrical equipment	50%	Deloitte (2016) <sup>36</sup>
Construction and buildings	41 - Buildings and building construction works 42 - Constructions and construction	32-76%	Deloitte (2016); Circle Economy (2021); Material

<sup>33</sup> Böckin, D.; Willskytt, S.; André, H.; Tillman, A.; Ljunggren Söderman, M. (2020): How product characteristics can guide measures for resource efficiency — A synthesis of assessment studies. In Resources, Conservation and Recycling 154, p. 104582.

<sup>34</sup> Le Den, X.; Porteron, S.; Collin, C.; Horup Sorensen, L. H.; Herbst, A.; Rehfeldt, M. et al. (2020): Quantification methodology for, and analysis of, the decarbonisation benefits of circular economy actions. Final Report. European Environment Agency. Available online at <https://ramboll.com/-/media/files/rm/rapporteur/methodology-and-analysis-of-decarbonization-benefits-of-sectoral-circular-economy-actions-17032020-f.pdf?la=en>.

<sup>35</sup> Circle Economy (2021): The Circularity Gap Report 2021. Available online at <https://drive.google.com/file/d/1MP7EhRU-N8n1S3zpzqlshNWxqFR2hznd/edit>.

<sup>36</sup> Deloitte (2016): Circular economy potential for climate change mitigation. Available online at <https://www2.deloitte.com/content/dam/Deloitte/fi/Documents/risk/Deloitte%20-%20Circular%20economy%20and%20Global%20Warming.pdf>.

Generic product category	Product group in CPA 2.1 classification	GHG reduction potential	Source
	works for civil engineering 43 - Specialised construction works		Economics (2018) <sup>37</sup>
Consumables	13 - Textiles 14 - Wearing apparel 15 - Leather and related products 17 - Paper and paper products 20 - Chemicals and chemical products 22 - Rubber and plastic products 26 - Computer, electronic and optical products 27 - Electrical equipment 31 - Furniture 32 - Other manufactured goods	32%	Circle Economy (2021)

Due to the high degree of uncertainty involved in the quantification, it is advisable to consider a range of possible impacts instead of single values. The values represent the maximum potential in each study for a limited number of product groups. Some of the generic product categories display overlaps in the assigned product groups within the respective studies; e.g. *computer, electronic and optical products* (26) is assigned to *communication, electrical and electronic equipment* and *consumables* by the respective studies. In order to represent the global maximum applicable for the SPI, the higher value is used for the respective product groups in these cases. Additional generic values have to be assumed for the product groups not listed in the above Table to determine an overall plausible range of improvement potentials. For the remaining product groups, 20% is assumed, which appears to be a realistic improvement potential across a wide set of product groups. Based on these considerations, the improvement potential is therefore likely to lie somewhere in between zero (if the measures show no effect) and the maximum values outlined above. The final improvement potentials per product group applied in the Impact Assessment are summarised in Table below. The overall environmental impacts of Policy Option 2 are then the product of the share of environmental impacts covered by the respective product coverage and the respective environmental improvement potential. (See Annex 12 for additional discussion, as this feeds into the potential environmental and economic benefits of SPI.)

Table 16 Maximum improvement potentials applied in the Impact Assessment

CP A 2.1 Code	Description	Improvement potential
1	Products of agriculture, hunting and related services	0.2
2	Products of forestry, logging and related services	0.2
3	Fish and other fishing products; aquaculture products; support services to fishing	0.2

<sup>37</sup> Material Economics (2018): The Circular Economy - a Powerful Force for Climate Mitigation. Available online at [https://materialeconomics.com/material-economics-the-circular-economy.pdf?cms\\_fileid=340952bea9e68d9013461c92fbc23cae](https://materialeconomics.com/material-economics-the-circular-economy.pdf?cms_fileid=340952bea9e68d9013461c92fbc23cae).

5	Coal and lignite	0.2
6	Crude petroleum and natural gas	0.2
7	Metal ores	0.2
8	Other mining and quarrying products	0.2
9	Mining support services	0.2
10	Food products	0.2
11	Beverages	0.2
12	Tobacco products	0.2
13	Textiles	0.32
14	Wearing apparel	0.32
15	Leather and related products	0.32
16	Wood and of products of wood and cork, except furniture; articles of straw and plaiting materials	0.2
17	Paper and paper products	0.32
18	Printing and reproduction services of recorded media	0.2
19	Coke and refined petroleum products	0.2
20	Chemicals and chemical products	0.32
21	Basic pharmaceutical products and pharmaceutical preparations	0.2
22	Rubber and plastic products	0.32
23	Other non-metallic mineral products	0.2
24	Basic metals	0.2
25	Fabricated metal products, except machinery and equipment	0.2
26	Computer, electronic and optical products	0.5
27	Electrical equipment	0.5
28	Machinery and equipment n.e.c.	0.2
29	Motor vehicles, trailers and semi-trailers	0.2
30	Other transport equipment*	0.2
31	Furniture	0.32
32	Other manufactured goods	0.32
33	Repair and installation services of machinery and equipment	0.2
35	Electricity, gas, steam and air conditioning	0.2
36	Natural water; water treatment and supply services	0.2
37	Sewerage services; sewage sludge	0.2
38	Waste collection, treatment and disposal services; materials recovery services	0.2
39	Remediation services and other waste management services	0.2
41	Buildings and building construction works	0.76
42	Constructions and construction works for civil engineering	0.76
43	Specialised construction works	0.76
45	Wholesale and retail trade and repair services of motor vehicles and motorcycles	0.2
46	Wholesale trade services, except of motor vehicles and motorcycles	0.2
47	Retail trade services, except of motor vehicles and motorcycles	0.2
49	Land transport services and transport services via pipelines	0.2
50	Water transport services	0.2
51	Air transport services	0.2

52	Warehousing and support services for transportation	0.2
53	Postal and courier services	0.2
55	Accommodation services	0.2
56	Food and beverage serving services	0.2
58	Publishing services	0.2
59	Motion picture, video and television programme production services, sound recording and music publishing	0.2
60	Programming and broadcasting services	0.2
61	Telecommunications services	0.06
62	Computer programming, consultancy and related services	0.2
63	Information services	0.2
64	Financial services, except insurance and pension funding	0.2
65	Insurance, reinsurance and pension funding services, except compulsory social security	0.2
66	Services auxiliary to financial services and insurance services	0.2
68	Real estate services	0.2
69	Legal and accounting services	0.2
70	Services of head offices; management consulting services	0.2
71	Architectural and engineering services; technical testing and analysis services	0.2
72	Scientific research and development services	0.2
73	Advertising and market research services	0.2
74	Other professional, scientific and technical services	0.2
75	Veterinary services	0.2
77	Rental and leasing services	0.2
78	Employment services	0.2
79	Travel agency, tour operator and other reservation services and related services	0.2
80	Security and investigation services	0.2
81	Services to buildings and landscape	0.2
82	Office administrative, office support and other business support services	0.2
84	Public administration and defence services; compulsory social security services	0.2
85	Education services	0.2
86	Human health services	0.2
87	Residential care services	0.2
88	Social work services without accommodation	0.2
90	Creative, arts and entertainment services	0.2
91	Library, archive, museum and other cultural services	0.2
92	Gambling and betting services	0.2
93	Sporting services and amusement and recreation services	0.2
94	Services furnished by membership organisations	0.2
95	Repair services of computers and personal and household goods	0.2
96	Other personal services	0.2
97	Services of households as employers of domestic personnel	0.2
98	Undifferentiated goods and services produced by private households for own use	0.2
99	Services provided by extraterritorial organisations and bodies	0.2

In relation to the monetisation of greenhouse gas emissions, a cost of carbon is used<sup>38</sup>. Figures underpinning the analysis are below, with the central value used (as most consistent with the climate commitments) and the 2030 value used of 100 EUR per tCO<sub>2</sub>eq. This is clearly an approximation, and no variation is made to reflect the time profile of when emissions will occur.

Table 17 Values in current Euros per tCO<sub>2</sub>eq.

	Low	Central	High
Up to 2030	60	100	189
Post 2030	156	269	498

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<sup>38</sup> [Handbook on the external costs of transport - Publications Office of the EU \(europa.eu\)](#)

## Annex 5: Political Context

This initiative builds on several reports adopted by the European Commission as well as various commitments made.

The **European Green Deal**<sup>39</sup> is the growth strategy to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use. It has set the ambitious objective of ensuring that the EU becomes the first climate neutral continent by 2050. To achieve this, it confirms that the full mobilisation of industry and citizens will be required. As things stand, production processes remain too ‘linear’: they are dependent on a throughput of new materials extracted, traded and processed into goods, and finally disposed of as waste or emissions, with only 12% of the materials used coming from recycling. Since the publication of the European Green Deal, the European Commission has acted to enshrine the EU’s climate goals in law, including via a legislative proposal<sup>40</sup> for the first European Climate Law – which includes a 2030 emissions reduction target of at least 55% as a stepping stone to the 2050 climate neutrality goal – as well as a series of the legislative proposals adopted in July 2021 to implement this new target (‘Fit for 55’ package)<sup>41</sup>. As set out in the Circular Economy Action Plan (see below), scaling up the circular economy from front-runners to mainstream economic players will make a decisive contribution to achieving these goals. This initiative should also be seen in this light.

The European Green Deal has also set energy efficiency as a priority for the decarbonisation of the energy sector and for reaching the climate objectives in 2030 and 2050<sup>42</sup>. This involves further addressing energy use and energy efficiency of energy-related products as ecodesign is currently doing, but also increasingly looking at the embedded energy (or ‘grey energy’), of products in general, i.e. the energy that has been used in the previous phases of their lifecycle.

The European Green Deal also announced the new industrial strategy for Europe and the Circular Economy Action Plan, published alongside one another in March 2020.

The **European Commission’s 2020 industrial strategy for Europe**<sup>43</sup> sets out the EU’s overarching ambition to foster a ‘twin transition’ to climate neutrality and digital leadership. It echoes the European Green Deal in pointing to the leading role that Europe’s industry must play in this, by reducing its carbon and material footprint and embedding circularity across the economy, and underlines the need to move away from traditional models, and revolutionize the way we design, make, use and dispose of products. In May 2021, in response to the COVID-19 crisis, the European Commission published an **update to the Industrial Strategy**<sup>44</sup>, which reinforces the main messages of the 2020 Industrial Strategy by focusing on the ‘green transition’ as one of the central elements through which to monitor and examine each of the 14 industrial ecosystems it identifies, and by underlining the importance of making available low-carbon and sustainable products and technologies in order to support ecosystems’ decarbonisation pathways.

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<sup>39</sup> COM(2019) 640 final

<sup>40</sup> **Error! Hyperlink reference not valid.** REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (‘European Climate Law’)

<sup>41</sup> COM(2021) 550 final

<sup>42</sup> The European Green Deal, COM(2019) 640 final

<sup>43</sup> COM(2020) 102 final

<sup>44</sup> COM(2021) 350 final

The **Circular Economy Action Plan**<sup>45</sup> (CEAP) aims, amongst other aspects, at stimulating the development of lead markets for climate neutral and sustainable **products**, in the EU and beyond. To achieve this, it establishes a ‘sustainable products’ policy framework’, including measures across three broad areas: fostering sustainable product design; empowering consumers and public buyers; and promoting circularity in production processes.

While the three areas of the sustainable products policy framework are synergetic with each other, the current impact assessment focuses primarily on the measures foreseen under the first (‘sustainable product design’), and in particular on the **sustainable product policy legislative initiative** announced by the CEAP in this context. As clarified in the text, this legislative initiative will aim to make products fit for a climate-neutral, resource-efficient and circular economy, reduce waste and ensure that the performance of front-runners in sustainability progressively becomes the norm. As also clarified, the core of this legislative initiative should be a widening of the **Ecodesign Directive** beyond energy-related products, in order to make it applicable to the broadest possible range of products and make it deliver on circularity<sup>46</sup>.

Either as part of this legislative initiative or, where appropriate, through complementary instruments, the CEAP commits the European Commission to setting rules on:

- improving product durability, reusability, upgradability and reparability, addressing the presence of hazardous chemicals in products, and increasing their energy and resource efficiency;
- increasing recycled content in products, while ensuring their performance and safety;
- enabling remanufacturing and high-quality recycling;
- reducing carbon and environmental footprints;
- restricting single-use and countering premature obsolescence;
- introducing a ban on the destruction of unsold durable goods;
- incentivising product-as-a-service or other models where producers keep the ownership of the product or the responsibility for its performance throughout its lifecycle;
- mobilising the potential of digitalisation of product information, including solutions such as digital passports, tagging and watermarks;
- rewarding products based on their different sustainability performance, including by linking high performance levels to incentives.

The policy options set out in the current impact assessment reflect various alternatives for fulfilling the above commitments, and in so doing respond to the **general objective** of reducing the negative life-cycle environmental and social impacts of products and improving the functioning of the internal market.

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<sup>45</sup> COM(2020) 98 final

<sup>46</sup> It should also be noted that the new [EU Strategy on Adaptation to Climate Change](#) calls for improving water efficiency and reuse by raising the requirements for products subject to ecodesign and energy labelling.

This initiative also reflects key ambitions of the proposal for the **8<sup>th</sup> Environmental Action Plan** (EAP) adopted by the European Commission in October 2020<sup>47</sup>. This programme is intended to guide European environmental policy until 2030. It reiterates the commitments made under the 7th EAP<sup>48</sup> (which included a commitment to turn the Union into a resource-efficient, green, and competitive low-carbon economy) and goes further, identifying a number of key priorities for the EU, including **‘advancing towards a regenerative growth model, decoupling economic growth from resource use and environmental degradation, and accelerating the transition to a circular economy’**.

Before the publication of some of the above-mentioned documents, reflection within the European Commission on enhancing product sustainability had begun. The 2019 European Commission Staff Working Document **‘Sustainable Products in a Circular Economy - Towards an EU Product Policy Framework contributing to the Circular Economy’**<sup>49</sup>, found that no overarching, integrated EU policy instrument exists that covers the sustainable production and consumption of all products and/or the availability and reliability of information on these products to consumers. Instead there is a patchwork of tools that, although capable of addressing certain aspects related to product circularity, nevertheless offers space for additional work to be done. The document noted that in certain highly relevant sectors (such as textiles and furniture), no tools to systematically target circularity were in place, and that the success of Ecodesign policies in stimulating circularity for energy-related products has yet to be applied in other relevant sectors.

In addition to the European Commission’s work, both the Council and European Parliament have called for action on policies that support the transition to a circular economy and ensure products placed in the EU market are sustainable (see separate section below).

The European Green Deal also calls for the EU to better monitor, report, prevent and remedy air, water, soil and consumer products pollution. This is translated by the **EU Action Plan “Towards zero pollution for air, water and soil”**<sup>50</sup> and the **Chemicals Strategy for Sustainability**<sup>51</sup> call for embracing the zero pollution goals in production and consumption which means that chemicals, materials and products have to be as safe and sustainable as possible by design and during their life cycle, leading to non-toxic material cycles. The Sustainable Product Initiative will play a crucial role in delivering this ambition. In particular, it will facilitate making zero pollution choices which is one of the flagship initiatives of the Action Plan. *“From 2022 onwards, the Commission will encourage public and private sector operators to make ‘zero pollution pledges’ to promote best available, ‘near-zero waste’ options, and in general products and services proven to be less polluting over their whole life cycle, with a focus on EU Ecolabel products and services, including tourist accommodations and less toxic chemicals and materials. This will provide people with more offers and information on cleaner options.”* Moreover, it will help reduce the EU global pollution footprint and benefit third-country citizens’ health and environment *“by promoting global zero pollution in all relevant international fora and work with the EU Member States and stakeholders to significantly reduce the EU’s external pollution footprint”* and *“by proposing, in line with EU international commitments, to restrict the export of certain products which are no longer allowed in the EU market, and wastes that have harmful environmental impacts in third countries”*.

The Chemicals Strategy for Sustainability calls for minimisation of the presence of substances of concern in products by introducing requirements as part of this Sustainable Product Policy Initiative, and to ensure availability of information on chemical content and safe use, by introducing information

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<sup>47</sup> The 8th EAP is expected to be adopted in 2021, [https://ec.europa.eu/environment/strategy/environment-action-programme-2030\\_en](https://ec.europa.eu/environment/strategy/environment-action-programme-2030_en)

<sup>48</sup> <https://ec.europa.eu/environment/action-programme/#:~:text=The%207th%20Environment%20Action%20Programme%20%28EAP%29%20will%20be,we%20live%20well%20C%20within%20the%20planet%E2%80%99s%20ecological%20limits.>

<sup>49</sup> SWD(2019) 92 final

<sup>50</sup> COM(2021) 400 final

<sup>51</sup> COM(2021) 667



requirements and tracking the presence of substances of concern through the life cycle of materials and products. This SPI will be crucial to deliver on this commitment.

This ties in with wider ambitions at international level, where the EU has also committed to implementation of the **UN 2030 Agenda for Sustainable Development**, including its 17 Sustainable Development Goals (SDGs). A 2021 report<sup>52</sup> found that the EU has recently achieved moderate progress towards **SDG 12**, ‘*Ensure sustainable consumption and production patterns*’ (even if the trends do not yet reflect the impacts of the COVID-19 pandemic and have shown a mixed picture in the period up to 2019). On the positive side, there has been a slight decrease in consumption of toxic chemicals since 2014; the gross value added of the environmental goods and services sector (EGSS) has risen considerably; and some decoupling of environmental impacts from economic growth has taken place (see also Annex 7). However, absolute decoupling has not been achieved for energy or material use; waste generation has been increasing; and average CO<sub>2</sub> emissions from new cars are not falling fast enough to meet targets – all suggesting much work remains to be done.

The SPI has the potential to contribute to the achievement of the following SDG targets:

- 12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment;
- 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse;
- 12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle;
- 12.7: Promote public procurement practices that are sustainable, in accordance with national policies and priorities;
- 12.8: By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

Finally, it should be noted that the EU is Party to the Aarhus Convention<sup>53</sup>. This Convention, together with its Protocol on Pollutant Release and Transfer Registers, is legally binding on its Parties and aims to protect every person’s right to live in an environment adequate to his or her health and well-being. Amongst its provisions, it imposes on Parties specific obligations to ensure access to environmental information. In particular its Article 5 (paragraphs 6, 8 and 9) makes explicit the obligation for Parties to encourage operators to inform the public regularly of the environmental impact of their activities and products, to develop mechanisms to ensure sufficient product information is made available to the public in a manner which enables informed environmental choices, and to take steps to progressively establish systems of pollution inventories/registers – including information on e.g. water, energy and resource use – in a structured, computerized and publicly accessible database compiled through standardized reporting.

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<sup>52</sup> Monitoring report on progress towards the SDGs in an EU context, 2021 edition, <https://ec.europa.eu/eurostat/documents/3217494/12878705/KS-03-21-096-EN-N.pdf/8f9812e6-1aaa-7823-928f-03d8dd74df4f?t=1623741433852>

<sup>53</sup> <https://unece.org/environment-policy/public-participation/aarhus-convention/introduction>

The CEAP emphasises that the EU cannot deliver alone the ambition of the European Green Deal for a climate-neutral, resource-efficient and circular economy. Therefore, SPI will contribute to EU efforts to lead the way to a circular economy at the global level<sup>54</sup>.

### *SPI role in meeting EU environmental objectives, including climate targets*

While efforts at EU level to meet our ambitious climate targets have a justifiably strong focus on reduction of net **greenhouse gas emissions** – e.g. via the recently adopted **Fit for 55 package**<sup>55</sup> – the European Green Deal recognised from the outset that an even more holistic step-change will be needed: that replacing the ‘take-make-use-dispose’ economic model with a circular economy model, in particular when it comes to **products**, will be indispensable. It has been estimated that half of total greenhouse gas emissions, and more than 90% of biodiversity loss and water stress, are coming from resource extraction and processing<sup>56</sup> – activities closely related to product production; another study has estimated that producing the products we use every day is contributing 45% to our total current emissions<sup>57</sup>.

In this context, SPI should be seen as a **key flanking instrument for achieving EU climate goals**: it will synergize with and complement instruments with more direct climate focus by going beyond the production of basic materials/basic material components to cover **final products themselves** (which are outside the scope e.g. of the Fit for 55 measures). This will allow for taking action on negative impacts generated along the entire value chain of a product – not only e.g. direct emissions from products themselves, such as those generated during the use phase, but also less direct impacts, such as the embedded emissions of a product throughout its lifecycle, or other negative consequences (e.g. on resource depletion; land use; ozone depletion etc.). This will directly support Green Deal objectives.

For energy-related products alone, a recent report<sup>58</sup> argues that if the next Ecodesign Working Plan were to be more ambitious, without taking account of the human resources needed to achieve this, it could achieve another 58 Mt CO<sub>2eq</sub>/year of emission cuts by 2030 (which is almost 4% of the total efforts needed to achieve the EU’s 2030 reduction goal), **a further 30 Mt<sup>59</sup> of indirect emission savings could be achieved through resource efficiency provisions** - such as increasing the durability of products, as foreseen under SPI.

By way of illustration: together, throughout their lifetime, the priority products listed under sub-option 2a are estimated to cover an additional 14% of GHG emissions, 38% of human toxicity impacts and 15% of primary energy consumption compared to the baseline (see Annex 10 for more information). If SPI were to be extended to at least these products, including the baseline it would have the total potential to cover 63 % of GHG emissions, 66 % of primary energy use and 60 % of human toxicity impacts resulting from European consumption.

SPI is complementary to the set of measures to fight climate change adopted in the Fit for 55 package in July 2021. Those measures (especially ETS and Carbon Border Adjustment Mechanism) target the production of basic materials and basic material components, excluding final products. This measure, on the contrary, addresses carbon emissions taking place along the entire values chain of final products. Addressing also those emissions will directly contribute to the Green Deal objectives (by

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<sup>54</sup> In line with the Commission Staff Working Document “Leading the way to a global circular economy: state of play and outlook”. SWD(2020) 100

<sup>55</sup> [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_21\\_3541](https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541)

<sup>56</sup> Circular Economy Action Plan

<sup>57</sup> Completing the picture: How the Circular Economy tackles Climate Change, Ellen Macarthur Foundation, 2019, <https://ellenmacarthurfoundation.org/completing-the-picture>; This study included food products in its estimations.

<sup>58</sup> [https://ecostandard.org/wp-content/uploads/2021/09/EEB\\_ECOS-Delays-in-ecodesign-report.pdf](https://ecostandard.org/wp-content/uploads/2021/09/EEB_ECOS-Delays-in-ecodesign-report.pdf)

<sup>59</sup> This is based on the ‘Preparatory study for the Ecodesign and Energy Labelling Working Plan 2020-2024’ which gives a range of 8-46 Mt CO<sub>2</sub> savings in the production phase from durability improvements in energy related products.

applying to final products, currently not in scope of Fit for 55 measures) but will also contribute to the global reduction of climate change impacts, by fostering the environmental optimisation of value chain management through footprint reduction.

## **POSITION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

### **European Parliament report on the New Circular Economy Action Plan, February 2021**

The European Parliament adopted on 16th February 2021 its **report on the New Circular Economy Action Plan**<sup>60</sup> by 574 votes (22 against, and 95 abstentions).

The report endorses the agenda presented by the European Commission in the Circular Economy Action Plan. It considers the transition to a circular economy as the option to address the current environmental challenges and the economic crisis brought by the COVID-19 pandemic.

As regards the CEAP flagship initiatives, they:

- welcome broadening the scope of the Ecodesign Directive, establishing sustainability principles and product requirements to address notably durability, reparability, recycled content, reduction of product and environmental footprint, and support the Digital Product Passport.
- call for strengthening the EU Ecolabel and ensuring synergies with the Sustainable Product Initiative.
- strongly support the regulation of green claims ‘through the establishment of solid and harmonised calculation methods’. They also strongly welcome the planned initiatives to establish a new ‘right to repair’, which should cover at least the extended life cycle of products, access to spare parts and to comprehensive information and to affordable repair services for consumers.

The European Parliament agrees with the key product value chains identified in the action plan. For each of them, the report highlights the most important aspects, which are mostly aligned to those initiatives included in the action plan.

The Parliament places particular emphasis on certain aspects, in some cases going beyond the commitments of the CEAP:

- Targets in the context of the Sustainable Products Initiative: the report asks the European Commission to propose binding material and environmental footprint targets for the whole product lifecycle for each product category placed in the EU market [...] and to propose product-specific binding targets for recycled content [...]

### **European Parliament report ‘Towards a more sustainable single market for business and consumers’, November 2020**

In November 2020, the Parliament adopted its report **Towards a more sustainable single market for businesses and consumers**<sup>61</sup>. This report stressed that a well-functioning single market is a powerful tool for the EU’s green and digital transitions. It called on the European Commission to show strong

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<sup>60</sup> (2020/2077(INI)), [https://www.europarl.europa.eu/doceo/document/A-9-2021-0008\\_EN.html](https://www.europarl.europa.eu/doceo/document/A-9-2021-0008_EN.html)

<sup>61</sup> (2020/2021(INI)), [https://www.europarl.europa.eu/doceo/document/TA-9-2020-0318\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2020-0318_EN.html)

political ambition in upcoming proposals, such as the sustainable product policy initiative, and in this context, stressed that sustainable consumption goes hand in hand with sustainable production and that economic operators should be encouraged to consider the durability of products and services from the design stage. The report sets out a comprehensive set of action points across six sections: 1. Consumer rights and clamping down on planned obsolescence; 2. Facilitating repairs; 3. Global strategy to promote a culture of reuse; 4. A digital strategy for a sustainable market; 5. Changes in approach required from public authorities; and 6. Responsible marketing and advertising.

Amongst other aspects, the report:

- called on the European Commission to explore measures differentiating between categories of products that will improve products' durability, including their estimated lifespan, reusability, upgradability, reparability and recyclability;
- called on the European Commission to tackle planned obsolescence and provide consumers with clear and non-confusing information on the estimated lifespan and reparability of a product, possibly through the introduction of mandatory labelling informing on durability and reparability, such as a repair score;
- called for information on the availability of spare parts, software updates and the reparability of a product to be made available in a clear and easily legible manner at the time of purchase;
- welcomed the European Commission's consideration of binding measures to prevent the destruction of unsold goods;
- stressed the importance of boosting circular economy and sustainable business models to minimise the destruction of goods and promote repair and reuse;
- welcomed the ambition of the European Commission to develop a digital 'product passport' to improve traceability and access to information on the conditions of production of a product, durability, composition, reuse, repair, dismantling possibilities and end-of-life handling, taking into account the proportionality principle and paying special attention to the needs of SMEs, micro-enterprises and the self-employed;
- called on the European Commission to be ambitious in making sustainable criteria in public procurement the default choice.

### **European Parliament resolution of 31 May 2018 on the implementation of the Ecodesign Directive (2009/125/EC)**

In May 2018, the Parliament adopted its resolution **on the implementation of the Ecodesign Directive (2009/125/EC)** by 561 votes (45 against, and 17 abstentions). The resolution acknowledges the Directive as an effective tool to deliver cost-effective savings, welcoming the recent additions on material efficiency while calling for an improvement of market surveillance and reinforcement of the decision making process.

In particular the Parliament, among other things:

- Recommended that the European Commission continue to include more product groups selected on the basis of their Ecodesign potential, including both energy efficiency and material efficiency potential as well as other environmental aspects, using the methodology set out in Article 15 of the directive, and that it keep existing standards up to date, in order to reap the full potential of the directive's scope and objectives;

- Expressed significant concern in the delay of development and adoption of implementing measures, noted that the implementation delays are due in part to the limited resources available within the European Commission and called for the deployment of sufficient resources;
- Considered that the Ecodesign Directive provides significant potential for improving resource efficiency that is still untapped, and that the choice of circular economy criteria for each product group must be well specified and defined in a clear and objective manner, while being easily measurable and achievable at a proportionate cost, in order to ensure that the directive remains implementable;
- Welcomed the commitment to develop requirements and standards for material efficiency, supporting the use of secondary raw materials, and urges the European Commission to complete this work as a matter of priority; considers that such criteria should be product-specific, based on robust analyses, focus on areas with clear improvement potential and be enforceable and verifiable by market surveillance authorities;
- Insisted on the need to strengthen the surveillance of products placed on the internal market through better cooperation and coordination between Member States and between the European Commission and national authorities and through the provision of adequate financial resources to the market surveillance authorities
- Called for a more coherent and cost-effective market surveillance system across the Union to ensure compliance with the Ecodesign Directive

### **European Parliament resolution of 10 July 2020 on the Chemicals Strategy for Sustainability**

In 2020, the European Parliament, in its resolution on the Chemicals Strategy, re-iterated that the issue of products containing legacy substances of concern should be dealt with by means of an efficient tracking and disposal system.

### **Council conclusions on Making the Recovery Circular and Green, December 2020**

The Council (ENV) adopted detailed conclusions<sup>62</sup> on 17th December 2020 endorse the agenda on the circular economy. It highlights some important aspects, in particular:

- instrumental role of the Circular Economy in the economic recovery and a call for including circular economy in the recovery and resilience plans;
- support the focus on sustainable product policy and to expanding the scope of the Ecodesign Directive, as well as the right of repair at reasonable costs, and call for a proposal on digital passport and standards for a dataspace;
- acknowledgement of the role of the environmental footprint methods in the context of the upcoming initiative on green claims and revision of product policy; support to mandatory green public procurement in sectoral legislation;

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<sup>62</sup> [https://www.consilium.europa.eu/media/47583/st\\_13852\\_2020\\_init\\_en-1.pdf](https://www.consilium.europa.eu/media/47583/st_13852_2020_init_en-1.pdf)

- endorsement of the 7 key product value chains identified in the action plan;
- support for the plan to present a Circular Electronics Initiative to prolong the life of electric and electronic devices through Ecodesign and facilitating upgrading and repairs activities;
- general call to advance on European Commission’s efforts to foster the uptake of recycled content in products, of verification methods, and development of secondary raw materials;
- support to stakeholders engagement on circular economy;

Particular emphasis on certain aspects, which the European Commission should take into account in developing legislative proposals and actions:

- account the different starting points and specificities of Member States, and also the situation of islands;
- emphasis on better regulation and need to minimise economic and administrative burden.
- calls to propose without delays further measures to foster stronger demand for recycled materials, develop and promote standards and certification on the content of secondary raw materials;
- need to intensify the discussion on re-use and repair of certain products; of examining the potential of new business models; calls for a reparability scoring system for electronic and electrical equipment; study the feasibility of introducing a regulatory environmental label.

### **Council Conclusions “Sustainable Chemicals Strategy of the Union: Time to Deliver from 2021**

In June 2021, The Council concluded – in the context of the Chemicals Strategy for Sustainability – that “the future Sustainable Products Initiative is crucial to stimulate the production and use of chemicals, materials and products that are safe and sustainable already at the design stage”, and stressed “the importance of clear legal provisions in EU product law and in the Sustainable Products Initiative ensuring that chemicals, materials and products are safe and sustainable by-design”.

## Annex 6: The current Ecodesign framework

### BACKGROUND

Ecodesign plays a key role in the European Union's efforts to achieve its energy efficiency targets.

In the course of the 1990's Council Directives were adopted setting minimum energy efficiency requirements for boilers (1992), refrigerators and freezers (1996) and fluorescent lamp ballasts (2000). These aimed at **avoiding the fragmentation of the internal market** (Member States had initially introduced or expressed the desire to introduce national requirements) and at ensuring that the increased circulation of products on the internal market did not result in a proliferation of cheaper, low-efficiency appliances.

To set a framework for future work, in 2003 the European Commission then proposed the Ecodesign of Energy-Using Products Directive (adopted in July 2005)<sup>63</sup>. The directive allowed for product specific implementing measures adopted in comitology, containing minimum requirements that would remove the worst performing products from the market. The rationale behind this approach was to allow for fast progress in highly technical matters, while maintaining legal soundness and cooperation among the institutions of the EU.

In 2009, the Ecodesign Directive's scope was extended to cover also energy-related products, i.e. products that do not use energy themselves but have an influence on other products' energy use, such as building controls or thermal insulation. Today, the **Ecodesign Framework Directive**<sup>64</sup> sets a framework requiring manufacturers of energy-related products to improve the environmental performance of their products by meeting minimum energy efficiency requirements, as well as other environmental criteria such as water consumption, emission levels, minimum durability of certain components or requirements on reparability (including upgrades), recyclability, ease of reuse and end-of-life treatment before they can place their products on the market. It does so by setting requirements applicable at the moment a product is placed on the market.

Together with the Energy Labelling Regulation, this legislative framework pushes industry to improve the energy efficiency of products and removes the worst-performing ones from the market. It also helps consumers and companies to reduce their energy bills. In the industrial and services sectors, this results in support to competitiveness and innovation. Finally, it ensures that manufacturers and importers responsible for placing products on the European Union (EU) market only have to comply with EU-wide rules, instead of Member State legislation. Some of its main achievements are highlighted below.

This legislative framework benefits from **broad support** from European industries<sup>65</sup>, consumers<sup>66</sup>, environmental non-governmental organisations (NGOs)<sup>67,68</sup> and Member States (MSs), because of its

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<sup>63</sup> Directive 2005/32/EC of the European Parliament and of the Council of 6 July 2005 establishing a framework for the setting of ecodesign requirements for energy-using products and amending Council Directive 92/42/EEC and Directives 96/57/EC and 2000/55/EC of the European Parliament and of the Council. OJ L 2005 191 0029, 22/07.2005

<sup>64</sup> Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products. OJ L 285, 31.10.2009, p. 10 (Ecodesign Framework Directive)

<sup>65</sup> “[...] Our industry organisations, representing the heating, cooling, refrigeration, household appliance, commercial cleaning appliance and lighting sectors, strongly support Ecodesign and Energy Labelling which, for a number of product groups, have proven very successful and contributed to the EU's energy and climate goals by pushing and pulling the market towards more energy efficient products. [...]”, from the joint letter of 6 industry associations on ecodesign [<https://www.applia-europe.eu/topics/121-joint-industry-letter-on-ecodesign>]

<sup>66</sup> “How consumers benefit from ecodesign year after year”, The European Consumer Organisation (BEUC), [https://www.beuc.eu/publications/beuc-x-2016-109-benefits\\_of\\_ecodesign\\_for\\_eu\\_households\\_executive\\_summary.pdf](https://www.beuc.eu/publications/beuc-x-2016-109-benefits_of_ecodesign_for_eu_households_executive_summary.pdf)

<sup>67</sup> “Support Ecodesign and energy labels, NGOs tell Regulatory Scrutiny Board” [<https://www.coolproducts.eu/policy/support-ecodesign-and-energy-labels-ngos-tell-regulatory-scrutiny-board/>]

<sup>68</sup> “Environmental NGOs and repair groups call for a significant increase in resources dedicated to the development of EU Ecodesign and Energy Labelling policies” [<https://www.coolproducts.eu/wp-content/uploads/2021/03/NGO-letter-on-ecodesign-delays.pdf>]

positive effects on innovation, increased information for consumers and lower costs, as well as environmental benefits.

Ecodesign and energy labelling are **recognised globally** as one of the most effective policy tools in the area of energy efficiency. They are central to making Europe more energy efficient, contributing in particular to the ‘Energy Union Framework Strategy’<sup>69</sup>, and to the priority of a ‘Deeper and fairer internal market with a strengthened industrial base’<sup>70</sup>. The 2030 Climate Target Plan<sup>71</sup> notes that EU product efficiency standards have reduced their energy needs by about 15% and cut EU GHG emissions by 7%, while creating many additional jobs.

## PROCESSES AND ROLE OF THE INSTITUTIONS

The Ecodesign Framework Directive establishes conditions for laying down product-specific requirements in regulations adopted by the European Commission. As an alternative to the mandatory ecodesign requirements, voluntary agreements or other self-regulation measures can be presented by the industry<sup>72</sup>.

The Figure below gives an overview of the process:

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<sup>69</sup> Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee, The Committee Of The Regions And The European Investment Bank - A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy. COM/2015/080 final. (Energy Union Framework Strategy)

<sup>70</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Upgrading the Single Market: more opportunities for people and business COM/2015/550 final. 28 October 2015. (Deeper and fairer internal market)

<sup>71</sup> COM(2020) 562 final, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0562>

<sup>72</sup> Article 17, of Directive 2009/125



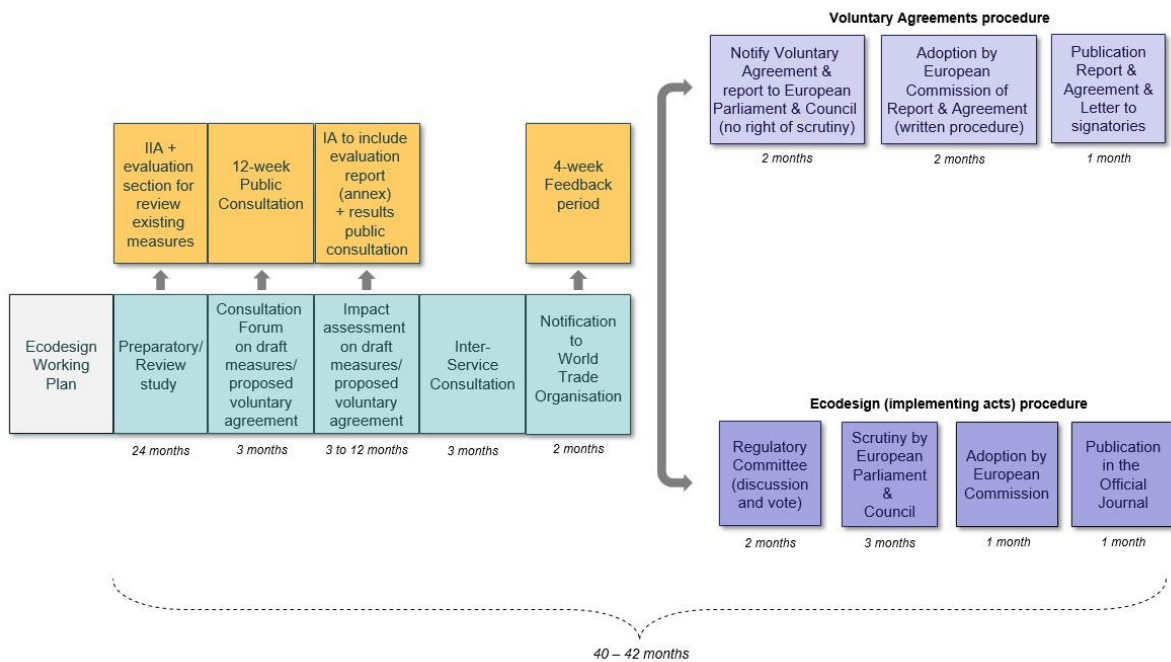


Figure 1 Ecodesign regulatory process

The process starts with establishing the priorities for Union action in this area. Priority product groups are selected based on their potential for cost-effective reduction of their environmental impact and following a fully transparent process culminating in working plans that outline the priorities for the development of implementing measures.

A first list of priority product groups was provided in the former Ecodesign Directive itself (2005/32/EC, Article 16). Subsequently, the (first) Ecodesign Working Plan 2009-2011, the (second) Ecodesign Working Plan 2012-2014 and the Ecodesign Working Plan 2016-2019 were adopted by the European Commission after consultation of the Ecodesign Consultation Forum (consisting of MSs' and other stakeholders' representatives<sup>73</sup>) which has been replaced by the "Ecodesign and Energy Labelling Consultation Forum". The Ecodesign and energy labelling working plan 2020-2024 is under preparation at the moment of drafting this impact assessment.

The products listed in the three plans (1st working plan: 1-10; 2nd working plan: 11-18; 3rd working plan: 19-25) can be found the Table below.

<sup>73</sup> Article 18 of the Ecodesign Directive establishes a Consultation Forum, to ensure "a balanced participation of Member States' representatives and all interested parties concerned with the product or product group in question, such as industry, including SMEs and craft industry, trade unions, traders, retailers, importers, environmental protection groups and consumer organisations."

Table 18 Overview of products listed in the 3 Working plans that have been adopted (1<sup>st</sup> working plan: 1-10; 2<sup>nd</sup> working plan: 11-18; 3<sup>rd</sup> working plan: 19-25)

Working plan	Products
1 <sup>st</sup> working plan	1. Air-conditioning and ventilation systems (commercial and industrial)
	2. Electric and fossil-fuelled heating equipment
	3. Food preparing equipment (including coffee machines)
	4. Industrial and laboratory furnaces and ovens
	5. Machine tools
	6. Network, data processing and data storing equipment
	7. Refrigerating and freezing (professional)
	8. Sound and imaging equipment (incl. game consoles)
	9. Transformers
	10. Water-using equipment
2 <sup>nd</sup> working plan	11. Window products
	12. Steam boilers ( < 50MW)
	13. Power cables
	14. Enterprises' servers, data storage and ancillary equipment
	15. Smart appliances/meters
	16. Lighting systems
	17. Wine storage appliances (c.f. Ecodesign regulation 643/2009)
	18. Water-related products

3 <sup>rd</sup> working plan	19. Building automation control systems
	20. Electric kettles
	21. Hand dryers
	22. Lifts
	23. Solar panels and inverters
	24. Refrigerated containers
	25. High- pressure cleaners

Once the product group has been selected, a preparatory study is undertaken by an independent consultant, also involving extensive technical discussions with interested stakeholders. The preparatory study follows the Methodology for the Ecodesign of Energy-related Products (MEErP), (see section 0 Evaluation

In 2012 the Centre for Strategy and European Studies carried out an evaluation of the Ecodesign Directive. This concluded that in general the operation of the Directive was satisfactory although somewhat early to judge its full effects.

The evaluation did observe that: *“The Commission has not dedicated sufficient resources to play its critical part in the implementing process. In comparison to other regions implementing similar legislative measures the resources dedicated by the Commission are much more limited. The DoE in the US has in the region of 10 times the number of desk officers available in DG ENER and ENTR in the Commission. In China there are about 70 staff and more than 40 product regulations. There is a similar disparity in terms of resources devoted to the necessary studies.”*

With regard to the cost implications of more resources being dedicated to Ecodesign it noted that: *“...costs are a small fraction of the expected savings from the measures adopted...it is undisputable that the Ecodesign policy would be highly cost-effective, if the resources were available to carry through the current programme to completion in a reasonable time frame”*

The evaluation also looked at the possible extension of the Directive to non-energy related products. It concluded that: *“In principle, extension of the Ecodesign Directive to cover non-energy related goods would make available a very important instrument for sustainable growth policy and add another element in a coherent framework for policy implementation. However, if any extension of the Directive is not to be an empty gesture, it is necessary to ensure that implementation and enforcement of legal requirements is feasible, practicable and cost-effective.”*

A consideration of staff resources shows that the level of human resources has not improved since the evaluation while the number of product groups regulated has grown substantially. The resulting pressures have led to considerable delays in the implementation of the 2016 to 2019 working plan. This has led to an assessment by EEB and ECOS. [This concludes that there will be an extra 10MT CO<sub>2</sub> emissions in the period 2020 to 2030 as a result of delays that have occurred in the 2016-19 period. They estimate that a further 58MT CO<sub>2</sub> emissions could be avoided over that period with a better implementation of the next working plan.]

Methodology below). Subsequently, the European Commission's first drafts of Ecodesign measures are submitted for discussion to the Consultation Forum.

At the same time, the European Commission can verify that a potential implementing regulation would respect the criteria listed under Article 15 of the Ecodesign Directive:

*“(a) the product shall represent a significant volume of sales and trade, indicatively more than 200 000 units a year within the Community according to the most recently available figures;*

*(b) the product shall, considering the quantities placed on the market and/or put into service, have a significant environmental impact within the Community, as specified in the Community strategic priorities as set out in Decision No 1600/2002/EC; and*

*(c) the product shall present significant potential for improvement in terms of its environmental impact without entailing excessive costs, taking into account in particular:*

*(i) the absence of other relevant Community legislation or failure of market forces to address the issue properly; and*

*(ii) a wide disparity in the environmental performance of products available on the market with equivalent functionality.”*

After the Consultation Forum, the European Commission drafts an impact assessment, which after approval of the Regulatory Scrutiny Board is taken forward to the inter-service consultation together with draft implementing measures. In this and subsequent steps, the Parliament's functional mailboxes for delegated/implementing measures are copied on each message from the European Commission services. After the inter-service consultation, stakeholders are alerted when the draft measures are published in the World Trade Organization (WTO) notification database.

After the WTO notification phase is completed, the two procedures follow different paths. The draft energy labelling delegated act is discussed in a MS Expert Group where opinion(s) are expressed and consensus is sought but no vote is taken. The draft Ecodesign measure is submitted for vote to the Regulatory Committee of Member States experts.

The European Parliament and Council have the right of scrutiny for which a period of up to four months, if requested, is foreseen. Within this time the co-legislators can block the adoption process by the European Commission. Parliament committees sometimes discuss draft objections to measures (light bulbs and fridges in 2009) or vote to reject a measure (vacuum cleaners in 2013<sup>74</sup>). On one occasion an objection was even adopted in plenary, blocking the measure for televisions in 2009<sup>75</sup>.

Today, 32 Ecodesign Regulations and 2 voluntary agreements are in force. An overview of these measures can be found in Table 19.

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<sup>74</sup> This objection was defeated in ENVI committee by 43 votes against and 4 in favour.

<sup>75</sup> The motivation of the objection was that the European Parliament (EP) wanted to delay the discussion of the draft labelling measure so that it would have to become a delegated act under the recast post-Lisbon Energy Labelling Directive in 2010. The measure was indeed subsequently adopted as a delegated act.

Table 19 Overview of applicable Ecodesign measures

	Ecodesign
Ecodesign framework	Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products
Heaters	<p>Council Directive 92/42/EEC of 21 May 1992 on efficiency requirements for new hot-water boilers fired with liquid or gaseous fuels (only Articles 7(2) and 8 and Annexes III to V)</p> <p>Commission Regulation (EU) No 813/2013 of 2 August 2013 with regard to ecodesign requirements for space heaters and combination heaters</p> <p>Commission Regulation (EU) No 814/2013 of 2 August 2013 with regard to ecodesign requirements for water heaters and hot water storage tanks</p> <p>Commission Regulation (EU) 2015/1185 of 24 April 2015 with regard to ecodesign requirements for solid fuel local space heaters</p> <p>Commission Regulation (EU) 2015/1188 of 28 April 2015 with regard to ecodesign requirements for local space heaters</p> <p>Commission Regulation (EU) 2015/1189 of 28 April 2015 with regard to ecodesign requirements for solid fuel boilers</p> <p>Commission Regulation (EU) 2016/2281 of 30 November 2016 with regard to ecodesign requirements for air heating products, cooling products, high temperature process chillers and fan coil units</p>
Off mode & standby	<p>Commission Regulation (EC) No 1275/2008 of 17 December 2008 with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment</p> <p>Commission Regulation (EU) No 801/2013 of 22 August 2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions</p>
Lighting	<p>From 1 September 2021:</p> <p>Commission Regulation (EU) 2019/2020 of 1 October 2019 laying down ecodesign requirements for light sources and separate control gears</p> <p>Until 31 August 2021:</p> <p>Commission Regulation (EC) No 244/2009 of 18 March 2009 with regard to ecodesign requirements for non-directional household lamps</p> <p>Commission Regulation (EC) No 245/2009 of 18 March 2009 with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps</p> <p>Commission Regulation (EU) No 1194/2012 of 12 December 2012 with regard to ecodesign requirements for directional lamps, light emitting diode lamps and related equipment</p>

Refrigeration	<p>Commission Regulation (EU) 2015/1095 of 5 May 2015 with regard to ecodesign requirements for professional refrigerated storage cabinets, blast cabinets, condensing units and process chillers</p> <p>Commission Regulation (EU) 2019/2019 of 1 October 2019 laying down ecodesign requirements for refrigerating appliances</p> <p>Commission Regulation (EU) 2019/2024 of 1 October 2019 laying down ecodesign requirements for refrigerating appliances with a direct sales function</p>
Washing machines & washer-dryers	Commission Regulation (EU) 2019/2023 of 1 October 2019 laying down ecodesign requirements for household washing machines and household washer-dryers
Motors	<p>From 1 July 2021:</p> <p>Commission Regulation (EU) 2019/1781 of 1 October 2019 laying down ecodesign requirements for electric motors and variable speed drives, amending Regulation (EC) No 641/2009 with regard to ecodesign requirements for glandless standalone circulators and glandless circulators integrated in products</p> <p>Until 30 June 2021:</p> <p>Commission Regulation (EC) No 640/2009 of 22 July 2009 with regard to ecodesign requirements for electric motors</p>
Circulators	<p>Commission Regulation (EC) No 641/2009 of 22 July 2009 with regard to ecodesign requirements for glandless standalone circulators and glandless circulators integrated in products</p> <p>Commission Regulation (EU) No 622/2012 of 11 July 2012 amending Regulation (EC) No 641/2009 with regard to ecodesign requirements for glandless standalone circulators and glandless circulators integrated in products</p> <p>Commission Regulation (EU) 2019/1781 of 1 October 2019 laying down ecodesign requirements for electric motors and variable speed drives, amending Regulation (EC) No 641/2009 with regard to ecodesign requirements for glandless standalone circulators and glandless circulators integrated in products</p>
Water pumps	Commission Regulation (EU) No 547/2012 of 25 June 2012 with regard to ecodesign requirements for water pumps
Tumble driers	Commission Regulation (EU) No 932/2012 of 3 October 2012 with regard to ecodesign requirements for household tumble driers
Computers and servers	<p>Commission Regulation (EU) No 617/2013 of 26 June 2013 with regard to ecodesign requirements for computers and computer servers</p> <p>Commission Regulation (EU) 2019/424 of 15 March 2019 laying down ecodesign requirements for servers and data storage products amending Commission Regulation (EU) No 617/2013</p>
Vacuum cleaners	Commission Regulation (EU) No 666/2013 of 8 July 2013 with regard to ecodesign requirements for vacuum cleaners
Electronic displays (including TVs)	Commission Regulation (EU) 2019/2021 of 1 October 2019 laying down ecodesign requirements for electronic displays

External power supplies	Commission Regulation (EU) 2019/1782 of 1 October 2019 laying down ecodesign requirements for external power supplies
Cooking appliances	Commission Regulation (EU) No 66/2014 of 14 January 2014 with regard to ecodesign requirements for domestic ovens, hobs and range hoods
Power transformers	Commission Regulation (EU) No 548/2014 of 21 May 2014 with regard to small, medium and large power transformers Commission Regulation (EU) 2019/1783 of 1 October 2019 amending Regulation (EU) No 548/2014 with regard to small, medium and large power transformers
Air conditioners and fans (including ventilation units)	Commission Regulation (EU) No 206/2012 of 6 March 2012 with regard to ecodesign requirements for air conditioners and comfort fans Commission Regulation (EU) No 327/2011 of 30 March 2011 with regard to ecodesign requirements for fans driven by motors with an electric input power between 125 W and 500 kW Commission Regulation (EU) No 1253/2014 of 7 July 2014 with regard to ecodesign requirements for ventilation units Commission Regulation (EU) 2016/2281 of 30 November 2016 with regard to ecodesign requirements for air heating products, cooling products, high temperature process chillers and fan coil units
Dishwashers	Commission Regulation (EU) 2019/2022 of 1 October 2019 laying down ecodesign requirements for household dishwashers
Welding equipment	Commission Regulation (EU) 2019/1784 of 1 October 2019 laying down ecodesign requirements for welding equipment
Omnibus	Commission Regulation (EU) 2021/341 of 23 February 2021 amending Regulations (EU) 2019/424, (EU) 2019/1781, (EU) 2019/2019, (EU) 2019/2020, (EU) 2019/2021, (EU) 2019/2022, (EU) 2019/2023 and (EU) 2019/2024 with regard to ecodesign requirements for servers and data storage products, electric motors and variable speed drives, refrigerating appliances, light sources and separate control gears, electronic displays, household dishwashers, household washing machines and household washer-dryers and refrigerating appliances with a direct sales function
Imaging equipment	Voluntary agreement – Report from the Commission to the European Parliament and the Council on the voluntary ecodesign scheme for imaging equipment COM/2013/023 final
Game consoles	Voluntary agreement - Report from the Commission to the European Parliament and the Council on the voluntary ecodesign scheme for games consoles COM/2015/0178 final

### Self-regulation

As an alternative to regulation, the Ecodesign Directive states that priority should be given to alternative courses of action such as self-regulation by the industry where such action is likely to deliver the policy objectives faster or in a less costly manner than mandatory requirements. Self-regulation, including voluntary agreements offered as unilateral commitments by industry, can enable

quick progress due to rapid and cost-effective implementation, and allows for flexible and appropriate adaptations to technological options and market sensitivities.

The European Commission assesses each self-regulatory initiative on a case by case basis after consulting the members of the Consultation Forum and taking into account the findings of the technical/economic preparatory study if available. The basis for the assessment whether a proposal goes beyond business-as-usual is the information provided by the industry and affected parties and, if available, the findings of the preparatory study. Voluntary agreements are expected to include quantified and staged objectives, starting from a well-defined baseline and measured through verifiable indicators. Voluntary agreements also need arrangements for independent verification as they are not necessarily subject to market surveillance by Member States.

Guidelines on self-regulation<sup>76</sup> were adopted by the European Commission on 30 November 2016.

## EVALUATION

In 2012 the Centre for Strategy and European Studies carried out an evaluation of the Ecodesign Directive. This concluded that in general the operation of the Directive was satisfactory although somewhat early to judge its full effects.

The evaluation did observe that: *“The Commission has not dedicated sufficient resources to play its critical part in the implementing process. In comparison to other regions implementing similar legislative measures the resources dedicated by the Commission are much more limited. The DoE in the US has in the region of 10 times the number of desk officers available in DG ENER and ENTR in the Commission. In China there are about 70 staff and more than 40 product regulations. There is a similar disparity in terms of resources devoted to the necessary studies.”*

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A consideration of staff resources shows that the level of human resources has not improved since the evaluation while the number of product groups regulated has grown substantially. The resulting pressures have led to considerable delays in the implementation of the 2016 to 2019 working plan. This has led to an assessment by EEB and ECOS. [This concludes that there will be an extra 10MT CO<sub>2</sub> emissions in the period 2020 to 2030 as a result of delays that have occurred in the 2016-19 period. They estimate that a further 58MT CO<sub>2</sub> emissions could be avoided over that period with a better implementation of the next working plan.]

## METHODOLOGY

The Ecodesign directive 2009/125/EC prescribes that in preparing a draft implementing measure, the European Commission shall make a series of analyses and assessments, which hereafter shall be

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<sup>76</sup> Commission Recommendation (EU) 2016/2125 of 30 November 2016 on guidelines for self-regulation measures concluded by industry under Directive 2009/125/EC of the European Parliament and of the Council; OJ L 329, 3.12.2016, p.109



referred to as “the preparatory study”. Art 15(3) to 15(10) of the Ecodesign directive set out the legal basis for preparing Ecodesign draft implementing measures. Annexes I and II are referenced in Art. 15 and provide more detail. Note that Annex II specifically mentions the ‘technical, environmental and economic analysis’, which is now commonly known as the ‘preparatory study’. The following checklist of ecodesign parameters is taken from Annex I, Part 1.

<b>1.1</b>	<b>In so far as they relate to product design, significant environmental aspects must be identified with reference to the following phases of the life cycle of the product:</b>
<b>a</b>	raw material selection and use
<b>b</b>	Manufacturing
<b>c</b>	packaging, transport, and distribution
<b>d</b>	installation and maintenance
<b>e</b>	Use
<b>f</b>	end-of-life, meaning the state of a product having reached the end of its first use until its final disposal

<b>1.2</b>	<b>For each phase, the following environmental aspects must be assessed where relevant:</b>
<b>a</b>	predicted consumption of materials, of energy and of other resources such as fresh water
<b>b</b>	anticipated emissions to air, water or soil
<b>c</b>	anticipated pollution through physical effects such as noise, vibration, radiation, electromagnetic fields
<b>d</b>	expected generation of waste material
<b>e</b>	possibilities for reuse, recycling and recovery of materials and/or of energy, taking into account Directive 2002/96/EC

<b>1.3</b>	<b>In particular, the following parameters must be used, as appropriate, and supplemented by others, where necessary, for evaluating the potential for improving the environmental aspects referred to in point 1.2:</b>
<b>a</b>	weight and volume of the product
<b>b</b>	use of materials issued from recycling activities
<b>c</b>	consumption of energy, water and other resources throughout the life cycle
<b>d</b>	use of substances classified as hazardous to health and/or the environment according to Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations

	and administrative provisions relating to the classification, packaging and labelling of dangerous substances ( 1 ) and taking into account legislation on the marketing and use of specific substances, such as Council Directive 76/769/EEC of 27 July 1976 on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations ( 2 ) or Directive 2002/95/EC
<b>e</b>	quantity and nature of consumables needed for proper use and maintenance
<b>f</b>	ease for reuse and recycling as expressed through: number of materials and components used, use of standard components, time necessary for disassembly, complexity of tools necessary for disassembly, use of component and material coding standards for the identification of components and materials suitable for reuse and recycling (including marking of plastic parts in accordance with ISO standards), use of easily recyclable materials, easy access to valuable and other recyclable components and materials; easy access to components and materials containing hazardous substances
<b>g</b>	incorporation of used components
<b>h</b>	avoidance of technical solutions detrimental to reuse and recycling of components and whole appliances
<b>i</b>	extension of lifetime as expressed through: minimum guaranteed lifetime, minimum time for availability of spare parts, modularity, upgradeability, reparability
<b>j</b>	amounts of waste generated and amounts of hazardous waste generated
<b>k</b>	emissions to air (greenhouse gases, acidifying agents, volatile organic compounds, ozone depleting substances, persistent organic pollutants, heavy metals, fine particulate and suspended particulate matter) without prejudice to Directive 97/68/EC of the European Parliament and of the Council of 16 December 1997 on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non- road mobile machinery
<b>l</b>	emissions to water (heavy metals, substances with an adverse effect on the oxygen balance, persistent organic pollutants)
<b>m</b>	emissions to water (heavy metals, substances with an adverse effect on the oxygen balance, persistent organic pollutants)
<b>n</b>	Miscellaneous health-related impacts for user and direct environment: Noise, Radiation (e.g. radon in building materials), Vibration (e.g. of machine tools)

In this context, the underlying Methodology for the Ecodesign of Energy-related Products (MEErP)<sup>77</sup> is intended to provide operational guidance to the European Commission and possible contractors providing technical assistance to the European Commission in performing the preparatory study in

<sup>77</sup> Methodology for Ecodesign of Energy-related Products - MEErP 2011 - Methodology Report - Part 1: Methods, <https://ec.europa.eu/docsroom/documents/26525>

accordance with the stipulations in the Ecodesign directive. The preparatory study is concluded with a preparatory study report.

The stages following the preparatory study are not covered by the MEErP, although the MEErP seeks to anticipate the requirements of these subsequent stages. More specifically, the underlying methodology is designed so that it can be integrated in the European Commission Impact Assessment. Following stakeholder comments (see MEErP 2011 Project Report)<sup>78</sup> the MEErP structure makes a clear split between:

- Tasks 1 to 4 (product definitions, standards and legislation; economic and market analysis; consumer behaviour and local infrastructure; technical analysis) that have a clear focus on data retrieval and initial analysis; and
- Tasks 5 (assessment of base case), 6 (improvement potential) and 7 (policy, scenario, impact and sensitivity analysis) with a clear focus on modelling.

Tasks 1 to 4 have a dual purpose. They should not only provide the inputs for the modelling in Tasks 5 to 7, but they are also intended for capacity building. After having read the first 4 Task reports policy makers and all stakeholders should have enough background to talk to each other and have a basic understanding of each other's problems. Tasks 5 to 7 are intended to provide the analysis whether and which ecodesign requirements should be set for the energy-related product. As such the preparatory study is the first step in the European Commission's decision making process towards the subsequent process of drawing up draft legislation, comprising the consultation of interested stakeholders in the Ecodesign Consultation Forum, the European Commission's Impact Assessment, the vote by Member States in the Regulatory Committee, the scrutiny by European Parliament and Council and the adoption of legislation. As an alternative to legislation, the industry may propose a self-regulation or the European Commission may propose no measure. More specifically, the tasks entail:

- Task 1 - Scope (definitions, standards and legislation);
- Task 2 – Markets (volumes and prices)
- Task 3 – Users (product demand side);
- Task 4 - Technologies (product supply side, includes both BAT and BNAT);
- Task 5 – Environment & Economics (Base case LCA & LCC);
- Task 6 – Design options;
- Task 7 – Scenarios (Policy, scenario, impact and sensitivity analysis).

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<sup>78</sup> Methodology for ecodesign of energy-related products MEErP 2011 - project report, 2014, Catalogue number NB-01-14-225-EN-N, available at: <https://op.europa.eu/en/publication-detail/-/publication/be880e05-7528-415d-b592-e9f29e787635>

Tasks 1 to 4 can be performed in parallel, whereas 5, 6 and 7 are sequential (see diagram)

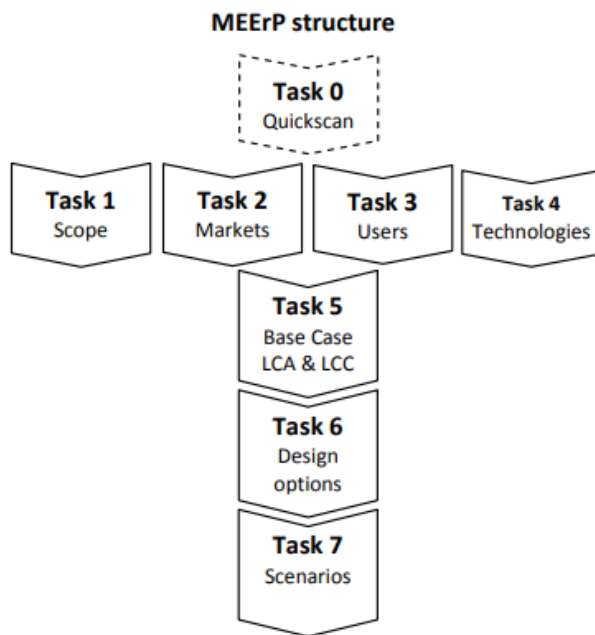


Figure 2: MEErP Structure

Task 0 is an optional task for the case of large or inhomogeneous product groups, where it is recommended to carry out a first product screening, considering the environmental impact and potential for improvement of the products as referred to in Article 15 of the Ecodesign Directive. The objective is to re-group or narrow the product scope, as appropriate from an ecodesign point of view, for the subsequent analysis in tasks 1-7.

Task 1 should define the product category and define the system boundaries of the ‘playing field’ for ecodesign. It is important for a realistic definition of design options and improvement potential and it is also relevant in the context of technically defining any implementing legislation or voluntary measures (if any). Furthermore, Task 1 is the basis for the test and calculation methods to be used to regulate relevant ecodesign parameters. It should be checked whether accurate, reliable and reproducible methods exist and/or, if they don’t exist or the methods are partly flawed, how this problem could be addressed. Finally, Task 1 is important as:

- it makes an inventory of what measures already exist in the EU (with possible regulatory failures);
- it analyses the legislation in EU Member States, which the Ecodesign directive tries to harmonise for the sake of a single market; and
- it indicates –also in view of the global competitiveness and hinting at feasible target levels— what measures have been taken in the rest of the world outside the EU.

Task 2 aims to:

- place the product group within the total of EU industry and trade policy (subtask 2.1);
- provide market and cost inputs for the EU-wide environmental impact of the product group (subtask 2.2);
- provide insight in the latest market trends so as to indicate the place of possible ecodesign measures in the context of the market-structures and ongoing trends in product design (subtask 2.3, also relevant for the impact analyses in Task 3);
- provide a practical data set of prices and rates to be used in a Life Cycle Cost (LCC) calculation (Subtask 2.4).

Task 3 Consumer behaviour can - in part - be influenced by product-design but overall it is a very relevant input for the assessment of the environmental impact and the Life Cycle Costs of a product. One aim is to identify barriers and restrictions to possible ecodesign measures, due to social, cultural or infra-structural factors. A second aim is to quantify relevant user-parameters that influence the environmental impact during product-life and that are different from the Standard test conditions as described in Subtask 1.2.<sup>79</sup>

Task 4 entails a general technical analysis of current products on the EU-market and provides general inputs for the definition of the Base case(s) (task 5) as well as the identification of the improvement potential (task 6). As mentioned, the new Task 4 now incorporates the full range of technical reporting, from a description of the existing products up to BAT (Best Available Technology) and BNAT (Best Not yet Available Technology).

Task 5 requires that one or more average EU product (s) have to be defined or a representative product category as the “Base-case” for the whole of the EU-27 has to be chosen. On this Base-Case most of the environmental and Life Cycle Cost analyses will be built throughout the rest of the study. The Base-Case is a conscious abstraction of reality, necessary one for practical reasons. Having said that, the question if this abstraction leads to inadmissible conclusions for certain market segments will be addressed in the impact- and sensitivity analysis. The description of the Base-Case is the synthesis of the results of Tasks 1 to 4 and the point-of- reference for tasks 6 (improvement potential) and 7 (policy, scenario, impact and sensitivity analysis). With respect of former MEEuP 2005 there is no longer a distinction between a Standard BaseCase, i.e. using impact values (efficiency etc.) as published by industry in accordance with test standards, and a Real-Life BaseCase, i.e. using impact values as they occur in practice. Only the latter is required, where the analysts will use a multiplier to translate the Standard values into Real-Life values.

Task 6 Identifies design options, their monetary consequences in terms of Life Cycle Cost for the consumer, their environmental costs and benefits and pinpointing the solution with the Least Life Cycle Costs (LLCC) and the BAT. The assessment of monetary Life Cycle Costs is relevant to indicate whether design solutions might negatively or positively impact the total EU consumer’s expenditure over the total product life (purchase, running costs, etc.), while taking into account for the purchase price development the manufacturers’ R&D and investment costs. The distance between the LLCC and the BAT indicates - in a case a LLCC solution is set as a minimum target - the remaining space for product-differentiation (competition). The BAT indicates a medium-term target that would

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<sup>79</sup> Examples are the actual temperature-settings for laundry and dishwashing equipment, the loading efficiency (real load vs. nominal capacity) for a whole range of appliances, power management enabling rate for ICT equipment, etc.

probably more subject to promotion measures than restrictive action. The BNAT indicates long-term possibilities and helps to define the exact scope and definition of possible measures.

Task 7 summarizes and totals the outcomes of all previous tasks. It looks at suitable policy means to achieve the potential e.g. implementing LLCC as a minimum and BAT as a promotional target, using legislation or voluntary agreements, labelling, benchmarks and possible incentives. It draws up scenarios 1990 – 2020/2030/2050 quantifying the improvements that can be achieved vs. a Business-as-Usual scenario and compares the outcomes with EU environmental targets, the societal costs if the environmental impact reduction would have to be achieved in another way, etc. It makes an estimate of the impact on consumers (purchasing power, societal costs) and industry (employment, profitability, competitiveness, investment level, etc.) as described in Annex II of the Ecodesign Directive 2009/125/EC, explicitly describing and taking into account the typical design cycle (platform change) in a product sector. Finally, in a sensitivity analysis of the main parameters it studies the robustness of the outcome.

## **MARKET SURVEILLANCE AND BORDER CONTROLS RELATED TO ECODESIGN**

### **The need for market surveillance and border controls**

Effective market surveillance and controls on products entering the EU market constitute a key factor to ensure the effectiveness of the entire Ecodesign framework. It is needed to ensure that the regulations are properly enforced, that the expected energy savings materialise, that the level playing field for businesses is secured, that reliable product information is supplied to consumers, and that the whole framework is trusted by citizens and businesses alike.

Market surveillance authorities must, amongst others:

- Check that products placed on the EU market comply with minimum performance requirements set by ecodesign measures. Otherwise, high energy-consuming goods would still be purchased by consumers, and consumers would not enjoy the economic benefits that ecodesign brings through more efficient products and reduced energy bills.
- Check that the mandatory information provided to consumers is correct.

Customs authorities, remaining at the front line to stop suspicious products being imported from the third countries before they are placed in the EU market, are expected, among others, to:

- Check if products are accompanied by required documentation, properly marked or labelled and bear a CE marking or other required marking, if names and other contact information of economic operators are indicated or identifiable in accordance with Article 4(4) of Regulation 2019/1020,
- Make sure that there is no other cause to believe that these products do not comply with the Union law applicable to them,
- Suspend release of suspicious products for free circulation in the EU, notify accordingly market surveillance authorities and implement market surveillance authorities' final compliance assessments.

Given the importance of the subject, a special effort has been put in elaborating this annex.

### **The European Court of Auditor's ecodesign audit and the impact of non-compliance**

In 2019, the European Court of Auditor conducted an audit on ecodesign and energy labelling. The title of the report, issued early 2020, is very clear:

“EU action on Ecodesign and Energy Labelling: important contribution to greater energy efficiency reduced by significant delays and non-compliance”<sup>80</sup>

The report highlights market surveillance as a critical issue, and the executive summary further points out that:

“IX Effective market surveillance should play a critical role in ensuring that products sold in the EU comply with Ecodesign requirements and that consumers benefit from accurate energy labels. It is the role of the Member States to check that products sold comply with the legislation. The data available shows, however, that non-compliance by manufacturers and retailers remains a significant issue.

X The Commission facilitates cooperation between Market Surveillance Authorities. The Information and Communication System on Market Surveillance, operated by the Commission, should enable cooperation by allowing authorities to share inspection results. We found that some functional limitations in the database reduced its effectiveness. The Commission is setting up a product database, which will, among other things, facilitate market surveillance, but this is behind schedule.

XI The EU-funded projects aimed at improving market surveillance have delivered results, but they have only provided a temporary solution for a recurring need.”

As indicated below, it is estimated that about 10% of the potential energy savings delivered by ecodesign and energy labelling are lost due to non-compliance with the regulations. Based on the 2019 Environmental Impact Accounting report figures<sup>81</sup>, this represents:

- Additional consumption of 15,3 Mtoe primary **energy** per year in 2020 (or 178 TWh)
- Additional emission of 31,1 Mt CO<sub>2</sub> equivalent **greenhouse gas** (~0,7% of EU total in 2018)
- Additional EUR 6,4 billion/year expenditure for **consumers** on energy bills, at least<sup>82</sup>.
- Potential loss of revenue of EUR 6,4 billion **for industry**, wholesale and retail sector, and corresponding loss of **jobs**.

The report provides three recommendations to the European Commission, in order to improve market surveillance activities and facilitate exchange of information among Market Surveillance Authorities (MSAs):

- (a) deliver improvements to the ICSMS [inspection database<sup>83</sup>] to facilitate cooperation between Market Surveillance Authorities, for example by enabling the quick identification of equivalent model numbers by cross-linking it with European Product Database for Energy Labelling (EPREL) [energy labelling database<sup>84</sup>];
- (b) upon request, provide online training to MSAs to promote the use of ICSMS to support their activities;
- (c) assess the MSAs’ uptake of best practice on market surveillance activities identified by EU-funded projects, including carrying-out cost-effective inspections.

The European Commission accepted these recommendations, which are being implemented.

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<sup>80</sup> European Court of Auditors, Special Report 01/2020, *EU action on Ecodesign and Energy Labelling: important contribution to greater energy efficiency reduced by significant delays and non-compliance*. <https://www.eca.europa.eu/en/Pages/DocItem.aspx?did=52828>

<sup>81</sup> <https://www.vhk.nl/research/eia.htm>

<sup>82</sup> If the price of the non-compliant goods is the same as the price of the compliant ones, then extra expenses would be higher.

<sup>83</sup> [https://ec.europa.eu/growth/single-market/goods/building-blocks/icsms\\_en](https://ec.europa.eu/growth/single-market/goods/building-blocks/icsms_en)

<sup>84</sup> [https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/product-database\\_en](https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/product-database_en)

## Organisation of market surveillance and border controls

Market surveillance and border controls is a national competence. Member States (MSs) are required to establish a market surveillance authority for all product legislation, including ecodesign. In most Member States, the authority in charge of ecodesign also deals with energy labelling (covering the same products), but it is not always the case. In a number of Member States, market surveillance is a regional competence (Germany, Spain). Often, the authority in charge is a ‘generalist’ entity also responsible for market surveillance of other EU harmonisation legislation on products, such as the Low Voltage Directive, product safety or others. In other MSs such as Ireland, the market surveillance for ecodesign and energy labelling is the responsibility of a specific entity dealing with energy (e.g. an energy agency).

Member States are also required to designate authorities in charge of the control on products entering the Union market. In most Member States, this role is attributed to customs authorities, which are expected to perform their product compliance controls in cooperation with market surveillance authorities. The level, intensity and methods of this cooperation differ across the Member States as they depend on national policies.

## Enforcement activities and reporting

Data on enforcement activities by Member States is scarce, because there is currently no reporting obligation under ecodesign and energy labelling, or under the existing market surveillance regulations<sup>85</sup>. The ICSMS database that serves as repository for inspections carried out by MSAs is largely underutilised and only reflects a fraction of MSA’s activities.

In the 2014 to 2016 period, DG GROW carried out a voluntary exercise for the reviews and assessments of the functioning of market surveillance activities for all product legislation<sup>86</sup>. Only 21 out of 28 MSs participated and only 17 of them provided information about ecodesign and energy labelling. Two of these datasets cannot be exploited because ecodesign and energy labelling data is mixed with other activities, and two others are largely incomplete. As a conclusion, only 4 MSs provided the complete requested dataset, and 9 provided partial data that can be exploited. Even within this data, there are obvious mistakes and inconsistencies, making interpretation difficult. This difficulty is compounded by the absence of clear definitions: for example one MS may consider that a ‘product inspection’ means full testing in laboratory, while another might include simple checks like verifying that the energy label is present in shops. After removing suspicious data, it seems that, based on a narrow set of data, EU MSAs had on average an annual budget of EUR 220.000 for ecodesign and energy labelling, carrying about 160 inspections per year concerning 2650 product models, of which 35 were tested in laboratory. Staff figures are the most difficult to interpret: some MSs reported figures as low as 1 full time equivalent<sup>87</sup> (even less than 1 in one case), while 3 MSs reported well over 100 staff, which does not seem realistic. The average value of the remaining ones is 6 FTE per MS. A careful extrapolation could lead to an overall estimate of about 200-240 staff and a budget of EUR 9-10 million per year spent to survey +/- 50 ecodesign and energy labelling regulations in the EU 28 in the period 2014-2016<sup>88</sup>. The data collection exercise was not renewed after 2016.

The graph below<sup>89</sup> shows the amount of ecodesign and energy labelling products inspections encoded in ICSMS per year, since 2010. One can see a steady increase from 2010 until 2017, and a slight decrease since then. The recent figures are in the magnitude of 1000 inspections encoded each year,

<sup>85</sup> Regulation (EU) 765/2008, replaced by Regulation (EU) 2019/1020 that will enter into application on 01/07/2021.

<sup>86</sup> Country reports can be found here <https://ec.europa.eu/growth/single-market/goods/building-blocks/market-surveillance/organisation/>

<sup>87</sup> Our understanding, at least for one of the cases, is that the full time equivalent represents the person doing coordination at national level, while inspectors in regional agencies were not accounted for.

<sup>88</sup> For each MS with ‘valid’ data, we calculated ratios like staff/inhabitant or budget/GDP, calculated average ratios for the EU, and extrapolated to global EU 28 2015 population or GDP data.

<sup>89</sup> Source : DG ENER, based on ICSMS data gathered through the ‘Kibana’ tool.



which is certainly a fraction of the real work carried out by MSAs, but in the absence of any other reporting tool, there is no reliable figure that can be put forward (other than the scarce estimates already provided above).

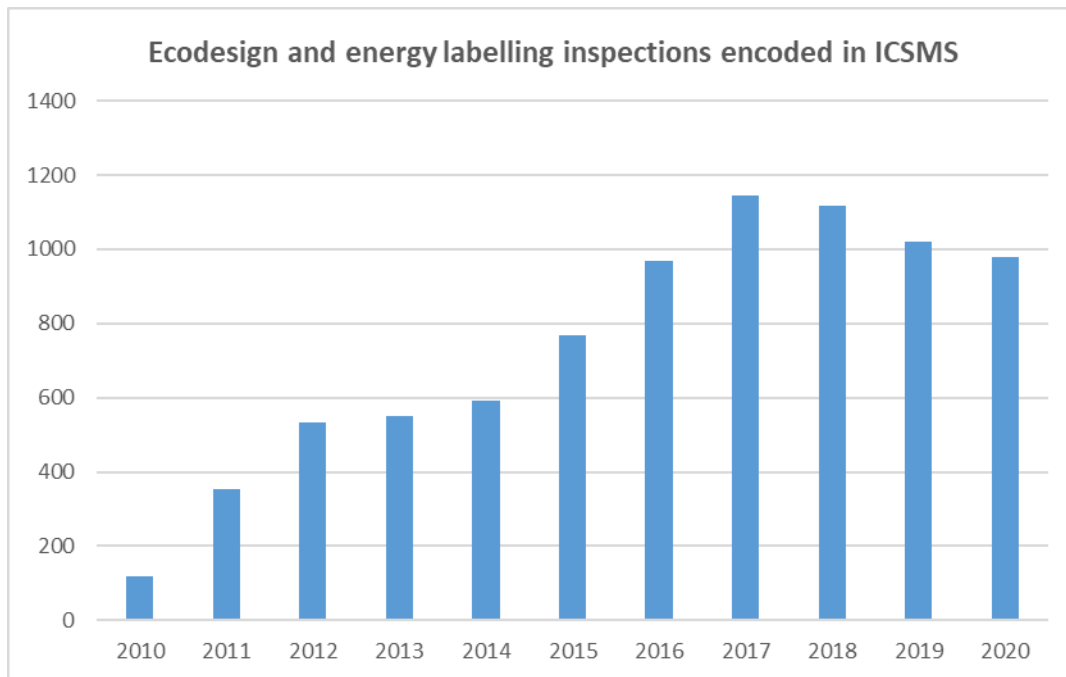


Figure 3 Ecodesign and energy labelling inspections encoded in ICSMS

The interface developed by DG GROW under a 'Kibana' platform is a powerful tool allowing to visualise pertinent data. For instance, the following graph shows the proportion of encoded inspections per MS in 2020:

ED & EL - Cases by Notifying Country

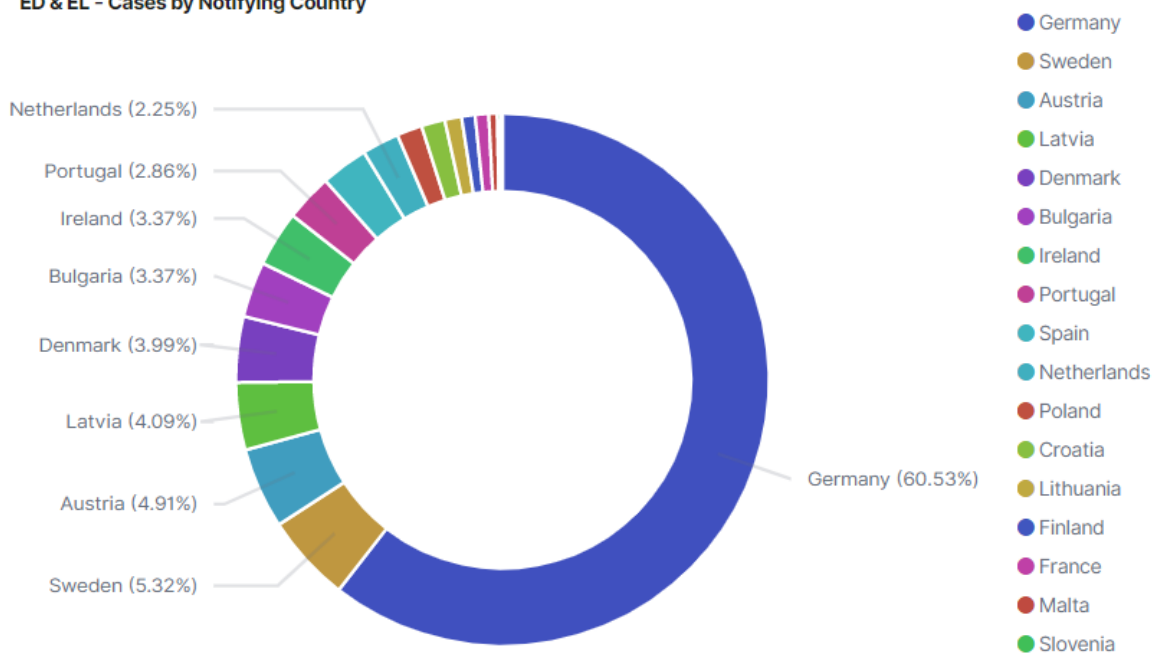


Figure 4 ED & EL - Cases by notifying Country

It shows that the vast majority of inspections are encoded by one MS: Germany. This is probably due to historical reasons: this MS is the original developer of the database, which was used to communicate inspection data across Regions (Länder). It also shows that 10 MS do not encode any data at all, and that several encode very few data.

Another issue is the completeness and quality of the data inserted. The following map shows the country of origin of the inspected goods in 2020 for ecodesign and energy labelling. But the pie chart on the right shows that this information is missing in 80% of the cases.

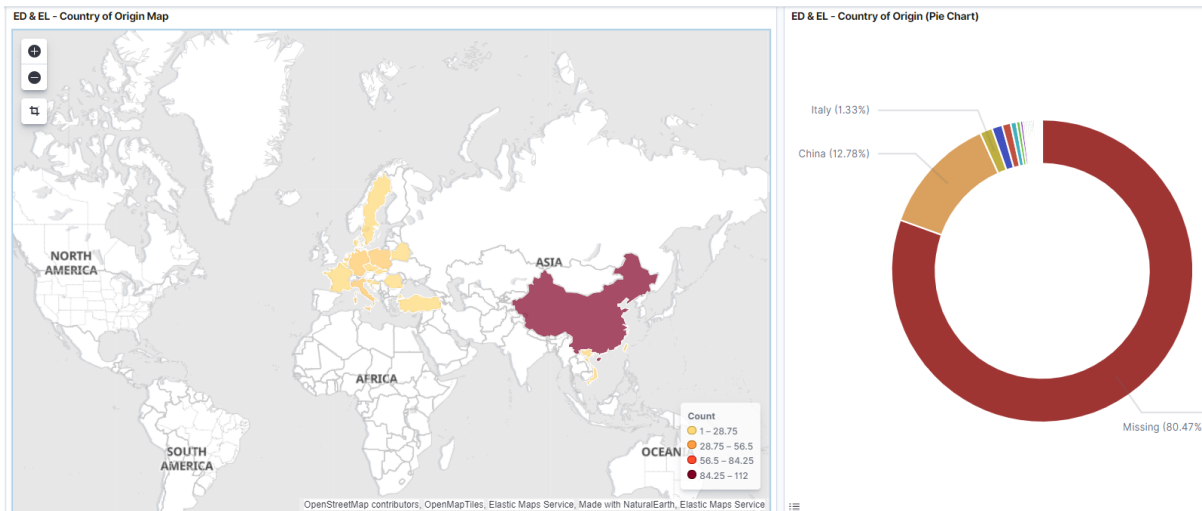


Figure 5 Origin of inspected goods

ICSMS is an important instrument for communication between MSAs and could be very useful to extract relevant data for operational and policy purpose, at MSA, MS and EU level. Its underutilisation undermines this goal.

It is expected that the entry into application of the new market surveillance Regulation (EU) 2019/1020 will improve the situation, as it renders ICSMS utilisation mandatory. Also the European Commission is working closely with the MSs and the MSAs to improve ICSMS usage. For instance, it is developing a dedicated set of fields in the database that are tailored to the needs of ecodesign and energy labelling (in line with one of the ECA audit recommendations mentioned above). This is intended to increase the relevance and usefulness of the database for the MSAs. The European Commission is also working on interfaces that can automatically upload MSAs data into ICSMS in order to avoid double encoding, as well as other improvements to ICSMS.

In addition, as part of the EU Product Compliance Network (EUPCN) mentioned below, the European Commission, with the collaboration of the MSs and the MSAs, is undertaking JRC-supported work for the development of indicators that would allow proper follow-up and monitoring of MSA's activities. These would remain voluntary however.

Qualitatively, MSs use a range of corrective actions to deal with non-compliances, including administrative decisions, withdrawal of models, decisions by customs authorities to reject products at the border, voluntary measures taken by the economic operators concerned and financial penalties.

As regards reporting of statistical data concerning controls of products entering the EU market, DG TAXUD carries out annual collection of the information on the number of product compliance controls performed by customs authorities and on their results.

In 2020, customs in the EU made about 250.000 interventions for product compliance, which resulted in 72.000 cases of release for free circulation being suspended and 21.000 cases where the goods were confirmed by market surveillance authorities as not compliant and as such they were not released for free circulation in the EU.

### **Expenditure**

As indicated above, no precise figures on total Member States expenditure on market surveillance for ecodesign and energy labelling are available. In 2011 this was estimated at EUR 7-10 million<sup>90</sup>. In 2015 it was estimated that, based on (incomplete) data collected from Member States, it was likely to be around EUR 10 million<sup>91</sup>. In the previous section, an estimate of EUR 9-10 million per year has been put forward for the period 2014-2016 based on partial data, which is very close to the previous figures and does not show an extraordinary increase. In the period 2014-2016 however, a yearly increase of about 15% was observed, but based on a sample of 8 MSs only.

The above figures include UK. Without UK, the estimate for the period 2014-2016 is about EUR 7,2-8,5 million per year for the EU27. It is unclear whether the underlying data always include staff costs. If not, then the estimate could be somewhat higher.

The 2015 impact assessment for the review of the energy labelling Directive<sup>92</sup> considered that:

*“In general, the combined market surveillance activities of the Member States increased significantly between 2009 and 2013. This may be due to increased attention to this topic from the Commission, industry and NGOs, as well as from those market surveillance authorities already playing an active role. However, it is also necessary since the level of market surveillance started from a low base and the number of ecodesign and energy labelling regulations increased during those years.”*

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<sup>90</sup> P. Waide *et al.*, Enforcement of energy efficiency regulations for energy consuming equipment: findings from a new European study, Proceedings of the 6<sup>th</sup> International Conference EEDAL'11 Energy Efficiency in Domestic Appliances and Lighting.

<sup>91</sup> SWD(2015) 139 final, IMPACT ASSESSMENT accompanying the document Proposal for a Regulation of the European Parliament and of the Council setting a framework for energy efficiency labelling and repealing Directive 2010/30/EU.

In the absence of complete and relevant ‘hard’ data, the perception (shared by MSAs representative themselves in informal settings) is that the resources dedicated to market surveillance are still largely insufficient to tackle the large amount of ecodesign and energy labelling regulations and their complexity.

### Level of compliance

Data on compliance levels also suffer from shortcomings. In 2015, it was estimated that on average, non-compliance rates found in market surveillance were about 15-35%, highlighting however that the non-compliance rates found by market surveillance authorities are probably not representative for the entire market, because authorities often use targeted checks. It concluded that the overall level of non-compliance of 20% estimated on the basis of the evaluation study was plausible<sup>93</sup>.

The graph below produced by the ‘Kibana’ tool mentioned above (based on ICSMS data) shows that in 2020, nearly half of the encoded inspections related to a non-compliant product:

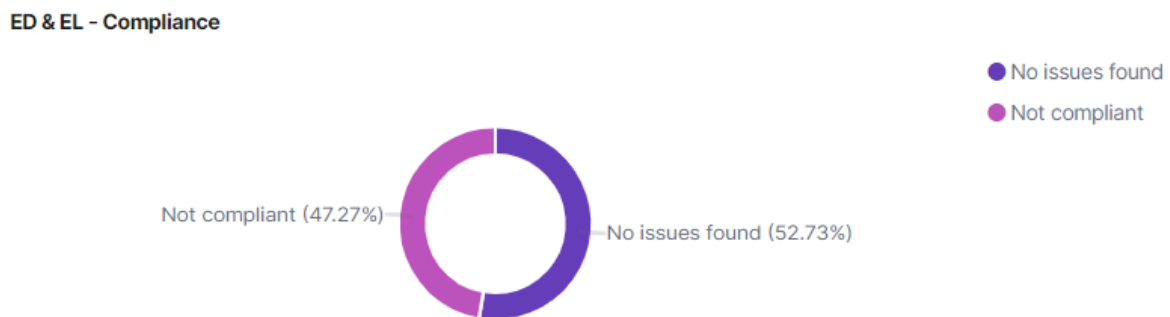


Figure 6 ED/EL Compliance rate

This is not in any way representative of the market situation, but reflects two cumulative biases:

- MSAs tend to encode inspections for non-compliant products more than for compliant ones (deemed more useful to be communicated to the other MSAs).
- MSAs follow a risk-based approach by which they tend to inspect products more likely to be non-compliant.

It has to be clarified that the term ‘non-compliance’ can cover very different realities: from minor non-compliance related to the format in which the mandatory information has to be presented (e.g. the number of digit after the comma), to products that grossly exceed the energy efficiency thresholds. In the first situation, the consumer is not harmed and the non-compliance can be easily corrected by voluntary action taken by the supplier (i.e. correcting the documentation), while in the second situation the consumer is harmed through excessive energy consumption and withdrawal of the product from the market is needed. There is of course a variety of situations between those two. It results that gross non-compliance rates are not very informative if they are not accompanied with more details showing the gravity of the issues at stake.

<sup>93</sup> [SWD\(2015\) 139 final](#), IMPACT ASSESSMENT accompanying the document Proposal for a Regulation of the European Parliament and of the Council setting a framework for energy efficiency labelling and repealing Directive 2010/30/EU.

## Case study

To further document the issue of non-compliance, we choose a case study from the EU-funded EEPLIANT2 project<sup>94</sup>, which ended in 2020. We analysed in particular the results of the inspection of 47 models of fridges under that project.

In first analysis, 60% of the tested models were considered non-compliant by MSAs<sup>95</sup>:

- Not meeting the ecodesign energy efficiency requirements (Energy Efficiency Index (EEI) <42) : 11%<sup>96</sup>
- Energy consumption greater than declared: 19% not compliant
- Storage volume smaller than declared : 14% not compliant
- Wrong energy class: 26% (associated with volume smaller than declared and/or energy consumption greater than declared)
- Incorrect Storage temperatures/climate class: 21% not compliant
- Freezing capacity: 54% not compliant
- Noise: 13% not compliant

In second analysis, the non-compliance rate went down to 40%, after giving economic operator the chance provide clarifications or to take voluntary action (e.g. change label/product fiche).

Because of the limited size of the sample, the figures should be taken with caution: they represent a plausible image of the situation, but uncertainty is significant.

The impact of the 11% fridges not meeting the required energy performance represents about 1,5 to 3 TWh missed energy savings in 2020, assuming that the samples taken for testing are representative of the market. In the discussions that followed the presentation of the results of the EEPLIANT2 project, the project participants were of the opinion that the figures were fairly representative of the market situation. Nevertheless, in the project report, the experts considered that a reduction factor of 30% should be applied because the samples selected were not necessarily fully representative of the market because of the application of risk-based sampling by the MSAs.

If this 30% factor is applied, the missed energy savings represent 1 to 2 TWh per year, corresponding to missed savings on household energy bills of about EUR 210 to 450 million per year. This represents about 7%-15% of the planned 12TWh energy savings for 2025. These figures can be seen as conservative, as they do not include the impact of the other non-compliances such as incorrect energy class, underestimated energy consumption etc. This is the same order of magnitude than the 10% energy loss pointed out in previous studies<sup>97</sup>.

Even taking the 30% reduction factor, the high non-compliance rates for fridges, a product that is regulated since 1996, is striking. The situation for professional refrigeration, regulated only since 2015, also tested under EEPLIANT2, was worse. During the brainstorming event that followed the presentation of the project results in February 2020, two third of the participants considered that the results were alarming and serious, while one third considered that further analysis of the individual results was needed, in order also to better understand if they are really representative of the market.

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<sup>94</sup> <https://eepliant.eu/index.php/new-about-eepliant/about-eepliant-2>

<sup>95</sup> These figures are calculated per model. The figures are higher when considering the individual units tested.

<sup>96</sup> Values are calculated after triple testing and application of the legal tolerances.

<sup>97</sup> Findings of the review study and impact assessment for the review of the ecodesign and energy labelling directives, 2010-2015.

## Cooperation and European Commission support

Although the responsibility of market surveillance lies with the MSs, the European Commission is playing an important role in fostering cooperation between MSAs, ensuring coordination and providing support.

The new market surveillance Regulation (EU) 2019/1020, in force as of 01/07/2021 confers new powers to market surveillance authorities. Very importantly, it establishes the EU Product Compliance Network (EUPCN)<sup>98</sup>, operational since 01/01/2021, where the European Commission, the MSs and the MSAs collaborate with the aim *“to structure the coordination and cooperation between market surveillance authorities in EU countries, and streamline market surveillance practices within the EU that facilitate the implementation of joint enforcement activities by member state authorities, such as joint investigations.”* Several activities, already initiated in 2019, are ongoing, and an ambitious work programme is under preparation, that will cover many aspects likely to raise the effectiveness of market surveillance in the EU.

At operational level, European cooperation on market surveillance takes place through informal groups of market surveillance authorities, called Administrative Cooperation Groups (ADCO)<sup>99</sup>, also financed by the European Commission. Representatives of MSAs meet twice a year in the context of ecodesign and energy labelling with the view to exchange experience, discuss best practices, harmonise and improve approaches, organise collaboration etc. Thematic subgroups are formed on an ad-hoc basis to work on a specific issue and report to the group. The meetings are chaired by a Member State. Participation in the meetings has increased since the establishment of the groups; almost all Member States were present at the most recent meetings. Since 2021, the European Commission also finances a dedicated technical secretariat for the Ecodesign and Energy Labelling ADCOs.

After the successful EEPLIANT2 project mentioned above (and its predecessors "EEpliant"<sup>100</sup> and "Ecopliant"<sup>101</sup>), the European Commission is now funding the EEPLIANT3 concerted action<sup>102</sup>, with a budget of about EUR 6,9 million, which intends to have a transformational effect on ecodesign and energy labelling market surveillance. It combines 'vertical' work packages where a certain number of product groups are tested in laboratory with a series of 'horizontal' transformative work packages addressing issues such as development of IT tools, collaboration with customs, training, centres of excellence etc. These activities take place in close cooperation with the work of the EUPCN where related activities are also taking place.

In 2020-21, the European Commission has launched a tender for market surveillance campaigns ecodesign and energy labelling market, with an indicative budget of 2 millions.

Market surveillance collaboration is also enhanced through the development and improvement of the ICSMS database, as well as of the EPREL database, as mentioned above. The provision of ad-hoc guidance on the application of the legislation is also very much appreciated by MSAs and the concerned economic operators.

This is not meant to be an exhaustive list of all the all activities the European Commission is undertaking to support national market surveillance efforts. However, without also addressing the issue of resource mentioned above, these very much needed efforts are not likely to considerably reduce prevalence of non-compliance.

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<sup>98</sup> [https://ec.europa.eu/growth/single-market/goods/building-blocks/market-surveillance/organisation\\_en/eu-product-compliance-network\\_en](https://ec.europa.eu/growth/single-market/goods/building-blocks/market-surveillance/organisation_en/eu-product-compliance-network_en)

<sup>99</sup> [https://ec.europa.eu/growth/single-market/goods/building-blocks/market-surveillance/organisation/administrative-cooperation-groups\\_en](https://ec.europa.eu/growth/single-market/goods/building-blocks/market-surveillance/organisation/administrative-cooperation-groups_en)

<sup>100</sup> [http://www.prosafe.org/images/Documents/EEPLIANT/EEPLIANT\\_Press\\_release\\_v2.pdf](http://www.prosafe.org/images/Documents/EEPLIANT/EEPLIANT_Press_release_v2.pdf)

<sup>101</sup> <http://www.ecopliant.eu/>

<sup>102</sup> <https://eepliant.eu/index.php/new-about-eepliant/about-eepliant3>

MSAs, designated by the MSs, will verify the conformity of the products with the requirements laid down in the implementing measures and delegated acts. These can be done either on the product itself or by verifying the technical documentation. The rules on Union market surveillance and control of products entering the Union market are given in Regulation (EU) 2019/1020<sup>103</sup>. Given the principle of free movement of goods, it is imperative that MS' market surveillance authorities cooperate with each other effectively.

## **ACHIEVEMENTS UNDER ECODESIGN AND ENERGY LABELLING**

The European Commission regularly assesses the main results of the ecodesign and energy labelling framework, which are published under an Ecodesign Impact Accounting report.

### **Main results**

The primary energy savings due to ecodesign and labelling measures are 1037 TWh in 2020 and 1533 TWh in 2030. This represents a saving of respectively 10% (2020) and 18% (2030) compared to the baseline based on business as usual (BAU). The savings are respectively 7% (2020) and 10% (2030) of the total EU27 primary energy consumption in 2019.

Due to the measures taken, the GHG emissions decrease by 170 Mt CO<sub>2</sub>eq (-10% vs BAU) in 2020 and 266 Mt CO<sub>2</sub>eq (-18% vs BAU) in 2030. The reduction is respectively 4.5% (2020) and 7% (2030) of the EU27 total emissions in 2018 (3764 Mt CO<sub>2</sub>). Due to the measures for washing machines and dishwashers, in 2020 consumers save 1507 million m<sup>3</sup> (> 50%) of (drinking) water (1885 Mm<sup>3</sup> in 2030). The measures on imaging equipment (duplexing, N-print) save 0.23 million tonnes (15%) of graphic paper in 2020 and 0.15 Mt (15%) in 2030. The ecodesign regulation on welding equipment saves 82 kt (5%) of filler wire and electrodes in 2030.

The combined measures entail a EUR 60 billion (5%) saving in 2020 on consumer expenditure (EUR 76 billion energy cost saving, EUR 7 billion consumables saved, EUR 23 billion extra acquisition costs). In 2030 this increases to EUR 118 billion (9%). The consumer's monetary saving is 0.4% (in 2020) and 0.9% (in 2030) of the GDP of the European Union (EUR 13 300 billion in 2020).

Business revenues increase by EUR 21 billion in 2020 and EUR 29 billion in 2030 (5-6%), implying an increase of 324,000 direct jobs in 2020 and 430,000 in 2030.

### **Results per household**

The average EU27 household in 2020:

- Bought 11 regulated products of which 4 light sources, 4 electronics products.
- Used 70 regulated products of which 30 light sources, 25 electronics products.
- Saved 1000 kWh (27%) of electricity and 700 kWh (6%) of fuel (gas, oil coal, wood) in 2020 compared to a scenario without Ecodesign and Labelling measures. In 2030 this is projected to increase to 1200 kWh electricity (33%) and 1400 kWh of fuel (12%).
- Avoided 530 kg CO<sub>2</sub>eq of greenhouse gas emissions in 2020 compared a scenario without Ecodesign and Labelling measures. In 2030 this is projected to increase to almost 700 kg CO<sub>2</sub>eq/household.

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<sup>103</sup> Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on market surveillance and compliance of products and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011

- Saved EUR 210 (7%) in user expenditure in 2020, expected to increase to EUR 350 per year per household in 2030 (11%) compared to a scenario without Ecodesign and Labelling measures. This considers only the direct savings for products used in households. Additional financial benefits for households might arrive from the savings in the tertiary and industry sectors, if these are translated in lower tariffs, lower product prices, or higher wages.