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IMPACT ASSESSMENT REPORT

Accompanying the document

**Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE
COUNCIL**

**amending Directives 2005/29/EC and 2011/83/EU as regards empowering consumers for
the green transition through better protection against unfair practices and better
information**

{ COM(2022) 143 final } - { SEC(2022) 166 final } - { SWD(2022) 86 final }

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Glossary

| <i>Term or acronym</i> | <i>Meaning or definition</i> |
|------------------------|---|
| CEAP | Circular Economy Action Plan |
| CRD | Consumer Rights Directive |
| DCD | Digital Content Directive |
| CBA | Cost-benefit analysis |
| CPC | Consumer Protection Cooperation |
| LCA | Life-Cycle Assessment |
| MCA | Multi-criteria analysis |
| OEF | Organisation Environmental Footprint |
| OEFSR | Organisation Environmental Footprint Sector Rules |
| OPC | Online Public Consultation |
| PEF | Product Environmental Footprint |
| PEFCR | Product Environmental Footprint Category Rules |
| SGD | Sale of Goods Directive |
| SPI | Sustainable Product Initiative |
| UCPD | Unfair Commercial Practices Directive |

1. INTRODUCTION: POLITICAL AND LEGAL CONTEXT

The European Green Deal¹ sets out a comprehensive strategy to transform the EU into a fair and prosperous society, with a climate-neutral, resource-efficient, clean and circular economy in which economic growth is decoupled from resource use and where negative impacts on natural capital and biodiversity are reduced. **To deliver the European Green Deal, there is a need to rethink a number of EU policies and among them also production and consumption.** The aim of reforms is to encourage the needed changes both in consumer and business behaviour. To achieve this two-fold objective, the Circular Economy Action Plan (CEAP)² and the New Consumer Agenda³ set out several mutually reinforcing and complementary actions. A number of initiatives are being taken already with the aim to ensure that products, both goods and services, sold to EU consumers are fit for the above objectives.

Given that the current consumption of products is recognised to represent an unsustainable burden on the **environment**⁴, this Impact Assessment (IA) presents policy actions to facilitate the needed changes in consumer behaviour to achieve climate and circularity objectives under the European Green Deal. As the initiative aims to deliver on the European Green Deal, and thus to reduce the burden of consumption on the environment, it covers primarily **environmental sustainability**. However, as per its mandate, the initiative aims to tackle social and ethical aspects of sustainability where relevant, i.e. in relation to sustainability labels and digital sustainability information tools. This is due to the fact that labels and tools already widely present on the market often cover other aspects of sustainability, and thus fall within the problem definition identified by this initiative.

Data from a 2009 Eurobarometer show that 83% of EU-27 citizens considered a product's impact on the environment an important element when deciding which products to buy⁵. Moreover, many European citizens believe that "changing the way we consume" is the most effective way to tackle environmental problems⁶. The COVID-19 crisis does not seem to have dampened the public's awareness of this need to address climate change, nor their willingness to do so. Studies even suggest that the crisis has re-intensified citizens' support for tackling environmental problems⁷. When asked about the long-term impact of the COVID-19 crisis, between 66% and 76% of consumers surveyed in 4 EU countries in May 2020 said they "will buy products that are better for the environment, even if they cost more"⁸. **The challenge is to unlock this potential through policy measures that empower, support and enable European consumers to play an active role in the green transition.**

In one of its recent resolutions⁹, the European Parliament has called on the European Commission to show strong political ambition when designing this and other related

¹ COM(2019)640 final, 11 December 2019.

² COM(2020)98 final, 11 March 2020.

³ COM(2020)696 final, 13 November 2020.

⁴ Joint Research Centre, *Consumer and consumption footprint: The assessment of the environmental impacts of consumption in the European Union*, 2019, p. 21.

⁵ European Commission, Flash Eurobarometer 256 - Europeans' attitudes towards the issue of sustainable consumption and production, 2009.

⁶ European Commission, *Special Eurobarometer 501*, 2020, p. 48.

⁷ Dr. Ulf J.J. Hahnel, University of Geneva, *Mitigating climate change during and after COVID-19: Challenges and windows of opportunity*, 2020

⁸ France, Germany, Italy and Spain.

IPSOS, *Covid-19: attitudes and behaviours in the EU*, 2020, not published.

⁹ Towards a more sustainable Single Market for business and consumers (2020/2021(INI))

initiatives. It calls specifically to develop measures on the provision of pre-contractual information on the lifespan and reparability of products as well as measures to combat premature obsolescence or greenwashing among other aspects. In the recent Council Conclusions on the New Consumer Agenda¹⁰, Member States have “welcomed the Commission’s intention to propose measures in order to promote sustainable consumption by improving consumers’ right to accurate and effective information, and to better protect them against certain practices such as unsubstantiated green claims and greenwashing”. With such rules, the EU27 as one of the largest economies in the world¹¹, can act as a standard-setter for options to encourage sustainable consumption in other jurisdictions.

Objective and scope of this initiative

Within the area of environmental sustainability, this initiative focuses on those aspects of environmental sustainability which can be most appropriately addressed by horizontal consumer law. As foreseen in the CEAP and the New Consumer Agenda, this initiative tackles the identified problems *via a revision of consumer law*, setting general requirements that would complement more targeted rules contained in sectoral legislation, e.g. on specific products or product groups. It therefore focus on empowering consumers in their decision-making process, and does not consider the use of other non-consumer law instruments that may in addition provide further solutions for better empowering consumers for the green transition, such as, for example, fiscal policy instruments or sectorial policy instruments.

As per its mandate under CEAP, this consumer law initiative will tackle problems identified with the consumer’s decision-making process at the point of sale and business-to-consumer commercial practices (i.e. any act, omission, course of conduct or representation, commercial communication including advertising and marketing, by a trader, directly connected with the promotion, sale or supply of a product to consumers). It will address the provision of **reliable consumer information**, in particular the fact that **consumers lack reliable information at the point of sale for choosing more environmentally sustainable products**. It will also strive to **better protect consumers against unfair commercial practices**, such as greenwashing, early obsolescence of consumer goods or non-transparent voluntary sustainability labels and digital information tools, **which are not compatible with the green transition**.

Results from a consumer survey carried out to support this initiative show that **a lack of reliable information about products’ environmental sustainability, reparability and lifespan** feature among the **main obstacles preventing consumers from adopting more sustainable consumption behaviours**. According to recent consultations¹², 85% of respondents reported being unsatisfied or only partially satisfied with the environmental information available to them, due (among other factors) to the fact that such information is generally not sufficient to support consumer decision-making. Another survey¹³ showed that 82% of the participants agreed that it is difficult to find information on how long a product will last and on its reparability. In addition, 86% agreed that they would like to receive better information on how long a product will last and 83% agreed that they would like to receive

¹⁰ Council of the EU, Council Conclusions on the New Consumer Agenda, 2021.

¹¹ Eurostat, news release: *China, US and EU are the largest economies in the world*, 2020, p. 1.

¹² European Commission, *Sustainable Products in a Circular Economy - Towards an EU Product Policy Framework contributing to the Circular Economy*, 2019, p. 66.

¹³ European Commission, *Behavioural Study on Consumers’ engagement in the circular economy*, 2018, p. 82.

better information on how easy it is to repair a product. These findings are also confirmed by the results of the Open Public Consultation carried out for this initiative¹⁴.

Based on these findings, the initiative considers the provision of information on the environmental characteristics of products, addressing in particular the provision of information about **durability** (“how long will a product last before it needs to be replaced or repaired?”), “will it break/become obsolete earlier than expected or than what has been communicated by the trader?”) and **reparability** (“can consumers know whether a product can easily be repaired?”). More durable and more repairable products can not only lead to savings for consumers in that consumers will have to spend less money on replacement products, but can also bring environmental benefits, in that less pollution and waste are emitted if products are repaired and/or last longer¹⁵. These two parameters are identified as highly relevant to help consumers assess a product’s environmental sustainability¹⁶, and are equally relevant from a consumer’s economic perspective^{17, 18}.

This initiative also addresses certain misleading commercial practices which prevent consumers from making sustainable consumption choices. These practices include early (or premature) obsolescence. This occurs when a product fails prematurely or lasts for a shorter period of time than consumers can reasonably expect¹⁹. Another misleading commercial practice considered by this initiative is that of ‘greenwashing’, which occurs when a trader attempts to present an environmentally responsible public image in a way that is unfounded or misleading. This often takes the form of making unclear or not well-substantiated environmental claims²⁰. This initiative addresses such practices as they relate to **key aspects of environmental sustainability** and can under certain conditions already be addressed under existing consumer law²¹. As per its mandate under CEAP, this initiative also seeks to improve the transparency and credibility of **sustainability labels and digital information tools**: in this respect, and only when it comes to the options aimed at addressing this problem, as mentioned above and further specified in [Section 5](#), this initiative uses a broader concept of sustainability that also includes **social** and **ethical** aspects, given that sustainability labels available on the market also cover such a wider range of sustainability attributes²².

¹⁴ See Factual summary report – public consultation for New Consumer Agenda

https://ec.europa.eu/info/files/factual-summary-report-public-consultation-new-consumer-agenda_en, p. 17-18.

¹⁵ Several reports indicate that the durability and reparability of the products have beneficial impacts on the environment. S. Boldoczki, A. Thorenz, A. Tuma, The environmental impacts of preparation for reuse: A case study of WEEE reuse in Germany, *Journal of Cleaner Production*, Volume 252, 2020; and K. Laitala, et al., Increasing repair of household appliances, mobile phones and clothing: Experiences from consumers and the repair industry, *Journal of Cleaner Production*, Volume 282, 2021.

¹⁶ Based on European Commission, *Behavioural Study on Consumers’ engagement in the circular economy*, October 2018 as well as findings from the supporting study and Open Public Consultation.

¹⁷ BEUC, The European Consumer Organisation, *Durable and repairable products – changes needed for a successful path towards the green transition*, June 2021.

¹⁸ In relation to the consumer’s economic perspective, it can be assumed that the durability and reparability of products are even more relevant for lower-income households and vulnerable consumers, and therefore the durability and reparability of products are also relevant for social sustainability.

¹⁹ IATE, COM-SV based on The European consumer organisation (BEUC), *Premature obsolescence when products fail too quickly*, Factsheet, 2020.

²⁰ Commission Staff Working Document, *Guidance on the Implementation/Application of Directive 2005/29/EC on Unfair Commercial Practices*, SWD/2016/0163 final, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52016SC0163>

²¹ See previous footnote.

²² For example the Forest Stewardship Council (FSC) label, which promotes environmentally appropriate, socially beneficial, and economically viable management of the world's forests. The *Consumer Market Study on the functioning*

Other environmental sustainability and circularity aspects are explicitly not covered in this IA as they are already regulated elsewhere or may not be fit to be regulated in a horizontal consumer law instrument. For example, information on the **energy efficiency**²³ of goods is not considered in this IA as it is already regulated by the mandatory EU Energy Label²⁴. **Recycling aspects** are also already covered by product design and packaging rules or waste legislation²⁵. Moreover, multiple other sector specific initiatives are being prepared and undertaken in the context of the Circular Economy Action Plan, such as in areas like plastics, textiles, buildings or food. Notwithstanding this, some of the problems addressed in this initiative in fact relate to all aspects of environmental sustainability. Insofar as this initiative addresses misleading environmental claims, it addresses claims relating to all aspects of environmental sustainability, including, for example, recycling aspects. Similarly, in addressing unreliable sustainability labels and digital information tools, this initiative addresses labels and tools relating to all aspects of sustainability, including all aspects of environmental sustainability.

Interaction with existing legislation and upcoming initiatives

As *lex generalis*, this initiative will provide for general consumer protection rules that will be complemented by other EU-level technical or sector-specific instruments (*lex specialis*), when they provide for more detailed rules. This applies to existing rules (for example: ecolabels, eco-design measures, food labelling legislation) or upcoming initiatives. There will thus be no change to the current relationship between environmental and product policy legislation and consumer law instruments.

As further demonstrated in [Section 5](#), **this initiative is self-standing and developed in full coherence with the upcoming Green Claims Initiative and the Sustainable Products Initiative** (adopted together with this initiative), **both also announced in CEAP**. While these initiatives are linked in their purpose to enhance sustainable production and consumption, they do so by focusing on different market participants, at different stages of the value chain. They also have differing product scopes and introduce different types of requirements.

Indeed, **this initiative will focus on the demand side**, and more particularly at enhancing the environmental sustainability information provided to consumers at the point of the sale and at better protecting consumers from practices that could mislead them and thus interfere with the integrity of their transactional decisions, luring them away from sustainable consumption choices. To do so, **it will focus on the obligations of traders towards consumers**.

The objective of the **Green Claims initiative** will be to introduce certain requirements in relation to environmental claims on products and organisations. The initiative would establish methodological requirements on how environmental claims are communicated and substantiated.

The main objective of the **Sustainable Products Initiative (SPI)** is to introduce **sustainability requirements for products placed on the market, thus targeting manufacturers**. The SPI will create a framework that allows the setting of both minimum

of voluntary food labelling schemes for consumers in the European Union (2013, p. 57) shows also the wide variety of sustainability attributes for food labels.

²³ Next to the durability and reparability of goods, the energy efficiency/energy use of goods is also a relevant parameter as linked to both environmental sustainability and consumer's economic interests.

²⁴ See also [Annex 7](#) and [Annex 12](#).

²⁵ For example, via the Ecodesign Directive (Annex 7), the Packaging and Packaging Waste Directive (Directive 94/62/EC) and the Waste Framework Directive (Directive 2018/851).

requirements and information requirements for specific product or groups of products. The initiative should expand the scope of the Ecodesign Directive to a wider range of products, and to new types of requirements to better cover the life cycle of products, circularity and possibly social aspects. Information requirements set through SPI can help consumers distinguish the relevant products based on their sustainability performance (the information required will depend on the product and can range from the origin of materials to environmental performance, durability, reparability, chemicals of concern, handling at the end of life etc.). The SPI also aims to establish a **digital product passport** which would give access to such information along the value chain, with differentiated access to consumers, businesses and compliance authorities. The initiative examined in this IA would similarly contribute to the aim of allowing product differentiation by intervening at the point of sale and facilitating consumer access to relevant information, i.e. as regards to the durability or reparability of products. In this respect, the SPI will act as a *lex specialis* vis-à-vis horizontal consumer law information requirements by providing further information on the product or group of products in question in accordance with the specific requirements of the SPI. For further details on the interaction between the initiative subject to this Impact Assessment and other EU initiatives currently under preparation, please see [Annex 7](#).

In addition, as regards food products, this consumer law initiative is completed by actions announced in the **Farm to Fork Strategy**²⁶. In particular, the Commission announced that it will make a legislative proposal for a sustainable food system and will examine ways to create a sustainable food labelling framework that covers, in synergy with other relevant initiatives, the nutritional, climate, environmental and social aspects of food products. As *lex specialis*, such a labelling framework would thus further specify the rules set out under general consumer law (and therefore those flowing from this initiative). Additional regulatory and non-regulatory initiatives will also be developed to address specific groups of goods and services, such as ICT, electronics, textile, packaging or telecommunications, again, under the *lex specialis* logic.

Finally, this initiative in conjunction with other initiatives in preparation, will also contribute to the **right to repair**²⁷ as announced in the New Consumer Agenda, by giving consumers certain horizontal rights regarding access to information on reparability or by better protecting consumers against early obsolescence practices (including a lack of reparability).

Results of previous evaluations

In 2017, the EU Consumer and Marketing Law and the Consumer Rights Directive underwent a Fitness Check and evaluation, respectively.²⁸ The findings from this exercise pointed primarily to the need to improve awareness, enforcement of the rules and redress opportunities to make the best of the existing legislation and highlighted a limited range of necessary changes due to digitalisation.

Given the focus on enforcement and digitalisation, there were no specific conclusions in relation to the contribution of the consumer *acquis* to sustainable consumption, an issue which in fact gained further political prominence a number of years later with the

²⁶ COM(2020)381 final, 20 May 2020, p. 20.

²⁷ More information on this initiative at the following website: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13150-Sustainable-consumption-of-goods-promoting-repair-and-reuse_en

²⁸ Results of the Fitness Check of consumer and marketing law and of the evaluation of the Consumer Rights Directive <https://ec.europa.eu/newsroom/just/items/59332>

announcement of the European Green Deal. Nevertheless, whenever possible and relevant, this Impact Assessment draws on the findings and conclusions collected in this exercise.

2. PROBLEM DEFINITION

In spite of consumers' willingness to contribute to a greener and more circular economy in their everyday lives²⁹, their effective and active role in this green transition is hampered by a **lack of reliable information at the point of sale to make environmentally sustainable consumption choices (Problem 1)** and by **misleading commercial practices related to the sustainability of products (Problem 2)**. As mentioned in [Section 1](#) above, this Impact Assessment will address primarily the lack of reliable information related to products' durability and reparability, as well as misleading practices related to the sustainability of products. A further justification for the selection of these particular aspects of reliable information and these particular misleading practices is provided below.

These problems are the consequences of **two types of drivers**. On the **market side**, there is a lack of incentives to provide reliable environmental sustainability information and not to engage in certain practices. In addition, the **regulatory framework** fails to specify which information consumers should be provided with as regards these sustainability dimensions and does not address effectively certain misleading practices running counter to the aims of the green transition, making difficult effective enforcement.

In turn, Problem 1 and Problem 2 translate into **consequences for consumers** (detriment, lack of trust), **businesses** (uneven playing field, compliance costs) and the **environment** (non-realised benefits that a more sustainable consumption would bring).

An overview as well as a more detailed analysis of the various **stakeholder consultations** conducted to measure the extent of the problems identified in this Impact Assessment can be found in [Annex 2](#).

2.1. Problem 1: Consumers lack reliable information at the point of sale to make environmentally sustainable consumption choices

When comparing products and making purchase decisions, evidence suggests that **consumers often lack reliable information at the point of sale on products' environmental sustainability**. This includes information about the environmental characteristics of products, their durability/lifespan and their reparability. Detailed evidence identifying the lack of reliable information on these particular aspects as particularly problematic is presented below.

2.1.1. Lack of reliable information on the environmental characteristics of products (Sub-problem 1.1)

According to the consumer survey conducted for this Impact Assessment, **half of the respondents say they look actively for information about the environmental characteristics of products**, such as their environmental impacts or performance, greenhouse gas emissions, water use etc. However a large number of them find that the **existing information is simply insufficient**³⁰.

²⁹ European Commission, *Behavioural Study on Consumers' engagement in the circular economy*, 2018, p. 10.

³⁰ European Commission, *Flash Eurobarometer 367*, 2013, p. 73.

2.1.2. Lack of reliable information on the lifespan of goods (Sub-problem 1.2)

Evidence shows that **information on the “expected lifespan” of goods (i.e. years of life, hours of use, number of cycles etc.) is hardly ever made available to consumers**. For instance, the mystery shopping exercise carried out as part of the Study supporting this Impact Assessment showed that in more than 95 % of cases, information relating to the goods’ expected lifespan was not available. This is confirmed by observations from consumers and stakeholders, including manufacturers and retailers, surveyed for this Impact Assessment³¹.

Information about the **“guaranteed lifespan” is naturally only available when a commercial guarantee is offered by the trader** (corresponding to the number of years covered by the commercial guarantee). Moreover, research shows that while consumer products are regularly offered with a commercial guarantee (in 66% of the mystery shops at least one commercial guarantee was offered, 38% of which were included in the price of the product), the **information on such commercial guarantees, and the way that consumers are being charged, is often unclear, imprecise or incomplete making it difficult for consumers to compare between products and to distinguish this commercial guarantee from the (compulsory) legal guarantee**.³²

As regards information on the availability of **software updates**, the mystery shopping exercise carried out for this Impact Assessment showed that in only 1.25% of cases the product contained an indication that software updates and/or upgrades were ensured and in only one case information about the period of the commitment of the software updates was provided given (i.e. 12 months). Under the Sale of Goods Directive³³, applicable as of 2022, a seller will have to supply the consumer with software updates for a period of time which the consumer might reasonably expect so as to ensure that the product remains in conformity³⁴. Nevertheless, the provision of information at the point of sale on the length of time during which a particular seller decides to provide software updates will not be required.

2.1.3. Lack of reliable information about products’ reparability (Sub-problem 1.3)

Information on products’ reparability, such as reparability scoring, on the availability of repair services, spare parts or repair manuals of goods, is not widely available to consumers at the point of sale³⁵. For example, over 80% of the respondents pointed out that it is difficult to find information on how easy it is to repair a product³⁶. This is also corroborated by the results of the mystery shopping exercise carried out in the context of this Impact Assessment: information about reparability aspects such as availability of spare parts in general, period of time of availability of spare parts or certified repair services was

³¹ Only 23% of the manufacturers surveyed said that they provide this information for ‘all products’ and only 6% ‘for most’. 32% did not know the expected lifespan of their products and 17% said that they do not provide this information. 15% of retailers provide information on the expected lifespan of products, where this information is not provided by manufacturers. 59% of retailers said they provide this information for some products.

³² European Commission, *Consumer market study on the functioning of legal and commercial guarantees for consumers in the EU*, 2015. European Commission, Impact Assessment supporting study: *Study on Empowering Consumers Towards the Green Transition*, July 2021. *Commercial warranties: are they worth the money?* ECC-Net, April 2019.

³³ Directive 2019/771 on certain aspects concerning contracts for the sale of goods

³⁴ Directive (EU) 2019/771, Art. 7(3)

³⁵ Information on reparability aspects of goods is not provided for more than 80% of all goods in the market. European Commission, Impact Assessment supporting study: *Study on Empowering Consumers Towards the Green Transition*, July 2021.

³⁶ European Commission, *Behavioural Study on Consumers’ engagement in the circular economy*, 2018, p. 81.

available only in 19% of cases. Contrary to this, representatives from the industry and businesses surveyed for this Impact Assessment mostly indicated that they believed information on reparability is widely available³⁷.

2.2. Problem 2: Consumers face misleading commercial practices related to the sustainability of products

Consumers are too often confronted with misleading commercial practices preventing them from taking sustainability into account in their purchases. Such practices occur at various stages of the consumption journey: during the advertising stage, the purchasing stage or during the use of the products. The following main categories of such practices have been identified in the consultations for this Impact Assessment as particularly problematic:

- Early obsolescence;
- Greenwashing;
- Non-transparent and non-credible sustainability labels, and digital information tools (e.g. mobile applications comparing the sustainability performance of selected products).

These practices have also been singled out by consumer protection authorities, for instance, in the course of the Fitness Check of EU Consumer and Marketing Law (2017)³⁸ or by Consumer Protection Cooperation (CPC) authorities³⁹ who have highlighted difficulties to carry out enforcement actions on these issues (see [Section 2.3](#) on drivers). Further evidence justifying the selection of these practices as particularly problematic is presented below.

2.2.1. Consumers are sold products that do not last as long as they could or consumers expect (“early obsolescence”) (Sub-problem 2.1)

Early obsolescence refers to instances where a product cannot be used for the expected purpose and breaks earlier than expected⁴⁰. Within early obsolescence, “**planned obsolescence**” refers specifically to a commercial policy involving **deliberately planning or designing a product with a limited useful life** so that it will become obsolete or non-functional after a certain period of time⁴¹.

Faster obsolescence of products is a growing concern for consumers. In their reply to the Open Public Consultation to support this IA, 76% of respondents (and 89% of citizens) mentioned they had experienced an unexpected failure of products in the past 3 years⁴². ICT products (47%), small household appliances (20%), clothing and footwear (19%), other electronics (18%), large household appliances (16%) and software programmes (15%) were the most often cited product categories for which unexpected failure had been experienced.

³⁷ European Commission, Impact Assessment supporting study: *Study on Empowering Consumers Towards the Green Transition*, July 2021, Annex 8, Sec. 5.

³⁸ As regards environmental claims specifically. European Commission, *Study for the Fitness Check of EU consumer and marketing law*, 2017, p.39.

³⁹ The Consumer Protection Cooperation (CPC) is a network of authorities responsible for enforcing EU consumer protection laws to protect consumers’ interests in the countries of the European Union (EU) and the European Economic Area (EEA). It has its basis in Regulation (EU) 2017/2394 of the European Parliament and of the Council of 12 December 2017 on cooperation between national authorities responsible for the enforcement of consumer protection laws and repealing Regulation (EC) No 2006/2004.

⁴⁰ COM(2020)696 final, 13 November 2020, p. 5.

⁴¹ SWD(2016) 163 final, p. 75.

⁴² European Commission, *A New Consumer Agenda Factual summary report – public consultation*, 2020, p. 20.

Available studies suggest that **certain consumer goods are not designed to last long and/or have a shorter lifetime than would have been expected for such products in the past**^{43,44}. For example, an EU funded project, identified that a significant share of goods tend to fail right after the end of the minimum legal guarantee period (between second and third year) based on consumer reports in seven Member States⁴⁵. Similarly, a 2015 German Study⁴⁶ concluded that the percentage of large household appliances replaced by consumers within five years due to **technical defects more than doubled, from 3.5% in 2004 to 8.3% in 2012**. Several other studies carried out^{47,48,49} present evidence that the **lifespan of some goods is becoming shorter, with technical failures being the main reason for product replacement**.

Interestingly, while issues related to the failure of goods may vary depending on the characteristics of the goods, interim findings of the above mentioned EU funded project conclude that “a **limited number of problem types account for four out of five failures, most of which refer to a specific part of a product**, many of which appear to be shared across product categories (e.g. batteries, printed circuit boards and LCD screens)”⁵⁰.

Another study shows that in the case of smartphones and tablets, **a large proportion of the devices are being replaced after two years mostly because of a few but frequent problems**: (1) the battery had stopped working and could not be replaced by the user; (2) the screen had cracked and could not be replaced by the user; or (3) the manufacturer was no longer willing or able to support the software⁵¹. Recently, national consumer organisations have also received more than 25 000 complaints concerning two components of a gaming console (i.e. its two controllers) which was **failing prematurely and made difficult to repair or replace**, rendering the console obsolete (well before the lifespan of 7 to 10 years advertised by its manufacturer) and **in spite of the manufacturer being aware of the problem**⁵².

Early obsolescence can thus also be linked to a limited but frequent set of practices, such as whether a component that is broken can be replaced by consumers and/or whether they are prevented/hampered in doing so by the trader, whether traders are taking sufficient and quick remedial actions when they become aware of a frequent default in one of their products etc.

On top of these cases of early obsolescence, there have also been a number high-profile cases of **planned obsolescence**, such as software updates having an impact on the performance of phones and accelerating their replacement, although consumers were not informed

⁴³ United Nation Environment Programme, *The Long View – Exploring Product Lifetime Extension*, 2017, pp 20-24.

⁴⁴ European Parliament, *Briefing – Planned obsolescence: exploring the issue*, 2017.

⁴⁵ Research carried out by the PROMPT project, an independent testing programme assessing the lifetime of consumer products. It brings together research institutes, national and umbrella consumer organisations as well as repair companies and platforms. The project has received EU funding under Horizon 2020.

PROMPT Project, *State-of-the-art of consumers' product experiences related to premature obsolescence*, forthcoming.

⁴⁶ European Parliament, *Briefing – Planned obsolescence: exploring the issue*, 2016, p. 3-4.

⁴⁷ Umwelt Bundesamt, *Influence of the service life of products in terms of their environmental impact: Establishing an information base and developing strategies against "obsolescence"*, 2020, p. 85, p. 88, p. 24.

⁴⁸ European Parliament, *Briefing – Planned obsolescence: exploring the issue*, 2016, p. 4.

⁴⁹ M. Depypere, T. Opsomer, *Relevance of Policy Measures to Increase Product Lifetimes: a Literature Review*, 2018.

⁵⁰ PROMPT Project, *State-of-the-art of consumers' product experiences related to premature obsolescence*, forthcoming.

⁵¹ Rizos, V., Bryhn, J., Alessi, M., Campmas, A. and Zarra, A., *Identifying the impact of the circular economy on the Fast-Moving Consumer Goods Industry Opportunities and challenges for businesses, workers and consumers—mobile phones as an example*, 2019, p. 19, p. 25.

⁵² BEUC letter to the European Commission indicating the issue of premature obsolescence of the product Nintendo Switch https://www.beuc.eu/publications/beuc-x-2021-002_nintendo_-_premature_obsolescence_complaint_to_the_ec.pdf

thereof⁵³. It is important to note, however, that a number of manufacturers/retailers argue that planned obsolescence does not exist as a practice and that shorter lifespans are impacted by consumer behaviour such as poor maintenance and increased use.

2.2.2. Consumers are faced with the practice of making unclear or not well-substantiated environmental claims ('greenwashing') (Sub-problem 2.2)

Environmental ("green") claims are defined as: the practice of suggesting or otherwise creating the impression (in a commercial communication, marketing or advertising) that a good or a service has a positive or no impact on the environment or is less damaging to the environment than competing goods or services.⁵⁴ Green claims can be explicit (for instance, highlight the savings in greenhouse gas emissions due to a change of packaging), general (statements such as "green" product, "good for the environment" etc.) or even implicit (e.g. use of the colour green, certain images etc.). Whether a green claim can be said to have been made would therefore often require a concrete assessment on a case-by-case basis. A green claim can be made using a label or otherwise. Therefore, the options considered to combat certain types of misleading green claims, whether in this initiative or in the forthcoming complementary Green Claims Initiative, would apply to labels insofar as those labels make a green claim of the type in question. A further specific problem relating to sustainability labels will be addressed in [section 2.2.3](#) below. A recent Commission study on environmental claims found that 80% of webshops, webpages and advertisements surveyed contained green claims⁵⁵. 45% of the total were implicit claims (imagery and colours suggesting environmental benefit), 35% were explicit claims (logos, labels and textual claims) and 21% were vague, general claims. Such a high prevalence was also identified in the mystery shopping carried out for this Impact Assessment⁵⁶.

The aforementioned study assessed 150 environmental claims and found that **a considerable share (53.3%) of them provide vague, misleading or unfounded information on products' environmental characteristics** across the EU and in a wide range of product groups (both in advertisement as well as on the product). These results have also been confirmed by the outcome of a recent "sweep"⁵⁷ carried out by the Consumer Protection Cooperation authorities⁵⁸. Out of the 344 sustainability claims assessed throughout November 2020, authorities had at least a **reasonable doubt that the claim may be false or deceptive in almost half of the cases (42%), and therefore that these could potentially amount to an unfair commercial practice under the UCPD**. CPC authorities considered that in more than half of the cases (57.5%), the trader did not provide sufficient elements allowing for a judgement about the claim's accuracy. In many cases, authorities had difficulties identifying whether the claim covered the whole product or only one of its

⁵³ Autorita Garante della Concorrenza e del Mercato, *Proceedings initiated against Samsung and Apple for smartphone software updates*, <https://en.agcm.it/en/media/detail?id=4d458a5b-49ad-4d30-80e9-d3e9692fca36> and: <https://www.agcm.it/media/comunicati-stampa/2018/10/PS11009-PS11039>

⁵⁴ Commission Staff Working Document, Guidance on the Implementation/Application of Directive 2005/29/EC on Unfair Commercial Practices, SWD/2016/0163 final, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52016SC0163>

⁵⁵ European Commission, *Environmental claims in the EU – inventory and reliability assessment*, 2020.

⁵⁶ The mystery shopping exercise revealed that over half of products analysed (51%) had a claim (either logo, label, text, image or embodied in the brand). European Commission, Impact Assessment supporting study: 'Study on Empowering Consumers Towards the Green Transition', July 2021.

⁵⁷ A "sweep" is a set of checks carried out simultaneously by national enforcement authorities to identify breaches of EU consumer law in a particular sector or area.

⁵⁸ See: 2020 – sweep on misleading sustainability claims, https://ec.europa.eu/info/live-work-travel-eu/consumer-rights-and-complaints/enforcement-consumer-protection/sweeps_en#2020-sweep-on-misleading-sustainability-claims

components (50%), whether it referred to the company or only certain products (36%) and which stage of the product's lifecycle it covered (75%). **37% of the claims included vague statements** (such as “green”, “nature’s friend”) **likely to deceive consumers**.

Most stakeholders consulted for this Impact Assessment agreed that greenwashing is a problem, with the noticeable exception of industry representatives. The results of the stakeholder consultations on the potential future use of the Product Environmental Footprint (PEF) and Organisation Environmental Footprint (OEF) methods⁵⁹ show that 56% of respondents have already encountered misleading green claims.

2.2.3. Consumers are faced with the use of sustainability labels and digital information tools that are not always transparent and credible (Sub-problem 2.3)

Sustainability labels are considered in this Impact Assessment as any voluntary “trust mark, quality mark or equivalent”⁶⁰ that aims to set apart and promote a product, a process or a business with reference to environmental, social or ethical aspects. These labels are developed by a wide array of bodies, organisations, legal or private entities (including public bodies, industry associations, for-profit as well as non-profit organisations, individually or in partnership). They can usually be found directly on products and in communication materials. **Ecolabels** are those sustainability labels which aim to set apart and promote a product, a process or a business with reference to environmental aspects in particular.

Digital information tools, in the context of this Impact Assessment, are software tools which have as their primary purpose to provide information to consumers on the sustainability of products with respect to environmental, social or ethical aspects.

Both sustainability labels and digital information tools are used to promote products to consumers which are more sustainable, by providing information on their performance with respect to environmental as well as social and ethical aspects⁶¹.

Numerous voluntary labels have as a stated objective to guide consumers towards more sustainable choices. There were around 230 ecolabels active in Europe in 2020 of which 48% cover some social attributes⁶². 901 labelling schemes have been identified across Europe in the food area⁶³, and there have been 100 private green energy labels mapped in the EU.⁶⁴ However, **many labels are subject to different levels of robustness, supervision and transparency**⁶⁵, which may raise questions about their reliability. **Sustainability labels can be distinguished according to their governance model**: those that are run by third party certification schemes, whose role is to ensure that companies wishing to use the labels will abide by a set of specific criteria (these certification schemes can be public, private, or

⁵⁹ European Commission, *Report on 2018-2019 stakeholder consultations regarding the potential future use of the Product and Organisation Environmental Footprint methods*, 2020, p. 81.

⁶⁰ Based on current wording of the UCPD.

⁶¹ Rubik, F. and Frankl, P., *The future of eco-labelling: Making environmental product information systems effective*. Routledge, 2017, p. 319

⁶² See Ecolabel Index: <http://www.ecolabelindex.com/ecolabels/?st=region=europe>

⁶³ European Commission, *Consumer Market Study on the functioning of voluntary food labelling schemes for consumers in the European Union*, 2013, p. 57.

⁶⁴ European Commission, *Technical assistance for assessing options to establish an EU-wide green label with a view to promote the use of renewable energy coming from new installations*.

⁶⁵ European Commission, *Consumer Market Study on Environmental claims for non-food products*, 2014, p. 28-29.

non-profit); and those based on “self-declarations” not verified by any third party⁶⁶. Consumers appear not to be aware of such distinction.⁶⁷

This proliferation of labels combined with their varied governance models implies that producers and retailers can apply a variety of strategies in opting for a specific sustainability label. Very often, this also translates into companies displaying various labels to vouch for the sustainability of their products. Interestingly, during the consultation conducted for this Impact Assessment, **industry representatives were more likely to identify the proliferation of sustainability labels as a problem** compared to consumers and their representatives.

The analysis carried out in preparation for this Impact Assessment shows **shortcomings as to the transparency of labels**. For 27% of the labels examined, the standards/criteria which the label is meant to guarantee were not available online. 16% of labels did not disclose their conformity assessment method. The type of managing authority and the result of the assessment were also often not disclosed. Only 17% of labels indicated providing for a dispute settlement or appeal mechanism with regards to the accuracy of the information certified by the label.

In addition, **other evidence points to the problem of credibility of labels**. For instance, only 35% of the labels analysed for this Impact Assessment required specific metrics or data to substantiate their compliance with the criteria. A previous analysis showed a higher level of compliance with a set of principles by labels relying on a certification scheme compared to those based on “self-declaration”⁶⁸. However, some shortcomings have also been identified in relation to certification schemes. Some of those that have been examined have no or limited information on their supervisory structure, on how their requirements are developed or on how certification and inspections actually occur.

According to the stakeholder consultations, the “**proliferation of non-transparent online information tools that are providing information/comparisons on the sustainability performance of products**” was identified as an obstacle to enhanced consumer participation in the circular economy by 11% of consumers⁶⁹. It therefore does not seem to be considered as equally important a problem as labels. This could, however, change in the future, as such digital information tools are likely to become more and more important in influencing consumers’ behaviour due to the increased digitalisation of society.

2.3. What are the problem drivers?

The drivers behind these problems have been identified as **market failure**, as well as an **insufficiently adapted regulatory framework**.⁷⁰ The impact of these drivers on each of the problems and sub-problems identified is presented in Figure 1 below. It also outlines the

⁶⁶ Gruère, G, *A Characterisation of Environmental Labelling and Information Schemes*, OECD Environmental Working Papers, N° 62, OED Publishing Paris, 2013, p. 28-29.

⁶⁷ European Commission, *Consumer Market study on environmental claims for non-food products*, 2014, p. 20.

⁶⁸ In this case, the labels were assessed against the recommendations set out in European Commission, *EU best practice guidelines for voluntary certification schemes for agricultural products and foodstuffs*, 2010.

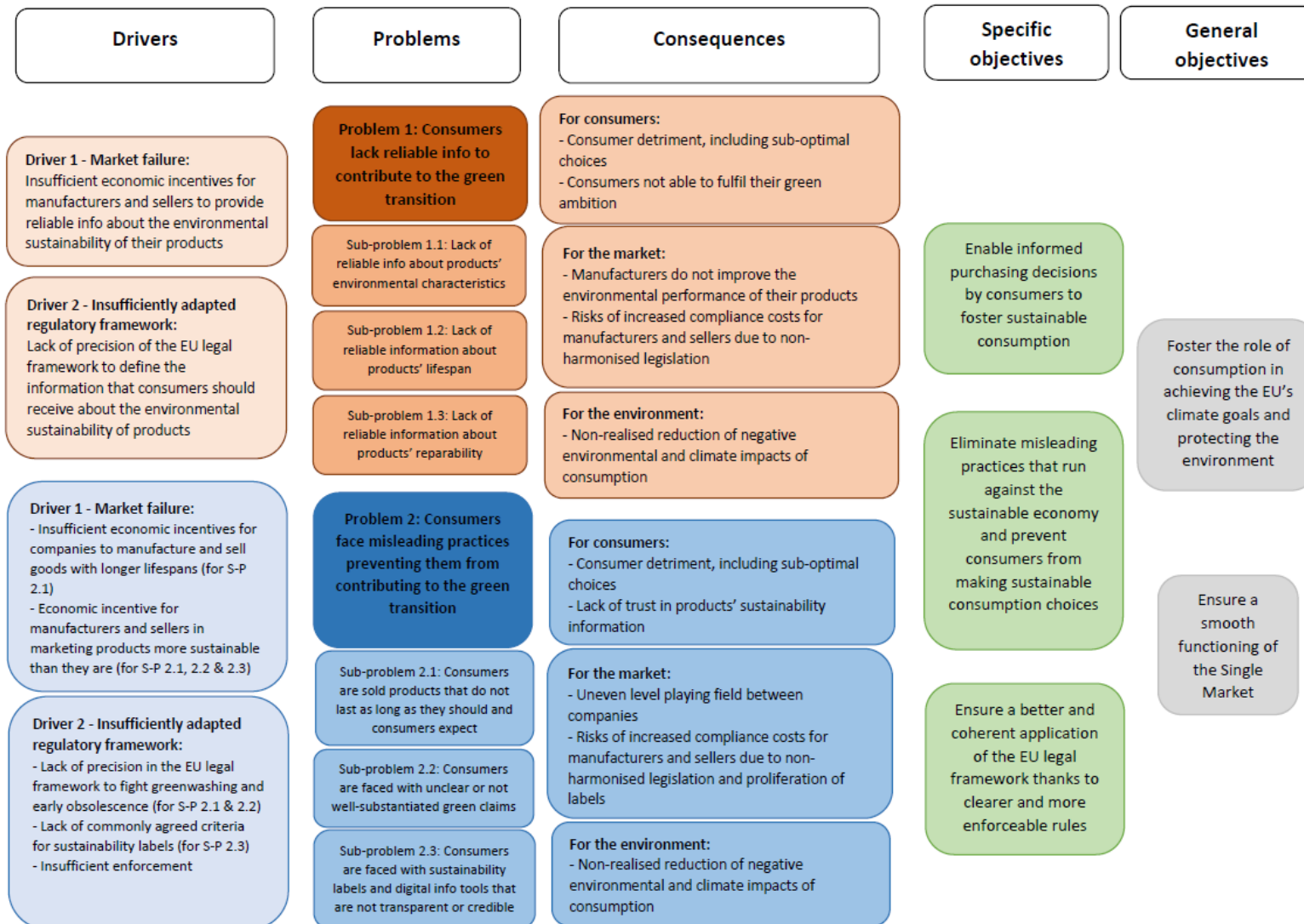
See European Commission, *Consumer Market Study on Environmental claims for non-food products*, 2014, p. 80.

⁶⁹ European Commission, *Impact Assessment supporting study: Study on Empowering Consumers Towards the Green Transition*, July 2021, Annex 8 section 4.1.

⁷⁰ Behavioural failure was not considered as an important driver behind the identified problems. This Impact Assessment was fed by the data and findings of recent behavioural studies, further described in [Annex 12](#).

consequences of each of the sub-problems for consumers, for the market and the environment, which are presented in more detail in [Annex 12](#), as well as the specific and general objectives of the initiative, which are discussed further in [Section 4](#).

Figure 1. Problem tree



As can be seen from this problem tree, in relation to [Problem 1](#) specifically (Consumers lack reliable information at the point of sale to make environmentally sustainable consumption choices), one driver is that there are insufficient incentives for companies to provide consumers with reliable information on the environmental characteristics, lifespans, and reparability of their products unless the expected benefits in terms of increased demand outweigh the costs of providing that information⁷¹. A second driver is that under existing EU instruments, making information on products' environmental sustainability available is voluntary⁷² and/or limited to certain product categories and/or features^{73,74}. In absence of common rules, this leads to different levels of protection of consumer rights among Member States when certain Member States would start regulating while others not. The EU's general consumer protection rules (namely the Unfair Commercial Practices Directive 2005/29/EC - UCPD and the Consumer Rights Directive 2011/83/EU - CRD) generally require traders to provide consumers with information that they need in order to make an informed, independent transactional decision. These rules, however, do not specifically require the provision of reliable information about products' environmental characteristics, lifespan or reparability.

In relation to [Problem 2](#) (Consumers face misleading commercial practices related to the sustainability of products), one driver is that manufacturers and sellers have economic incentives to manufacture and sell goods with lifespans that are shorter than they could realistically be able to achieve, so that they can reduce their costs or sell new or replacement goods to consumers⁷⁵. Furthermore, concerning greenwashing, the increased interest of consumers in environmentally sustainable products provides an incentive to market products as environmentally friendly to gain a competitive advantage (or at least not to put oneself at a disadvantage). A second driver is the lack of precision of the EU consumer legal framework, making it difficult for national authorities to address the aforementioned issues effectively. The consumer legal framework also does not allow Member States to adopt stricter consumer protection rules given its full-harmonisation character. The UCPD, for instance, does not provide specific rules on environmental claims. The general provisions of the UCPD also apply where traders present environmental claims in ways that are unfair to consumers⁷⁶. However, in the absence of more specific provisions, its principle-based approach requires a case-by-case assessment from enforcers including of the negative impact of the misleading practice on the integrity of the consumers' transactional decision.

2.4. How will the problems evolve without intervention?

Without the intervention of this initiative, the evolution of the problems and their drivers will depend on the interaction between various forces, including:

- the evolution of the interest of consumers in sustainable products;

⁷¹ European Commission, *Links between production, the environment and environmental policy*, 2019.

⁷² Such as the voluntary EU Ecolabel under Regulation (EC) No 66/2010

⁷³ For example, via the implementing rules for specific categories of energy-related products under Energy Labelling Regulation (EU) 2017/1369 and the Eco-design Framework Directive 2009/125/EC; for CO2 emission and fuel efficiency for cars under the Car labelling Directive 1999/94/EC.

⁷⁴ [Annex 6](#) presents relevant existing EU legislation on, the type of sustainability information they provide for and the products concerned.

⁷⁵ J. Guiltinan, *Creative Destruction and Destructive Creations: Environmental Ethics and Planned Obsolescence*, 2009, p. 21.

⁷⁶ Environmental claims on food and feed that are misleading can also be prohibited respectively by Regulation (EU) No 1169/2011 on the provision of food information to consumers and Regulation (EU) No 767/2009 on the placing on the market of feed.

- the trends regarding private incentives to provide information on the environmental characteristics, durability and reparability of products and incentives to fight greenwashing, early obsolescence and unreliable or non-transparent sustainability labels and information tools;
- national initiatives and EU-level related initiatives that attempt to address the identified problems. The potential impact on the evolution of the problem of two EU initiatives in particular currently under preparation (the upcoming **Green Claims Initiative** and the **Sustainable Products Initiative** adopted together **with this initiative**) discussed in [Section 5](#) below when analysing the baseline from which the options considered are to be assessed.

Member States are likely to continue to unilaterally adopt options to provide consumers with environmental sustainability information and to address more directly the problematic practices identified in this Impact Assessment (see [Annex 6](#)). For instance, France's Circular Economy Law, introduced in 2020, obliges producers, importers, distributors or any other person placing electrical and electronic products on the market to provide the reparability index of their product to sellers of their products or any other person requesting it. The aim is to inform consumers about the ability to repair five groups of products (televisions, smartphones, laptops, lawnmowers and washing machine). To take an example of a legislative proposal currently under consideration, in July 2020, Italy tabled a proposal which would define and ban the practice of planned obsolescence and introduce criminal sanctions for the producer or distributor of goods who mislead the consumers on a number of issues including planned obsolescence.

The interest of consumers in sustainable products is expected to increase. With this increase it is expected that **the incentives of companies to provide consumers with information on the sustainability of their products will also increase** and so will the share of products with information on their environmental characteristics. This will, on the one hand, reduce the extent of problem 1.1 (lack of reliable information on environmental characteristics of products), but this could **potentially increase the incentives to adopt greenwashing practices and to develop or use sustainability labels that are not fully transparent and credible** and so exacerbate problems [2.2](#) and [2.3](#). Digitalisation is also likely to lead to an increase of "sustainability apps" aimed at comparing products based on their sustainability parameters. The number of sustainability labels may stagnate given their already high number, but the number of one-brand sustainability labels may still increase. This will lead to an increase of the extent and consequences of the problem, including an increased mistrust of consumers on sustainability labels and a reduction of their effectiveness in shifting consumption towards more sustainable products.

The increase in the market share of sustainable products will compensate for the total increase in consumption and is expected to lead to a reduction of the overall environmental footprint of private consumption. However, the effective reduction of environmental impacts will depend on whether the information regarding the sustainability of the product is reliable or not. Without further regulatory intervention at national or EU level, this reduction may actually be limited because, as mentioned above, the incentives for companies to practice greenwashing could increase as demand for sustainable products rises. Because of these opposite forces, **only a limited reduction of environmental impacts is expected**.

3. WHY SHOULD THE EU ACT?

3.1. Legal basis

The EU exercises a shared competence with Member States in the area of consumer policy. As stipulated in Article 169 of the Treaty on the Functioning of the European Union (TFEU), the EU shall contribute, inter alia, to protecting the economic interests of consumers as well as to promoting their right to information and education in order to safeguard their interests. Possible legislative action to be taken in relation to the problems analysed in this IA would be based on Article 114 TFEU, which requires the Commission to take as a base a high level of consumer protection in the context of the completion of the internal market, in conjunction with Article 169 TFEU. In addition to pursuing internal market and consumer protection objectives, the proposal will also pursue a high level of environmental protection, by unlocking opportunities for the circular, clean and green economy. However, internal market and consumer protection objectives are predominant and the environmental benefits are complementary. Therefore it is appropriate to use Article 114 TFEU and Article 169 TFEU as the legal basis.

3.2. Subsidiarity: Necessity of EU action

The problems analysed in this impact assessment are widespread and have a Union-wide character with the same drivers across the EU. All European consumers lack the necessary information to make more sustainable choices and are faced with the same problematic practices. As the problems identified affect all European consumers, only action taken at EU level will be effective. Other factors which make EU action necessary are the volume of B2C cross-border trade in the EU, as well as the fact that Member States⁷⁷ are starting to address the problems identified in this impact assessment unilaterally.

In the absence of EU-level action, these national initiatives, while bringing certain benefits to consumers and the environment at the national level, could further intensify and lead to a fragmentation of the Single Market, bringing in turn legal uncertainty and raising compliance costs. Indeed, the size and intensity of cross-border trade are high enough to make such economic activity in the Single Market extremely vulnerable to inconsistent or even merely divergent policy choices by Member States.

The UCPD provides, in principle, fully harmonised rules regarding unfair commercial practices harming consumers' economic interests. The CRD provides fully harmonised rules concerning pre-contractual information requirements in distance and off-premises sales. Therefore, depending on circumstances, new legislative action at national level within the scope of these Directives could go against the fully harmonised *acquis* that is already in place.

Widespread infringements of consumer rights have now been legally defined by the revised CPC Regulation⁷⁸, which provides a powerful procedural framework for cooperation between national enforcers in this respect. But, to be fully effective, enforcement across the EU must also be grounded in a common and uniform substantive law framework. In other

⁷⁷ See [Annex 6](#).

⁷⁸ Regulation (EU) 2017/2394 of the European Parliament and of the Council of 12 December 2017 on cooperation between national authorities responsible for the enforcement of consumer protection laws and repealing Regulation (EC) No 2006/2004

words, to be fully effective, the EU consumer acquis must more clearly define which greenwashing and obsolescence practices should be considered as unfair.

Feedback of stakeholders on the Inception Impact Assessment shows a particularly strong support for EU action capable of bringing about a common approach to the provision of sustainability information to consumers and to limit the proliferation of labels and misleading green claims on the Single Market, for instance.

3.3. Subsidiarity: Added value of EU action

The 2017 Fitness Check of the Consumer and Marketing Law as well as the evaluation of the Consumer Rights Directive confirmed that the horizontal EU consumer and marketing law acquis has contributed towards a high level of consumer protection across the EU. It has also ensured a better functioning internal market and helped to reduce costs for businesses offering goods and services cross-border⁷⁹. As this initiative aims at completing this acquis to address problems that have become more acute with the green transition, and to render its enforcement more effective, it is also expected to achieve the same added-value.

EU action can ensure that consumers have the same environmental sustainability information across the Single Market which will help them to make informed purchasing choices, thus reducing the risk of a legal fragmentation of the Single Market and the consequences that this would entail for cross-border trade and consumer protection. This initiative would also alleviate the difficulties faced by national authorities in enforcing the existing principle-based provisions of the UCPD in such complex areas as misleading green claims and obsolescence practices. By specifying further when and how such practices would qualify as unfair, it would increase the effectiveness of consumer protection within the EU.

By building in a targeted way on the EU consumer law acquis, this initiative will also rely on the full spectrum of enforcement mechanisms, as strengthened under the Better enforcement and modernisation Directive⁸⁰, the Representative Actions Directive⁸¹ and the revised CPC Regulation⁸².

This initiative will cover only the aspects that Member States cannot achieve on their own and where the administrative burden and costs are commensurate with the specific and general objectives to be achieved. Proportionality will be carefully designed in terms of scope and intensity and using qualitative and quantitative assessment criteria to ensure that the options considered will cover all relevant stakeholders, but will be tailored to the needs they must address. None of the options analysed in this impact assessment goes beyond what is necessary to achieve the objectives set in the following section.

⁷⁹ SWD(2017) 209 final, page 73.

⁸⁰ Directive (EU) 2019/2161 of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards the better enforcement and modernisation of Union consumer protection rules

⁸¹ Directive (EU) 2020/1828 of the European Parliament and of the Council of 25 November 2020 on representative actions for the protection of the collective interests of consumers and repealing Directive 2009/22/EC

⁸² Regulation (EU) 2017/2394 of the European Parliament and of the Council of 12 December 2017 on cooperation between national authorities responsible for the enforcement of consumer protection laws and repealing Regulation (EC) No 2006/2004

4. OBJECTIVES: WHAT IS TO BE ACHIEVED?

4.1. General objectives

The general objectives of the policy options discussed in this Impact Assessment flow from the Treaties, the Charter of Fundamental Rights and the commitments taken by the EU to tackle climate and environmental-related challenges⁸³:

- Ensure a smooth functioning of the Single Market, for the benefit of both consumers and traders (Article 114 TFEU, 169 TFEU).
- Foster the role of consumption in achieving the EU's climate goals and protecting the environment;

4.2. Specific objectives

The specific objectives are to:

- Enable informed purchasing decisions by consumers to foster sustainable consumption. This addresses **Problem 1**.
- Eliminate practices that mislead consumers away from sustainable consumption choices. This addresses **Problem 2**.
- Ensure a better and coherent application of the EU legal framework thanks to clearer and more enforceable rules. This addresses **both problems**. Coherent application of EU rules is indeed necessary to ensure effective consumer protection and a level-playing field for businesses within the Single Market.

To allow for a more granular assessment of the effectiveness of the various options to be presented in [Section 5](#) in meeting these three specific objectives, these objectives will be further broken down into 6 criteria, as shown in [Annex 9](#). Each option's impacts will be measured against (1) the quality of consumer decision making, (2) circularity and sustainable consumption, (3) consumer protection, (4) consumer trust, (5) level playing field and (6) the application of the EU legal framework.

5. WHAT ARE THE AVAILABLE POLICY OPTIONS?

5.1. What is the baseline from which options are assessed?

The baseline (**Option 0** as presented in the MCA in [Annex 9](#)) does not involve the introduction of any new regulatory measures under consumer policy at EU level.

As regards Problem 1 (Consumers lack reliable information at the point of sale to make environmentally sustainable consumption choices), the extent of the problem and its consequences is expected to remain constant for most of the EU27 countries and to improve for some products in a few Member States that are/will try to address the problem with national legislation, as identified in [Annex 6](#). The **Consumer Rights Directive** requires traders to provide consumers with information on, among others, the main characteristics of the goods or services. It includes specific information requirements about the existence of the legal guarantee of conformity, as well as additional commercial guarantees when provided on a voluntary basis. While the **Sale of Goods Directive** promotes durability of products through the legal guarantee, it only provides rights to the consumers during the minimum two-year legal guarantee period. The incentives to provide commercial guarantees

⁸³ COM/2019/640 final, 11 December 2019.

included in the product price and with longer duration are not expected to change. Regarding the provision of software updates, while the application of national transposition rules of the **Sale of Goods Directive** from 2022 will help to ensure that consumers are supplied with software updates so that a product remains in conformity for a period of time which the consumer might reasonably expect, the comparability of product at the point of sale based on the availability of software updates will not be addressed, and is therefore expected to remain an issue.

The incentives to provide information to consumers on expected/estimated lifespan are also not expected to change significantly for most products. While important new reparability requirements under **Ecodesign** came into force in March 2021 for a number of product categories (including more information in user manuals)⁸⁴, they will not address specifically the information that consumers are provided by traders on products' reparability at the point of sale, and certainly not for all products categories.

As regards Problem 2 (Consumers face misleading commercial practices related to the sustainability of products), the risk of an increase in the share of products employing these practices is expected to grow, as the environmental sustainability of products is an aspect being valued by an increasing number of consumers. The general provisions of the **Unfair Commercial Practices Directive** on misleading practices can be used to apply also to planned obsolescence cases when they negatively affect consumers on the basis of a case-by-case assessment. There are no specific provisions in this area in the Directive or in its Annex I (blacklist) which sets out practices regarded as unfair under all circumstances. The lack of more specific rules and the need for case-by-case assessment of the effects of the practice on the consumers makes it difficult to enforce the UCPD in this area. Some minor changes are expected to the extent of this problem due to new legal actions at the national level under existing European consumer legal framework.⁸⁵

The general provisions of the **Unfair Commercial Practices Directive** apply also to greenwashing practices when those are misleading and negatively affect consumers on the basis of a case-by-case assessment. There are no specific provisions in this area in the Directive or in its Annex I (blacklist) which sets out practices regarded as unfair in all circumstances. The recent CPC screening of websites for 'greenwashing'⁸⁶, confirmed that there is a need for strengthening the legal framework to facilitate enforcement in this area. In the short term, the European Commission will further develop the guidance on the application of the UCPD to support Member States in this area. Some Member States are increasing efforts to stop these practices and may launch further enforcement cases. However, these will not help to address the drivers identified in [section 2.3](#). The number of digital information tools (e.g. apps) to compare the sustainability performance of products may grow in a more and more digitalised world.

When considering the baseline from which the options to be presented below are assessed, however, it is important to highlight at this **stage two other EU-level initiatives** under preparation which, while failing to adequately address the sub-problems identified in this

⁸⁴ New requirements on the reparability of appliances have been introduced in these ecodesign measures: availability of spare parts, easy replaceability and access to repair and maintenance information for professional repairers have been introduced for refrigerating appliances, household dishwashers, household washing machines and household washer-dryers, electronic displays and refrigerating appliances with a direct sales function. Also, consumer's access to user instructions is expected to improve in the form of a user manual on a free access website of the manufacturer.

⁸⁵ See link for an example of a recently launched case by different consumer organisations: <https://www.test-achats.be/action/espace-presse/communiques-de-presse/2020/class-action-apple>

⁸⁶ See: 2020 – sweep on misleading sustainability claims, https://ec.europa.eu/commission/presscorner/detail/en/ip_21_269

report, will nonetheless complement the preferred policy options presented, namely the upcoming **Green Claims Initiative** and the **Sustainable Products Initiative** (adopted together with this initiative).

These two initiatives and the one subject to this Impact Assessment are prepared in parallel and in close coordination to ensure their complementarity. However, notwithstanding this close coordination, the **three initiatives are nonetheless separate**, and while the policy options of the Green Claims Initiative and the Sustainable Products Initiative have been taken into account in the policy options (in relation to “information at the point of sale” and “misleading practices”) assessed in this Impact Assessment, it cannot be guaranteed that each of these other initiatives will be adopted and will become EU law, which is pending the upcoming ordinary legislative procedure. The baseline for this initiative (**Option 0** as presented in the MCA in [Annex 9](#)), as well as the impacts of the policy options (presented in [Section 6](#)) against this baseline, were therefore calculated without taking into account any potential overlap of the impacts of these initiatives.⁸⁷

To the extent that the options considered in this Impact Assessment overlap with the preferred policy options of these initiatives, this has been taken into account in a **qualitative way** in the description of the options presented in [Section 5.2](#) below for each of the 6 sub-problems individually. The SPI could set requirements for information to be provided in relation to specific products or groups of products with the exact requirements depending on the characteristics of the relevant product(s). One possibility would be to have a machine readable symbol such as a QR code that links to a digital product passport attached to the product. The exact timeline for the implementation of any product specific information requirements under the SPI is not foreseeable, due to the fact that these would be introduced progressively through subsequent product measures.⁸⁸

Complementary to the initiative subject to this Impact Assessment, a **self-regulatory initiative** has been announced in the New Consumer Agenda, which was launched in January 2021. The voluntary EU Green Consumption Pledge requires participating companies to take actions in support of sustainable consumption beyond what is required by law.⁸⁹ It calls upon businesses in various sectors of the economy to undertake concrete, public and verifiable commitments, on a voluntary basis, to reduce their overall carbon footprint, to produce and market more sustainable products and to redouble their efforts towards raising the awareness of consumers about the impact of their consumption choices. So far, 11 companies have come forward (including two SMEs), as part of the pilot phase: they represent various sectors in the manufacturing and retail world, but also financial services and energy supply. The pilot phase of the Green Consumption Pledge will be completed by 2022, including an evaluation of the functioning of the Pledge.

5.2. Description of the policy options

The policy options were established by the Commission in close cooperation with all relevant groups of stakeholders. Stakeholder opinion on possible options was sought at

⁸⁷ Please see Sections 7.2.1, 7.2.2 and 7.2.3 of the Study accompanying this Impact Assessment for further analysis and justification of this decision.

⁸⁸ As under the current Ecodesign Directive, the future SPI working plans will set out the priorities and timelines for the adoption of product-specific rules.

⁸⁹ See EU Green Consumption Pledge Initiative, https://ec.europa.eu/info/policies/consumers/consumer-protection/green-consumption-pledge-initiative_en

various stages of the development of the Impact Assessment⁹⁰. As a follow-up to these consultations and progress made in the development of the Impact Assessment, the main options included in the Inception Impact Assessment have been further developed and refined. Rather than focusing on the legal technique – which was the main differentiating factor in the three options outlined in the IIA – the options outlined in this Impact Assessment focus on policy solutions for each of the individual sub-problems identified. Such an approach also allows to ensure complementarity with the ongoing work on the Green Claims and SPI initiatives referenced in [section 5.1](#). This complementarity is further outlined below in the description of the baseline from which each of the options presented are assessed. For a number of sub-problems identified, options were discarded at an early stage and are not presented in the tables below. These discarded options are presented in [Annex 11](#).

Regarding the **product scope** analysed for **Problem 1** (Consumers lack reliable information at the point of sale to make environmentally sustainable consumption choices), four different potential product scopes were considered. These were **narrow product scope** (i.e. all goods with digital content), **medium product scope** (i.e. all energy-using goods), **wide product scope** (i.e. all goods with assembled parts that move relative to one another, e.g., most furniture, some suitcases, some non-energy using toys, bicycles, etc.), and **very wide product scope** (i.e. all consumer goods except consumables and fast moving ones, e.g. cloths, pans, bed linen). Evidence regarding the existence of the problem of limited durability and reparability, consumer expectations concerning the durability and reparability of goods (beyond the legal guarantee period), and consumer interest in receiving information on these aspects, is mostly available for the **medium product scope** (i.e. energy-using products); for the remaining types of products far less evidence is available. Furthermore, the availability of evidence can be considered a proxy for the size of the problem (and of the expected benefits if addressed) for the various product groups as it is reasonable to expect that research tends to focus on the most relevant problems/product categories. For this reason, while the available evidence allows for robust conclusions on the benefits of possible measures (to address sub-problem 1.2 and sub-problem 1.3) for the medium product scope, it is insufficient to soundly confirm them for a wider product scope. A detailed analysis of this assessment can be found in [Annex 13](#). Concerning option 1.3.E in particular, **no product scope** was defined as this option is designed to apply wherever the information in question is made available by the manufacturer or required to be made available under applicable EU or national law, regardless of the product in question.

As regards **Problem 2** (Consumers face misleading commercial practices related to the sustainability of products), no specific product scope was analysed, as these practices and the options considered to address them apply regardless of product type.

In order to facilitate decision-making as regards the preferred combination of policy options, the options considered to address each of the individual sub-problems under Problem 1 and Problem 2 are structured in a way that their impacts can be easily compared, and that one preferred policy option can therefore be chosen to address each sub-problem. This allows, for each sub-problem, the option with the most positive impact to be chosen as the preferred policy option. The considerations regarding the delineation of the particular policy options for each individual sub-problem is further specified below for each sub-problem in turn.

⁹⁰ See [Annex 2](#) for a description of consultation activities including the Inception Impact Assessment, Open Public Consultation, stakeholder and expert workshops as well as meeting with CPC authorities.

5.2.1. Problem 1: Consumers lack reliable information at the point of sale to make environmentally sustainable consumption choices

5.2.1.1. Sub-problem 1.1: Lack of reliable information about products' environmental characteristics

For this sub-problem, a number of options have been discarded at an early stage, as their added value could not be demonstrated if taken via a horizontal consumer law instrument. These options are the following: an **obligation to inform on product's environmental characteristics for all consumer products (goods and services)**, an **obligation to warn on products with high negative impacts on the environment**, an **obligation to warn when there is "no proof" of good environmental performance of the product**, and an **obligation to inform on one single key environmental characteristic, i.e. related to climate change**. Further details of these options and the reasons for discarding them is provided in [Annex 11](#). In general, environmental characteristics of products are always specific to product groups. Depending on the product group, the relevant information on environmental characteristics to be provided at the point of sale differs significantly. For these reasons, it was concluded that a horizontal consumer law instrument would not be the appropriate place to introduce such requirements. Furthermore, the extent of this sub-problem as described in [section 2.1.1](#) is expected to reduce significantly due to measures taken under the upcoming Green Claims Initiative and the SPI initiative. The Green Claims Initiative aims to provide a common framework for those companies wishing to provide information on the environmental characteristics of their products. In the future, the SPI initiative, future eco-design information requirements and mandatory EU labelling schemes (e.g. EU energy label) will address this problem by requiring mandatory information on certain environmental characteristics be provided for various product categories. As a result **no options will be selected to address this particular sub-problem as part of this Impact Assessment**.

5.2.1.2. Sub-problem 1.2: Lack of reliable information about products' lifespan

What are the options considered in order to address this sub-problem?

While the three options presented below to address this sub-problem are not mutually exclusive, they are not considered in combination as this would entail significant duplication of impacts. The purpose of the division into three distinct policy options is to calculate the impacts of the options as accurately as possible, and thus to facilitate a decision regarding the preferred policy option.

| | Description of the option | Product scope | Addressees | Nature of intervention |
|--|---------------------------|---------------|------------|------------------------|
|--|---------------------------|---------------|------------|------------------------|

| | | | | |
|--|---|--|--|--|
| Option 1.2.A: Obligation to inform consumers about the expected lifespan of goods | Inform consumers at the point of sale about the expected/estimated lifespan/durability of goods, in number of years ⁹¹ , number of working cycles, other metrics inherent to the good or by means of a “durability index” ⁹² . When no EU harmonised standards ⁹³ exist for the specific good’s category to determine the expected durability for the good in question (as is already the case for e.g. light bulbs) or until they become available (e.g. to be developed under the future SPI or Ecodesign requirements), producers would be free to decide on the exact method to assess the expected lifespan of the goods. | Medium product scope (i.e. all energy-using goods) ⁹⁴ | Sellers, based on the information provided by manufacturers (including information about the methodology/assumptions used by manufacturers). | Amending the Consumer Rights Directive |
| Option 1.2.B: Obligation to inform consumers of the existence (or absence) of a producer’s commercial guarantee of durability | Inform consumers at the point of sale of the existence or absence of a producer’s commercial guarantee of durability ⁹⁵ – and of its length - for the entire good and for a duration of at least two years. This commercial guarantee would serve as a proxy for consumers to identify which products are expected to have a longer lifespan. | Medium product scope (i.e. all energy-using goods) | Sellers, based on the information provided by the manufacturers. Sellers will inform consumers about the existence or absence, while the guarantor will be the manufacturer. | Amending the Consumer Rights Directive |
| Option 1.2.C: Option 1.2.B + Obligation to inform consumers on the period of time during which free software updates will be provided | In addition to Option 1.2.B, inform consumers at the point of sale about a minimum period of time (in number of years) during which the producer commits to provide free software updates, including security updates, for goods with digital elements as well as digital content and digital services to keep them in conformity, if this period | For option 1.2.B, medium product scope (i.e. all energy-using goods). For software updates, only for goods with digital | Sellers, based on the information provided by the manufacturers. | Amending the Consumer Rights Directive |

⁹¹ In this case, the trader would need to qualify the duration with an explicit indication of the intensity (e.g. assuming 3 washing cycles or 3 hours of use per week).

⁹² For example, such as the French Durability index which is planned to be introduced from 2024 onwards, in accordance with the French Circular Economy Law 2020.

⁹³ A harmonised standard is a European standard developed by a recognised European Standards Organisation. It is created following a request from the European Commission to one of these organisations. Manufacturers, other economic operators, or conformity assessment bodies can use harmonised standards to demonstrate that products, services, or processes comply with relevant EU legislation. https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards_en

⁹⁴ For details on the assessment of the impacts of different potential product scopes, see [Annex 13](#) “Analysis of product scope for providing durability/reparability information”

⁹⁵ In accordance with the Sale of Goods Directive (SGD), a ‘producer’s commercial guarantee of durability’ means any undertaking by a producer (the guarantor) to the consumer, in addition to the seller’s legal obligation relating to the guarantee of conformity (legal guarantee), to replace or repair the goods in accordance with Article 14 of SGD (i.e. free of charge, within a reasonable period, without any significant inconvenience to the consumer...) if these goods have not been able to maintain their required functions and performance through normal use.

| | | | | |
|--|---|---|--|--|
| | is longer than the period of the producer's commercial guarantee of durability. | elements) ⁹⁶ and digital content/service ⁹⁷ . | | |
|--|---|---|--|--|

How do these options interact with the other initiatives in preparation?

Under the **Sustainable Products Initiative**, specific information requirements on the expected/estimated durability for specific product categories may become available, when considered feasible and appropriate, subject to future Impact Assessments of delegated acts (under the framework legislation) and further technical work (see sub-option 4a in the Impact Assessment for the Sustainable Products Initiative). This information could furthermore be made available to consumers in the form of a Digital Product Passport (see sub-option 4b of the Impact Assessment for the Sustainable Products Initiative). As such measures would not specifically require the information to be presented in a clear and legible way at the point of sale, and would be implemented gradually and by product category, the extent of the problem and its consequences is expected to remain unchanged for many products.

5.2.1.3. Sub-problem 1.3: Lack of reliable information about products' reparability

What are the options considered in order to address this sub-problem?

The structure followed by the presentation of the options for this sub-problem is as follows: Options 1.3.A, 1.3.B., 1.3.C and 1.3.D are all complementary, while option 1.3.E entails a combination of 1.3.A, 1.3.B, 1.3.C and 1.3.D with slight modifications. The purpose of the division into five distinct policy options is to calculate the impacts of the options as accurately as possible, and thus to facilitate a decision regarding the preferred policy option.

| | Description of the option | Product scope | Addressees | Nature of intervention |
|--|---------------------------|---------------|------------|------------------------|
|--|---------------------------|---------------|------------|------------------------|

⁹⁶ 'Goods with digital elements:' any tangible movable items that incorporate or are inter-connected with digital content or a digital service in such a way that the absence of that digital content or digital service would prevent the goods from performing their functions ('goods with digital elements').

⁹⁷ 'Digital content' means data which are produced and supplied in digital form;(2) 'digital service' means:(a) a service that allows the consumer to create, process, store or access data in digital form; or (b) a service that allows the sharing of or any other interaction with data in digital form uploaded or created by the consumer or other users of that service.

| | | | | |
|--|---|--|---|--|
| Option 1.3.A: Provision of updated, user-friendly repair and user manuals | Provide consumers with a user-friendly repair and user manual at the point of sale (paper or digital version). In case the seller did not receive the manual, the consumer would be informed in a prominent way that this manual is not available. | Medium product scope (i.e. all energy-using goods) ⁹⁸ | Sellers, but the manual is to be developed and provided by manufacturers. | Amending the Consumer Rights Directive |
| Option 1.3.B: Provision of information about how long and which spare parts are available | Inform consumers at the point of sale about the spare parts that the manufacturer will make available and for how long they will remain available. In case the seller did not receive the information, the consumer would be informed in a prominent way that this commitment is not available. | Medium product scope (i.e. all energy-using goods) | Sellers, but the information is to be provided to the seller by manufacturers. | Amending the Consumer Rights Directive |
| Option 1.3.C: Provision of information on availability of repair services | Inform consumers at the point of sale of the availability of repair services. The seller would be free to decide whether it will refer to either manufacturers' authorised repairers or independent repairers or to both. In case no repair services are available, the consumer would be informed in a prominent way that such services are not available. | Medium product scope (i.e. all energy-using goods) | Sellers | Amending the Consumer Rights Directive |
| Option 1.3.D: Reparability Scoring Index | Provide consumers, at the point of sale, with a repair scoring index, showing how repairable a product is (for example, with 3 to 5 classes). Until precise measurement and calculation methods are provided for specific product categories under EU legislation such as Ecodesign or SPI, manufacturers would be required to apply the <i>general</i> method developed by the Joint Research Centre ⁹⁹ . | Medium product scope (i.e. all energy-using goods) | Sellers, but the assessment to establish the scoring would be carried out by the manufacturer | Amending the Consumer Rights Directive |
| Option 1.3.E: Provision of Repair Scoring Index, or other relevant repair information on a where applicable/available basis | Provide consumers, at the point of sale, with a repair scoring index, showing how repairable a product is (for example, with 3 to 5 classes), whenever this is available or required for that product in accordance with EU or national applicable laws. When no such repair scoring index is required or available, provide consumers at the point of sale with other relevant repair information when made available by the manufacturer, such as | Open product scope (i.e. product scope is not defined) | Sellers, based on the information to be provided by the manufacturers. | Amending the Consumer Rights Directive |

⁹⁸ For details on the assessment of the impacts of different potential product scopes, see [Annex 13](#) "Analysis of product scope for providing durability/reparability information".

⁹⁹ JRC Technical Report, *Analysis and development of a scoring system for repair and upgrade of products*, 2019, <https://ec.europa.eu/jrc/en/publication/analysis-and-development-scoring-system-repair-and-upgrade-products>

| | | | | |
|--|--|--|--|--|
| | information about the availability of spare parts, including a procedure for ordering them, information about the availability of repair services, or the availability of a repair manual. | | | |
|--|--|--|--|--|

How do these options interact with the other initiatives in preparation?

Under the **Sustainable Products Initiative**, specific information requirements on specific product categories may become available, when considered feasible and appropriate, subject to future Impact Assessments of delegated acts (under the framework legislation) and further standardisation work (see sub-option 4a of the Impact Assessment for the Sustainable Products Initiative). This information could furthermore be made available to consumers in the form of a Digital Product Passport (see sub-option 4b of the Impact Assessment for the Sustainable Products Initiative). As such measures would not specifically require the information to be presented in a clear and legible way at the point of sale, and would be implemented gradually and by product category, the extent of the problem and its consequences is expected to remain unchanged for most products.

5.2.2. Problem 2: Consumers face misleading commercial practices related to the sustainability of products

5.2.2.1. Sub-problem 2.1: Consumers are sold products that do not last as long as they could and consumers expect

What are the options considered in order to address this sub-problem?

While the two options presented below to address this sub-problem are not mutually exclusive, they are not considered in combination as this would entail significant duplication of impacts. The purpose of the division into two distinct policy options is to calculate the impacts of the options as accurately as possible, and thus to facilitate a decision regarding the preferred policy option.

| | Description of the option | Product scope | Addressees | Nature of intervention |
|---|---|--|---|---|
| Option 2.1.A: Collection of evidence on early failures of products identified by authorised entities | In all EU 27 countries, a collection by third party “authorised entities” (such as consumer organisations, market monitoring bodies, nominated by Member States) of evidence (results of independent testing, based on consumer complaints etc.) on certain aspects of the product’s design that could cause an early failure of the product, thus reducing its lifespan. The authorised entities would be asked to make this information available to the public via appropriate communication channels (e.g. website etc.). | Fully horizontal product scope but due to its nature would only be applicable to specific cases involving durable consumer goods | Authorised entities collecting this evidence, nominated by Member States. | New provisions in a separate instrument |

| | | | | |
|---|---|--|--|--|
| Option 2.1.B: Ban of certain identified practices associated with early obsolescence | Ban of specifically identified early obsolescence practices such as providing software updates resulting in slowing down goods with digital elements or digital content/service without clearly informing the consumer thereof; not providing software updates which are needed for the proper functioning of the device (in accordance with legal requirements ¹⁰⁰); marketing of goods without disclosing the fact that these goods have been designed with a view to limit their durability; marketing of goods without disclosing the fact that they do not allow disassembly or repair (in accordance with legal requirements) such as not allowing the battery or the screen to be replaced by the user ¹⁰¹ ; marketing of goods that are designed in a way to induce the consumer into replacing their consumables earlier than for technical or other valid reasons is necessary, or to prevent the use of consumables provided by alternative producers without informing the consumer thereof. | Fully horizontal product scope but due to its nature would only be applicable to specific cases involving durable consumer goods | Traders that are engaged in these practices towards consumers, including manufacturers | Amending Unfair Commercial Practices Directive |
|---|---|--|--|--|

How do these option interact with other initiatives in preparation?

Some changes are expected regarding the extent of the problem and its consequences thanks to the improvements concerning the durability of some products (or some of the product components) and their reparability as a consequence of the **Sustainable Products Initiative**, when considered feasible and appropriate, subject to future Impact Assessments of delegated acts and further technical work (see sub-option 3a in the Impact Assessment for the Sustainable Products Initiative). As such measures would be implemented gradually and by product category, the extent of the problem and its consequences is expected to remain unchanged for most products.

Options discarded at an early stage

Further to the options considered above, for this sub-problem the following options were discarded at an early stage as their added value could

¹⁰⁰ Whereas the Sale of Goods Directive only establishes individual rights in specific cases where non-conformity affects the individual concerned within the legal guarantee period, a specific prohibition of failing to provide the legally required software updates would facilitate the public enforcement in order to stop such unfair practices. It would also allow the harmed consumers to claim individual remedies where such practices are deemed unfair in accordance with the UCPD.

¹⁰¹ Whereas several ecodesign product measures introduce requirements on reparability, a ban under consumer law would also allow the harmed consumers to claim individual remedies where such practices are deemed unfair in accordance with the UCPD.

not be demonstrated: a **general ban of planned/intentional/deliberate obsolescence**¹⁰², and **setting minimum lifetimes per product category**. Additional details of the content of these discarded options and the reasons for discarding them is provided in [Annex 11](#).

5.2.2.2. Sub-problem 2.2: Consumers are faced with the practice of making unclear or not well-substantiated green claims (“Greenwashing”)

What are the options considered in order to address this sub-problem?

The options 2.2.A and 2.2B presented below to address this sub-problem are complementary. Option 2.2.C entails a combination of options 2.2A and 2.2.B. The purpose of the division into three distinct options is to calculate the impacts of the options as accurately as possible, and thus to facilitate a decision regarding the preferred policy option.

| | Description of option | Product scope | Addressees | Nature of intervention |
|---|---|--|--------------------------------------|--|
| Option 2.2.A: Ban of general/vague environmental claims | Ban of general/vague environmental claims (e.g., “eco-friendly”, “green”, “good for the environment”, “friend of nature”, etc.) unless the product or trader obtained recognised excellent environmental performance in accordance with applicable EU laws ¹⁰³ . | All products presenting a general/vague environmental claim. | Any trader engaged in such practices | Amending Unfair Commercial Practices Directive |
| Option 2.2.B: Prohibition of environmental claims that do not fulfil a | Providing specific criteria for assessing the misleading nature of all environmental claims, such as: being based on robust, independent, verifiable and generally recognised evidence which takes into account the latest scientific findings; being clear and unambiguous regarding which aspect(s) of the product or its life cycle the claim refers to; relates to aspects that are significant in terms of the product’s environmental impact; benefit claimed does not result in an undue transfer of impacts on other environmental aspects; not advertising benefits that are legally required; wording, imagery and overall product presentation (i.e. | All products presenting any environmental claim. | Any trader engaged in such practices | Amending Unfair Commercial Practices Directive |

¹⁰² However, as explained in Annex 11, Option 2.1.B ‘Ban of certain identified practices associated with early obsolescence’ would be able to address certain identified planned obsolescence practices.

¹⁰³ In practice, such performance can be demonstrated via the EU Ecolabel, or officially recognised ecolabelling schemes in the Member States (art 11 of EU Ecolabel) or in accordance with other applicable EU laws, such as the Green Claims Initiative.

| | | | | |
|---|---|------------------------------------|--------------------------------------|--|
| minimum set of criteria | layout, choice of colours, images, pictures, sounds, symbols or labels), being a truthful and accurate representation of the scale of the environmental benefit, and not overstating the benefit achieved; related to environmental achievements instead of aspirations of future environmental performance (future aspirations can be still expressed under certain conditions); if a trader uses environmental statements in its company name, product name etc., and the name is used for marketing purposes, such marketing is subject to the same documentation requirements as those which apply to all environmental claims; establishing a link to the additional information on which the substantiation of the claim is based (e.g. method used, whether third party verification is being carried out etc.). | | | |
| Option 2.2.C: Option 2.2A + 2.2B | Combination of both options above. | Combination of both options above. | Any trader engaged in such practices | Amending Unfair Commercial Practices Directive |

How do the options interact with other initiatives in preparation

The problem will be jointly addressed with the upcoming **Green Claims Initiative** which will help to regulate the market for environmental claims on products and organisations when made both by businesses towards consumers and by businesses towards other businesses. This initiative would establish methodological requirements on how environmental claims are communicated and substantiated.

Options discarded at an early stage

Further to the options considered above, for this sub-problem the following option was discarded at an early stage, as its added value could not be demonstrated: a **pre-approval of environmental claims via an EU body**. Additional details of the content of this option and the reason for discarding it is provided in [Annex 11](#).

5.2.2.3. Sub-problem 2.3: Consumers are faced with the use of sustainability labels and digital information tools that are not always transparent and credible

What are the options considered in order to address this sub-problem?

The three options presented below are mutually exclusive.

| | Description of option | Product scope | Addressees | Nature of intervention |
|---|--|---|--|--|
| Option 2.3.A: Development of principles promoting the transparency and credibility of sustainability labels and digital information tools for voluntary uptake | Development via a multi-stakeholder dialogue of a set of principles to promote the credibility and transparency of sustainability labels and digital information tools towards consumers. The organisations running the labels or information tools could decide on a voluntary basis to comply with the principles. | All products bearing/presenting a sustainability label, digital information tools designed to compare the sustainability of products | Organisations running sustainability labels or digital information tools designed to compare the sustainability of products | Development of best practice guidelines |
| Option 2.3.B: Prohibition of sustainability labels and digital information tools not meeting minimum transparency and credibility requirements | <p>Providing specific criteria regarding the transparency and credibility to assess the fairness of voluntary sustainability labels¹⁰⁴ and digital information tools that are used in marketing towards consumers. Based on the existing provisions of the Unfair Commercial Practices Directive, this option would cover “any trust mark, quality mark or equivalent”¹⁰⁵ that aims to set apart and promote a product, a process or a business with reference to environmental, social or ethical aspects. It would also cover all digital information tools designed to compare the sustainability of products.</p> <p>These criteria would comprise the following aspects, such as: transparency on the identity of the organisation running the label/information tool, its objectives and its functioning (e.g. decision making bodies; underlying requirements, underlying methods used, procedures for monitoring compliance); non-discriminatory accessibility to industry participants; involvement of both experts and broader group of stakeholder to validate scientific robustness as well as the social and practical relevance of requirements; existence of a compliance monitoring, to be</p> | All products bearing/presenting a sustainability label as marketing tool towards consumers, digital information tools for consumers to compare the sustainability of products | <p>All traders that use such sustainability labels for marketing products.</p> <p>Organisations running the sustainability labels or digital information tools for consumers designed to compare the sustainability of products.</p> | Amending Unfair Commercial Practices Directive |

¹⁰⁴ For example, a sustainability label guaranteeing the greenhouse gas neutrality of products through neutralization of emissions with carbon removals will be covered under this option.

¹⁰⁵ Cf. Unfair Commercial Practices Directive, Annex I, point 2.

| | | | | |
|---|--|--|---|---------------------|
| | carried out by an independent third party; existence of a complaint and dispute resolution mechanisms; existence of procedures to deal with non-compliance. | | | |
| Option 2.3.C: Pre-approval of sustainability labels and digital information tools via an EU body | The approval of sustainability labels and digital information tools for use on the EU market would be subject to an ex-ante conformity assessment to be performed by an EU body. Approval would require conformity with the minimum requirements outlined in option 2.3.B. | All products bearing/presenting a sustainability label, digital information tools designed to compare the sustainability of products | Organisations running sustainability labels or digital information tools designed to compare the sustainability of products | New legal provision |

How do these options interact with other initiatives in preparation?

Under the Green Claims Initiative several policy options in relation to possible requirements for environmental claims, including ecolabels are being considered. . As *lex generalis*, this initiative will provide for general consumer protection rules that will be complemented by other EU-level technical or sector-specific instruments (*lex specialis*), when they provide for more detailed rules. The Green Claims Initiative is such a *lex specialis* technical instrument.

6. WHAT ARE THE IMPACTS OF THE POLICY OPTIONS AND HOW DO THEY COMPARE?

The 16 impacts against which the policy options are assessed have been selected in line with the Better Regulation Guidelines and guided by the problem tree in [Figure 1](#). The assessment is predominantly qualitative and complemented, when and where possible, by a quantitative assessment, which relies on estimates gathered from the literature review, stakeholder consultations and modelling work. The process for selecting the impacts and the **methodology underpinning the quantitative assessment** is explained in [Annex 4](#). The appraisal period of 2025-2040 was selected as it was estimated that the measures would come into force in 2025. The standard appraisal period in which to measure the impacts of such policy measures is 15 years, in line with the Better Regulation guidelines. All monetised costs and benefits of each measure considered in the assessment are **incremental to those of the baseline**, which is therefore assigned EUR 0 for these impact categories. As many of the impacts are not monetisable, it was decided to conduct a multi-criteria analysis (MCA) complemented by a (partial) Cost-Benefit Analysis. The MCA includes three high-level assessment criteria: Effectiveness, Efficiency and Coherence. Each of the identified 16 impacts is a sub-criterion of one of those three high-level criteria. Detailed analyses presenting the results of the assessment of each policy option per sub-criteria can be found in [Annex 8](#). To carry out the MCA, weights have been assigned to the criteria/sub-criteria. Furthermore, a sensitivity analysis was carried out using various weight combinations, including a default scenario and a worst case scenario¹⁰⁶. The full results of the MCA, sensitivity analysis and partial CBA can be found in [Annex 9](#), including additional details on the methodology used.

For ease of reading, the following sub-sections summarise the results of the assessment and presents them per stakeholder groups affected. The table below recaps the 16 impacts against which the options were assessed and link them with the three-high level assessment criteria they fall under as well as the stakeholders they concern directly. The values presented for monetised consumer welfare, climate change and costs are the average of those of the scenarios analysed for each measure in the preparatory study.

| Effectiveness | | Efficiency | | Coherence | |
|---|------------------------------|---|------------------------------|---------------------|--|
| <i>Sub-criteria</i> | <i>Stakeholders affected</i> | <i>Sub-criteria</i> | <i>Stakeholders affected</i> | <i>Sub-criteria</i> | <i>Stakeholders affected</i> |
| Quality of consumer decision making | Consumers | Monetisable consumer welfare ¹⁰⁷ | Consumers | Coherence | Application of the legal framework and coherence |
| Circularity and sustainable consumption | Environment | Barriers to cross-border trade | Businesses | | |
| Consumer protection | Consumers | Climate change | Environment | | |

¹⁰⁶ In the default scenario, 30 points were assigned to the Effectiveness criterion, 60 points to Efficiency and 10 points to coherence. The points were divided equally between the various sub-criteria of each criterion (i.e., each of the 6 sub-criteria in the effectiveness section was assigned 1/6 of the 30 points and each of the 9 sub-criteria of the efficiency section was assigned 1/9 of 60 points). In the worst case scenario, 100 points to Efficiency, 0 points to Effectiveness and 0 points to Coherence, where the points allocated to Efficiency are for 60% related to the costs (and divided equally between the various sub-criteria related to costs) and the remaining 40% are divided equally between the various sub-criteria related to benefits.

¹⁰⁷ Consumer welfare here considers both consumer surplus (which is based on willingness to pay) and consumer detriment. Further details are to be found in [Annex 4](#).

| | | | | |
|------------------------------------|--|------------------------------|-----------------------|--|
| Consumer trust in the market | Consumers | Other environmental impacts | Environment | |
| Level-playing field | Businesses | Administrative burden | Businesses | |
| Application of the legal framework | Application of the legal framework and coherence | Substantive compliance costs | Businesses | |
| | | Indirect costs | Businesses | |
| | | SME growth | Businesses | |
| | | Costs to public bodies | Public administration | |

As explained in section 5.1 above, when considering the baseline for this initiative, as well as when calculating the impacts of the options presented below against this baseline, the impacts of two other EU-level initiatives under preparation, the upcoming Green Claims Initiative and the Sustainable Products Initiative, have not been taken into account in a quantitative way, as it cannot be guaranteed that each of these other initiatives will be adopted and will become EU law, which is pending the upcoming ordinary legislative procedure.

It cannot therefore be excluded that, pending the implementation of some of the measures considered in these other initiatives currently being prepared in parallel, the impacts calculated below might be subject to change.

However, to the extent that the options considered in this Impact Assessment overlap with the preferred policy options of these two other initiatives, this has been taken into account in a qualitative way in the description of the options presented in Section 5.1 above, as well as in the discussion of the proportionality of the preferred options in Section 7 below.

6.1. Problem 1: Consumers lack reliable information at the point of sale to make environmentally sustainable consumption choices

6.1.1. Sub-Problem 1.2: Lack of reliable information about products' lifespan

| | | |
|--|---|--|
| Option 1.2.A: Obligation to inform consumers about the expected lifespan of goods | Option 1.2.B: Obligation to inform consumers of the existence (or absence) of a producer's commercial guarantee for durability | Option 1.2.C: Option 1.2.B + Obligation to inform consumers on the period of time during which free software updates will be provided |
|--|---|--|

Impacts of the policy options

Impacts on consumers:

As explained in [Annex 12](#), consumers are interested in having information about the lifespan/durability of products and are even willing to pay for it. However, the obligation to **inform consumers about the expected lifespan of goods**, as considered in **option 1.2.A** will not improve the quality of decision-making for consumers. This is because **the reliability of the information provided under this option** (and the comparability it would allow between products) **will depend on the methodology used by companies to assess such an expected lifetime**, which are likely to vary depending on the companies, therefore leading to diverging assessments within a given product category. It is also technically very challenging to estimate the lifespan of products, and the methods, indicators and techniques

used will vary significantly from product category to product category. Depending on the level of effectiveness of the option in contributing to consumers purchasing alternatives that last one year longer than in the baseline, **the monetisable consumer welfare is estimated to be around EUR 850 - 1 110 million for the period 2025-2040 if the information is reliable (or EUR 57 – 74 million per year)**. It could, however, become negative if each company decides on its own methodology. The availability of a **commercial guarantee** of durability signals that the respective product is of high-quality and expected to last longer. The provision of information about the **existence and length of the commercial guarantee of durability** as considered in **option 1.2.B** would avoid the technical challenge posed by the previous option of needing to assess the expected lifespan of a product, while serving as an **excellent proxy for consumers** to identify which products are expected to have a longer lifespan. This would avoid the technical and methodological challenges posed by the previous option of needing to assess the expected lifespan of a product. Simulations carried out for the purpose of this Impact Assessment show that, in the medium term, the share of products covered by commercial guarantees and the duration of the commercial guarantees will increase as a result of the option. The option is estimated to bring an increase of monetisable **consumer welfare of EUR 1 775 – 2 465 million** for the period 2025-2040 (or **EUR 118 – 164 million per year**). **Option 1.2.C**, namely option 1.2.B plus the obligation to inform consumers on the period of time during which free software updates will be provided, would (in addition to the impacts described for option 1.2.B) allow consumers to identify which products **offer better conditions in terms of availability of software updates** and therefore improve their decision-making process. This would be complementary to the seller's obligations under the Sale of Goods Directive to supply the consumer with software updates for a period of time which the consumer might reasonably expect so as to ensure that the product remains in conformity. Under this option, consumers will experience a “gain”, which according to the partial calculations carried out by the supporting study is likely to be around **EUR 2 355 – 3 555 million for the period 2025-2040 (or EUR 157 – 237 million per year)**. To address possible information overload, this information on software updates should be only provided in absence of a commercial guarantee of durability (which will cover software updates), unless the software updates are provided for a longer time than the commercial guarantee of durability.

Impacts on businesses:

Option 1.2.A will have a significant administrative burden on businesses, related to the production of new data to be able to provide information on the expected lifespan of products and, to a lesser extent, the tagging of the product. Business organisations have pointed to the **high cost** of this obligation during the consultation phase. While the obligation is on the seller, it is assumed that the seller will request this information from manufacturers. These extra costs are estimated to amount to **EUR 2 435 – 2 680 million** for the period 2025-2040 (or **EUR 162 – 179 million per year**). **Option 1.2.B** will impose relatively high one-off administrative burdens on businesses, primarily sellers, mostly related to adapting systems, procedures and existing data (e.g. updating websites) and to replacing price tags in physical shops (e.g. on shelves). However, it will have **low recurrent administrative burdens as the activities necessary to provide the information** would have been carried out in a business-as-usual scenario. These extra costs are estimated to be **between EUR 890 – 1 065 million for the period 2025-2040 (or EUR 59 – 71 million per year)** and would fall largely on sellers, as they are mainly linked to the display of the required information. These costs are expected to be compensated by an increase in the price of products offering a commercial guarantee (as consumers are willing to pay for longer commercial guarantees) and possibly by an increase in demand of those same products. This option will systematically increase

transparency regarding the commercial guarantee offered for goods and penalise companies that do not offer or offer less attractive commercial guarantees, so contributing to a level playing field. **Option 1.2.C** is expected to have some further positive impact on a level-playing field as it will increase transparency about commitments regarding software update and allow consumers to compare products based on these commitments. However, the option will have costs for manufacturers as they need to decide on the period during which they will provide software updates, and communicate them to sellers. Sellers will then have costs to ensure that consumers receive this information at the point of sale. These extra costs are estimated to be between **EUR 990 – 1 170 million for the period 2025-2040 (or EUR 66 – 78 million per year)**.

Impacts on public administrations:

Enforcement costs for **option 1.2.A** are estimated to be between **EUR 86 - 96 million** for the period 2025-2040 (or **EUR 5.7 – 6.4 million per year**). These costs will be generated by the time and expertise needed to check the information provided by businesses, which will be particularly challenging and time-consuming in the absence of common standards/methodologies. Based on interviews with national enforcement authorities, it is assumed that Member States (possibly with the exception of France) would have to create a dedicated team to enforce this measure. The size of the team would be around 5 experts. 25% of their time would be dedicated to monitoring the compliance with the measure, 50% would be to carry out inspections and 25% with handling complaints. It is estimated that the number of complaints that can be handled given the available resources will be around 700 per year per Member State (average as some will handle significantly more and others significantly less). It is assumed that about 1% will be dealt with through Alternative Dispute Resolution bodies and 0.1% in courts. The costs of an ADR body adjudication and of a court adjudication were obtained from the Impact Assessment of the review of the Consumer Protection Cooperation Regulation and supporting study¹⁰⁸. 140h are assumed for familiarisation with the measure and adjustment of internal procedures to start enforcing the measure. 16 employees would receive a 7h training. It is also assumed that there will be a yearly action per Member State, which will amount to EUR 40,000 (based on market research). Enforcement costs for **option 1.2.B** are estimated to be of **EUR 15 - 27 million for the period 2025-2040 (or EUR 1 – 1.8 million per year)**. Based on interviews with national enforcement authorities, in the context of the supporting study, option 1.2.B would not require significant additional resources on top of the existing ones to enforce CRD and SGD. It is therefore assumed that the measure will require an additional Full Time Equivalent, with its time divided equally between monitoring, inspecting, and handling complaints. 70h are assumed for familiarisation with the measure and adjustment of internal procedures to start enforcing the measure. 16 employees would receive a 7h training. It is also assumed that there will be a yearly action per Member State, which will amount to EUR 40,000 (based on market research). The other unit costs are assumed to be the same as in the previous measure. The costs of **option 1.2.C** for public administrations are expected to be the same as for option 1.2.B.

Impacts on the environment:

¹⁰⁸ European Commission, Support study for the impact assessment on the review of the CPC Regulation 2006/2004/EC: https://ec.europa.eu/info/sites/info/files/cpc_review_support_study_1_en.pdf and European Commission, SWD(2016) 164 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016SC0164&from=EN>.

Due to the limitation of **option 1.2.A** mentioned above, consumers are unlikely to purchase products that effectively last longer and so the impact on the environment is considered negligible. As consumers will buy products that last longer, **option 1.2.B** will have a positive impact on the amount of **CO2 emitted during production estimated at 0.3 – 0.4 mega tons (EUR 6 - 8 million)**, for the period 2025-2040 (or **0.02 – 0.03 mega tons per year, valued at EUR 0.4 – 0.5 million**). In addition, it will lead to less water used, fewer particulate matter and polluting agents released and a reduction of the amount of waste, and will support the transition towards a more circular and sustainable economy. In addition to the impacts of option 1.2.B, due to the implementation of **option 1.2.C**, consumers will be able to keep products for a longer time compared to a situation where the information on software updates had not been available. This is expected to lead to a reduction of produced units and thus of **CO2 emissions estimated to be around 0.4 – 0.7 mega tons (EUR 8 - 13 million)** during production for the period 2025-2040 (or **0.03 – 0.05 mega tons per year, valued at EUR 0.5 – 0.9 million**).

Coherence and applicability of the legal framework:

Overall, **option 1.2.A** will **not facilitate the application** of the legal framework as it relies on an assessment carried out by businesses **according to the methodology of their choice**, and thus difficult to verify for enforcers. **Option 1.2.B** is **coherent with the legal framework and usefully complements the provisions set out in the Sale of Goods Directive and Consumer Rights Directive** as it will ensure clearer information to consumers at the point of sale on the length of the producer's commercial guarantees of durability for all goods in scope. For the same reason, the option will also ensure a better and coherent application of the EU legal consumer framework (in particular the SGD and CRD) as it specifies that information on the existence or absence of a producer's commercial guarantee of durability should be provided to consumers. In addition to option 1.2.B, **option 1.2.C** would ensure further coherence with SGD, as it would stipulate the number of years during which manufacturers commit to providing software updates, without prejudice to the statutory SGD right on software updates if the 'reasonably expected period' for updates turns out to be longer.

How do the options compare?

The results of the multi-criteria analysis (MCA)¹⁰⁹ for the default scenario (presented in [Annex 9, section 2.1](#)) shows that the ranking of options with the **highest score** is the following: first **option 1.2.C** (information on commercial guarantee and information on software updates), followed by option 1.2.B (information on commercial guarantee only), then the baseline and finally option 1.2.A (information on expected lifespan). The sensitivity analysis suggests that this ranking of options is consistently the one obtaining the highest-score for the various alternative scenarios considered.

When looking at the proportionality of the three options (efficiency criterion), the MCA shows that the tangible and intangible costs of options 1.2.B and 1.2.C, including on businesses and public administrations,, are outweighed by their expected benefits to consumers and the environment(even for the worst-case scenario). In the eight scenarios that we simulated for the options, options 1.2.B and 1.2.C had a net positive outcome for society compared to the baseline. The results of the partial cost-benefit analysis (which only considers tangible and monetisable impacts) also suggest that the benefits of option 1.2.C

¹⁰⁹ The summary of the performance of the options against the criteria is summarised in [Annex 8](#), and has been used to perform the MCA. It covers both a qualitative and quantitative assessment. The MCA results are confirmed by a sensitivity analysis for all scenarios considered. [See Annex 9](#) for its results.

and option 1.2.B are higher than their expected costs, with option 1.2.C presenting the highest net present value of the three options considered. The cost and lack of harmonised methodology to assess products' lifespan represent the main weak points of option 1.2.A, undermining its effectiveness and efficiency. Its effectiveness would improve if product-specific rules imposed on the manufacturer are established that define the method and assumptions to calculate the expected durability of products. However, this would not be suitable within the scope of a horizontal consumer law instrument, with information obligations for the seller.

6.1.2. Sub-Problem 1.3: Lack of reliable information about products' reparability

| Option 1.3.A: | Option 1.3.B: | Option 1.3.C: | Option 1.3.D: | Option 1.3.E: |
|---|---|---|----------------------------|---|
| Provision of updated, user-friendly repair and user manuals | Provision of information about how long and which spare parts are available | Provision of information on availability of repair services | Reparability Scoring Index | Provision of Repair Scoring Index, or other relevant repair information on a where applicable/available basis |

Impacts of the policy options

Impacts on consumers:

The provision of **updated, user-friendly repair and user manuals** as considered under **option 1.3.A** will remove some barriers to self-repair and, to some extent, better-informed purchasing decisions, giving a sense of empowerment to consumers. By providing consumers with repair manuals, consumers are expected to experience a “gain” equal to the value of the additional lifespan gained as a result of the repair, which is estimated to amount to **EUR 435 – 760 million** for the period 2025-2040 (or **EUR 29 – 51 million per year**). The provision of **information about how long and which spare parts are available** as considered under **option 1.3.B** will help consumers identify which products offer better conditions in terms of availability of spare parts and therefore improve their decision-making process. Similarly as under the previous option, consumers are expected to experience a “gain” equal to the value of the additional lifespan gained as a result of the repair, which is estimated to amount to **EUR 1 220 – 2 970 million for the period 2025-2040** (or **EUR 81 – 198 million per year**). **Option 1.3.C**, namely the provision of **information on availability of repair services**, will have less impact on consumers who do not live near the place where the product was purchased. Although producers will be able to provide information on repair services in other regions and Member States with which they are affiliated or associated, sellers will be less likely to have available information on the existence of local or independent repair services in other regions. Furthermore, the lack of effectiveness of the option in providing complete information is expected to lead only to a minor increase of the consumer surplus, which is estimated to amount to **EUR 115 - 250 million in the period 2025-2040** (or **EUR 8 – 17 million per year**). The provision of a **Reparability Scoring Index**, as considered under **option 1.3.D**, is expected to have a limited impact on the quality of consumer decisions. A repair score allows for a wide range of reparability aspects to be covered effectively, without leading to information overload. **However this option requires that all manufacturers implement the JRC general repair score methodology in exactly the same way** to guarantee a reliable comparability between products. This could be difficult in reality given the heterogeneous nature of products. Nevertheless, this option is expected to lead to an increase in the consumer surplus, which is estimated to amount to **EUR 455 –**

995 million in the period 2025-2040 (or EUR 30 – 66 million per year). Option 1.3.E, namely the provision of a **Repair Scoring Index, or other relevant repair information on a where applicable/available basis** is expected to increase the quality of consumer decision-making as it will increase the likelihood that high quality information is provided to the consumer at the point of sale without leading to information overload. Furthermore it avoids the drawback of option 1.3.D which relies on all manufacturers implementing the JRC general repair score methodology in exactly the same way, in that it provides for the provision at the point of sale of those repair scores **which are applicable in the case of the product and sector in question**. It also has the benefit that the information can be provided on a **wider range of products** than the other options, as they would provide repair information on a defined, hence more narrow, product scope (i.e. energy-using goods only), while manufacturers may be potentially interested/able to provide repair information for other product categories as well. Finally, under option 1.3.E the fact that manufacturers who provide repair information on their products can be certain that such information will be presented to consumers at the point of sale, meaning that manufacturers will be **incentivised to compete** to provide the best repair conditions on their products. This increased competition is expected to provide further benefits for consumers.

Impacts on businesses:

Under **option 1.3.A** manufacturers will have to produce repair manuals for each model. It is estimated that the minimum cost of producing a repair manual (for users) is between EUR 4 000 and 6 000. In the case of a digital solution, these extra costs are estimated to amount to **EUR 785 – 935 million in the period 2025-2040 (or EUR 52 – 62 million per year), of which about 12% for SMEs**. In the case of a paper version, the extra costs are much higher. Administrative burdens under **option 1.3.B** mean that manufacturers will have to provide the necessary information to sellers (which include the costs of identifying which spare parts will be available and for how long) and that sellers will have to ensure that consumers receive this information (which could entail merely providing a link to the website of the manufacturer). The total extra costs are estimated to be **EUR 1 685 – 1 715 million in the period 2025-2040 (or EUR 112 – 114 million per year)**. **Option 1.3.C** involves the need to maintain an updated list of repair services available and to ensure that consumers have access to that list. These **extra costs are estimated to be EUR 3 120 – 3 380 million for the period 2025-2040 (or EUR 208 – 225 million per year)**. The administrative burden of **option 1.3.D** involves the need to assess the reparability of products and inform consumers of that assessment. These total extra cost are estimated to be **EUR 4 180 – 4 360 million for the period 2025-2040 (or EUR 279 – 290 million per year)**. Given the substantial amount of resources that the assessment will require, in particular in the absence of detailed guidance/methodology for a given product category, it is expected that the option will have a negative impact on SME growth. The costs of **option 1.3.E** for businesses are expected to be much lower, as sellers will have to provide only such information as manufacturers make it available. There will be no specific obligation for manufacturers to provide such information on their products. The administrative costs are expected to be **EUR 222 million in the period 2025-2040 (or EUR 15 million per year)**.

Impacts on public administrations:

Enforcement costs for **option 1.3.A** and for **option 1.3.B** are limited and each estimated to amount to **EUR 16-21 million for the period 2025-2040 (or EUR 1 – 1.4 million per year)**. Based on interviews with national enforcement authorities, for both options, it is assumed that the measure would not require significant additional resources on top of the existing ones to enforce the Consumer Rights Directive and the Sale of Goods Directive. It is

therefore assumed that the measure will require one additional Full Time Equivalent (per Member State), with its time divided equally between monitoring, inspecting, and handling complaints. 70h are assumed for familiarization with the measure and adjustment of internal procedures to start enforcing the measure. 16 employees would receive a 7h training. It is also assumed that there will be a yearly action per Member State, which will cost EUR 20,000 (based on market research). Enforcement costs for **option 1.3.C** are also limited and estimated to be of **EUR 8-13 million for the period 2025-2040** (or **EUR 0.5 – 0.9 million per year**). In each case these costs are generated by the time needed to check whether the information is provided. Based on interviews with national enforcement authorities, it is assumed that the measure would not require significant additional resources on top of the existing ones to enforce the Consumer Rights Directive and Sale of Goods Directive. It is therefore assumed that the measure will require an additional 0.5 Full Time Equivalent (per Member State), with its time divided equally between monitoring, inspecting, and handling complaints. 70h are assumed for familiarization with the measure and adjustment of internal procedures to start enforcing the measure. 16 employees would receive a 7h training. It is also assumed that there might be a yearly action per Member State, which will cost EUR 20,000 (based on market research). Enforcement costs of **option 1.3.D** are estimated to be of **EUR 32 - 37 million for the period 2025-2040** (or **EUR 2.1 – 2.5 million per year**), generated by the time needed to check whether the information is provided and accurate. Based on interviews with national enforcement authorities, it is assumed that the measure would require some additional resources on top of the existing ones to enforce the Consumer Rights Directive and Sale of Goods Directive. It is therefore assumed that the measure will require two additional Full Time Equivalents (per Member State), with their time divided equally between monitoring, inspecting, and handling complaints. 70h are assumed for familiarization with the measure and adjustment of internal procedures to start enforcing the measure. 16 employees would receive a 7h training. It is also assumed that there might be a yearly action per Member State, which will cost EUR 20,000 (based on market research). **Option 1.3.E** is expected to entail minimal enforcement costs, estimated at **EUR 0.12 million in the period 2025-2040** (or **EUR 0.008 million per year**), generated by the time needed to check whether the seller has provided such information at the point of sale when made available by the manufacturer. It is assumed that this option would not require additional resources from enforcement authorities other than the ones related to the one-off costs of familiarisation and training. 70h are assumed for familiarisation with the option and adjusting the internal procedures to start enforcing the measure. 16 employees would receive a 7h training.

Impacts on the environment:

Under **option 1.3.A** some consumers will be able to maintain their goods in a better way and/or to repair some goods that would have been replaced in the absence of the manuals. Consequently, the repaired products will have a longer lifespan than they would have had in the baseline. The option will therefore lead to a reduction of produced units and thus of **CO2 emissions estimated at 0.9 – 1.6 mega tons (valued at EUR 19 - 33 million)** during production for the period 2025-2040 (or **0.06 – 0.11 mega tons per year, valued at EUR 1.3 – 2.2**). Under **option 1.3.B** some consumers will be able to repair some goods that would have been replaced in the absence of the information on spare parts. Consequently, the repaired products will have a longer lifespan than they would have had in the baseline and will therefore lead to a reduction of **CO2 emissions estimated at 1.9 – 3.3 mega tons (valued at EUR 39-68 million)** for the period 2025-2040 (or **0.13 – 0.22 mega tons per year, valued at EUR 2.6 – 4.5 million**). Under **option 1.3.C**, some consumers will be able

to repair some goods that would have been replaced in the absence of information about repair services available which will lead to a reduction of **CO2 emissions estimated at 0.04-0.08 mega tons (valued at EUR 1 – 2 million)** for the period 2025-2040 (or **0.002 – 0.005 mega tons per year, valued at EUR 0.07 – 0.13 million**). Under **option 1.3.D**, some consumers will opt for goods that can be more easily repaired, which will lead to a reduction of **CO2 emissions estimated at between 1.2 – 2.2 mega tons (valued at EUR 26 - 45 million)** in the period 2025-2040 (or **0.08 – 0.15 mega tons per year, valued at EUR 1.7 – 3 million**). Due to the implementation of **option 1.3.E**, some consumers will opt for goods that can be more easily repaired. Consequently, the repaired products will have a longer lifespan than they would have had in the baseline. For this reason we can conclude that this option will also have a positive impact on the environment. As the option will not require any physical paper repair manuals to be provided at the point of sale we can estimate that it will lead to a reduction in CO2 emissions which is at least greater than that of option 1.3.A in the period 2025-2040.

Coherence and applicability of the legal framework:

For **option 1.3.A** no issue of coherence and applicability has been identified. As already the case for some product categories, future Ecodesign/SPI requirements may provide further specifications concerning what the specific ‘repair and user manual’ should include for new/other product categories. As **option 1.3.B** focuses on providing consumers with information on the availability of spare parts at the point of sale, the option is coherent and complements Eco-design and future SPI product rules that may further specify how long and which spare parts should be kept available for a given product category for a minimum period of time. Under **option 1.3.C** and **option 1.3.D** it is expected to be challenging for consumer enforcement authorities to assess whether the information provided by retailers is comprehensive and reliable. **Option 1.3.E** is fully coherent with the legal framework, in that it provides for repair information to be made available at the point of sale in precisely those cases where the existing legal framework already requires such information to be provided by manufacturers or where manufacturers chose to provide such information voluntarily. It is also complementary to potential future Ecodesign/SPI requirements which may provide for further specifications concerning what repair information should be provided for specific product categories, possibly also in the form a Digital Product Passport. Whereas future SPI measure might thus specify how reparability information should be made available to consumers for specific products, option 1.3.E would require such information to be provided at the point of sale in a clear and legible form for an open range of products.

How do the options compare?

The results of the MCA and sensitivity analysis¹¹⁰ (presented in [Annex 9, section 2.2](#)) shows that **option 1.3.E** (provision of Repair Scoring Index, or other relevant repair information on a where applicable/available basis) ranks either highest or joint highest in all scenarios. In a number of scenarios, including the default scenario, option 1.3.E ranks the highest, followed by option 1.3.B (provision of information about how long and which spare parts are available), the baseline, option 1.3.D (provision of a Reparability Scoring Index), option 1.3.A (provision of updated, user-friendly repair and user manuals) and 1.3.C (provision of information on availability of repair services) in that order. In a number of other scenarios, option 1.3.E ranks joint highest with option 1.3.B.

¹¹⁰ The summary of the performance of the options against the criteria is summarised in [Annex 8](#), and has been used to perform the MCA. It covers both a qualitative and quantitative assessment. The MCA results are confirmed by a sensitivity analysis for half of the scenarios tested. See supporting study for the results of the sensitivity analysis.

When looking at the proportionality of the options, the MCA shows that the tangible and intangible costs of options 1.3.B, 1.3.D, and 1.3.E, including on businesses and public administrations, are outweighed by their expected benefits to consumers and the environment (even in the worst case scenario).

6.2. Problem 2: Consumers face misleading commercial practices related to the sustainability of products

6.2.1. Sub-Problem 2.1: Consumers are sold products that do not last as long as they should and consumers expect

| | |
|---|---|
| Option 2.1.A: Collection of evidence on early failures of products identified by authorised entities | Option 2.1.B: Ban of certain identified practices associated with early obsolescence |
|---|---|

Impacts of the policy options

Impacts on consumers:

The **collection of evidence on early failures of products identified by authorised entities**, as considered under **option 2.1.A**, is expected to help consumers become aware of possible problems with certain product models and therefore take better informed decisions. The effectiveness of the option **might be reduced by the fact that the consumers will have to actively look for the information on the websites of the authorised entities** (e.g. consumer organisations). The share of products effectively covered will **depend on voluntary actions and evidence collected by those entities**, so the sample of products may not be fully balanced. This option is expected to lead to an increase of the consumer surplus, which is estimated to amount to **EUR 100-180 million for the period 2025-2040 (or EUR 7 – 12 million per year)** as consumers are expected to avoid buying certain product models identified with early failures. **Option 2.1.B**, namely the **banning of certain identified practices associated with early obsolescence**, contributes to protecting consumers by removing products from the market that would fail earlier than consumers would expect as a result of certain identified practices prohibited by the option. It will increase consumer protection, notably of vulnerable consumers¹¹¹, as well as consumer trust in the market as it prevents situations where consumers would be misled by traders. A share (5%-20% depending on the product type) of products fails significantly earlier than could be reasonably expected, which leads to personal consumer detriment. This option is thus expected to lead to an increase in the consumer surplus, which is estimated to amount to **EUR 1 800 – 2 250 million for the period 2025-2040 (or EUR 120 – 150 million per year)** based on failures occurring in the first 60% of the product lifespan).

Impacts on businesses:

Option 2.1.A is expected to have an impact on the level playing field between companies. However, issues related to possible unbalanced product coverage might limit this impact. Since the option does not oblige third parties to collect the information but only to make it available to consumers, **these third parties will have costs in relation to the updating of their websites**. Those costs are estimated at **EUR 4-5 million for the period 2025-2040 (or EUR 0.26 – 0.33 million per year)**. However they may compensate for it through

¹¹¹ Vulnerable consumers are likely to be more susceptible to aggressive manipulative techniques that lure them into buying products that fail early:
[https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/690619/EPRS_BRI\(2021\)690619_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/690619/EPRS_BRI(2021)690619_EN.pdf)

membership fees or possible funding made available to them by Member States. When such information is made public concerning a given model, sellers may see a decrease in the demand of the specific model for sale. **Option 2.1.B** is expected to contribute **very positively to a level playing field**. This is because, in the baseline, companies engaging in the banned practices have lower costs than their competitors and charge higher prices to consumers (than they would if consumers knew about the real expected lifespan of the products) because consumers assume that the products would have an expected lifespan not much different from the average. It will also **reduce barriers to cross-border trade** as some Member States start to ban obsolescence practices, albeit in different ways. Rough estimations show that the option would lead to **extra costs for businesses amounting to EUR 1 190 – 1 630 million for the period 2025-2040** (or **EUR 79 – 109 million per year**), falling mainly on large manufacturers. These costs include those related to the familiarisation with the measures (applicable to all businesses) as well as those linked to the need to review internal processes for these companies using practices targeted by the option.

Impacts on public administrations:

Enforcement of **option 2.1.A** could be challenging due to the voluntary nature of collecting information, which means that enforcement authorities will have difficulties in identifying situations where information is available but not disclosed. The costs are estimated to be of **EUR 7-8 million for the period 2025-2040** (or **EUR 0.46 – 0.53 million per year**). Based on interviews with national enforcement authorities, it is assumed that the measure would not require significant additional resources on top of the existing ones to enforce the Unfair Commercial Practices Directive. It is therefore assumed that the measure will require one Full Time Equivalent (per Member State), with 50% of their time devoted to surveillance, 25% devoted to inspections and 25% to handling complaints. 35h are assumed for one person getting familiarized with the measure and the adjustment of internal procedures to start enforcing the measure. 16 employees would receive a 3.5h training. The costs of adjudication are expected to be in line with the unit costs presented in the previous measures. Enforcement of **option 2.1.B** is expected to result in the creation or strengthening of the capacity, including technical capacity, responsible for addressing obsolescence practices in each Member State. The enforcement costs are estimated at **EUR 103-107 million for the period 2025-2040** (or **EUR 6.9 – 7.1 million per year**). Based on interviews with national enforcement authorities, it is assumed that the measure would require significant additional resources on top of the existing ones to enforce the Unfair Commercial Practice Directive (except for one Member States – France). It is therefore assumed that the measure will require a team of seven additional Full Time Equivalent (per Member State), with 42% of their time devoted to surveillance, 42% devoted to inspections and 16% to handling complaints. 70h are assumed for three people getting familiarized with the measure and the adjustment of internal procedures to start enforcing the measure. 16 employees would receive a 14h training. The costs of adjudication are expected to be significantly higher than average given the complexity of the matter. It is assumed that one ADR case will cost around EUR 7,756 and a court case around five times the average.

Impacts on the environment:

Due to the implementation of **option 2.1.A**, some consumers will opt for goods that will last longer. The option will lead to a reduction of produced units and thus of **CO2 emissions estimated at 0.2 – 0.4 mega tons (valued at EUR 4 - 8 million)** during production for the period 2025-2040 (or **0.01 – 0.03 mega tons per year, valued at EUR 0.3 – 0.5 million**). Due to the implementation of option 2.1.B, some consumers will opt for goods that will last longer. The option will lead to a reduction of produced units and thus of **CO2 emissions**

estimated at 3.5 – 4.3 mega tons (valued at EUR 72 - 90 million) during production for the period 2025 – 2040 (or 0.2 – 0.3 mega tons per year, valued at EUR 5 – 6 million).

Coherence and applicability of the legislation:

No issue of coherence was identified for **option 2.1.A**. **Option 2.1.B** is expected to **have a significant impact on ensuring a better and coherent application of the EU legal consumer framework** through adding more specific and stronger consumer protection rules.

How do the options compare?

The results of the MCA and the sensitivity analysis¹¹² (presented in [Annex 9, section 2.3](#)) shows that **option 2.1.B** (Ban of certain identified practices associated to early obsolescence) ranks the highest, followed by **option 2.1.A** (Information on early failures of products identified by authorised entities) and then the baseline.

When looking at the proportionality of the two options, the MCA shows that the tangible and intangible costs of options 2.1.A and 2.1.B are outweighed by their expected benefits (even for the worst-case scenario). The results of the partial cost-benefit analysis (which only considers tangible and monetisable impacts) also suggest that the benefits of options 2.1.A and 2.1.B are higher than their expected costs, with option 2.1.B presenting the highest net present value.

6.2.2. Sub-problem 2.2: Consumers are faced with the practice of making unclear or not well-substantiated environmental claims (“Greenwashing”)

| | | |
|---|---|---|
| Option 2.2.A: Ban of general /vague environmental claims | Option 2.2.B: Prohibition of environmental claims that do not fulfil a minimum set of criteria | Option 2.2.C: Option 2.2A + 2.2B |
|---|---|---|

Impacts of the policy options

Impacts on consumers:

Under **option 2.2.A**, **general/vague statements** on the environmental performance of products or traders (such as “good for the environment”, “friend of nature”, etc.) **would be forbidden** unless the product or trader is considered to have an “environmentally excellent performance” in accordance with EU applicable laws (e.g. presence of the EU Ecolabel). Banning such vague statements will contribute to consumers taking better informed decisions and will also give more prominence to those products that are truly “environmentally excellent”. The option will have a **positive impact on consumer trust**, as highlighted by stakeholders from all groups. The option is expected to lead to consumer welfare estimated at **EUR 2 155 – 3 960 million for the period 2025-2040 (or EUR 144 – 264 million per year)**. **Option 2.2.B**, namely a **prohibition of environmental claims that do not fulfil a minimum set of criteria**, would particularly provide for general rules for **the claims not yet covered under the Green Claims Initiative**. By specifying minimum criteria for assessing the fairness of other claims, this option will further contribute to

¹¹² The summary of the performance of the options against the criteria is summarised in [Annex 8](#), and has been used to perform the MCA. It covers both a qualitative and quantitative assessment. The MCA results are confirmed by the sensitivity analysis. See [Annex 9](#) for its results.

improving the reliability of the information provided to consumers and, therefore, will have a positive impact on the decision making of consumers. When compared to this alternative baseline, this impact is estimated to amount to an increase in consumer welfare of between **EUR 1580 – 2 910 million for the period 2025-2040** (or **EUR 105 – 194 million per year**). **Option 2.2.C** will entail a combination of the impacts described for option 2.2.A and option 2.2.B. The option is thus expected to lead to an increase in the consumer surplus, which is estimated to amount to **EUR 3 735 – 6 870 million for the period 2025-2040** (or **EUR 249 – 458 million per year**).

Impacts on businesses:

The impact of **option 2.2A** on a level playing field is expected to be positive as products with unsubstantiated vague claims will no longer compete with products that are indeed environmentally excellent. The option is expected to entail **compliance costs for businesses** at **EUR 2 900 – 3 150 million** for the period 2025-2040 (or **EUR 193 – 210 million per year**), linked to familiarisation with the option and the removal of unfounded claims for the small share of products in stock before the approval of the measure. The impact of **option 2.2.B** on the level playing field is expected to be positive, as products with unsubstantiated claims will no longer compete with products containing green claims complying with the minimum set of criteria. The option is expected to entail compliance costs of **EUR 2 900 – 3 150 million for the period 2025-2040** (or **EUR 193 – 210 million per year**), of which about 99% will be for SMEs. **Option 2.2.C** will entail a combination of the impacts described for option 2.2.A and option 2.2.B. There are **certain economies of scales** when the two options are combined, related, for example, to the fact that the removal of the relevant claims for the small share of products in stock for which each of the two types of claims are made (vague claims which are not based on “environmentally excellent performance” in accordance with applicable EU laws + environmental claims that do not fulfil a minimum set of criteria) can be conducted simultaneously. The substantive compliance costs are estimated at **EUR 3 300 – 3 500 million for the period 2025-2040** (or **EUR 220 – 233 million per year**). The costs of these options are significantly higher than that of the options assessed related to Problem 1 (Consumers lack reliable information at the point of sale to make environmentally sustainable consumption choices) and Sub-Problem 2.1 (Consumers are sold products that do not last as long as they should and consumers expect) because they apply to a significantly higher number of businesses (about 40 times more).

Impacts on public administrations:

Option 2.2.A facilitates enforcement against misleading claims as it specifies what type of proof is accepted in order to use general/vague environmental claims (e.g. environmentally excellent performance as attested for example by the presence of the EU Ecolabel). Overall, the enforcement costs are estimated at **EUR 7-12 million for the period 2025-2040** (or **EUR 0.5 – 0.8 million per year**). It is assumed that the measure would not require significant additional resources on top of the existing ones to enforce Unfair Commercial Practices Directive. In fact, some of the interviewed national enforcement authorities even indicated that the measure might lead to savings as it would help them to prove the practice of “greenwashing” more easily (less resources are needed to substantiate their assessment). For these Member States it is considered that the measure does not bring incremental costs. For the others, it is assumed that one Full Time equivalent would work half time with 50% of its time devoted to monitoring, 25% to inspections and the remaining 25% to handle complaints. For all Member States, 35h are assumed for two people getting familiarised with the measure and the adjustment of internal procedures to start enforcing the measure. 16 employees

would receive a 7h training. It is also assumed that there might be a yearly action per Member State, which will cost EUR 20,000 (based on market research). The costs of an Alternative Dispute Resolution body adjudication and of a court adjudication were obtained from the Impact Assessment for the review of the Consumer Protection Cooperation Regulation and supporting study¹¹³. The contribution of **option 2.2.B to more effective enforcement** will be less pronounced than that of option 2.2.A as authorities would need to assess to what extent the specific claim complies with the criteria set out under this option. The costs are expected to be similar to those of option 2.2.A and amount to **EUR 7-12 million for the period 2025-2040** (or **EUR 0.5 – 0.8 million per year**). The calculation of the enforcement costs followed the same approach and assumptions presented for the previous measure. **Option 2.2.C** will entail a combination of the impacts described for option 2.2.A and option 2.2.B. There are significant economies of scales when the two options are combined, due to the fact that the expertise needed to investigate the two different types of claims at issue will be quite similar. Overall, the enforcement costs are estimated at **EUR 7-12 million for the period 2025-2040** (or **EUR 0.5 – 0.8 million per year**).

Impacts on the environment:

As a result of the implementation of **option 2.2.A**, certain consumers will purchase products that will be truly better for the environment. Although it is not possible to assess how much “greener” those products will be (compared to the alternative that would be purchased in the baseline), it is estimated that the **impacts on the environment will be highly positive**. For the same reasons, it is estimated that the impacts on the environment of **option 2.2.B** will be **also positive**. The impact on the environment of **option 2.2.C** will be highly positive (at least as high as the impact of option 2.2.A), but an exact quantification of the impacts is not possible.

Coherence and applicability of the legal framework:

Option 2.2.A will be coherent with other legislation, such as the EU Ecolabel or the upcoming Green Claims Initiative, as these will be used as the benchmark to assess the reliability of the claims. Similarly **option 2.2.B** will be also coherent with the other legislation as this option will provide for general rules to capture the claims not regulated by others. **Option 2.2.C**, as a combination of options 2.2.A and 2.2.B, will have a positive impact on ensuring a better and coherent application of the EU legal consumer framework, in particular of the UCPD, through adding more specific and stronger consumer protection rules.

How do the options compare?

The results of the MCA and sensitivity analysis¹¹⁴ (presented in [Annex 9, section 2.4](#)) shows that all options rank higher than the baseline, with **option 2.2.C** (the combination of options 2.2.A and 2.2.B) coming first, followed by **option 2.2.A** (Ban of general /vague environmental claims), then **option 2.2.B** (Prohibition of environmental claims that do not fulfil a minimum set of criteria), and then the baseline.

When looking at the proportionality of the 3 options, the MCA shows that the tangible and intangible costs of options 2.2.A, 2.2.B and 2.2.C, including on businesses and public

¹¹³ European Commission, Support study for the impact assessment on the review of the CPC Regulation 2006/2004/EC: https://ec.europa.eu/info/sites/info/files/cpc_review_support_study_1_en.pdf and European Commission, SWD(2016) 164 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016SC0164&from=EN>.

¹¹⁴ The summary of the performance of the options against the criteria is summarised in [Annex 8](#), and has been used to perform the MCA. It covers both a qualitative and quantitative assessment. The MCA results are confirmed by the sensitivity analysis. See [Annex 9](#) for its results.

administrations, are outweighed by their expected benefits for consumers and the environment (even for the worst-case scenario). The results of the partial cost-benefit analysis (which only considers tangible and monetisable impacts) also suggest that the benefits of option 2.2.C are higher than their expected costs, although this is not necessarily the case for options 2.2.A and 2.2.B.

6.2.3. Sub-problem 2.3: Consumers are faced with the use of sustainability labels and digital information tools that are not always transparent and credible

| | | |
|---|---|---|
| Option 2.3.A: Development of principles promoting the transparency and credibility of sustainability labels and digital information tools for voluntary uptake | Option 2.3.B: Prohibition of sustainability labels and digital information tools not meeting minimum transparency and credibility requirements | Option 2.3.C: Pre-approval of sustainability labels and digital information tools via an EU body |
|---|---|---|

Impacts of the policy options

Impacts on consumers:

The introduction of **minimum criteria for sustainability labels and digital information tools** (thus increasing their transparency and credibility), as envisaged under **option 2.3.A**, could enhance the quality of consumer decision-making. However, this option would rely on **voluntary uptake**, which would mean that there would be no harmonisation across labels or information tools. The introduction of **minimum criteria for assessing the fairness of sustainability labels and digital information tools**, as envisaged under **option 2.3.B**, would also increase the transparency and credibility of these labels and tools. This will enhance the quality of consumer decision-making and the level of consumer protection. The impact on consumer welfare depends on the extent of the impact of the measure in increasing consumer trust in labels. When assuming a moderate impact on consumer trust, this option is estimated to increase consumer welfare by **EUR 4 500 – 6 610 million for the period 2025-2040**¹¹⁵ (or **EUR 300 – 441 million per year**). The impact on consumer protection of **option 2.3.C**, namely the requirement for pre-approval of sustainability labels and digital information tools via an EU body, is expected to be similar to those described for option 2.3.B but slightly higher, as the compliance level will be higher given that only pre-approved labels and digital information tools will be allowed. The consumer welfare is estimated to amount to **EUR 4 500 – 6 610 million for the period 2025-2040** (or **EUR 300 – 441 million per year**), similar to option 2.3.B.

Impacts on businesses:

As **option 2.3.A** is voluntary, the impact of the option on businesses is **negligible**. **Option 2.3.B** is expected to contribute more thoroughly to a **level playing-field** between products displaying sustainability labels but also between organisations running such labels, as well as organisations running such digital information tools. The entities running and managing the labels and information tools will have administrative costs between **EUR 615 – 620 million for the period 2025-2040** (or **EUR 41 – 41.3 million per year**). They will also incur substantive compliance costs resulting from implementing the necessary changes in their internal processes, including, for the organisations running the labels, carrying out

¹¹⁵ Based on the share of labels that do not currently comply with the criteria, the share of consumers that do not take account of labels as they do not trust them, the increase in the share of more sustainable products and the estimated willingness to pay for these products. Further details are to be found in [Annex 4](#).

certifications of the applicants (if they are not doing it already at the baseline). These costs are estimated to amount to **EUR 3 025 - 3 500 million for the period 2025-2040** (or **EUR 201 – 233 million per year**) and are likely to be passed on to manufacturers and sellers applying for the label. These do not include the costs for digital information tools as there is very limited data about the number of tools currently in use. **Option 2.3.C** is expected to bring administrative burdens similar to the ones described for the entities running and managing the labels and digital information tools in the context of option 2.3.B. These costs are estimated to amount to **EUR 615 – 620 million for the period 2025-2040** (or **EUR 41 – 41.3 million per year**). The substantive compliance costs for this option are similar to those described for option 2.3.B plus an additional fee when applying for pre-approval (which we assume will be similar to the upper limit of the EU Ecolabel fee). This will amount to **EUR 3 120 - 3 580 million for the period 2025-2040** (or **EUR 208 – 239 million per year**). The costs of these options are significantly higher than that of the options related to Problem 1 (Consumers lack reliable information at the point of sale to make environmentally sustainable consumption choices) and Sub-Problem 2.1 (Consumers are sold products that do not last as long as they should and consumers expect) because they apply to a significantly higher number of businesses (about 40 times more).

Impacts on public administrations:

Given the voluntary nature of **option 2.3.A**, there will be no enforcement costs associated. Other costs to public bodies (including the Commission) will be related to the organisation of meetings and preparation of the minimum criteria. These are estimated to be around **EUR 94 000** in the first year and about **EUR 16 000** per year¹¹⁶. Enforcement costs under **option 2.3.B** were estimated at **EUR 14 - 15 million for the period 2025-2040** (or **EUR 0.9 – 1 million per year**). It is assumed that the measure would not require significant additional resources on top of the existing ones to enforce the Unfair Commercial Practices Directive. In fact, some of the interviewed national enforcement authorities even indicated that the measure might lead to savings as it will help them tackle the issue of lack of transparency and reliability of labels more easily (less resources are needed to substantiate their assessment). For these Member States it is considered that the measure does not bring incremental costs. For the others, it is assumed that one Full Time equivalent will work to monitor (50%), carry out inspections (40%) and handle complaints (10%). For all Member States, 35h are assumed for two people getting familiarized with the measure and the adjustment of internal procedures to start enforcing the measure. 16 employees would receive a 7h training. The costs of an Alternative Dispute Resolution body adjudication and of a court adjudication were obtained from the Impact Assessment of the review of the Consumer Protection Cooperation Regulation and supporting study¹¹⁷. Enforcement of **option 2.3.C** will be significantly higher than in option 2.3.B as all labels will need to be pre-approved by an EU body. The costs of setting up and running the EU body were considered to be around **EUR 4.02 million per year**¹¹⁸, which corresponds to a net present value for the period 2025-2040 of about **EUR 42 million**. National enforcement costs are

¹¹⁶ Assuming six meetings in the first year to discuss and prepare the minimum criteria and then one meeting a year to revise the criteria.

¹¹⁷ European Commission, Support study for the Impact Assessment on the review of the CPC Regulation 2006/2004/EC: https://ec.europa.eu/info/sites/info/files/cpc_review_support_study_1_en.pdf and European Commission, SWD(2016) 164 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016SC0164&from=EN>.

¹¹⁸ Source: costs setting up and running BERE office. <https://ec.europa.eu/transparency/regdoc/rep/10102/2016/EN/SWD-2016-303-F1-EN-MAIN-PART-1.PDF>

estimated to be similar to those under option 2.3.B and amount to **EUR 14 - 15 million for the period 2025-2040** (or **EUR 0.9 – 1 million per year**).

Impacts on the environment:

The impacts on the environment of **option 2.3.A** are estimated to be **negligible** (around zero) for the reasons mentioned above. Overall the impacts on the environment of **option 2.3.B** are expected to be **positive**. However, due to a series of factors (e.g. sustainability labels are often covering impacts other than climate change, there are no data on the share of sales per label etc.), it is **not possible to estimate quantitatively** the impact of the option. The impact of **option 2.3.C** on the environment are expected to be similar to option 2.3.B, but for the same reasons not possible to estimate quantitatively.

Coherence and applicability of the legal framework:

There was no issue of coherence identified for **option 2.3.A**. **Option 2.3.B** will have a positive impact on ensuring a better and coherent application of the EU consumer legal framework, in particular of the UCPD, as it will strengthen the protection of consumers against misleading labels, including by building on existing requirements for labels under the Public Procurement Directive, Article 43¹¹⁹. **Option 2.3.C** will have a positive impact on ensuring a better and coherent application of the EU legal consumer framework, in particular of the UCPD.

How do the options compare?

The results of the MCA and sensitivity analysis¹²⁰ (presented in [Annex 9, section 2.5](#)) show that **option 2.3.B** (Prohibition of sustainability labels and digital information tools not meeting minimum transparency and credibility requirements) ranks highest followed in the ranking by under the default scenario by **option 2.3.C** (Pre-approval of sustainability labels and digital information tools via an EU body) in second place, with no discernible difference between **option 2.3.A** (EU-led voluntary initiative to develop minimum criteria on sustainability labels) and the baseline.

When looking at the proportionality of the 3 options, the MCA shows that the tangible and intangible costs of option 2.3.B, including for businesses and public administrations, are outweighed by its expected benefits for consumers and the environment (even for the worst-case scenario). The results of the partial cost-benefit analysis (which only considers tangible and monetisable impacts) also suggest that the benefits of options 2.2.B and 2.2.C are higher than their expected costs, with 2.3.B coming out (on average) as more beneficial.

7. PREFERRED POLICY OPTIONS

This Impact Assessment identifies a number of preferred policy options ensuring a coherent policy approach together with the upcoming Green Claims Initiative and Sustainable Products Initiative adopted together with this initiative. The presentation and assessment of

¹¹⁹ 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

¹²⁰ The summary of the performance of the options against the criteria is summarised in [Annex 7](#), and has been used to perform the MCA. It covers both a qualitative and quantitative assessment. The MCA results are confirmed by a sensitivity analysis. The results of the sensitivity analysis show that the ranking of options with the highest score only changes (where Option D ranks higher than Option B) when the weight assigned to effectiveness is high. See Annex 9: Detailed results from the Cost and Benefit Analysis and from the Multi-Criteria Analysis for its results.

the options has confirmed the synergies that exist between the three initiatives. The preferred options selected are fully coherent with the other two initiatives, and in several instances provide for general rules that the other two initiatives will usefully complement.

For each of the sub-problems addressed by this Impact Assessment, **the option which received the highest ranking overall in the Multi-Criteria and sensitivity analysis** (presented in [Annex 9, section 2.5](#)), as detailed per sub-problem in [Section 6](#) above, **was always selected as the preferred policy option**. As well as this quantitative analysis, the proportionality and qualitative impact of each of the preferred policy options, as detailed per sub-problem in [Section 6](#) above, was always considered in the identification of the preferred policy options.

In relation to **sub-problem 1.1** (lack of reliable information on product's environmental characteristics at the point of sale), all options have been discarded at an early stage as their added value could not be demonstrated, and the measures taken under the Green Claims Initiative and the Sustainable Products Initiative are expected to reduce this sub-problem significantly.

In relation to **sub-problem 1.2** (the lack of reliable information on products' lifespan at the point of sale), **option 1.2.C** will be selected as the preferred policy option, namely **the provision of information on the existence or absence of a producer's commercial guarantee of durability and of the period of time during which free software updates are provided**, for a medium product scope (i.e. all energy-using goods), to be achieved via targeted amendments of the Consumer Rights Directive. The option will guide consumers towards products that last longer, thereby having positive impacts on the environment. The impact on businesses of informing consumers on the commercial guarantees and on the period of software updates will be limited as they will still be free to decide whether or not to offer such guarantees or such a period of free software updates. The complementarity with the SPI is ensured, as the "guaranteed lifespan" information under this option may be complemented in the future under the SPI with other information requirements (e.g. "expected/estimated lifespan", which may be longer than the "guaranteed lifetime") when considered feasible and appropriate subject to future Impact Assessments related to SPI measures for specific products or groups of products. The proportionality of the measure as regards the producer's commercial guarantee of durability is ensured by confining the scope of the measure to energy-using goods, thus ensuring that traders are only subject to this requirement in relation to goods for which durability can be reliably estimated and about which consumers are mostly interested to receive information. Moreover, proportionality is ensured by allowing flexibility for the producer to decide on whether or not to offer a commercial guarantee of durability, and for what duration, depending on the producer's business strategy, the interaction between the seller and the producer, and the needs of the consumers in a given market or for a given product category. The costs of these information requirements are expected to be compensated by an increase in the price of the good (as consumers are willing to pay for longer commercial guarantees of durability) and possibly by an increase of demand of those same goods. On the provision of information on the availability of free software updates, proportionality will be ensured by requiring the provision of information on the existence of such updates only in the cases in which they are provided for a period that is longer than the period for which the producer's commercial guarantee of durability is provided, and by requiring the provision of information on the absence of such updates according to the provisions of this proposal only in case there is also no information on the producer's commercial guarantee of durability provided. This ensures that consumers are not subject to an abundance of information, or 'information

overload', which could lead to confusion and thus interfere with their transactional decision. It also ensures that traders are not subject to unnecessarily burdensome information requirements.

In relation to **sub-problem 1.3** (lack of reliable information at the point of sale on products' reparability), **option 1.3.E** will be selected as the preferred policy option. This option entails the **provision of a Repair Scoring Index, or other relevant repair information on a where applicable/available basis**, for an open product scope, to be achieved via targeted amendments of the Consumer Rights Directive. For a potentially very wide range of products, this option will provide consumers with information at the point of sale that will help them choose products that are more easily reparable, whenever manufacturers have made this information available or when such information exists in accordance with EU or national applicable laws. This will also improve consumers' ability to repair products or have them repaired, and will thus have a positive impact on the environment as it will positively affect the useful lifespan of products. Costs incurred by businesses will be very limited as sellers will have to provide only such information as manufacturers make available, or whenever applicable under national or EU product rules. Under this option, there will be no specific obligation for manufacturers to provide such information but they will be incentivised to compete to provide the best repair conditions on their products. The complementarity with the SPI is ensured, as the repair information that will be provided at the point of sale under this option can be specified in future requirements under the SPI (e.g. repair scoring index, or other relevant repair information) when considered feasible and appropriate, subject to future impact assessments related to SPI implementing measures for specific products or groups of products. The proportionality of this measure is ensured by requiring the provision of such information at the point of sale only in cases where a reparability score is available or required for that product in accordance with EU or national applicable laws or whenever other relevant repair information is made available by the producer. Traders are not obliged to provide information at the point of sale regarding the absence of such information. This ensures that the burden placed on traders by these requirements is minimal.

In relation to **sub-problem 2.1** (products that do not last as long as they should or consumers expect), **option 2.1.B** will be selected as the preferred policy option. This option entails a **ban of certain identified practices of early obsolescence**, to be achieved via targeted amendments of the Unfair Commercial Practices Directive. This will help enforcers to effectively address these practices which lead to a faster obsolescence of products. This will, in turn, reduce consumer detriment (caused by products failing early) and have positive impacts on the environment, with goods lasting longer. It will also improve the level-playing field between businesses. This option will usefully complement future SPI or Ecodesign requirements, and will provide better consumer protection against early obsolescence of specific product models (e.g. a specific model of coffee machine) through facilitating public enforcement and allowing the harmed consumers to claim individual remedies where such practices are deemed unfair. The SPI may on the other hand set specific requirements (e.g. on minimum durability or reparability) for the whole product category (i.e. all coffee machines) when considered feasible and appropriate subject to future Impact Assessments of product rules. The proportionality of the ban of certain practices related to the early obsolescence of products is ensured by targeting specific and well defined existing practices, including providing software updates which negatively impact the ability of the products to maintain their required functions and performance through normal use, omitting to provide software updates which are needed for the products to maintain their required functions and performance through normal use in accordance with legal requirements, marketing of goods

that have been designed with a view to limit their durability, marketing of goods that do not allow disassembly or repair in accordance with legal requirements, and marketing of goods that are designed in a way to induce the consumer into replacing their consumable earlier than necessary, or to prevent the use of consumables provided by alternative producers, without informing the consumer thereof. This targeting of specific practices is proportionate as it ensures legal certainty for traders. It also facilitates enforcement, as enforcement authorities will not be required to prove that the early obsolescence of a product has been designed with the intention of stimulating the purchase of a new model of the product itself. Moreover, enforcement authorities will not be required to demonstrate the negative impact of the unfair practice on the consumers' transactional decision, if this measure would be implemented via an update of the 'blacklist' (Annex I) of the UCPD.

In relation to **sub-problem 2.2** (unclear or not well-substantiated green claims), **option 2.2.C** will be selected as the preferred policy option, namely the **banning of unfounded general/vague claims and setting criteria for assessing the fairness of all environmental claims**. This will be achieved via targeted amendments of the Unfair Commercial Practices Directive. This option will usefully complement the Green Claims Initiative and provide a clear framework for the claims that the Green Claims Initiative does not yet cover. It will bring legal clarity both for businesses and enforcers as to which green claims can be allowed and under which conditions. It will also improve consumer trust in green claims and will have a positive impact on the environment as consumers will be able to choose products that are truly environment-friendly. The proportionality of the ban of general/vague environmental claims used in marketing towards consumers is ensured by bringing significant projected benefits for consumers while limiting the burden on traders. Traders will be permitted to make general/vague environmental claims in cases where environmentally excellent performance of products or traders which can be demonstrated via Regulation (EC) 66/2010 (EU Eco-label), or officially recognised ecolabelling schemes in the Member States in accordance with Article 11 of Regulation (EC) 66/2010, or in accordance with other applicable EU laws. Moreover, enforcement authorities will not be required to demonstrate the negative impact of the unfair practice on the consumers' transactional decision, if this measure would be implemented via an update of the 'blacklist' (Annex I) of the UCPD. The proportionality of the criteria for assessing the fairness of any environmental claim used in marketing towards consumers is ensured by introducing uniform minimum requirements. Traders shall fulfil these requirements when making such claims. The preferred policy option does not prescribe any specific methodology for the substantiation of any environmental claim. Other potential legislation may be tailored to specific types of environmental claims, for example those based on certain environmental impacts. This option will also provide competent national bodies uniform criteria for helping them to assess the fairness of any environmental claim, providing legal certainty and facilitate enforcement activities.

In relation to **sub-problem 2.3** (the use of sustainability labels and digital information tools that are not always transparent or credible), **option 2.3.B** will be selected as the preferred policy option. This option entails providing **minimum transparency and credibility criteria for assessing the fairness of sustainability labels and digital information tools**, and will be achieved via targeted amendments of the Unfair Commercial Practices Directive. This will provide a stronger framework to ensure the reliability and transparency of sustainability labels and digital information tools, thus having a positive impact on consumer trust. By setting out clear criteria, this will facilitate the work of enforcers. The proportionality of the criteria for assessing the fairness of the display of sustainability labels

in marketing towards consumers is ensured by requiring a limited number of uniform minimum requirements to ensure the transparency and credibility of such sustainability labels towards consumers. This ensures that entities running sustainability labels, as well as the traders applying for those sustainability labels, do not face disproportionate costs. At the same time it will ensure legal certainty for traders, facilitate enforcement activities and pursue a high level of consumer protection. The proportionality of the criteria for assessing the fairness of sustainability information tools is ensured by introducing criteria to assess the transparency and credibility of the information provided by the tools only. No requirements are introduced that would subject the taking up and pursuit of the activity of a provider of such software to prior authorisation or any other requirement having equivalent effect, thus ensuring the full compliance of the provisions with the provisions of Art. 4 (1) of Directive 2000/31/EC regarding the establishment of information society services. This ensures that the impacts on traders providing or marketing such tools are limited.

The contribution of the selected options to this initiative's specific objectives can be summarised as follows:

- The objective of enabling informed purchasing decisions by consumers to foster sustainable consumption would be particularly achieved thanks to **options 1.2.C and 1.3.E**, as these would guide consumers towards products with a longer guaranteed lifespan and actionable repair information. It would also be indirectly achieved by **options 2.1.B, 2.2.C, and 2.3.B**, as these options would strengthen the reliability of the information provided to consumers.
- The objective of eliminating untrustworthy practices that cause damage to the sustainable economy and mislead consumers away from sustainable consumption choices would be particularly achieved through **options 2.1.B, 2.2.C, and 2.3.B**, which would tackle early obsolescence practices, greenwashing and the lack of transparency and credibility of sustainability labels and digital information tools.
- Finally the objective of ensuring a better and coherent application of the EU legal framework would be achieved **thanks to all of the preferred policy options**, as they prove to be easily enforceable and complement effectively the existing EU legal framework.

When the impacts of all of the preferred policy options are **combined** (options 1.2.C, 1.3.E, 2.1.B, 2.2.C and 2.3.B), the initiative is expected to bring significant benefits to consumers compared to the baseline. It will increase consumer welfare by at least **EUR 12.5 – 19.4 billion** for the period 2025-2040. This would amount to **EUR 0.8 – 1.3 billion per year**. This is a partial estimation only, due to lack of available data to carry out this monetisation for all selected options and/or full scope of some selected options. It will also bring benefits to the environment, with a partial estimation of the total saved **CO₂e over a period of 15 years of 5 - 7 MtCO₂e**.

To achieve these benefits, businesses will have to adjust, which will **cost about 65% +/- 18% (so between 47% and 83%) of the partial monetisable benefits**, amounting to a total cost for businesses (combining one-off costs and annual recurrent costs) of between **EUR 9.1 – 10.4 billion** for the period 2025-2040. This would amount to **EUR 0.6 – 0.7 billion per year on average**. This represents an average one off cost **per company** of between **EUR 556 - 568**, followed by an annual recurrent cost of between **EUR 64 - 79** for the period covered. If we break these costs down further, we can see that **SMEs** will on average have a one off cost of **EUR 525 – 536** and annual recurrent costs of **EUR 52 - 62**, while **large enterprises** will have a one off cost of **EUR 13 301 – 13 656**, followed by annual recurrent

costs of **EUR 4 919 – 6 965** for the period covered. On the other hand, businesses will also experience very important benefits related to level playing field as businesses that currently mislead consumers would have to align their practices with those that are truly sustainable. In addition, the preferred options would also benefit businesses by ensuring that companies active on the Single Market play by the same rules, thereby reducing barriers to cross-border trade. The **enforcement** of the preferred options on the part of public administrations will cost about **EUR 441 800 – 502 200 per year** per Member State.

A detailed analysis of the total monetisable consumer welfare benefits, and the costs for businesses and public administrations, of the all 5 preferred policy options combined (1.2.C, 1.3.E, 2.1.B, 2.2.C and 2.3.B) as well as the benefits and costs per individual preferred policy option can be found in [Annex 3](#). As analysed in detail in [Annex 8](#), the combination of preferred policy options also brings **other substantial benefits which were not monetised**, such as impact on quality of consumer decision making, consumer trust, and consumer protection, level playing field and reduction in barriers to cross-border trade. From the foregoing, we can conclude that the **impact of the combination of the preferred policy options will be proportionate** in relation to the various stakeholder groups concerned, including consumers, public administrations and businesses (both SMEs and large enterprises). Through the foreseen reduction of CO2 emissions and other environmental impacts, it will also bring important benefits to society as a whole.

Application of the ‘one in, one out’ approach

The costs for businesses can be further broken down into adjustment costs and administrative costs in accordance with the criteria set out in the Commission’s Better Regulation Toolbox #58 and #59¹²¹. Based on the analysis of costs, the only one of the preferred policy options which would incur administrative costs is option 1.2.C¹²². This option would entail in particular costs for businesses in familiarising themselves with the information obligations, and for designing and placing information material (labelling)¹²³. These costs would amount to EUR 225-257 million in total for the period 2025-2040 (combining one-off costs and annual recurrent costs). On average, this would represent average administrative costs of 15-17 million per year. Further details of how the costs are broken down by preferred policy option can be found in [Annex 3](#).

8. HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED?

The Commission will evaluate the effectiveness, efficiency, relevance, coherence and EU added value of this intervention. In order to monitor and evaluate the progress made towards the objectives of this initiative, monitoring indicators have been identified and are listed in the Table available in [Annex 10](#). These indicators can serve as the basis for the evaluation that should be presented no sooner than 5 years after the entry into application, to ensure that enough data is available after full implementation in all Member States. These indicators are partially based on statistics already collected in the framework of the Consumer Scoreboards published every two years and which relies on representative surveys with consumers and retailers in the EU. The monitoring will also include a mystery shopping and targeted

¹²¹ https://ec.europa.eu/info/sites/default/files/br_toolbox_-_nov_2021_-_chapter_8.pdf

¹²² For further details, see [Annex 4](#)

¹²³ European Commission, Impact Assessment supporting study: *Study on Empowering Consumers Towards the Green Transition*, July 2021, Section 7.21, Table 45, p. 138

surveys. It will also feed on the feedback from Member States, notably the experience collected in the course of coordinated checks (sweeps). Such sweeps will be planned after the entry into force of the instrument, in agreement with Member States.

This data collection will also feed into the Commission's reporting on the transposition and implementation. In addition, the Commission will remain in close contact with the Member States and with all relevant stakeholders to monitor the effects of the possible legislative act. To limit the additional administrative burden, the proposed indicators on the table in [Annex 10](#) rely on existing data sources whenever possible. Data collection will aim to identify more precisely the extent to which changes in the indicators could be ascribed to the proposal. The surveys carried out for the Consumer Scoreboards have time series on most indicators, allowing in principle (through statistical analysis) to discern the impact of a particular policy initiative from broader trends.

ANNEX 1: PROCEDURAL INFORMATION

1. Lead DG, Decide Planning/CWP references

Lead DG: European Commission Directorate-General Justice and Consumers, DG JUST, Ref. Decide: PLAN/2020/7019. Adjusted Commission Working Programme 2020¹²⁴, Annex I, nr. 6.

2. Organisation and timing

This Impact Assessment (IA) was carried out by Unit E1 “Consumer Policy” of the European Commission, DG Justice and Consumers. The **Inception Impact Assessment (IIA) on the Empowering the consumer for the green transition initiative**¹²⁵ was published on 23 June 2020 along with its corresponding consultation strategy¹²⁶. The IIA outlined the initiative’s context, objectives and policy options whilst also discussing expected impacts and evidence base.

Four Inter-service Steering Group (ISSG) meetings were held between April and December 2020 including participation from the Secretariat General, ESTAT and Directorates-General: AGRI, CLIMA, CNCT, COMP, ECFIN, EMPL, ENER, ENV, FISMA, GROW, HOME, JRC, LS, MARE, MOVE, SANTE and TRADE. DG JUST agreed with the Secretariat General on creating a sub-group of the Circular Economy Action Plan (CEAP) ISG rather than setting up a separate ISG. The CEAP ISG sub-group was consulted on the draft IIA and consultation strategy, the open public consultation, the preparatory study and several drafts of this IA report in the first stages of the preparatory phase. The Inter-service consultation on the draft legal text and the revised IA report took place during the period 29 October 2021 – 23 November 2021.

3. Consultation of the RSB

An upstream meeting was held with the Regulatory Scrutiny Board (RSB) on 15 July 2020 to informally discuss questions concerning how to prepare the best possible report for this initiative. The IA report was submitted to the RSB on 6 January 2021 with a subsequent RSB hearing scheduled on 3 February 2021. The RSB provided a negative opinion on 5 February 2021. Taking into account the RSB comments, a revised Impact Assessment report was resubmitted on 22 July 2021, following the first submissions of the IA reports of the Sustainable Products and Green Claims Initiatives on 20 July 2021. The RSB provided a positive opinion with reservations on 17 September 2021.

| RSB Comments of 3 February 2021 | How RSB comments have been addressed in the IA |
|---|---|
| The Board notes the useful additional information provided in advance of the meeting and commitments to make changes to the report. | Overall, the IA report has been revised, shortened and streamlined following the RSB Opinion as well as the Impact Assessment Quality Checklist, improving its presentation as well as its content. The |

¹²⁴ Adjusted Commission Work Programme 2020, adopted on 27 May 2020. Available at https://ec.europa.eu/info/sites/default/files/cwp-2020-adjusted-factsheet_en.pdf

¹²⁵ European Commission, *Inception Impact Assessment: Empowering the consumer for the green transition*, 2020.

¹²⁶ Consumer policy – strengthening the role of consumers in the green transition, Feedback and statistics: Inception Impact Assessment, https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12467-Empowering-the-consumer-for-the-green-transition/feedback?p_id=8017477

| | |
|---|---|
| However, the Board gives a negative opinion, because the report contains the following significant shortcomings: | report notably further clarifies the interaction between this initiative, existing (consumer) legislation and forthcoming initiatives. It now identifies a preferred set of policy options. The report also further explains the product scope of this initiative and the concept of sustainability followed. The criteria and sub-criteria used for the assessment of the options has been further clarified. Several annexes have been streamlined, re-organised and further developed. |
| 1) It is unclear how this initiative relates to existing consumer legislation and forthcoming proposals on environmentally sustainable products. It does not sufficiently explain how these measures will complement each other and how overlaps will be avoided. | The revised IA report explains how this initiative relates to existing consumer legislation, including the targeted amendments of certain consumer directives as part of this initiative, and to the parallel initiatives in preparation such as the Sustainable Products Initiative and the Green Claims Initiative. It provides further explanation how the measures complement each other and how overlaps are avoided. |
| (2) The report does not sufficiently demonstrate the size of the problem and its relation to sustainability objectives. The scope of concerned products is unclear. | The relation to the various sustainability objectives has been clarified as well as the scope of concerned products for each of the options assessed. The chapter on problem definition has been also revised and streamlined. |
| (3) The report is not sufficiently precise on the content and foreseen functioning of the options. The justification for favouring some options over others is not always clear. | The policy options have been better described with a new table in the dedicated chapter, clarifying content and foreseen functioning. The justification for favouring some options has been made clear. |
| (4) The analysis fails to draw clear conclusions for political decision-making. | The report identifies now a preferred set of policy options and provides clear conclusions for political decision-making. |
| RSB Comments of 17 September 2021 | How RSB comments have been addressed in the IA? |
| (1) Although this initiative intends to set the overall framework for empowering consumers to play an active role in the green transition, the report does not explain why it | The reasons for addressing the particular aspects of environmental sustainability covered by this initiative are further elaborated and clarified in section 1. |

| | |
|---|--|
| does not cover all environmental sustainability issues | Within the area of environmental sustainability, this initiative focuses on those aspects of environmental sustainability which can be most appropriately addressed by consumer law, as foreseen in the CEAP and the New Consumer Agenda. It therefore focuses on empowering consumers in their decision-making process, and does not consider the use of other non-consumer law instruments that may in addition provide further solutions for better empowering consumers for the green transition. |
| (2) The structure of the options is not always clear. Most options do not seem to be real alternatives, but are complementary and could be combined. It is not clear why the report considers such combination of options for some problems only. The report does not propose any options to tackle the lack of reliable information on the environmental characteristics of products | The report now clarifies in section 5.2 the rationale behind the structuring of the options, namely so as to allow for a clear decision as to the preferred policy options. In the case of each of the sub-problems, the report also now clarifies in section 5.2 which of the options are potentially complimentary and which are mutually exclusive. The reasons for not selecting any options to tackle the lack of reliable information on environmental characteristics of products are further elaborated. |
| (3) The report does not clearly demonstrate the proportionality of the preferred option. It is not clear that the preferred option proposes the best solution. | A detailed discussion of the proportionality of each of the preferred policy options for each of the sub-problems is added to section 7. |

4. Evidence, sources and quality

External expertise

A study was outsourced to a consortium led by ICF S.A. to feed into the preparation of this Impact Assessment. The study, which took place between February 2020 and June 2021, relied on a combination of sources and methods, including extensive in-depth consultation with stakeholders both at the national and EU level, a consumer survey, industry surveys, desk research, legal analysis, literature review, mystery shopping exercises, stakeholder and expert workshops and a combination of approaches to assess the impacts of the policy options (including agent-based simulation, cost-benefit analysis, multi-criteria analysis).

Stakeholder consultation

This IA relies on an extensive stakeholder consultation, which includes several strands to achieve complementarity, representativeness and comprehensiveness in the views collected.

An Open Public Consultation ran between 30 June 2020 and 6 October 2020, covering both the New Consumer Agenda but also 3 initiatives in the field of consumer law, including the one covered by this IA. The questionnaire of the public consultation was made available on the Commission's website in all 24 EU languages. The section of the OPC devoted to this initiative yielded 313 responses. A summary report ¹²⁷ of the findings was published in November 2020.

Targeted consultation was conducted by the external consultants under the study to complement and deepen the feedback collected in the Open Public Consultation. It included 149 in-depth interviews with selected key stakeholders in the main groups concerned by the initiative: national authorities, EU and national business associations and EU and national consumer associations. In addition, an online industry survey allowed to collect the views of 110 companies. An online consumer survey was carried out in all Member States to collect the views and experience of 11 805 consumers.

Four workshops have also been organised. The first one allowed to collect expert views on the extent of the problems and examples of effective actions. A second one with industry associations allowed to collect views on how digital means can be used to provide product information. The third one gathered all stakeholder groups to collect feedback on possible options to address the problem identified. Finally, the last one allowed to collect the view of consumer protection enforcement authorities (CPC authorities) to collect their views on enforcement challenges.

Results from these stakeholder consultations are summarised in [Annex 2](#).

Other studies and sources

Further references, including recent market and behavioural studies commissioned by the European Commission on environmental claims and the role of consumers in the circular economy, have been used in the development of this Impact Assessment and are mentioned throughout the text. This Impact Assessment also cross-references studies and evaluations which have fed into the 2017 Fitness Check of Consumer and Marketing law and the follow-up New Deal for Consumers proposals as well as in the ongoing preparatory work for the SPI and Green Claims initiative.

Limitations and robustness of findings

The data collection and analysis carried out have a number of limitations, whose impact has been mitigated to a maximum possible extent.

The estimations of consumer detriments and costs for businesses, while providing a sense of magnitude, have limitations which are explained in detail in [Annex 4](#).

¹²⁷ Consumer policy – strengthening the role of consumers in the green transition, Feedback and statistics: Inception Impact Assessment, <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12467-Empowering-the-consumer-for-the-green-transition/public-consultation>

ANNEX 2: STAKEHOLDER CONSULTATION

1. Introduction and overview of the consultation strategy

The goal of the consultation strategy was to ensure that, across a series of consultation activities, all relevant stakeholders were given an opportunity to express their views on the initiative aimed at empowering consumers in the green transition. The primary stakeholders of this initiative are consumers and businesses (retailers and producers) across the EU. However, besides these two, other stakeholders are indirectly or potentially impacted. The following stakeholder categories were thus targeted as part of the consultation strategy:

- Consumers (including vulnerable ones);
- Producers (both large companies and SMEs);
- Retailers (both large companies and SMEs);
- Trade, business, and professional associations representing producers and retailers and also repair sector;
- Consumer organisations and groups, organisations of persons with disabilities and older persons;
- Non-governmental organisations (including representing social, environment and other interests), platforms and networks;
- Certification and labelling schemes;
- Local, national, and international public authorities;
- Researchers and academics;
- Other public or mixed entities;
- Commission expert groups.

2. Consultation activities and tools

The consultation employed a mix of methods and tools to ensure a comprehensive and representative collection of views and experiences were gathered in relation to the problems aimed to be addressed by the initiative and the possible policy options.

The table below summarises the types and numbers of stakeholders consulted as part of the study, in line with the consultation strategy.

| Stakeholder type | Feedback on the IIA | Open Public Consultation | Targeted stakeholder consultations | Industry survey | Consumer survey |
|--------------------------------|---------------------|--------------------------|------------------------------------|--------------------|-----------------|
| Business associations | 23 | 85 | 21 | - | - |
| Companies | 17 | 48 | - | 174 ¹²⁸ | - |
| Consumer organisations | 3 | 20 | 21 | - | - |
| Public authorities | 5 | 37 | 47 | - | - |
| EU citizens/consumers | 3 | 74 | - | - | 11 805 |
| Academic/research institutions | 2 | 9 | - | - | - |
| NGOs | 21 | 28 | 12 | - | - |
| Environmental organisations | 2 | - | - | - | - |
| Other | 3 | 14 ¹²⁹ | 18 ¹³⁰ | - | - |
| Total | 77 | 315 | 119 | 174 | 11 805 |

The main consultation activities that were conducted were as follows:

- **A consultation on the inception IA**, which was carried out by the Commission between 23 June 2020 and 1 September 2020. The purpose of this exercise was to collect views

¹²⁸ Out of which 164 by way of a CATI survey.

¹²⁹ Includes 2 non-EU citizens.

¹³⁰ Includes label, logos, information tools and other certification schemes.

from stakeholders on the Commission's initially intended direction of the Impact Assessment. In all, 77 entities submitted their feedback.

- An **Open Public Consultation (OPC)** that was open to all stakeholders and which included six main questions on the main obstacles and problems faced by consumers in the EU that prevents them from having a more active role in the green transition. The OPC was conducted by the Commission between 30 June 2020 and 6 October 2020. It received 315 responses.¹³¹
- **Targeted stakeholder consultations**, consisting of interviews and surveys, which were conducted with relevant EU and Member State level stakeholders between June and October 2020. Five targeted questionnaires¹³² and targeted interviews gathered feedback on the relevant aspects of the initiative and elements of the Impact Assessment. In all, 119 stakeholders participated.
- An **industry survey** consisting of (i) a **long online survey** that was distributed to more than 500 companies but which, despite all efforts, only yielded 10 responses (seven from manufacturers and three from retailers) and (ii) a **CATI survey** which was conducted to complement the online survey in view of the low response rate. The CATI survey was conducted in August/September 2020 and gathered responses from 164 companies. The CATI survey focussed on the impact and cost on industry of the different possible policy options.
- A **consumer survey** that ran between 6 and 30 August 2020 and which was targeted at consumers across all EU27 Member States plus the UK. A total of 11 805 consumers participated. The survey consisted of 45 questions covering respondents views on the problems and options covered by the initiative; experiences related to failures of goods from various categories; experiences with goods that did not last as long as expected; willingness to pay for information on durability and reparability and for goods that will last longer or that are easier to repair; behaviour related to and willingness to pay for sustainable products.
- A series of **four workshops**, including (i) an **expert workshop** with 10 independent experts, held on 9 July 2020; (ii) a workshop with 39 industry representatives to discuss the use of **digital means** to provide product information to consumers, held on 14 September 2020; (iii) a **stakeholder workshop** open to all stakeholders which involved 72 participants (from consumer associations, NGOs, industry associations and others) on 6 October 2020; and (iv) a **workshop with CPC authorities** on 14 October 2020 to delve into their experience in enforcement relating to green issues under EU consumer law, in particular greenwashing and premature obsolescence practices as well as on possible improvements.

3. Evidence, sources and quality

The **Inception Impact Assessment (IA)** was published on the Commission's website on 23 June 2020 and feedback from consumers, industry and other stakeholders were invited until 1 September 2020. 77 responses were received, the majority from business associations (30%), NGOs (25%) and companies/business organisations (22%). Limited feedback was also received from public authorities (6%), consumer organisations (4%), EU citizens (4%), academic/research institutions (3%), environmental organisations (3%) and others (4%). The responses are publicly available.

¹³¹ A summary is available via the European Commission's 'Have Your Say' website: <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12467-Empowering-the-consumer-for-the-green-transition>

¹³² Consumer associations, NGOs and other entities; Business associations; Logos/labels, information tools and certification schemes; Public bodies; EU and international entities.

The **industry survey** was originally intended to be an online survey with follow-up interviews. Over 500 companies were contacted through various means, but despite significant effort, only ten replied. In view of the low response rate, a CATI survey was launched. This yielded a higher level of participation, with 164 replies from retailers (50%), manufacturers (40%) and service providers (14%). To ensure maximum coverage and geographical balance, the survey was conducted across five markets: Italy (24%), Poland (22%), France (20%), Germany (18%) and Sweden (16%). It was carried out on an anonymous basis and results were processed and comprehensively analysed.

The **targeted consultation** was based on (i) semi-structured questionnaires (interviews) and (ii) an online questionnaire (survey). Stakeholders were selected based on their role and relevance to the study as per the consultation strategy. Careful attention was given to ensure a balanced representation between Member States and stakeholder categories. There were 119 respondents; over a third (37%) represented national authorities/bodies, 18% EU and national consumer organisations, 18% EU and national industry/business associations, 15% other stakeholders involved with labels, logos, information tools and other certification schemes, 10% other NGOs and research organisations and 3% EU and international authorities. The number of stakeholders initially contacted was significantly higher than the final numbers surveyed and interviewed, which may be the result of some ‘stakeholder fatigue’ and unavailability due to challenges related to Covid-19 and the timing of the consultation which ran during the summer period. The deadline of this consultation was extended (to October 2020) to allow more stakeholders to respond.

The **Open Public Consultation** yielded a relatively high response rate (315 replies). Nearly three quarters (73%) of the company/business organisations that responded were SMEs.

The **consumer survey**, with 11,805 participants, was representative of the EU27+UK population with a confidence level of 99%. The composition of the survey sample reflects the population in terms of share, age group and gender. The consumer survey was also undertaken on an anonymous basis and the results have been comprehensively processed and analysed.

The **workshops** provided an opportunity to validate the findings from the earlier consultation activities and to ensure the robustness of the results.

4. Main stakeholder feedback per consultation activity

The results from the consultation have been fed into the wider study, both to substantiate the assessment of the problems and for the assessment of possible solutions. The main feedback, per strand of consultation, is described concisely below. The main results per problem and per possible option/policy intervention are presented in more detail in [Section 5 of this Annex](#).

4.1. Inception Impact Assessment

Feedback on the proposed EU initiative was generally very positive and most respondents believed it would help, over the longer term, to foster more sustainable behaviours. There was particularly strong support for EU action capable of (i) bringing about a common/harmonised approach to the provision of consumer information and (ii) removing unsustainable products from EU markets by, for example, making it easy for consumers to recognise such products. There was support for limiting the proliferation of environmental labels and claims to build credibility and limit confusion among consumers. Opinions were divided as to the various options presented in the Inception Impact Assessment, with stakeholders showing a slight preference for Option 2 (“a new stand-alone consumer

protection instrument”) over Option 1 (“amend existing consumer protection legislation”) and over a combination of both Options 1 and 2.

4.2. Open Public Consultation

The ‘difficulty to verify the reliability of environmental claims (including climate related) on products’ was identified as the biggest obstacle to enhanced consumer participation in the green transition and towards a more sustainable consumption behaviour, though the extent to which this poses a barrier was perceived differently among stakeholder groups (58% of consumer organisations agreed, versus 23% of company/business organisations). The perception that environmentally-friendly products are more expensive was also identified as an important obstacle.

A large share of respondents (44%) had found it too expensive to repair (or cheaper to replace) products; thought there was a significant divergence in views among stakeholder groups. 76% of consumer organisations identified cost as the main barrier to repair, but only 12% of business associations agreed. Common problems that stakeholders had encountered when trying to repair products themselves included the price of spare parts being too high (23%), lack of user-friendly repair manuals (22%) and components being impossible to repair due to their product design (22%).

Most respondents had experienced the unexpected failure of a product in the last three years (24% had not). ICT products were identified as most problematic (47%), followed by small household appliances (20%) and clothing and footwear (19%).

‘Information about the reparability of the product’ was identified as the option most useful to enable consumers to choose more sustainable products and participate in the circular economy (selected by 41%). This was strongly favoured by public authorities (57%) and citizens (54%), but not by companies/business organisations (21%), who instead favoured the provision of ‘Information on the product’s life-cycle environmental and climate footprint’ (56%). This was also rated as the second-best option overall (39%).

Providing better information on products’ durability/lifespan was identified as the best option to empower consumers for the green transition (33% agreed). This was strongly favoured by consumer organisations (75%) and citizens (52%), but not by company/business organisations (16%) or business associations (14%), who favoured ‘Raising awareness about the role of consumers on circular economy and green transition’.

Providing ‘Detailed EU guidance for enforcement bodies against greenwashing and obsolescence practices and on enforcing consumer information rules’ was identified as the most effective option to improve enforcement of EU consumer laws to enhance participation of consumers in the green transition (selected by 36%).

4.3. Targeted stakeholder consultations

In relation to Problem 1, almost all stakeholders (except those representing industry) concurred with the view that consumers are not given, or do not have access to, information on products’ environmental impact; on the lifespan of goods and product-specific features that may lead to early failure; and on the availability of repair services spare parts and software updates/upgrades.

In relation to Problem 2, most consumer organisations and ‘other’ organisations considered that consumers’ are subjected to ‘greenwashing’ and that ‘premature obsolescence’ occurs to some extent; however, representatives from industry tended to disagree. The proliferation of sustainability labels and logos was also identified as a problem by stakeholders from most stakeholder groups.

Views from stakeholders on the possible solutions are presented in [section 5.2 of this Annex](#) below.

4.4. Industry survey

In the CATI survey, manufacturers and retailers were asked to indicate the scale of impact and cost on their organisation of the introduction of various legal requirements. Respondents were asked to provide a score on a scale of 0 to 5, where 0 represents ‘no impact’ and 5 indicates ‘very high impact’. Overall, it was indicated that an obligation to ‘Provide information on aspects in the product’s design that can cause its early failure’ would have the biggest impact (mean score of 2.61) and would be most costly (mean cost score of 2.25). In contrast, respondents indicated that ‘Stronger consumer protection against planned (intentional) obsolescence practices’ would have the lowest impact (scored 2.37) and that an ‘Obligation to provide information on the duration of the commercial guarantee for all products’ and an ‘Obligation to expressly inform the consumer that no commercial guarantee of durability is provided for the given product’ would be least costly (both with a mean cost score of 2.44).

4.5. Consumer survey

Consumers are seemingly open to participating in the green transition. Almost half (49%) said they would be happy to have a product repaired, rather than replaced, if it breaks down within the legal guarantee period; mainly ‘To reduce my environmental impact’ (selected by 63%) or because ‘It is the fair thing to do (44%)’. Respondents who preferred a replacement were concerned that the product may not be properly repaired (54%) or that a new product would last longer (46%).

Most respondents were unwilling to pay for information (e.g. via an app) on the durability and reparability of ‘durable goods’¹³³. Around half (47% to 51% depending on the product type) were willing to pay extra on top of the initial price for a product that lasts longer without having to be repaired; and a similar proportion (41% to 47%) were willing to pay extra for an identical product that lasts longer with minor/reasonable repairs (paid by the consumer). An even larger share (61% to 68%) were willing to pay extra for an identical product covered by a commercial guarantee that would cover the cost of repairs.

The ‘Perceived higher price of environmentally-friendly products’ was identified as the main obstacle that prevents consumers from adopting more sustainable behaviours (39%) and ‘Providing better information on products’ durability/lifespan’ (26%) and ‘Providing better consumer information on the life-cycle environmental and climate footprint of the product’ (23%) were identified as the most effective options to help consumers choose more environmentally sustainable products.

Results indicate that consumers are willing to pay extra for environmentally sustainable products, and even more so for products with claims validated by a trustworthy independent body.

4.6. Workshops

The expert workshop (held 9 July 2020) validated many of the findings from the other strands of consultation. It was largely agreed that greenwashing occurs and that information on product durability can be difficult to obtain. Doubts were raised that products are intentionally designed to fail early. Various barriers to reparability were identified including speed of repair, cultural factors and availability of spare parts.

¹³³ In this context, durable goods include products such as large household appliances (e.g. washing machines, refrigerators, etc.), small household appliances and tools (e.g. coffee machines, irons, hair dryers, etc.), electronic and IT products (e.g. smartphones, laptops) and furniture (e.g. sofas).

The industry workshop on digital means (held 14 September 2020) highlighted some of the opportunities that digital tools (e.g. QR codes, e-labels) offer for conveying mandatory product information and simplifying product labels. It also highlighted some of the challenges, particularly for SMEs who may need financial support to implement these tools and for vulnerable consumers who do not have access to, or who cannot use, them.

The stakeholder workshop (held 6 October 2020) again reiterated many of the same points that were raised in the previous consultation activities.

Participants at the CPC workshop (14 October 2020) highlighted the difficulty of proving intent with regard to planned obsolescence. Public authorities noted that they lack the technical expertise to be able to enforce green claims, but were divided on whether enforcement of the current general EU consumer rules (UCPD) is effective.

5. Feeding the consultation results into the Impact Assessment

5.1. Extent of the problems

5.1.1. Problem 1: Consumers lack reliable information at the point of sale to make environmentally sustainable consumption choices

Sub-problem 1.1. Lack of reliable information on the environmental characteristics of products

Feedback received across the various strands of consultation strongly indicates that consumers lack information on the environmental characteristics and impacts of products, though this view was more strongly supported among consumers and their representatives than by industry.

In the consultation on the inception IA, 20 respondents (26%) commented on this problem and all acknowledged that the quality of information provided to consumers on the environmental characteristics of products is not optimal. A notable share (27%) of respondents in the OPC similarly indicated that it is difficult to check if products are environmentally friendly; though a much larger share of consumers (31%) and consumer organisations (42%) identified this as a problem versus companies (32%) and business associations (13%).

About a quarter of consumers that participated in the consumer survey identified “*difficulty to check if products are environmentally-friendly*” (29%) and “*difficulty to verify the reliability of environmental claims (including climate related) on products*” (25%) as key obstacles that prevent them from adopting more sustainable consumption behaviours. Only “*perceived higher prices of environmentally-friendly products compared to less environmentally-friendly alternatives*” was identified as a greater obstacle (39%). The OPC yielded a similar result, with “*difficulty to verify the reliability of environmental claims (including climate related) on products*” ranked first (33% respondents) and “*perceived higher prices of environmentally-friendly products compared to less environmentally-friendly alternatives*” ranked second (30%), though “*difficulty to check if products are environmentally-friendly*” was ranked fifth (27%).

In the targeted consultation, most (76%) respondents indicated that consumers lack awareness of the environmental impacts of products because the information is not provided, or not available. Only 14% (all industry associations) indicated that such information is generally provided. Results from the CATI survey, however, paint a somewhat different picture: 19% of respondents reporting providing information on the environmental impacts of all their products (48% for some or most). In the food and drink sector, 64% said that they do not provide this information at all.

Sub-problem 1.2. Lack of reliable information on the lifespan of goods

A lack of reliable information on the lifespan of goods was consistently identified as a problem across all strands of consultation. The problem was identified across most stakeholder groups; only stakeholders from industry tended to disagree.

In the consultation for the inception IA, all eight of the respondents who commented on sub-problem 1.2 acknowledged that information pertaining to products' durability is either lacking or, where provided, is often unclear, unreliable and/or misleading. Similarly, in the OPC, over a quarter (27%) of respondents indicated that a lack of information on how long products will function without repair creates an obstacle to enhanced consumer participation in the circular economy and towards more sustainable consumption behaviour. There was, however, a strong divergence in views among the different stakeholder groups that participated in the OPC. Consumer associations (53%), academic/research institutions (44%), public authorities (39%), NGOs (37%) and citizens (33%), on the one hand, all thought that the lack of information on the lifespan of goods poses an important barrier to the green transition, but this was not the case for companies/businesses (15%) or business associations (8%).

Consumers believe that information on the lifespan of products is important for empowering their participation. In the consumer survey, "*information on a 'guaranteed' product's lifespan*" was identified by nearly a third (30%) of respondents as being one of the most useful pieces of information to enable them to choose more sustainable products.¹³⁴ However, when buying large household appliances (49%), small household appliances (45%), electronic and IT products (55%), and furniture (51%), around half of consumers were not told the estimated lifespan of the product before being repaired and a substantial proportion (17% to 25% depending on the product group) were not told the length of the commercial guarantee. Furthermore, 49% to 55% of consumers were not told how long software updates and upgrades would be provided.

The CATI survey sought to explore in more depth whether manufacturers provide information on the expected lifespan of their products. Less than a quarter (23%) said that they provide this information for 'all products' and only 6% said yes 'for most'. In contrast, nearly a third (32%) of manufacturers did not know the expected lifespan of their products and a further 17% said that they do not provide this information. The results from the CATI survey indicate that this information deficit is not being met by retailers either. Only 15% of retailers always provide information on the expected lifespan of products, where this information is not provided by the manufacturer. Just over half (59%) of retailers provide this information for some products. Nearly a third (30%) said that they provide information on '*software updates/upgrade policy and period*'.

In the targeted consultation, most stakeholders confirmed that consumers are not provided with information on either the lifespan of goods (without and with minor repairs).

Sub-problem 1.3. Lack of reliable information about products' reparability

A lack of reliable information to support the repair, update and upgrade of products was consistently identified as problematic by consumers, their representatives and most other

¹³⁴ Respondents could select up to 3 out of 15 options.

groups of stakeholders during the consultation. Contrary to this, representatives from industry mostly indicated that information on reparability is widely available.

In the consumer survey, around half of consumers said that they were not told how long spare parts would remain available (48% to 55% depending on the product group). Almost all consumer associations and other organisations consulted during the targeted consultation considered that information on the availability of repair services, on the availability of spare parts and on relevant software update/upgrades is not widely available to consumers. This finding also corroborates the information gathered in the earlier consultation for the inception IA, where most respondents acknowledged that consumers are not sufficiently made aware of products' extent of reparability. Similarly, in the OPC, 33% of citizens, 53% of consumer organisations and 39% of public authorities ranked '*difficulty to know how long products will function without repair*' as an important obstacle to enhanced consumer participation in the circular economy and towards more sustainable consumption behaviour.

The view from industry was somewhat different, however. In the OPC, only 8% of business associations and 15% of company/business organisations thought that a '*difficulty to know how long products will function without repair*' creates an obstacle to enhanced consumer participation in the green transition. Similarly, during the targeted consultation, most industry associations felt that information relating to reparability is widely available. Nearly half (45%) of manufacturers in the CATI survey claimed to provide information on the '*period in which spare parts will be available*', 40% said that they provide information on the '*period in which repair services will be available*'.

5.1.2. Problem 2: Consumers face misleading commercial practices related to the sustainability of products

Sub-problem 2.1. Consumers are sold products that do not last as long as they could or consumers expect ("early obsolescence")

Across the different strands of consultation, most stakeholder groups (including consumers and their representatives, but not those representing industry) considered that premature obsolescence occurs to some extent; though most also believed that product failure is not necessarily planned. Based on feedback in the consultation for the inception IA, planned obsolescence is a practice that has become more commonly discussed over time. However, enforcement authorities were unable to provide any information on how often it occurs.

Product failure appears to be a common problem. In the OPC, most respondents indicated that they had experienced the unexpected failure of one or more products in the past 3 years; with ICT products identified as being most problematic. Nearly half the participants (47%) said that they had experienced the unexpected failure of an ICT product in the last 3 years. All (100%) consumer associations, 73% of public authorities and 66% of companies/businesses said that they had experienced such a failure.

Independent experts consulted during the targeted consultation indicated that while products may be failing earlier than they should, this may not be linked to an intention of companies to increase their replacement rate. In the long industry survey, two participants who commented on intentional obsolescence claimed not to apply such practices; though this may not be representative of industry practice as a whole. Industry representatives also questioned whether shorter lifespans are linked solely to the choices of manufacturers, rather than to consumer behaviour, such as poor maintenance and increased use.

While most stakeholders were convinced of the existence of obsolescence practices, most also considered them difficult to verify.

When asked whether they were told by the seller about known weaknesses that might cause a product to fail prematurely, consumers indicated that sellers generally do not provide this information. Results from the consumer survey indicate that information about potential weaknesses is provided only a quarter of the time (20%) for large household appliances, 30% of the time for small household appliances, 17% of the time for electronics, and 26% of the time in the case of furniture.

Sub-problem 2.2. Consumers are faced with the practice of making unclear or not well-substantiated green claims (“Greenwashing”)

The view of most respondents across all the different strands of consultation was that greenwashing is a problem; only industry representatives tended to disagree.

In the consultation for the inception IA and the targeted consultation, the majority of participants (except those representing industry) recognised that greenwashing has become an important and persistent problem that is impeding consumers’ ability to choose more sustainable products. This coincides with the results from the OPC, in which 33% of respondents selected "*difficulties to verify the reliability of environmental claims (including climate related) on products*" as a relevant obstacle to enhanced consumer participation in the circular economy and towards more sustainable consumption behaviour. Over half (58%) of consumer organisations and 36% of citizens selected this as a relevant obstacle.

Unfounded or unsubstantiated environmental labels and claims were also identified by various stakeholders (including consumer organisations and public authorities) as misleading consumers. Their feedback indicates that information is deliberately manipulated (e.g. using general and vague terms) rather than being completely false. Industry associations, however, tended to disagree that the practice of ‘greenwashing’ is prevalent. Public authorities noted (at the CPC workshop) that they often find it difficult to prove that environmental claims are unfounded or unsubstantiated because they lack the technical knowledge to analyse the evidence provided by traders.

In the consumer survey, 70% of respondents indicated that they would report a misleading or false claim about how environmentally friendly a product or service is. The most common reason cited for not reporting a misleading or false claim was a belief that complaining would not have an impact.

In contrast, most industry representatives disagreed with the assertion that greenwashing is problematic. In the OPC, less than a quarter (24% of business associations and 23% of companies/businesses) selected "*difficulties to verify the reliability of environmental claims (including climate related) on products*" as a relevant obstacle towards more sustainable consumption behaviour.

Sub-problem 2.3. Consumers are faced with the use of sustainability labels and digital information tools that are not always transparent and credible

In the consultation for the inception IA and the targeted consultation, most respondents identified the proliferation of sustainability logos, labels and other claims as an important and persistent problem across the EU. Similarly, in the OPC, over a quarter (27%) of participants selected "*the proliferation and/or lack of transparency/understanding/reliability of sustainability logos/labels on products and services*" as a relevant obstacle to empowering consumers for the green transition. Interestingly though, it was industry representatives that were more likely to identify this as a problem than consumers and their representatives. Moreover, 34% of businesses identified the "*the proliferation and/or lack of transparency / understanding / reliability of sustainability logos / labels*" as an obstacle versus only 27% of citizens and 16% of consumer organisations. In

the consumer survey, only 16% of consumers identified this as an obstacle to adopting more sustainable consumption behaviours.¹³⁵

This issue has been amplified by the rapid emergence of a number of (private/voluntary) labelling schemes at national / Member State level, making comparability across products increasingly difficult for consumers. In addition, there are concerns among stakeholders interviewed that *not* all labels are certified or validated (by a recognised institution), which may thus be driving consumers to choose products that are not necessarily “green.”

In comparison to issues around logos/labels, far fewer stakeholders identified ‘*the proliferation and/or lack of transparency/understanding/reliability of IT tools*’ as being problematic. In the OPC, only 8% of respondents identified this as an important obstacle and a similar percentage of respondents in the consumer survey (9%) identified the ‘*Proliferation and/or lack of transparency/understanding/reliability of IT tools (e.g. consumer apps) that provide advice for a more sustainable consumer behaviour*’ as an obstacle that prevents them from adopting more sustainable consumption behaviours.

5.2. Views on possible options/policy interventions

5.2.1. **Problem 1: Consumers lack relevant information at the point of sale to make environmentally sustainable purchases**

Sub-problem 1.1. Lack of reliable information about products’ environmental characteristics

In the consultation for the inception IA, most of the 38 respondents who commented on potential solutions to sub-problem 1.1 seemed to favour the idea of making changes to the information requirements surrounding the environmental characteristics of consumer products, though respondents held different views on how to go about it.

In the OPC, 39% of respondents indicated that it would be useful to have information on the product’s life-cycle environmental and climate footprint. This reflects the results from the targeted consultation, in which most respondents (across all stakeholder categories) indicated that requiring an indication of the overall environmental performance of products would be most effective.

In the targeted consultation, most business associations (four out of five) thought that an option to mandate the indication of the overall environmental performance of products would be at least somewhat feasible, though three thought that the option would entail high costs and two moderate costs. Various challenges were also identified, including a risk that the option may unfairly impact certain product categories. There was a view from the industry that current information requirements (such as those from the CRD) are already appropriate and sufficient. A majority (five out of six) of the public authorities that provided a view believed that the option would be at least somewhat effective.

In the CATI survey, manufacturers and retailers were asked to indicate the scale of impact¹³⁶ on their organisation of the introduction of a legal ‘*obligation to provide information on environmental characteristics of products*’. The average (mean) score given was 2.55. Although this represents only a moderate impact, it is of note that, of all the possible legal requirements proposed, this was given the highest impact score. Manufacturers and retailers were also asked about the costs of introducing a legal requirement to provide information on

¹³⁵ Consumers were limited to selecting up to 3 out of 14 options.

¹³⁶ Respondents were asked to provide a score on a scale of 0 to 5, where 0 represents ‘no impact’ and 5 indicates ‘very high impact’.

the environmental characteristics of products. This option was also estimated to be the costliest, with a score of 2.75 (out of 5).

Sub-problem 1.2. Lack of reliable information about products' lifespan

In the consultation for the inception IA, stakeholders (except those representing industry) generally indicated that information on durability can help consumers adopt more sustainable behaviours. However, it was also recognised that the nature and extent of information to be provided on durability ought to be carefully thought out.

In the OPC, *'providing better consumer information on products' durability (lifespan)* was selected as the most effective option to empower consumers for the green transition (33% respondents). Further, when asked what information would be most useful for consumers to choose sustainable products, over half said 'information on products' lifespan', either as a guaranteed lifespan (28%), expected lifespan (19%) and/or lifespan with minor reasonable repairs (11%). Citizens were most likely to select this option and company/business organisations were least likely. A similar finding was reflected in the consumer survey, in which *'information on the 'guaranteed' product lifespan'* was selected by consumers (30% of respondents) as one of the two most useful pieces of information to help them choose sustainable products (the other being *'information on the products' life-cycle environmental and climate footprint'*). In the targeted consultation, 15 out of 17 public authorities considered that a requirement to provide an *'indication of the availability of an additional commercial guarantee of durability (beyond the statutory legal guarantee)'* would be an effective option, 14 out of 17 thought it would be easy to enforce, and 11 out of 16 thought it would be easy to monitor.¹³⁷

In the CATI survey, manufacturers and retailers were asked to indicate the scale of impact on their organisation of the introduction of a legal *'obligation to provide information on the expected lifespan of products without repair for all products'*. The mean score given was 2.53. In terms of costs, the option was given a score of 2.30. Manufacturers and retailers were also asked to indicate the scale of impact and costs on their organisation of a legal *'obligation to provide information on the duration of the commercial guarantee for all products'*. This was given a mean impact score of 2.12 and cost score of 2.04, making it the lowest impact and one of the least costly options proposed.

Sub-problem 1.3. Lack of reliable information about products' reparability

There was general acceptance across all stakeholder groups that environmental information provided to consumers should cover reparability.

In the OPC, just under a quarter (22%) of participants selected *'providing better consumer information on products' reparability'* as an effective option, though there were big differences between the views of different stakeholder groups. Two thirds (65%) of consumer associations and 35% of citizens thought that this option would be effective, but only 3% of business associations and 5% of companies agreed. Nearly half the respondents in the OPC (48%) said that *'information about the reparability of the product (e.g. repair scoring, availability of spare parts, repair manuals, repair services...)'* would be an effective option. The results from the targeted consultation support these findings. In the targeted consultation, all stakeholders thought that an option to inform consumers about the availability of spare parts would be at least somewhat effective.

¹³⁷ 'Highly effective' or 'Somewhat effective', 'Mostly' or 'Somewhat' easy to enforce, 'Mostly' or 'Somewhat' easy to monitor

In the CATI survey, manufacturers and retailers were asked to indicate the scale of impact on their organisation of the introduction of an ‘*obligation to provide information on availability of repair services*’ and ‘*availability of user-friendly repair manuals*’. These options were given a mean impact score of 2.41 and 2.44 respectively (out of 5). In terms of cost, respondents in the CATI survey gave both these options a mean score of 2.14.

In the targeted consultation, some respondents also discussed potential challenges associated with the proposed options. Among business associations, there were concerns that misleading information would be provided to consumers from retailers, notably about reparability. These respondents felt that manufacturers would be better placed to provide that information as opposed to sellers or retailers. Furthermore, some business associations warned against the potential information overload that may result from additional information requirements. Finally, some public authorities highlighted that information on reparability may not prove effective in encouraging repairs / reuse if buying a new product is much cheaper to consumers.

5.2.2. Problem 2: Consumers face misleading commercial practices related to the sustainability of products

Sub-problem 2.1. Consumers are sold products that do not last as long as they could or consumers expect (“early obsolescence”)

In the consultation for the inception IA, there was a general acceptance that early obsolescence practices should be more formally addressed by law. However, results from the OPC indicate a divergence in views across stakeholder groups. Two thirds (65%) of consumer associations identified ‘*providing a stronger protection against practices that cause products to fail earlier than can normally be expected (so-called "early and planned obsolescence")*’ as an effective option to empower consumers to play their role in the green transition and 35% of citizens and 28% of public authorities agreed. However, only 3% of business associations and 5% of companies/businesses thought that this option would achieve the desired goal. The prevailing view among business associations was that the costs entailed by the proposed option would be high.

In the CATI survey, manufacturers and retailers were asked to indicate the scale of impact on their organisation of the introduction of ‘*stronger consumer protection against premature obsolescence practices*’ and ‘*stronger consumer protection against planned (intentional) obsolescence practices*’. These options were given a mean impact score of 2.55 and 2.37 respectively (out of 5). The highest score was given for ‘*small household appliances*’. In terms of cost, respondents in the CATI survey gave ‘*stronger consumer protection against premature obsolescence practices*’ a mean score of 2.13. The highest cost score was for ‘*large household appliances*’.

However, public authorities raised concerns about the enforcement of options aimed at curtailing the practice of planned obsolescence. They noted that it may not be possible to prove planned obsolescence, and that they lack the required product knowledge.

Sub-problem 2.2. Consumers are faced with the practice of making unclear or not well-substantiated environmental claims (“greenwashing”)

The consultation has highlighted an interesting divergence in views between citizens/consumers on the one hand, who do not feel they are being ‘greenwashed’, and consumer organisations on the other who are concerned that consumers need stronger protection against unclear or unsubstantiated claims. Only 17% of citizens in the consumer survey identified ‘*providing a stronger protection against greenwashing (i.e. claims on*

environmental qualities of products or services that are exaggerated, too vague, false or impossible to prove’ as an effective option to empower consumers to the green transition.¹³⁸ In contrast, 45% of consumer organisations in the OPC thought that this option would be effective.

When asked which information is most useful for consumers to choose sustainable products and participate in the circular economy around 17% of respondents indicated that “*recommendations about the sustainability (i.e. environmental, social aspects included) of the product by a trusted public or private source (e.g. a public authority, expert, celebrity, friend)*” are useful for consumers. Citizens (24%) and company/business organisations (23%) indicated that such recommendations are useful for consumers, but only 10% of consumer organisations and 11% of public authorities and ‘other’ organisations agreed.

In the consultation for the inception IA, most respondents stressed the need for a common or harmonised methodology for calculating or estimating products’ environmental impacts. Stakeholders believed that this would facilitate certification or validation and prevent unsubstantiated environmental claims and labels from being advertised.

In the targeted consultation, stakeholders were asked their views on two options: banning claims that are too vague unless they are substantiated and banning claims that are not based on a series of specific criteria. Most thought that the proposed options would be highly effective, and most business associations also thought the options would be ‘somewhat feasible’. Industry representatives were, however, concerned that the options would entail high costs. Most public authorities thought that it would be ‘somewhat easy’ to enforce. However, some warned against challenges with enforcement and monitoring if: (1) the options are defined in a too general way; and (2) no adequate metrics are defined against which to test whether a claim is unfounded / unsubstantiated. Some of the interviewed CPC authorities even indicated that the measures might lead to savings as it will help them to prove the practice of “greenwashing” more easily (less resources are needed to substantiate their assessment).

Some of the other challenges commonly discussed, notably by business associations, related to the need for developing sector-specific approaches to testing and validating green claims across industries and sectors (owing to product differences). There would also be a need to engage with all relevant stakeholders within an industry. It was noted that, where views diverge, this could slow down the process of developing the necessary measurement criteria for validating environmental claims.

In the CATI survey, manufacturers and retailers were asked to indicate the scale of impact and cost on their organisation of ‘*banning some practices related to greenwashing*’. This option was given a mean impact score of 1.91 and cost score of 2.08 (both out of 5, with 5 representing the highest impact/cost). Interestingly, an option ‘*banning vague environmental claims unless they are verified/certified by independent authority/or based on recognised assessment methodology*’ was deemed to be less effective (score of 1.83) and more costly (score of 2.17). In contrast, an option ‘*setting in EU consumer law specific requirements for green claims*’ was indicated to be more effective (2.09) but also more costly (2.38).

Sub-problem 2.3. Consumers are faced with the use of sustainability labels and digital information tools that are not always transparent and credible

In the consultation for the inception IA, most respondents generally favoured the introduction of tighter rules for the verification and validation of sustainability labels, logos

¹³⁸ Respondents were able to select up to 3 out of a possible 16 measures. This was the third most commonly chosen option.

and claims. However, there was less support for a single EU environmental label that would capture all sustainability aspects pertaining to a product.

Nearly a quarter of respondents (23%) in the OPC similarly identified ‘*providing a greater transparency and reliability for sustainability logos/labels (i.e. covering environmental and social aspects)*’ as an effective option to enable consumers to play their role in the circular economy. In contrast, only 7% selected “*providing a greater transparency and reliability for IT tools (e.g. consumer apps) providing advice for a more sustainable consumer behaviour*”. Companies/businesses were the stakeholder types most likely to identify both these options as effective.

In the targeted consultation, stakeholders were asked their views on an option ‘*setting minimum requirements (on transparency, reliability, etc.) for, and possibly certify, sustainability labels/logos*’. Most consumer associations thought that the proposed option would be ‘somewhat effective’ and other stakeholder groups were even more positive. Most business associations, public authorities and other stakeholders indicated that the option would be ‘highly effective’. Most business associations also indicated that the proposed option would be ‘feasible’. However, there was also some concern that it could entail high costs.

Eight out of fifteen public authorities believed that the option would be ‘somewhat easy to enforce’¹³⁹ and seven out of 13 thought it would be ‘easy to monitor’¹⁴⁰. One public authority noted that there can be many criteria for third-party certification schemes and that this creates a challenge for enforcement. Another noted that enforcement and monitoring may require in-depth technical knowledge of each specific product/sector, which enforcement authorities often lack. In fact, some of the interviewed CPC authorities even indicated that the measure might lead to savings as it will help them tackle the issue of lack of transparency and reliability of labels/logos more easily (less resources are needed to substantiate their assessment).

In the CATI survey, manufacturers and retailers were asked to indicate the scale of impact on their organisation of the introduction of an option ‘*setting minimum criteria for sustainability labels/logos to ensure that consumers can trust and rely on them*’. This option was given a mean impact score of 2.37 (out of 5), indicating a moderate expected impact. In terms of cost, respondents in the CATI survey gave a mean score of 2.61, indicating a moderate expected cost.

In addition to the formal consultation process described in this Annex, consumer organisations have made it known that in particular in relation to sub-problems 1.2, 2.1 and 2.2, they would prefer measures which are more ambitious than the preferred policy options that have been selected in this Impact Assessment.¹⁴¹

¹³⁹ 3 replied "Easy to enforce", 5 "somewhat easy to enforce", 2 "Neither easy nor difficult to enforce", 4 "Somewhat difficult to enforce" and 1 "Difficult to enforce".

¹⁴⁰ 4 replied "Easy to monitor", 3 "Somewhat easy to monitor", 2 "Neither easy nor difficult to enforce", 3 "Somewhat difficult to monitor", 1 "Difficult to monitor".

¹⁴¹ BEUC, The European Consumer Organisation, *Durable and repairable products – changes needed for a successful path towards the green transition*, June 2021. BEUC, *Getting rid of greenwashing*, Restoring consumer confidence in green claims, 2020

ANNEX 3: WHO IS AFFECTED AND HOW?

1. Practical implications of the initiative

Consumers would be positively affected by the initiative. Consumer decision making would increase thanks to the options aimed at improving the availability of information at the point of sale about the existence and length of producer's commercial guarantees of durability, about the period of availability of free software updates and about the reparability of products. It would also increase thanks to the options aimed at tackling greenwashing and unreliable and non-transparent sustainability labels. Consumer protection would also improve as consumers will be able to opt in a more transparent way for products with extended commercial guarantees if that would suit their needs. They would also be better protected from misleading environmental claims and products that fail early. In turn, this would lead to higher consumer trust in the market, and notably in more sustainable products. Overall, the monetisable consumer welfare would be quite consequent, primarily because consumers would save money on products that last longer and can be repaired more easily.

The impacts on the environment would also be positive. The options would guide consumers towards these products that are the most sustainable. Thanks to the preferred options, products would also be expected to last longer and be repaired more often than they are now. This would in turn lead to higher circularity, less CO2 emitted in production and fewer other negative environmental impacts.

The impacts on *sellers and producers* would be two-fold. On one hand, they would incur higher costs, particularly linked to obligations to provide certain information, for instance, on the existence of a producer's commercial guarantees of durability or on reparability. However, these extra costs would be limited considering the average prices of the products concerned, and, even though they would likely be passed on to consumers, they are unlikely to affect the demand. On the other hand, options to address greenwashing and early obsolescence would also improve the level-playing field between companies as businesses that currently mislead consumers would have to align their practices with those that are truly sustainable. In addition, as several Member States have enacted or are in the process of adopting specific legislation on durability or reparability information or obsolescence, the preferred options would reduce barriers to cross-border trade within the Single Market and ensure that companies active on the Single Market play by the same rules. The initiative would also have an impact on organisations running sustainability labels as they would have to comply with new requirements increasing the transparency and credibility towards consumers. These costs are likely to be passed on to the companies applying for such labels.

Public authorities would face higher costs particularly linked to the monitoring and enforcement of the preferred options. However, the options have also been designed to render enforcement easier: for instance, on greenwashing, authorities have mentioned that the options considered could even lead to savings as it will help them to prove the practice of "greenwashing" more easily.

There are also other parties who may be affected by the measures introduced by this initiative, but who were not considered in the analysis because the corresponding impacts were considered minor and therefore not selected in the screening of impacts. One such category is Third Countries. It can be estimated that the level playing field established by this initiative would also bring benefits to businesses located in Third Countries, as those businesses that currently mislead consumers would also have to align their practices with

those that are truly sustainable in order to sell their products on the EU market in conformity with the measures selected. Furthermore, none of the preferred policy options selected would negatively impact Third Country trade, as the requirements selected are of such a nature as to be easily complied with by traders located in Third Countries. The screening of impacts is further specified in Annex 4.

2. Summary of costs and benefits

All figures presented below are for the entire period 2025-2040 for the entire EU-27, explaining the high values.

| <i>I. Overview of Benefits of the Preferred Options for the period 2025-2040</i> | | |
|---|-------------------------------------|--|
| <i>Description</i> | <i>Amount</i> | <i>Comments</i> |
| <i>Direct benefits (present value of the total monetisable direct benefits for the period 2025-2040)</i> | | |
| <i>Option 1.2.C: Information on the existence and length of a producer's commercial guarantee of durability and on the period of time during which free software updates will be provided by manufacturers</i> | | |
| <i>Consumer welfare</i> | ~EUR 2 355 - 3 555 million | Main beneficiaries: consumers |
| <i>Reduction of CO2 emissions</i> | ~EUR 8 - 13 million | Main beneficiaries: society Emissions reduced during production, based on products lasting 1 year longer. |
| <i>Option 1.3.E: Provision of Repair Scoring Index, or other relevant repair information on a where applicable/available basis</i> | | |
| <i>Consumer welfare</i> | Not possible to assess | Main beneficiaries: consumers |
| <i>Reduction of CO2 emissions</i> | Not possible to assess | Main beneficiaries: society |
| <i>Option 2.1.B: Ban of certain identified practices associated with early obsolescence</i> | | |
| <i>Consumer welfare</i> | ~EUR 1 800 – 2 250 million | Main beneficiaries: consumers |
| <i>Reduction of CO2 emissions</i> | ~EUR 77 - 90 million | Main beneficiaries: society |
| <i>Option 2.2.C: Ban of general /vague environmental claims + Prohibition of environmental claims that do not fulfil a minimum set of criteria</i> | | |
| <i>Consumer welfare</i> | ~EUR 3 735 – 8 870 million | Main beneficiaries: consumers |
| <i>Option 2.3.B: Prohibition of sustainability labels and digital information tools not meeting minimum transparency and credibility requirements</i> | | |
| <i>Consumer welfare</i> | ~EUR 4 500 – 6 610 million | Main beneficiaries: consumers. |
| <i>Total benefits of all preferred options together</i> | | |
| <i>Consumer welfare</i> | ~EUR 12 390 – 19 285 million | |
| <i>Reduction of CO2 emissions</i> | ~EUR 80 - 103 million | |
| <i>TOTAL</i> | ~EUR 12 470 – 19 388 million | |

| II. Overview of Costs of the Preferred Options for the period 2025-2040 | | | | | | | |
|---|---|-----------------------------------|-----------|--|---|---|---|
| | | Citizens/Consumers ¹⁴² | | Businesses ¹⁴³ | | Administrations ¹⁴⁴ | |
| | | One-off | Recurrent | One-off | Recurrent | One-off | Recurrent |
| Option 1.2.C: Information on the existence and length of a commercial guarantee and on the period of time during which free software updates will be provided by manufacturers | <i>Direct adjustment costs</i> | | | Total: ~EUR 390 - 410 million Per company: ~EUR 2511 - 2695 | Annual (average in the period 2025-2040): ~EUR 33 – 43 million Annual per company (average in the period 2025-2040): ~EUR 216 - 283 Total (present value for 2025-2040): ~382 – 503 million | | |
| | <i>Direct administrative costs</i> | | | Total: ~EUR 110-115 million Per company: ~EUR 708 - 760 | Annual (average in the period 2025-2040): ~EUR 9-12 million Annual per company (average in the period 2025-2040): ~EUR 61 - 80 Total (present value for 2025-2040): ~108 – 142 million | | |
| | <i>Direct regulatory fees and charges</i> | | | - | - | - | - |
| | <i>Direct enforcement costs</i> | | | | | Total: EUR ~0.1 million Per Member State: ~EUR 3 300 | Annual (average in the period 2025-2040): ~EUR 1.3 – 2.2 million Annual per Member State (average in |

¹⁴² Businesses may decide to pass on some of the costs linked to the initiative to consumers. However, the extent of that is not possible to quantify.

¹⁴³ Administrative burdens for the two first measures and compliance costs for the three last ones.

¹⁴⁴ Enforcement costs.

| | | | | | | | |
|---|---|--|--|---|--|--|--|
| | | | | | | | the period 2025-2040): ~EUR 48 900 – 81 350 Total (present value for 2025-2040): ~15 – 27 million |
| | <i>Indirect costs</i> | | | - | - | - | - |
| Option 1.3.E: Provision of Repair Scoring Index, or other relevant repair information on a where applicable /available basis | <i>Direct adjustment costs</i> | | | Negligible, assuming full economies of scale (e.g. costs for familiarisation) | Negligible | | |
| | <i>Direct administrative costs</i> | | | - | - | - | - |
| | <i>Direct regulatory fees and charges</i> | | | - | - | - | - |
| | <i>Direct enforcement costs</i> | | | | | Negligible assuming full economies of scale with the option 1.2.C (e.g. costs for familiarisation) | Negligible assuming full economies of scale with the option 1.2.C (e.g. monitoring, inspections) |
| | <i>Indirect costs</i> | | | - | - | - | - |
| Option 2.1.B: Ban of certain identified practices associated with early obsolescence | <i>Direct adjustment costs</i> | | | Total: ~EUR 167 – 170 million Per company: ~EUR 1099 – 1119 | Annual (average in the period 2025-2040): ~EUR 88 – 125 million Annual per company (average in the period 2025-2040): ~EUR 528 – 825 Total (present value for 2025-2040): ~1 023 – 1 460 million | | |

| | | | | | | | |
|--|---|--|--|--|--|--|---|
| | <i>Direct administrative costs</i> | | | - | - | - | - |
| | <i>Direct regulatory fees and charges</i> | | | - | - | - | - |
| | <i>Direct enforcement costs</i> | | | | | Total: ~EUR 0.3 million Per Member State: ~EUR 9 870 | Annual (average in the period 2025-2040): ~EUR 8 – 9 million Annual per Member State (average in the period 2025-2040): EUR 0.33 – 0.34 million Total (present value for 2025-2040): ~103 – 104 million |
| | <i>Indirect costs</i> | | | - | - | - | - |
| Option 2.2.C: Ban of general /vague environmental claims + Prohibition of environmental claims that do not fulfil a minimum set of criteria | <i>Direct adjustment costs</i> | | | Total: ~EUR 2 2 625 – 2 680 million Per company: ~EUR 373 – 380 | Annual (average in the period 2025-2040): ~EUR 58 – 70 million Annual per company (average in the period 2025-2040): ~EUR 8 – 10 Total (present value for 2025-2040): ~675 – 820 million | | |
| | <i>Direct administrative costs</i> | | | - | - | - | - |
| | <i>Direct regulatory fees and charges</i> | | | - | - | - | - |
| | <i>Direct enforcement costs</i> | | | | | Total: ~EUR 0.12 million Per Member State: ~EUR 4 270 | Annual (average in the period 2025-2040): ~EUR 0.43 – 0.74 million |

| | | | | | | | |
|---|---|--|--|--|---|--|--|
| | | | | | | | Annual per Member State (average in the period 2025-2040): ~EUR 16 000 – 27 200 Total (present value for 2025-2040): ~EUR 7 – 12 million |
| | <i>Indirect costs</i> | | | - | - | - | |
| Option 2.3.B: Prohibition of sustainability labels and digital information tools not meeting minimum transparency and credibility requirements | <i>Direct adjustment costs</i> | | | Total: ~EUR 618 - 620 million Per company: ~EUR 87 – 88 | Annual (average in the period 2025-2040): EUR ~260 – 300 million Annual per company (average in the period 2025-2040): ~EUR 37 – 43 Total (present value for 2025-2040): ~EUR 3 022 – 3 500 million | | |
| | <i>Direct administrative costs</i> | | | - | - | - | - |
| | <i>Direct regulatory fees and charges</i> | | | - | - | - | - |
| | <i>Direct enforcement costs</i> | | | | | Total: ~EUR 0.13 million Per Member State: ~EUR 4 450 | Annual (average in the period 2025-2040): ~EUR 1.2 – 1.29 million Annual per Member State (average in the period 2025-2040): ~EUR 44 500 – 47 677 Total (present value for 2025-2040): |

| | | | | | | | |
|---|---|--|--|--|---|---|--------------------|
| | | | | | | | 14 – 15 million |
| | <i>Indirect costs</i> | | | - | - | - | - |
| <i>Costs related to the ‘one in, one out’ approach</i> | | | | | | | |
| <i>Total costs for all preferred options together</i> | <i>Direct adjustment costs</i> | | | <u>Total:</u> ~EUR 3800 – 3880 million <u>Per company:</u> ~EUR 540 – 552 | <u>Annual</u> (average in the period 2025-2040): ~EUR 438 – 539 million <u>Annual per company</u> (average in the period 2025-2040): ~EUR 63 – 77 <u>Total (present value for 2025-2040):</u> ~EUR 5102 – 6283 million | | = |
| | <i>Indirect adjustment costs</i> | | | = | = | = | = |
| | <i>Administrative costs (for offsetting)</i> | | | <u>Total:</u> ~EUR 110-115 million <u>Per company:</u> ~EUR 708 - 760 | <u>Annual</u> (average in the period 2025-2040): ~EUR 9-12 million <u>Annual per company</u> (average in the period 2025-2040): ~EUR 61 - 80 <u>Total (present value for 2025-2040):</u> ~EUR 108 – 142 million | | |

Disaggregation of costs of preferred options:

| | Total (million) | | Per company (euros) | |
|--------------------------|----------------------|--------------------|---------------------|--------------------|
| | One-off | Recurrent (annual) | One-off | Recurrent (annual) |
| SME | 3684.5 3763.5 | 364 433 | 525 536 | 52 62 |
| Manufacturers | 732.6 744.6 | 99 117 | 752 764 | 102 120 |
| Service Providers | 1278 1298.6 | 166 193 | 740 752 | 96 112 |
| Retailers | 1674 1720.3 | 99 123 | 388 398 | 23 28 |
| Large Enterprises | 225.5 231.5 | 83 118 | 13301 13656 | 4919 6965 |
| Manufacturers | 215.8 221.6 | 83 117 | 27701 28445 | 10628 15065 |
| Service Providers | 5.9 6 | 0.4 0.4 | 1465 1493 | 93.7 110.1 |
| Retailers | 3.8 3.9 | 0.2 0.2 | 729 749 | 38.3 47.8 |
| TOTAL | 3910 3995 | 447 551 | 556 568 | 64 78 |

3. Relevant sustainable development goals

| Overview of relevant Sustainable Development Goals – Preferred Option(s) | | |
|--|--|----------|
| Relevant SDG | Expected progress towards the Goal | Comments |
| SDG no. 12 – ensure sustainable consumption and production patterns | This initiative is expected to lead to an increase in the purchase of products with longer durability and better reparability, which do not deceive the consumer as to their environmental impact, and which do not fail earlier than expected. The initiative is expected to better protect consumers against against unfair commercial practices, such as greenwashing, early obsolescence of consumer goods or non-transparent voluntary sustainability labels and digital information tools, which are not compatible with the green transition. | |
| | | |
| SDG no. 13 – climate action | This initiative is expected to lead to a saving of 5 - 7 MtCO ₂ e over a period of 15 years. | |
| | | |

ANNEX 4: ANALYTICAL METHODS

This annex provides information on the methods used in this Impact Assessment, namely:

- On the calculation of consumer detriment and environmental impacts;
- On the selection of the impacts against which the options are assessed and explanation on how the assessment is performed (including the approach to the monetisation of costs and benefits);
- On the comparison of the options by way of a cost-benefit analysis and multi-criteria analysis.

1. Selection of criteria and sub-criteria for assessing the impacts of the policy options

1.1. Identification of impacts

In line with the European Commission's guidance on Impact Assessment (as set out in the 'Better Regulation Guidelines'), all of the impacts (potentially) associated with the selected options/ options were identified (0). The process of identifying impacts was mainly informed by the literature review and stakeholder consultation. It also drew on expert input/ judgment.

The starting point for the development of the 'long list' of impacts was the "impacts checklist," as set out in the 'Better Regulation Guidelines' (Tool #19). This was based on an in-depth analysis and understanding of all available evidence, which in turn minimised the risk of failing to consider potentially significant impacts. Specifically, the identification of impacts accounted for:

- Positive and negative impacts;
- Direct and indirect effects (stemming from changes in costs and product substitution);
- Intended and unintended consequences. Specifically, intended consequences include: benefits for consumer protection and the Single Market, while possible unintended consequences could include: impacts on the structure of the market;
- Short and long -term effects – e.g. short-term costs of providing information and long-term costs of reformulating products and/or commitments.

Table 1. 'Long list' of impacts

| Impact type | Long list of impacts drawing on Commission IA guidelines | Specific direct impacts considered |
|------------------|---|---|
| Economic Impacts | <ul style="list-style-type: none"> ■ Growth and investment ■ Trade and investment flows ■ Facilitating SMEs growth ■ Costs of business ■ Functioning of the Internal Market and competition ■ Increased innovation and research ■ Technological development ■ Increased international trade and investment Consumer and households | <ul style="list-style-type: none"> ■ Business substantive compliance costs ■ Business administrative burdens ■ Enforcement costs for administration ■ Consumer prices and choices ■ Consumer decision making process |

| | | |
|-----------------------|--|--|
| | <ul style="list-style-type: none"> ■ Public authorities (and budgets) | |
| Social Impacts | <ul style="list-style-type: none"> ■ Employment ■ Income distribution and social inclusion ■ Health & safety ■ Education ■ Governance & good administration ■ Social protection, health and educational systems ■ Cultural heritage | <ul style="list-style-type: none"> ■ Consumer trust ■ Consumer protection |
| Environmental impacts | <ul style="list-style-type: none"> ■ The climate change ■ Fostering the efficient use of resources (renewable & non-renewable) ■ Quality of natural resources/fighting pollution (water, soil, air etc.) ■ Reducing and managing waste ■ Protecting biodiversity, flora, fauna and landscapes ■ Minimizing environmental risks | |
| Overarching Impacts | <ul style="list-style-type: none"> ■ Economic and social cohesion ■ Impacts in developing countries ■ Sustainable development ■ Fundamental Rights | <ul style="list-style-type: none"> ■ Application of the EU legal consumer framework |

Source: ICF elaboration based on Better Regulation Guidelines (Toolbox #19)

1.2. Screening of impacts

The significance of social, economic, and environmental (direct and indirect) impacts that the policy options may entail for the various stakeholders was assessed on the basis of:

- Their expected magnitude – taking into account the likely scale of impacts (i.e. the extent of resulting costs and benefits), the number of businesses and consumers affected, and the extent of change expected;
- Their likelihood – taking into account available evidence on the probability of positive and negative impacts/ effects occurring, and prioritising those impacts for which there is robust evidence as opposed to those subject to less informed speculation.
- Their relevance to stakeholders – taking into account existing views provided by relevant stakeholder groups, additional insights/ judgments expressed during the stakeholder consultation; and

- Their link to Commission objectives, i.e., the extent to which each of the selected impacts is aligned with the objectives of the initiative (as it was important to ensure that all of the impacts that directly link to the objectives of the initiative were included).

The assessment was done while taking into account the views of stakeholders gathered through extensive consultations as well as evidence collected through desk research and validated by selected independent experts. The result of the assessment, i.e. the final/ screened list of impacts to be investigated further, is provided in 0 overleaf.

Many of the screened impacts are inter-related, with some impacts being the causes or consequences of others. For example, growth/ investment is clearly a highly relevant policy impact; however, it is influenced by all of the other economic factors, such as sectoral competitiveness, SME growth, the functioning of the Single Market, innovation and research, technological development, international trade and investment, and competition. The screening process has therefore attempted to distinguish between those impacts which occur directly and those which may occur indirectly, i.e. as a result of other impacts.

The selected impacts vary across the different policy options, notably in terms of their likelihood and significance. However, most impacts are relevant across the different policy options/ options. Screening was therefore undertaken for the options collectively (including the baseline) rather than individually, with a view to assessing in more detail (at a later stage in the Impact Assessment) any differences in (the extent/ magnitude of) the impacts associated with the different options. An impact was retained for further analysis if it was deemed 'relevant' and expected to be of a magnitude of "●●" (at a minimum) for at least one of the proposed policy options.

Table 2. Significance of impacts for all the policy options under consideration

Key: '●' low; '●●' moderate; '●●●' high

| Impact type | Expected magnitude | Likelihood | Relevance for stakeholders | Link with the objectives (✓) | Comment | Retained (✓) |
|--|--------------------|------------|----------------------------|------------------------------|---|--------------|
| Economic impacts | | | | | | |
| Growth and investment | ● | ●● | ●● | | Growth and investment are EU policy priorities, and any potential impacts need to be considered carefully. The foreseen measures may require investment in repair services, product development and new production processes, but may (indirectly) entail adverse impacts, in the form of costs for business and the public sector and reduction of sales. These impacts are considered under other impact categories below (see "business substantive compliance costs," "business administrative burdens," "enforcement costs for administration"). | |
| Sectoral competitiveness, trade and investment flows | ● | ●● | ●● | | Some options could impact business costs and, consequently, competitiveness (see further below "business substantive compliance costs," "business administrative burdens," "enforcement costs for administration"). | |
| SMEs growth | ●● | ●●● | ●●● | | SMEs account for the majority of businesses in the EU. The options will therefore potentially impact large numbers of SMEs (as producers), although possibly negatively, as they may lead to an increase in businesses' operational costs. Furthermore, SMEs with fewer resources may face greater challenges in adapting to new rules/ requirements as opposed to large companies. | ✓ |
| Functioning of the Single Market | ●● | ●● | ●●● | ✓ | There are currently some differences in approaches related to obsolescence, greenwashing, sustainability labels/logos and information to consumers in different Member States. One of the arguments for action at EU level would be to harmonise regulatory approaches across the Single Market. The initiative is expected to contribute to creating a level- | ✓ |

| Impact type | Expected magnitude | Likelihood | Relevance for stakeholders | Link with the objectives (✓) | Comment | Retained (✓) |
|---|--------------------|------------|----------------------------|------------------------------|---|--------------|
| | | | | | playing field for producers and reducing, to some extent, barriers to cross-border trade. | |
| Increased innovation and research and Technological development | • | • | • | | Options stimulating improvements in products' durability/ lifespans, reparability and sustainability may stimulate innovation and technological development. However, this may also entail additional investments/ costs for businesses (see further below: "business substantive compliance costs," "business administrative burdens"). | |
| Increased international trade and investment | • | • | • | | The options are expected to have a very limited impact on trade. | |
| Business substantive compliance costs | ••• | ••• | ••• | | Businesses will incur direct costs redesigning products and procedures to ensure they comply with the measures related to premature/planned obsolescence and to the criteria for logos. These costs may vary by option. | ✓ |
| Business administrative burden | ••• | ••• | ••• | | The effectiveness of the options will depend on the transfer of information between the authorities, businesses and consumers. This may require substantial effort and time – i.e., from having to understand the rules, formulate appropriate responses, and monitor and report on progress. This could potentially result in important administrative burdens for businesses. | ✓ |
| Costs for public authorities | •• | ••• | ••• | | Public authorities will have to monitor and enforce the measures as well as handle specific cases of non-compliance. These actions will likely impose certain costs on public authorities. | ✓ |
| Consumer detriment | ••• | ••• | ••• | ✓ | Some options will contribute to a reduction in consumer detriment, as currently experienced by many consumers owing to sub-optimal choices being made and/ or the early failure of products. | ✓ |
| Consumer prices and choices | •• | •• | ••• | | The options may have an impact on product availability, prices and, ultimately, the volume of sales. | ✓ |
| Consumer decision making process | ••• | ••• | ••• | ✓ | The options will likely improve the availability of information to consumers, reduce information asymmetries | ✓ |

| Impact type | Expected magnitude | Likelihood | Relevance for stakeholders | Link with the objectives (✓) | Comment | Retained (✓) |
|--|--------------------|------------|----------------------------|------------------------------|--|--------------|
| | | | | | and therefore contribute to enhancing consumers' decision-making process. Consideration will however be given to the potential negatives effects of providing too much information which could lead to an information overload and, thus, increased confusion among consumers. | |
| Social Impacts | | | | | | |
| Employment | • | • | • | | Enhancing employment is a key policy priority for the EU. No evidence was found of an immediate effect of any of the proposed measures on employment. Jobs will potentially be impacted indirectly through changes in business costs, competitiveness and investment. Cost increase may translate into some job losses but that this is hard to quantify and in addition, there may be a positive job impact due to the increase in consumer confidence and trust as well as an increased level playing field (all leading to less transaction costs and an increase of allocative efficiency as untrustworthy companies and practices are penalised). | |
| Income distribution and social inclusion | • | • | • | | Actions to limit premature obsolescence are expected to have a greater impact on consumers of goods of lower price ranges. On the one hand, lower-priced goods might have their lifespan increased and, hence, their life-cycle costs (for more vulnerable consumers) reduced. On the other hand, owing to their enhanced qualities, the price of these goods might increase. | |
| Health (& safety) | • | • | • | | Climate change and negative environmental impacts can strongly impact people's health. Options contributing to a reduction in the environmental impacts of consumption are expected to have a positive impact on public health. This effect will be partially covered when assessing the impact of the proposed measures in the environment. | |
| Education | • | • | •• | | The options are not expected to impact education; however, consumer awareness is a significant issue, particularly with respect to its role in changing consumption patterns and therefore contributing to the | |

| Impact type | Expected magnitude | Likelihood | Relevance for stakeholders | Link with the objectives (✓) | Comment | Retained (✓) |
|---|--------------------|------------|----------------------------|------------------------------|--|--------------|
| | | | | | green transition. This potential change in consumer awareness/ education will be addressed when assessing the impacts entailed by the proposed measures on consumer trust/ protection. | |
| Governance & good administration | • | • | •• | | This is closely related to the issue of administrative burden, which is listed under economic impacts above and can be considered alongside that issue. | |
| Social protection, health and educational systems | | | | | No distinct issues related to social protection, health and educational systems were identified, other than impacts on consumer health and awareness (as identified above). | |
| Cultural heritage | | | | | No distinct issues related to cultural heritage were identified, other than impacts on consumer choice and awareness (as identified above). | |
| Consumer trust | •• | ••• | ••• | ✓ | Some options will likely contribute to increasing consumer trust (as a result of the improved quality of the information provided and providing reassurance about the quality of the products purchased), which would help improve their subjective well-being. | ✓ |
| Consumer protection | •• | ••• | ••• | ✓ | The options will contribute to strengthening consumer protection, reducing the potential for consumer harm/ detriment and leading to an overall increase in consumers' well-being. | ✓ |
| Environmental Impacts | | | | | | |
| Fighting climate change | •• | ••• | ••• | ✓ | Some options will help bring about a reduction in purchase frequency, given that products will not have to be replaced frequently as before, as well as an increase in the share of the market accounted for by more environmentally-friendly products. This in turn is expected to contribute to reducing the CO2 equivalent emissions associated with consumption. | ✓ |
| Other environmental impacts including | •• | ••• | ••• | ✓ | Some options will help bring about a reduction in purchase frequency, given that products will not have to be replaced | ✓ |

| Impact type | Expected magnitude | Likelihood | Relevance for stakeholders | Link with the objectives (✓) | Comment | Retained (✓) |
|--|--------------------|------------|----------------------------|------------------------------|--|--------------|
| fostering the efficient use of resources (renewable & non-renewable) | | | | | as frequently as before, as well as an increase in the share of the market accounted for by more environmentally-friendly products. This in turn is expected to contribute to reducing the use of resources and/or fostering a more efficient use of resources. | |
| Protecting biodiversity, flora, fauna and landscapes | • | • | • | | Some options will help bring about a reduction in purchase frequency, given that products will not have to be replaced as frequently as before, as well as an increase in the share of the market accounted for by more environmentally-friendly products. This in turn is expected to contribute to protecting biodiversity, flora, fauna and landscapes. | |
| Minimizing environmental risks | | | | | Principal environmental risks relate to climate change and efficient use of resources – as identified above. | |
| Overarching impacts | | | | | | |
| Application of the EU legal consumer framework | •• | ••• | ••• | ✓ | Some options will help ensure a better and more coherent application of the EU legal framework for consumer protection. | ✓ |
| Economic and social cohesion | • | • | • | | Economic and social cohesion will potentially be indirectly impacted by other impacts identified above. | |
| Sustainable development and circular economy | •• | ••• | ••• | ✓ | Options will contribute to the circular economy and to sustainable development (to one or more of the three pillars economic, environment and social) will potentially be indirectly impacted by a number of other impacts described above. | ✓ |
| Fundamental Rights | | | | | Not identified as a potentially significant impact category in the literature or stakeholder consultations. | |
| Individuals, private and family life, freedom of conscience and expression | | | | | Not identified as a potentially significant impact category in the literature or stakeholder consultations. | |

| Impact type | Expected magnitude | Likelihood | Relevance for stakeholders | Link with the objectives (✓) | Comment | Retained (✓) |
|---|--------------------|------------|----------------------------|------------------------------|---|--------------|
| Property rights and the right to conduct a business | | | | | Not identified as a potentially significant impact category in the literature or stakeholder consultations. | |

Based on the screening assessment, the following potentially significant impacts were identified as priorities for more detailed analysis:

- A. **Consumer benefits and losses**, including the following sub-categories of impacts:
 - Consumer detriment and other gains and losses (due, for example, to changes in prices and choices);
 - Quality of the decision-making process;
 - Consumer protection; and
 - Consumer trust.
- B. **Functioning of the Single Market**, which includes the following sub-categories of impacts:
 - Impact on the level-playing field; and
 - Reduction of barriers to cross-border trade.
- C. **Costs to companies and impact on SMEs**, which includes the following sub-categories of impacts:
 - Administrative burdens;
 - Substantive compliance costs;
 - Indirect costs; and
 - SME growth.
- D. **Costs to public bodies**, including the following sub-categories of impacts:
 - Enforcement costs; and
 - Other costs
- E. **Sustainability**, which includes the following sub-categories of impacts:
 - Circularity and Sustainable Consumption;
 - Climate change; and
 - Other environmental impacts.
- F. **Application of the EU legal consumer framework**, which includes:
 - Any impact on enforcement and harmonisation of approaches across the EU.

The table below sets out the impacts that were selected, the stakeholder group(s) affected and the general approach used to assess them. It is important to highlight that the impacts of the options might differ between product categories. This is highlighted when relevant.

Table 3. Selected significant impacts

| Main category of impacts | Affected parties | | | | | | | Assessment | |
|--|------------------|-----------|--|--|---------------------------------------|-----------------|--------|-------------|--------------|
| | Citizens | Consumers | Complying enterprises (SMEs and large enterprises) | Non-complying enterprises (SMEs and large enterprises) | Public administrations (EU, national) | Third countries | Nature | Qualitative | Quantitative |
| Consumer benefits and losses | | X | | | | | | X | partial |
| Functioning of the EU internal market | | X | X | X | | | | X | |
| Costs to companies and impact on SMEs | | | X | X | | | | X | partial |
| Costs to public bodies | | | | | X | | | X | partial |
| Sustainability | X | X | X | X | X | X | X | X | partial |
| Application of the EU legal consumer framework | X | X | X | X | X | | | X | |

Impacts on Third Countries

As can be seen from the above table, apart from the impacts on sustainability, the corresponding impacts on Third Countries were considered minor and therefore not selected in the screening of the impacts. This is due to the fact that it can be estimated that the level playing field established by this initiative would also bring benefits to businesses located in Third Countries, as those businesses that currently mislead consumers would also have to align their practices with those that are truly sustainable in order to sell their products on the EU market in conformity with the measures

selected. Furthermore, none of the policy options considered would negatively impact trade from Third Countries, as the options considered are of such a nature as to be able to be complied with by traders located in Third Countries on the same basis as traders located within the EU.

2. General approach to assess the various impacts

All selected impacts were assessed in a qualitative and quantitative way. The quantitative assessment was done by monetisation when possible and otherwise by scores.

The monetisation involved assigning a monetary value to benefits or losses experienced by stakeholders. When possible, the analysis relied on data from various sources, including statistics, studies, the consumer survey, the CATI survey and the mystery shopping exercise carried out in the context of this study. The available data frequently did not (entirely) cover the needs of the analysis, and in that situation, it was necessary to extrapolate the data or fill in data gaps using expert judgment by the supporting study core team and a panel of experts, drawing from other sources of information such as the results of the surveys, interviews, and workshops with stakeholders.

Given the uncertainty surrounding many parameters, in the analysis, they were defined as distribution functions rather than single values¹⁴⁵. In addition, scenarios were defined for most of the measures to describe possible responses of consumers and/or businesses, and the monetised impacts were obtained by running Monte Carlo simulations. The input data limitations were reflected in the analysis by presenting the output as a range rather than single values; nevertheless, the results should be taken with caution and seen as indicative of the scale of the impacts.

The approach and assumptions to the monetisation of benefits and costs of each measure are described below.

The scores were assigned with input of the supporting study core team, and validated by a panel of experts, reflecting the findings of desk research and stakeholder consultations, including targeted interviews, consumer survey and the results of the stakeholder workshop.

3. Socio-economic impacts

Consumer's benefits and losses

Consumer detriment and other gains and losses

This impact was assessed quantitatively and qualitatively. The quantitative assessment involved the monetisation of the incremental changes to the consumer detriment as a result of the implementation of a given option (which are expected to be positive) and is based mostly on the results of the contingency valuation of specific products obtained through the consumer survey carried out in the context of this study (with a sample of 11 800 respondents) complemented with data from other sources when necessary). See supporting study for an overview of the product scope.

The monetisation follows the following steps:

1. Modelling of the expected changes in the market due to a given option. For example, certain information becomes available for certain products, whereas in the baseline it

¹⁴⁵ Either Triangular distribution function or Uniform depending on the parameter.

would not be, or the share of products that fail prematurely decreases (as compared to the baseline) as a consequence of banning certain practices.

2. Modelling of the expected changes in the consumer behaviour resulting from the option. For example, the share of consumers interested in (and willing to pay for) products with longer lifespans will be (to some extent) able to do so (as compared to the baseline). Or, as another example, consumers purchase products that do not fail earlier than reasonably expected (whereas in the baseline they unknowingly would).

3. Monetising the expected benefits that those changes will bring to consumers. The specific approach depends on the option and on the availability of data, and could be:

a) Estimating the incremental consumer surplus, relying on data on willingness to pay: for those consumers that changed their consumption behaviour as a result of the option, calculate the difference between what consumers are willing to pay - for example, for an additional year of guaranteed lifespan - and the price premium they effectively had to pay.

b) Estimating the incremental consumer surplus, relying on the price of goods and their increased extended lifespan: for those consumers that changed their consumption behaviour as a result of the option, calculate the difference between what consumers gained (i.e., the price of the goods divided by the incremental duration of the good) and the price premium they effectively had to pay.

c) Estimating the avoided personal revealed detriment related to repair of products (if repairing becomes easier and less burdensome as a result of an option) or related to having bought a product (and paid a price premium) based on certain information that was not correct.

d) Estimating the stated benefits of an option based on consumer's stated willingness to pay for having that option implemented.

The estimations, while providing a sense of the magnitude of the benefits for consumers, have limitations:

- Anecdotal data on consumer preferences and detriment for some product groups and unavailability of data for other product groups (s-p 1.1, 1.2 and 1.3);
- For some problems, there was the need to focus on a sub-set of product groups due to the lack of data on other product categories. This means that the results do not cover all products in scope of the measure. For others, we could only assess the measure for high-level product categories due to lack of data.
- In most of the cases the products covered in the consumer survey were only a sub-set of the products that exist in a certain product category, which required us to extrapolate the results of the assessment for the individual products to the product category, assuming that the products would represent to some extent the average product in that category. Without such assumption the assessment would have not been possible (given that the measure is a horizontal one) but constitutes an important limitation of the assessment. While this issue was not raised by the stakeholder consulted, the characteristics between goods and services can indeed impact the effectiveness of various measures.
- Discrepancies between consumer statements and "real-life" behaviours;
- Difficulties in assessing the variation in the average sustainability of the products purchased and the average lifespan and reparability of the goods purchased as a result of a certain measure.

In order to mitigate these limitations, Monte Carlo simulations have been carried out and the benefits have been assessed in the supporting study for at least two scenarios for the expected effectiveness of each option low-moderate and moderate-high (which will depend on factors specific of each measure, such as compliance levels, change in the

behaviour of suppliers, impact on comparability of information). The present IA, however, only reports on the moderate-high scenario for ease of reading.

Quality of the decision-making process

This impact assesses to what extent an option leads to a situation where consumers have more and better information to take decisions and can more/less easily compare goods or services on offer (taking into account information overload, for example). Improving the decision-making process may lead to changes in behaviour (and to a reduction in consumer detriment) or not, but it can also lead to an improvement in the subjective wellbeing of consumers. This is assessed qualitatively and quantitatively using a score from zero to ten. This impact is one of the components of the specific objective “Enable informed purchasing decisions by consumers to foster sustainable consumption”.

Consumer protection

This impact assesses to what extent an option increases consumer protection in general. This will be assessed qualitatively and quantitatively using a score from zero to ten. Please note that this impact is in part covered by the monetisation of the consumer revealed detriment.

This impact is one of the components of the specific objective “Eliminate untrustworthy practices that run against sustainable economy and mislead consumers”.

Consumer trust

This impact assesses to what extent an option increases the trust of consumers in the market by putting in place effective mechanisms to prevent and penalise misleading practices. This is assessed qualitatively and quantitatively using a score from zero to ten.

This impact is one of the components of the specific objective “Eliminate untrustworthy practices that run against sustainable economy and mislead consumers”.

Functioning of the Single Market

Some options will contribute to reducing the practice of unfair commercial practices and harmonise the rules across Member States (leading to legal certainty and lower barriers to cross-border trade), and consequently, contribute to the improved functioning of the internal market.

Level playing-field

This impact assesses to what extent an option creates a more level playing field with regards to product lifespan, reparability and sustainability. This will be assessed qualitatively and quantitatively using a score from zero to ten.

This impact is one of the components of the specific objective “Eliminate untrustworthy practices that run against sustainable economy and mislead consumers”.

Barriers to cross-border trade

Lack of harmonised rules across the EU can lead to extra costs and difficulties for companies trading in other Member States, in particular, if those companies are SMEs. The options aim to harmonise rules in various areas and reduce legal uncertainty, possibly reduce duplication of costs and reduce barriers to cross-border trade. This is assessed qualitatively and quantitatively using a score from zero to ten.

Costs to companies and Impact on SMEs

The costs were calculated for SMEs and Large enterprises separately and also for manufacturers, service providers and retailers separately (in for some sub-problems per large product groups large household appliances, small household appliances, ICT and other electronic products, furniture, clothes). Within each category, we calculated the costs for an “average company” producing and/or selling an “average good or service”.

The cost estimations, while providing a sense of the magnitude of the benefits for consumers, have limitations:

- Need to focus on a sub-set of product groups in the case of some measures and need to carry out the estimations at a very high level for other measures as a result of lack of data.
- Costs are estimated for an average company per category. Companies are very different from each other and this assumption is, therefore, a simplification of the complex landscape of businesses across the EU.
- Costs are estimated for an average good or products. While such assumption was required to carry out the assessment of the initiative given its horizontal approach, it can affect the assessment. Differences in the characteristics of goods and services can affect the unit costs. For example, the incorporated technologies and the number of components in the product can influence the costs of lifespan tests or the time required to develop a repair manual. Another example is the fact that the complexity of the supply chain might have an impact on the cost of a PEF study. While the stakeholder consultations have not identified product categories / sectors suffering disproportionate impacts, based on literature review the study team expects that for sectors related to product categories for which products are significantly different from each other and are constantly changing due often to fashion (e.g., clothes, decoration objects and to a lesser extent furniture) all measures might have a more disproportionate impact. Products with complex supply chains will also suffer disproportionate effects of measures related to the assessment of their sustainability performance.
- Lack of data on the effective direct costs for companies as during the consultations, companies declined to provide an estimation to those costs and the desk research did not provide all the required data. In the study, we have interviewed a few companies¹⁴⁶ that provided some pointers regarding the incremental number of hours most measures would require for each of the aforementioned cost items. Based on expert judgment (in the context of the study this means the core study team plus three external experts) we used these pointers to set the costs.
- These limitations were mitigated to an extent in the cost assessment by assuming that some assumptions of the quantitative analysis follow a uniform distribution with a minimum and a maximum value.

Administrative burden

Options will impose information obligations to business (some to manufacturers, others to traders). These information obligations may lead to increased costs to businesses related to:

¹⁴⁶ The companies were from Portugal, Sweden and Belgium. Three were three large enterprises and two micro enterprises. We gathered the data under the commitment that we would not disclose their names.

- Familiarising with the information obligation
- Training members and employees about the information obligations
- Retrieving relevant information from existing data and adjusting existing data
- Producing new data
- Designing information material (e.g. leaflet conception) and Copying (reproducing reports, producing labels or leaflets)
- Filling forms and tables (including recordkeeping) and submitting the information to the relevant authority (e.g. sending it to the relevant authority)
- Inspecting and checking (including assistance to inspection by public authorities) and holding meetings (internal/external with an auditor, lawyer etc.)
- Buying (IT) equipment & supplies (e.g. labelling machines) to specifically used to fulfil information obligations

The extent of the impact depends on which activities would be done even in the absence of the option, i.e., at the baseline. These costs are assessed following the EU Standard Cost Model as described in Tool #60.

Substantive compliance costs

These are the incremental (i.e. non-business as usual) costs (other than fees and administrative burden) to manufacturers in order to comply with the option related to banning practices of premature obsolescence and to label, logo and certification manager in order to comply with the option on minimum criteria for labels and logos. These include implementation costs, direct labour costs, equipment costs, material costs and cost of external services.

The monetisation of the costs of producing products that do not fail earlier than reasonably expected is extremely challenging as it depends on the products and on reasons causing early failure and due to lack of data on unit costs. This was done by screening the prices of various product types on online marketplaces, identifying the price of the cheapest product, and then assume that it will cost between 7.5% to 15% extra to comply with the measure and improve the product accordingly.¹⁴⁷ This is a significant limitation of the quantification of substantive costs.

Indirect costs

The market dynamic may also lead to companies to adapt their products/commitments in order to remain competitive. These adjustments will often have an impact on the operating costs to those companies (which are indirect costs of the option). These costs will be assessed qualitatively and quantitatively using a score from zero to ten.

SME growth

The aforementioned costs might hinder the growth of SMEs and may render some not viable any longer. The unbalance between the relative impact of the options on SMEs and on larger enterprises is particularly higher for those options that impose costs per product model since, in general, the sales volume per model is generally lower for SMEs than it is for larger enterprises. These costs are assessed qualitatively and quantitatively using a score from zero to ten.

¹⁴⁷ This was incorporated in the quantitative analysis by ensuring that the costs of improving follow a uniform distribution (0.075, 0.15).

Costs for public authorities

All instrument will impose enforcement costs. Enforcement costs include the cost of monitoring and enforcing compliance with new requirements as well as adjudication/litigation costs. The latter refers to the costs of using the legal system, or an alternative dispute resolution mechanism, to solve disagreements or disputes generated by the new requirements.

This impact is assessed qualitatively and quantitatively. The estimations have limitations due to the lack of specific data on the additional resources that the option will require. The gaps were addressed by using data from similar studies and relying on data provided by some CPC authorities.

The approach to the quantification and monetisation of these costs is in line with the EU Standard Cost Model as described in Tool #60 and will cover:

- Familiarisation with the new option and training of staff;
- Monitoring costs: these are equal to the estimated costs with human resources needed to monitor the new instrument (which are equal to (a) the estimated additional time (days or hours) devoted to monitoring compliance with the new instrument on an annual basis time (b) the forecasted average salary of staff involved in monitoring compliance) plus any other incremental expense that may be incurred in monitoring compliance, e.g. mystery shopping exercises, sweeps, etc.
- Enforcement costs: these are equal to the estimated costs with human resources needed to enforce the new instrument (which are equal to (a) the estimated additional time (days or hours) devoted to enforcement activities related to the new instrument on an annual basis time (b) the forecasted average salary of staff involved in enforcement activities) plus any other incremental expense that may be incurred in monitoring compliance minus the incremental volume of fines collected if policy intervention is implemented.
- Complaint, adjudication and case handling costs: these are equal to the estimated costs with human resources needed to handle complaints and cases by ADR bodies and by courts.

Environmental impacts

Climate change

All options are expected to lead to a reduction of the CO₂ equivalent emissions of consumption either by reducing the replacement rate of goods or by increasing the market share of “truly” sustainable products.

This impact is assessed qualitatively and quantitatively. The estimations have significant shortcomings due to limited data on the current CO₂ equivalent emissions of all products (and per product type) and difficulties in assessing the variation in the average sustainability of the products purchased and the average lifespan and reparability of the goods purchased as a result of a certain instrument.

The approach to the quantification of impacts is done by estimating the “avoided CO₂e emission” as a result of new consumption patterns elicited by a given option and the shadow carbon price.

Given the data limitations, these calculations were not possible for sub-problems 2.2 and 2.3.

Other Environmental Impacts

The impact of the measures on electrical and electronic equipment waste and on preventing premature deaths will be also be monetised. As above, the estimation have limitations and were not performed for measures related to sub-problems 2.2 and 2.3. Other impacts as will be assessed qualitatively and quantitatively (in a score from 0 to 10) but not monetised. As above, the estimation have limitations.

Overarching impacts

Circularity and sustainable consumption

This impact will assess to what extent an option will contribute to a more circular economy and more sustainable economy (considering the three pillars economic, environmental and social). This impact is assessed qualitatively and quantitatively using a score from zero to ten.

This impact is one of the components of the specific objectives “Enable informed purchasing decisions by consumers to foster sustainable consumption” and “Eliminate untrustworthy practices that run against sustainable economy and mislead consumers”.

Application of the EU legal consumer framework

The options will contribute to improving the application and enforcement of the EU legal consumer framework. This is assessed qualitatively and quantitatively using a score from zero to ten.

This impact corresponds to one of the three specific objectives of the initiative.

4. Approach to monetisation of costs and benefits

In this section, we describe the approach and assumptions used to estimate the monetisable costs to businesses and enforcement authorities and the monetisable impact on consumer welfare (personal detriment and surplus) for each sub-problem.

4.1. General assumptions

| Assumption | | Source |
|---------------------------------------|--|---|
| Cost of labour (EU-27 average) | Manager: EUR 41.5/h Other employees: EUR 27.70/h 2019 prices | Eurostat ¹⁴⁸ |
| Sales in EUROS and Volume | Presented in the annex with the overview of the market | Statista (up to 2025) and ICF projections (until 2050) |
| Number of companies | - | Eurostat <i>Annual enterprise statistics by size class for special aggregates of activities (NACE Rev. 2) [SBS_SC_SCA_R2]</i> ¹⁴⁹ |

¹⁴⁸ See Eurostat, Hourly labour costs: https://ec.europa.eu/eurostat/statistics-explained/index.php/Hourly_labour_costs

¹⁴⁹ Eurostat, Population on 1st of January 2021: https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=proj_19np&lang=en

| | | |
|---|---|---|
| Population | - | Eurostat <i>Population on 1st January by age, sex, and type of projection [PROJ_19NP]¹⁵⁰</i> |
| Shadow price of CO2e | 34 EUR/tonne | High-Level Commission on Carbon Prices (i.e., EUR 34 prices 2019). See N. Stern and J. E. Stiglitz (2017). Report of the High-Level Commission on Carbon Prices. World Bank. ¹⁵¹ |
| CO2e/kg of production equipment | 36 kg CO2e/Kg | Adaptation of various studies covering specific products ¹⁵² |
| Value of Statistical life (million euros 2019) | The monetised value of a premature death follows a uniform distribution with a lower limit of 3.93 million EUR and an upper limit of 5.63 ¹⁵³ million EUR. | The recommended values for the VSL vary depending on the source. We adopted the values from the European Chemicals Agency ¹⁵⁴ in line with other recent studies carried out for DG JUST. |
| Costs of treating waste (euros) | 0.45 EUR/Kg | Own calculations based desk research ¹⁵⁵ |
| Overall environmental impacts of consumption | - | COWI & ECOFYS, 2019 ¹⁵⁶ , determined as part of the Indicators and Assessment of the Environmental Impact of EU by JRC. |

4.2. “Sub-problem 1.2: Lack of reliable information about product’s lifespan”

The monetisation was only possible for a selection of product categories (large household appliances, small household appliances and ICT and other electronic products) due to the lack of data regarding the volume of sales and about contingent valuation. Within each product category, the monetisation was firstly done for a selection of specific products for which we had data from the consumer survey and mystery shopping exercises. Afterward the results obtained for the individual products were extrapolated to their product category.

¹⁵⁰ Eurostat, Annual enterprise statistics by size class for special aggregates of activities, https://ec.europa.eu/eurostat/databrowser/view/sbs_sc_sca_r2/default/table?lang=en

¹⁵¹ Available at: <https://www.carbonpricingleadership.org/report-of-the-highlevel-commission-on-carbon-prices/>

¹⁵² Andersen, O., Walnum, H.J. and Andrae, A., 2010. Life Cycle Assessment of Electronics. Ugelstad-particles Ball Grid Array and Chip Scale Packaging. Vestlandsforskning, Sogndal, Norway, 6(10).; Hu, Allen & Lin, Rong-Wei & Huang, Ching-Yao & Wu, Chin-Lueng. (2012). Carbon Reduction Assessment of a Product Service System: A Case Study of Washing Machines. 10.1007/978-94-007-3010-6_211.; https://www.apple.com/environment/pdf/products/notebooks/13-inch_MacBookPro_PER_may2019.pdf;

https://www.apple.com/sg/environment/pdf/products/iphone/iPhone_8_PER_sept2017.pdf

¹⁵³ EUR 3.5 million (lower estimate) and EUR 5 million (higher estimate) (in EUR 2012); It was inflated by using the labour cost index.

¹⁵⁴ Kip W. Viscusi (2019), Identifying the legitimate role of the Value of a Statistical Life in Legal Contexts, Journal of Legal Economics 25(1-2), pp. 5-28; ECHA (2016), Reference willingness-to-pay values for monetizing chemicals health impacts, pp. 1-8, available at: <https://echa.europa.eu/support/socio-economic-analysis-in-reach/willingness-to-pay-to-avoid-certain-health-impacts>.

¹⁵⁵ The Cost of Recycling E-Waste is becoming a Problem, <https://sites.psu.edu/cstruthersblog/2016/04/27/the-cost-of-recycling-e-waste-is-becoming-a-problem/>; <https://ec.europa.eu/environment/waste/studies/pdf/eucostwaste.pdf>

¹⁵⁶ COWI & ECOFYS, 2019. “Support for potential policies implementing the Environmental Footprint methods”. Confidential.

There is a lack of data regarding the lifespan of products offered in the market, consequently, we relied on desk research to define that the lifespan of the product models available in the market follow a truncated Gaussian distribution with parameters defined based on several sources¹⁵⁷

Option 1.2.A. EU-level obligation to inform consumers of the expected lifespan of products

Administrative burden

| Assumption | | Source |
|---|--|--|
| Manufacturers (excluding those that only produce components) | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but analysing what the necessary steps are that need to be taken to comply with it</i> SME: [7,35]h legal team, 35h product development team, 7h commercial team Large Enterprises: 35h legal team, 70h product development team, 14h commercial team | Interviews with companies and industry associations |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> SME: 3.5h manager + 10.5h key employees Large enterprises: 7h managers + 21h key employees | Interviews with companies and industry associations |
| Retrieving relevant information from existing data and adjusting existing data (including adapting system to retrieve information) (one-off) | <i>This includes identifying and compiling all the information available on expected lifespans and procedures followed to assess them, as well as adjusting current data and systems to be able to start providing this information</i> SME: 4 weeks (35h X 4) of two employees working half-time a week, 140h Large enterprises: 4 weeks (35h X 4) of four employees working half-time a week, 280h | Interviews with companies and industry associations |
| Producing new data (one-off per product model) | <i>While the measure does not require the performance of tests to assess the lifespan of products, most companies will base their indication of the expected lifespan on some tests</i> While non-business stakeholders indicated that companies already perform some tests to assess the lifespan of their products, consulted business indicated that it is not always the case, | The number of current and new product models was based on the data from Impact Assessment Reports of the Ecodesign |

¹⁵⁷ Including, European Commission, JRC Technical reports, *Ecodesign and Energy Label for Household Washing machines and washer dryers*, 2017, available at: https://www.applia-europe.eu/images/Library/Preparatory_Study_on_Washing_Machines_Washer_Dryers_-_2017-compress_compressed.pdf; F Sumasto et al 2019 IOP Conf. Ser.: Earth Environ. Sci. 219 012008, available at: <https://iopscience.iop.org/article/10.1088/1755-1315/219/1/012008/pdf>; National Association of Home Builders/Bank of America Home Equity, Study of Life Expectancy of Home Components, 2007, available at: <https://www.interstatebrick.com/sites/default/files/library/nahb20study20of20life20expectancy20of20home20components.pdf>; Consumer survey on the lifespan of products; https://www.consumentenbond.nl/binaries/content/assets/cbhippowebsite/gidsen/digitaalguids/2016/nummer-3---mei/dg201605p20_enquete_levensduur.pdf.

| | | |
|---|--|--|
| | <p>consequently we considered three scenarios in the analysis to test if this would have an impact on the conclusions regarding the merit of the measure:</p> <ul style="list-style-type: none"> - 25% of manufacturers already assess the lifespan of their products - 50% of manufacturers already assess the lifespan of their products - 75% of manufacturers already assess the lifespan of their products <p>The total costs with tests are equal to the unit cost of one test times the number of models in the market initially (for which an assessment of the lifespan has not been conducted, depends on the scenario) and then, for each year, the number of new models introduced annually (for which an assessment of the lifespan would have not been conducted in the baseline, depends on the scenario).</p> <p>The cost of testing one new product model:</p> <ul style="list-style-type: none"> • Large household appliances: follows a triangular distribution function with minimum value of EUR 3 200, peak value of six times the minimum number and maximum value of 12 times the minimum value. • Small household appliances: half of the costs for large household appliances. • ICT and other electronic products: as for the large household appliances. | <p>regulations¹⁵⁸</p> <p>complemented by desk research of the offer of main online retailers in different EU countries and the results of the written interviews with a few companies. Because of the relative uncertainty about this data, in the analysis this follows a uniform distribution function, with lower and upper limits defined for each type of products and based on the collected evidence. The estimated costs of the tests were based on the views expressed by two experts and on an interview with a manufacturer complemented by the market data.¹⁵⁹</p> |
| Designing and placing information material | <p><i>This includes:</i></p> <p>a) <i>the costs of redesigning existing packages of the goods to include the information (one-off cost):</i> 7h per package model.</p> <p>b) <i>the costs of printing stickers with the information for products in stock (which will be given to suppliers if needed). These costs are expected to be incurred in the 3 years after the implementation of the measure and will only continue beyond that for a small share of units (as a contingency in the analysis). The value is EUR 0.3.</i></p> | <p>Design costs: interviews with companies</p> <p>Cost of printing: Impact Assessment Reports of the Ecodesign regulations¹⁶⁰</p> |
| Adjust forms and tables (one-off) | <p><i>This includes re-designing existing forms to include data related to the measure. Filling in the tables/forms was considered business as usual (as</i></p> | <p>Interviews with companies and industry associations</p> |

¹⁵⁸ European Commission register, available at: <https://ec.europa.eu/transparency/regdoc/rep/10102/2019/EN/SWD-2019-349-F1-EN-MAIN-PART-2.PDF>; European Commission, SWD(2019) 347 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0347&from=EN>; European Commission, SWD(2019) 341 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0341&from=EN>

¹⁵⁹ http://www.atlete.eu/2/doc/Draft_GuidelinesRev4_october2013; European Commission, SWD(2019)341: <https://ec.europa.eu/transparency/regdoc/rep/10102/2019/EN/SWD-2019-341-F1-EN-MAIN-PART-1.PDF>

¹⁶⁰ European Commission, SWD(2019)349: <https://ec.europa.eu/transparency/regdoc/rep/10102/2019/EN/SWD-2019-349-F1-EN-MAIN-PART-2.PDF>; European Commission, SWD(2019) 347 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0347&from=EN>; European Commission, SWD(2019) 341 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0341&from=EN>

| | | | |
|---|--|---|--|
| | | <i>the additional time spent on this is judged to be negligible)</i> SME: [0.5,1]h manager + [7,14]h employee Large: [1,2]h manager + [14,21]h employee | |
| Inspections (internal and external) | | <i>Internal inspections involve [0.5,1.75]h of a manager and 7h of an employee in the case of SMEs and [1,3.5]h of a manager and 14h in the case of large enterprises</i> <i>External inspections are expected to take place in less than 1% of the companies. Each external inspection will involve 3.5h manager and 7h of an employee.</i> | Interviews with companies and industry associations |
| Retailers | | | |
| Familiarization with the measure (one-off) | | <i>This includes not only identifying the new obligations imposed by the measure but also analysing the necessary steps that need to be taken to comply with it</i> SME: [7,17.5]h legal team, 7h commercial team Large Enterprises: 17.5h legal team, 14h commercial team | Interviews with companies and industry associations |
| Training (one-off) | | <i>This includes an initial training of managers and key employees. To ensure that staff is able to properly explain what the indicated expected lifespan means we consider the need for:</i> SME: 0.5h manager + 4h key employees Large enterprises: 1h managers + 8h key employees | Interviews with companies and industry associations |
| Retrieving relevant information from existing data and adjusting existing data | | - | |
| Producing new data | | - | |
| Designing and placing information material | | <i>This includes the costs of sticking stickers provided by manufacturers or importers on products in stock. Given that the measure will take about 2 years to be implemented, the number of units without the information is considered to be about 2.5% of the volume of sales. The costs to stick a sticker is equal to 5 minutes of labour.</i> | Stock percentage and time required to stick a sticker in line with Impact Assessment Reports of the Ecodesign regulations ¹⁶¹ |
| Adjust forms and tables (one-off) | | - | |
| Inspections (internal and external) | | <i>None as it is assumed that the information will be provided on the product by default</i> | |

Enforcement costs

¹⁶¹ European Commission, SWD(2019)349: <https://ec.europa.eu/transparency/regdoc/rep/10102/2019/EN/SWD-2019-349-F1-EN-MAIN-PART-2.PDF>; European Commission, <https://ec.europa.eu/transparency/regdoc/rep/10102/2019/EN/SWD-2019-349-F1-EN-MAIN-PART-2.PDF>; European Commission, SWD(2019)349: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0347&from=EN>; European Commission, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0354&from=EN>; European Commission, Brussels, SWD(2019) 341 final <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0341&from=EN>

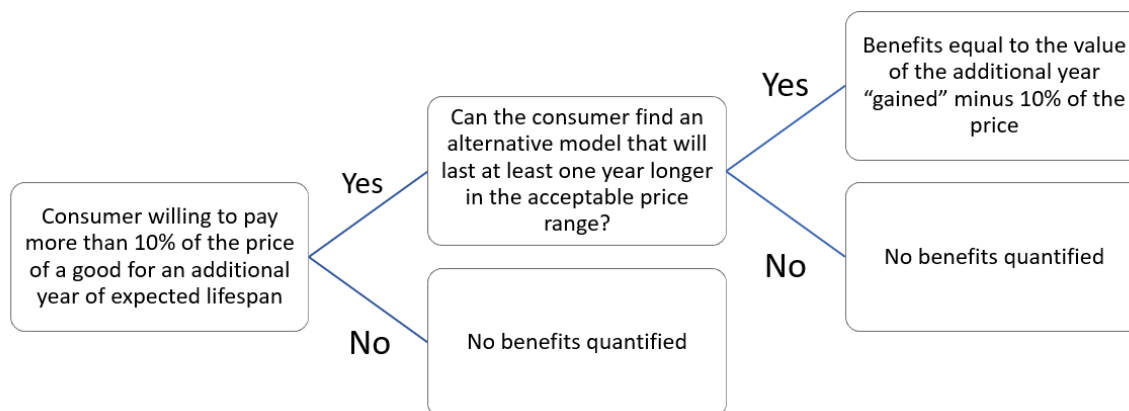
Based on interviews with some CPC authorities, it is assumed that Member States (possibly with the exception of France) would have to create a dedicated team to enforce this measure. The size of the team would be around 5 experts. 25% of their time would be dedicated to monitoring the compliance with the measure, 50% would be to carry out inspections and 25% with handling complaints. We estimate that the number of complaints that can be handled given the available resources will be around 700 per year per Member State (Average as some will significantly more and others significantly less). We then assumed that about 1% will be dealt with through ADR bodies and 0.1% in courts. The costs of an ADR body adjudication and of a court adjudication were obtained from the Impact Assessment of CPC authorities and supporting study¹⁶².

We assumed 140h for familiarization with the measure and adjust the internal procedures to start enforcing the measure. 16 employees will receive a 7h training.

It is also assumed that there will be a yearly action per Member State, which will amount to EUR 40,000 (based on market research).

Impact on monetisable consumer welfare

The approach followed to monetize the consumer welfare is illustrated in the figure below.



| Assumption | | Source |
|--|---|---|
| Share of consumers willing to pay 10% or more for a product that lasts longer | 11%-15% depending on the product type | Consumer survey |
| Average price of goods | Depends on the good | Statista (see Annex 7) |
| Likelihood of a consumer finding an alternative that lasts longer within an acceptable price range | The uncertainty regarding this parameter required us to define it as a uniform distribution function with a lower limit of 0.3 and an upper limit of 0.5. | Expert judgement by a panel |

¹⁶² European Commission, Support study for the Impact Assessment on the review of the CPC Regulation 2006/2004/EC: https://ec.europa.eu/info/sites/info/files/cpc_review_support_study_1_en.pdf; and European Commission, SWD(2016) 164 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016SC0164&from=EN>

| | | |
|---|---|--|
| Reliability of the information | Two scenarios were tested given the uncertainty regarding how reliable the information on expected lifespans indicated by companies (even if the information is based on tests, the assumptions used on those tests might lead to results that are not verified when the good are used by normal users under normal conditions): a) low-moderate reliability (40%) b) moderate-high reliability (60%) | Expert judgement by a panel |
| Current lifespan of products | Varies depending on the product | Desk research complemented by results of the consumer survey |
| Available information on expected lifespan at the baseline | 0% | Mystery shopping conducted in the context of this study |

Option 1.2.B. Obligation to inform consumers of the existence (or absence) of a commercial guarantee for the entire good and of its length.

Administrative burden

| Assumption | | Source |
|---|--|---|
| Manufacturers (excluding those that only produce components) | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but analysing what are the necessary steps that need to be taken to comply with it (including deciding whether or not to provide the commercial guarantee and if yes, for how long)</i> SME: [7,21]h legal team, [7,14]h product development team, [7,14]h commercial team Large Enterprises: 21h legal team, [21,28]h product development team, [21,28]h commercial team | Interviews with companies and industry associations |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> SME: 0.5h manager + 2h key employees Large enterprises: 1h managers + 4h key employees | Interviews with companies and industry associations |
| Retrieving relevant information from existing data and adjusting existing data (including adapting system to retrieve information) (one-off) | <i>This includes identifying and compiling all the information available on commercial guarantees</i> SME: 21h in total Large enterprises: 42h in total | Interviews with companies and industry associations |
| Producing new data | - | |
| Designing and placing | - | |

| | | |
|--|---|--|
| information material | | |
| Adjust forms and tables (one-off) | - | |
| Inspections (internal and external) | - | |
| Retailers | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but analysing what are the necessary steps that need to be taken to comply with it</i> SME: [7,17.5]h legal team, 17.5h commercial team Large Enterprises: 17.5h legal team, 35h commercial team | Interviews with companies and industry associations |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> SME: 0.5h manager + 4h key employees Large enterprises: 1h managers + 8h key employees | Interviews with companies and industry associations |
| Retrieving relevant information from existing data and adjusting existing data | <i>This includes identifying and compiling all the information available on commercial guarantees and adjusting databases to compile this information in a consistent way. The costs are linked to the number of products sold.</i> SME: 35h in total Large enterprises: 70h in total | Interviews with companies and industry associations |
| Producing new data | - | |
| Designing and placing information material | <i>This includes the costs of re-designing price tags and to replace the existing ones. The cost is incurred once per product model sold by the seller.</i> <i>35h to re-design tags and 5 minutes to replace existing tags (per price tag)</i> | Cost to re-design price tags based on data from with companies. Time required to stick a sticker in line with Impact Assessment Reports of the Ecodesign regulations ¹⁶³ |
| Adjust forms and tables (one-off) | - | |
| Inspections (internal and external) | We assume that placing the tags with the correct information will not impose incremental costs however ensuring that all is correctly done will be relatively demanding and for this reason inspection costs are higher for this measure SME: [1,2]h manager plus [7,14]h employee per year Large enterprises: [2,4]h manager plus [14,28]h employee per year | Interviews with companies and industry associations |

Enforcement costs

¹⁶³ European Commission, SWD(2019)349: <https://ec.europa.eu/transparency/regdoc/rep/10102/2019/EN/SWD-2019-349-F1-EN-MAIN-PART-2.PDF>; European Commission, SWD(2019)347 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0347&from=EN>; <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0354&from=EN>; European Commission, SWD(2019)341 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0341&from=EN>

Based on interviews with some CPC authorities, it is assumed that the measure would not require significant additional resources on top of the existing ones to enforce CRD and SGD.

We, therefore, assume that the measure will require an additional Full Time Equivalent, with its time divided equally between monitoring, inspecting, and handling complaints.

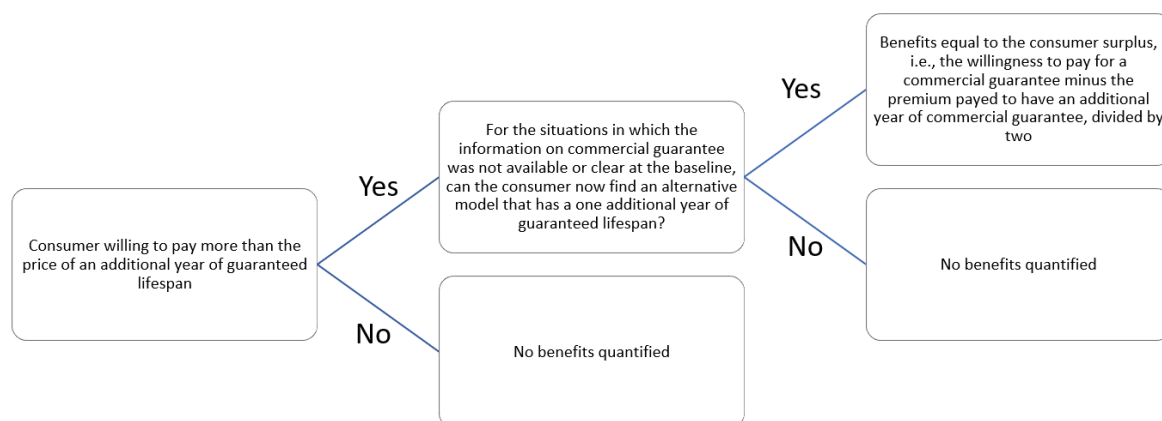
We assumed 70h for familiarization with the measure and adjust the internal procedures to start enforcing the measure. 16 employees will receive a 7h training.

It is also assumed that there will be a yearly action per Member State, which will amount to EUR 40,000 (based on market research).

The other unit costs are assumed to be the same as in the previous measure.

Impact on monetisable consumer welfare

The approach followed to monetise the consumer welfare is illustrated in the figure below.



| Assumption | | Source |
|--|---|--|
| Share of consumers willing to pay 5% or more for a product that has one year of guaranteed lifespan | 29%-33% depending on the product type | Consumer survey |
| Average price of goods | Depends on the good | Statista |
| Average cost of one year of commercial guarantee | Depends on the good | Mystery shopping exercise |
| Likelihood of a consumer finding an alternative that has at least an additional year of guaranteed lifespan within an acceptable price range | Depends on the expected evolution of the offer of commercial guarantees. This was studied using an agent-based model and two scenarios were developed considering the results of the simulations: a) Low-moderate effectiveness (evolution of products with commercial guarantees longer than 2 years and closer to the expected lifespan low-moderate about 0.25% a year) | Agent-based model provided an indication on how the offer of commercial guarantees might evolve Expert judgement by a panel based on interviews and surveys with stakeholders and desk research |

| | | | |
|---|--|--|----------|
| | b) Moderate-high effectiveness (evolution of products with commercial guarantees longer than 2 years and closer to the expected lifespan moderate-high about 1% a year) | | |
| Comparability of information at the baseline | The data collected related the difficulties of consumers in comparing the available information varied greatly and for that reason we defined this parameter as a uniform distribution with a lower limit of 0.5 and an upper limit of 0.85. | Mystery exercise | shopping |
| Current lifespan of products | Varies depending on the product | Desk research complemented by results of the consumer survey | |
| Available information on expected lifespan at the baseline | 0%-28% depending on the product | Mystery shopping conducted in the context of this study | |

Option 1.2.C: 1.2.B + Obligation to inform consumers on the period of time during which free software updates will be provided by manufacturers

Administrative burden

| Assumption | | Source | |
|---|---|---|--|
| Manufacturers (excluding those that only produce components) | | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but also analysing the steps that need to be taken to comply with it (this considers the fact that SGD already covers these aspects)</i> SME: [7,21]h legal team, [10.5,17.5]h product development team, [10.5,17.5]h commercial team Large Enterprises: 21h legal team, [28,35]h product development team, [28,35]h commercial team | Interviews with companies and industry associations | |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> SME: 1h manager + 3.5h key employees Large enterprises: 1.5h managers + 7h key employees | Interviews with companies and industry associations | |
| Retrieving relevant information from existing data and adjusting existing data (including adapting system to retrieve information) (one-off) | <i>This includes identifying and compiling all the information available on commercial guarantees and to identify for how long updates could be available</i> SME: 21h Large enterprises: 42h | Interviews with companies and industry associations | |
| Producing new data | — | | |
| Designing and placing | — | | |

| | | | |
|--|---|---|--|
| information material | | | |
| Adjust forms and tables (one-off) | - | | |
| Inspections (internal and external) | - | | |
| Retailers | | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but also analysing the steps that need to be taken to comply with it</i> SME: [7,17.5]h legal team; 17.5h commercial team Large Enterprises: 17.5h legal team, 35h commercial team | Interviews with companies and industry associations | |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> SME: 0.5h manager + 4h key employees Large enterprises: 1h managers + 8h key employees | Interviews with companies and industry associations | |
| Retrieving relevant information from existing data and adjusting existing data | - | | |
| Producing new data | - | | |
| Designing and placing information material | <i>Replacement of tags in the first year/update of website 35h to redesign, 5 minutes to replace existing tags (per tag)</i> | Interviews with companies and industry associations | |
| Adjust forms and tables (one-off) | - | | |
| Inspections (internal and external) | Internal inspections: - SME: [1,2]h manager plus [7,14]h employee per year - Large enterprises: [2,4]h manager plus [14,28]h employee per year <i>External inspections are expected to take place in less than 1% of the companies</i> | Interviews with companies and industry associations Expert judgment by panel | |

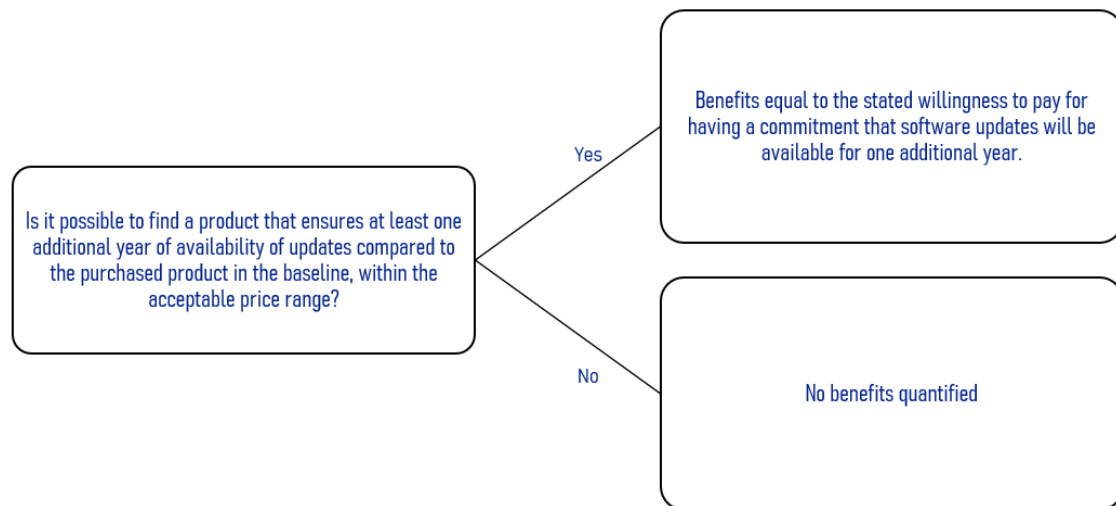
Enforcement costs

The enforcement costs are expected to be the same as for option 1.2.B.

Impact on monetisable consumer welfare

The impact on monetisable consumer welfare is equal to the impacts calculated for option 1.2.B plus the impacts to consumers arising from receiving information about software updates (when applicable).

The approach followed to monetise the consumer welfare related to the provision of information on software updates is illustrated in the figure below.



| Assumption | | Source |
|--|--|---|
| Share of consumers that did not repair a product because of lack of updated | 1%-10% depending on the product | Consumer survey |
| Average price of goods | Depends on the good | Statista |
| Likelihood of a consumer being able to repair a product due to the existence of updated (when that would have not been the case in the baseline) | We considered that not all products that were not repaired because of lack of updates after the reasonably expected period of time (this is already a requirement per SGD) will be repairable. Uniform(0.5,1) | Expert judgement by a panel |
| Additional lifespan as a result of a repair | See previous measures. | |
| Available spare part information at the baseline | 5%-6% | Mystery shopping conducted in the context of this study |
| Likelihood of finding a product that offers updates after the reasonable period of time | This probability will follow a triangular distribution with a lower limit of zero and upper limit of 1. The peak is considered to be below 50%, at around 25%. | Expert judgement by a panel |
| Willingness to pay for an additional year of updates | Values from the information provided respondents to the survey. It varies depending on the product. | Consumer survey |

4.3. “Sub-problem 1.3: Lack of reliable information about product’s reparability”

Option 1.3.A. Provision of updated, user-friendly repair and user manuals

Administrative burden

| Assumption | | Source |
|---|--|--|
| Manufacturers (excluding those that only produce components) | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but also analysing the steps that need to be taken to comply with it</i> SME: [7,21]h legal team, 14h product development team, 3.5h commercial team Large Enterprises: 21h legal team, 28h product development team, 7h commercial team | Interviews with companies and industry associations |
| Training (one-off) | <i>This includes an initial training of managers and key employees including on how to develop repair manuals</i> SME: 0.5h manager + 7h key employees Large enterprises: 1h managers + 14h key employees | Interviews with companies and industry associations |
| Retrieving relevant information from existing data and adjusting existing data (including adapting system to retrieve information) (one-off) | <i>This includes identifying and compiling all the information available to develop the repair manuals for models already in the market and adjust internal systems to collect data to prepare repair manuals</i> SME: [7,35]h in total Large enterprises: 105h in total | Interviews with companies and industry associations |
| Producing new data (one-off per model) | <i>Cost with producing a user-friendly repair manual</i> A simple repair manual for users is expected to cost between EUR 3,500 and 6,000 (per model) The difference might be due to the complexity of the product and to the existence or not of a repair manual developed for professional repairers. For this reason, in the analysis, we consider the unit costs to follow a uniform distribution. | Data provided by iFixit |
| Designing and placing information material | <i>Two scenarios were developed:</i> <ul style="list-style-type: none"> <i>The repair manual is made available on the website (in this case it will require [7,14]h for SMEs and 28h for large enterprises), version updates will be done once a month and will take [0.5,1]h for SMEs and 2h for large enterprises</i> <i>The repair manual is printed. The costs will be equal to EUR 2.16 per manual</i> | Update of website, Expert judgement by a panel based on interviews with companies. Cost of printing: 80 pages times average cost of EUR 0.027 a page (ICF data) |
| Adjust forms and tables (one-off) | <i>This includes re-designing existing forms to include data related to the measure. Filling in the tables/forms was considered business as usual (as the additional time spent on this is judged to be negligible)</i> SME: [0.5,1]h manager + [7,14]h employee Large: 1h manager + [14,21]h employee | Interviews with companies and industry associations |

| | | |
|---|--|---|
| Inspections (internal and external) | Internal inspections take place quarterly and in total involve: - 0.5h of a manager in the case of SMEs and 1h for large enterprises - [3.5,7]h of an employee in the case of SMEs or 14h in the case of large enterprises External inspections are expected to take place in less than 1% of the companies. Each external inspection will involve 1h of a manager and 2h of an employee. | Interviews with companies and industry associations |
| Retailers | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but analysing the steps that need to be taken to comply with it</i> SME: 3.5h legal team + 3.5h commercial team Large Enterprises: 3.5h legal team + 7h commercial team | Interviews with companies and industry associations |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> SME: 0.5h manager + 2h key employees Large enterprises: 1h managers + 4h key employees | Interviews with companies and industry associations |
| Retrieving relevant information from existing data and adjusting existing data | - | |
| Producing new data | - | |
| Designing and placing information material | - | |
| Adjust forms and tables (one-off) | - | |
| Inspections (internal and external) | - | |

Enforcement costs

Based on interviews with some CPC authorities, it is assumed that the measure would not require significant additional resources on top of the existing ones to enforce CRD and SGD.

We therefore assume that the measure will require one additional Full Time Equivalent (per Member State), with its time divided equally between monitoring, inspecting, and handling complaints.

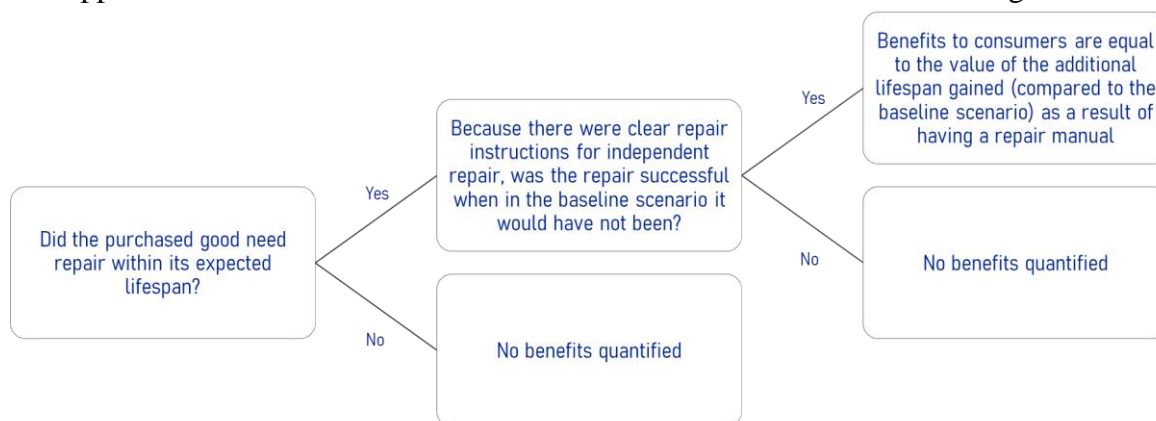
We assumed 70h for familiarization with the measure and adjusting the internal procedures to start enforcing the measure. 16 employees will receive a 7h training.

It is also assumed that there will be a yearly action per Member State, which will cost EUR 20,000 (based on market research).

The other unit costs are assumed to be the same as in the previous measures.

Impact on monetisable consumer welfare

The approach followed to monetise the consumer welfare is illustrated in the figure below.



| Assumption | | Source |
|--|---|---|
| Share of consumers that did not repair a product because of lack of repair manual at the baseline | 2%-5% depending on the product | Consumer survey |
| Average price of goods | Depends on the good | Statista |
| Likelihood of a consumer being able to repair a product due to the existence of a repair manual (when that would have not been the case in the baseline) | We considered that on average between 50% to 100% of the products that were not repaired because of lack of manual could be successfully repaired if one were available. | Expert judgement by a panel |
| Additional lifespan as a result of a repair | Adopted a conservative approach and assumed that it will be between 0.5 years and 1 year depending on the product. This is considered reasonable as lower gains would most likely lead to replacement instead of repair (given the costs with repair) | Expert judgement by a panel |
| Available repair manuals at the baseline | 0% | Mystery shopping conducted in the context of this study |

Option 1.3.B. Provision of information about how long and which spare parts are available

Administrative burden

| Assumption | Source |
|------------|--------|
|------------|--------|

| | | |
|---|---|---|
| Manufacturers (excluding those that only produce components) | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but analysing the steps that need to be taken to comply with it</i> SME: [7,21]h legal team, 17.5h product development team, 3.5h commercial team Large Enterprises: 21h legal team, 35h product development team, 7h commercial team | Interviews with companies and industry associations |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> SME: 0.5h manager + 3.5h key employees Large enterprises: 1h managers + 7h key employees | Interviews with companies and industry associations |
| Retrieving relevant information from existing data and adjusting existing data (including adapting system to retrieve information) (one-off) | <i>This includes identifying and compiling all the information available to identify which spare parts are provided and adjusting internal systems to ensure that this information is consistently accessible</i> SME: [14,35]h in total Large enterprises: 105h in total | Interviews with companies and industry associations |
| Producing new data | <i>Meetings to decide which spare parts will be available and for how long</i> [0.5,1]h per product (this decision will be taken during meetings organized as part of business as usual). | Interviews with companies and industry associations |
| Designing and placing information material | 35h for SMEs and 70h for large enterprises to update their websites to be able to provide the necessary information [0.25,0.5]h for SME and 1h for large enterprises to weekly update their websites. | Market data from ICF Interviews with companies and industry associations |
| Adjust forms and tables (one-off) | <i>This includes re-designing existing forms to include data related to the measure. Filling in the tables/forms was considered business as usual (as the additional time spent on this is judged to be negligible)</i> SME: [0.5,1]h manager + [7,14]h employee Large: 1h manager + [14,21]h employee | Expert judgement by a panel based on interviews with companies |
| Inspections (internal and external) | Internal inspections take place quarterly and in total involve <ul style="list-style-type: none"> 0.5h of a manager in the case of SMEs and 1h for large enterprises [3.5,7]h of an employee in the case of SMEs or 14h in the case of large enterprises <i>External inspections are expected to take place in less than 1% of the companies. Each external inspection will involve 1h manager and 2h of an employee.</i> | Interviews with companies and industry associations Expert judgment by a panel |
| Retailers | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but analyzing the steps that need to be taken to comply with it</i> SME: [7,17.5]h legal team; 10.5h key employees Large Enterprises: 17.5h legal team, 21h key employee | Interviews with companies and industry associations |

| | | | |
|---|--|---|--|
| Training (one-off) | | <i>This includes an initial training of managers and key employees</i> SME: 0.5h manager + 2h key employees Large enterprises: 1h managers + 4h key employees | Interviews with companies and industry associations |
| Retrieving relevant information from existing data and adjusting existing data | | - | |
| Producing new data | | <i>Negotiations with manufacturers and importers to make sure that they provide this information.</i> We only considered the incremental time devoted to discussing this aspect SME: 7h per year Large enterprises: 21h per year | Interviews with companies and industry associations |
| Designing and placing information material | | <i>This includes the costs of re-designing their websites and updating information if they sell online.</i> SME: 14h for updating website and 3.5h per month to keep the information up to date Large enterprises: 21h for updating website and 7h per month to keep the information up to date | Interviews with companies and industry associations |
| Adjust forms and tables (one-off) | | - | |
| Inspections (internal and external) | | Internal inspections: - SME: 0.5h manager plus 3.5h employee per year - Large enterprises: 1h manager plus 7h employee per year <i>External inspections are expected to take place in less than 1% of the companies</i> | Interviews with companies and industry associations Expert judgement by a panel |

Enforcement costs

Based on interviews with some CPC authorities, it is assumed that the measure would not require significant additional resources on top of the existing ones to enforce CRD and SGD.

We therefore assume that the measure will require one additional Full Time Equivalent (per Member State), with its time divided equally between monitoring, inspecting, and handling complaints.

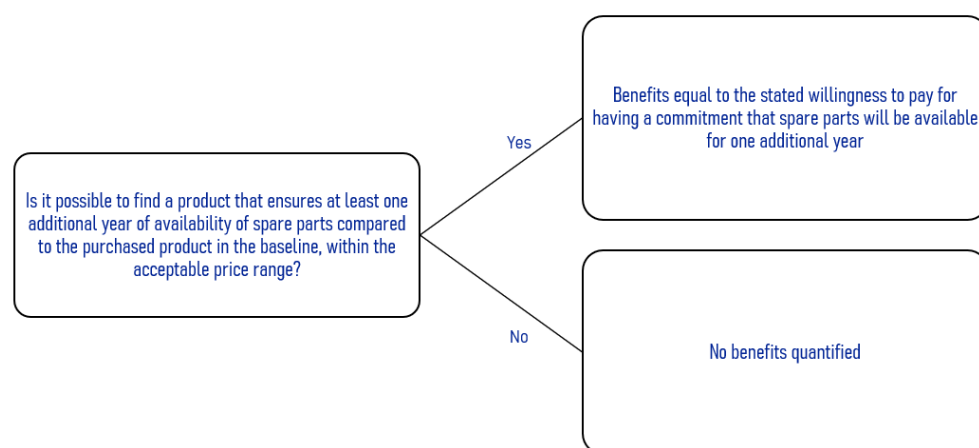
We assumed 70h for familiarization with the measure and adjusting the internal procedures to start enforcing the measure. 16 employees will receive a 7h training.

It is also assumed that there might be a yearly action per Member State, which will cost EUR 20,000 (based on market research).

The other unit costs are assumed to be the same as in the previous measures.

Impact on monetisable consumer welfare

The approach followed to monetize the consumer welfare is illustrated in the figure below.



| Assumption | | Source |
|--|--|---|
| Share of consumers that did not repair a product because of lack of spare parts | 3%-13% depending on the product | Consumer survey |
| Average price of goods | Depends on the good | Statista |
| Likelihood of a consumer being able to repair a product due to the existence of spare parts (when that would have not been the case in the baseline) | We considered that between 50% to 100% of the products that were not repaired because of lack of spare parts could be successfully repaired if parts were available. | Expert judgement by a panel |
| Additional lifespan as a result of a repair | See previous measure | |
| Available spare part information at the baseline | 5%-6% | Mystery shopping conducted in the context of this study |
| Probability of finding a product with better conditions regarding spare parts within an acceptable price range | This probability will follow a triangular distribution with a lower limit of zero and upper limit of 1. The peak is considered to be below 50% around 40%. | Expert judgement by a panel |
| Willingness to pay for an additional year of spare parts | Values from the information provided respondents to the survey. It varies depending on the product. | Consumer survey |

Option 1.3.C. Provision of information on availability of repair services

Administrative burden

| | Assumption | Source |
|--|---|--|
| Retailers | | |
| Familiarization with the measure (one-off) | <i>s includes not only identifying the new obligations imposed by the measure but also analysing the steps that need to be taken to comply with it</i> E: [7,17.5]h legal team; 17.5h key employees SME Enterprises: 17.5h legal team, 35h key employee | views with companies and industry associations |
| Training (one-off) | <i>s includes an initial training of managers and key employees</i> E: 0.5h manager + 2h key employees SME enterprises: 1h managers + 4h key employees | views with companies and industry associations |
| Gathering relevant information from existing data and adjusting existing data | <i>s includes searching and compiling available information about repair services and adjusting the internal systems to be able to gather and report this data</i> 70]h for SMEs and 140h for Large enterprises | views with companies and industry associations |
| Updating new data | Updating information on a weekly basis: - SME: 1h per week - Large enterprises: 3.5h per week | views with companies and industry associations |
| Designing and placing information material | Update of website: 35h to redesign | views with companies and industry associations |
| Test forms and tables (one-off) | | views with companies and industry associations |
| Sections (internal and external) | E: 1h manager plus 7h employee per year SME enterprises: 2h manager plus 14h employee per year | views with companies and industry associations |

Enforcement costs

Based on interviews with some CPC authorities, it is assumed that the measure would not require significant additional resources on top of the existing ones to enforce CRD and SGD.

We therefore assume that the measure will require an additional 0.5 Full Time Equivalent (per Member State), with its time divided equally between monitoring, inspecting, and handling complaints.

We assumed 70h for familiarization with the measure and adjust the internal procedures to start enforcing the measure. 16 employees will receive a 7h training.

It is also assumed that there might be a yearly action per Member State, which will cost EUR 20,000 (based on market research).

The other unit costs are assumed to be the same as in the previous measures.

Impact on monetisable consumer welfare

The quantification of benefits was done by adjusting the stated willingness to pay for information about the availability of repair services of products¹⁶⁴ (including the availability of spare parts, repair services and updates) by the respondents to the consumer survey and multiplying it by the number of consumers in the EU.

| Assumption | | Source |
|--|---|-----------------|
| Share of consumers that willing to pay for the information | 43% | Consumer survey |
| Average willingness to pay | Values adapted from the information provided respondents to the survey. | Consumer survey |

Option 1.3.D. Reparability Scoring Index

This measure was identified after the consultations had been concluded. A panel used the data available to fill in in the data gaps.

Administrative burden

| Assumption | | Source |
|---|---|---|
| Manufacturers (excluding those that only produce components) | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but also analysing the steps that need to be taken as a result of the measure</i> SME: [7,35]h legal team, 35h product development team, 7h commercial team Large Enterprises: 35h legal team, 70h product development team, 14h commercial team | Expert judgement by a panel based on data collected for previous measures |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> SME: 3.5h manager + 10.5h key employees Large enterprises: 7h managers + 21h key employees | Expert judgement by a panel based on data collected for previous measures |
| Retrieving relevant information from existing data and adjusting existing data (including adapting system to retrieve information) (one-off) | <i>This includes identifying and compiling all the information available to assess how reparable their products are according to the methodology</i> SME: [35,52.5]h Large enterprises: 175h | Expert judgement by a panel based on data collected for previous measures |
| Producing new data | Assessment of the reparability according to the methodology will take 7h per model | Expert judgement by a panel |

¹⁶⁴ The question did not specify for what products the information would be available, so we adjusted the value based on the share that consumers spend on the three product categories considered in the analysis (large household appliances, small household appliances and ICT and electronic services).

| | | |
|---|--|---|
| Designing and placing information material | <i>We assume information will be provided by digital means</i> Design will take: 35h | Expert judgement by a panel based on data collected for previous measures |
| Adjust forms and tables (one-off) | <i>This includes re-designing existing forms to include data related to the measure. Filling in the tables/forms was considered business as usual (as the additional time spent on this is judged to be negligible)</i> SME: [0.5,1]h manager + [7,14]h employee Large: 1h manager + 28h employee | Expert judgement by a panel based on data collected for previous measures |
| Inspections (internal and external) | Internal inspections involve [0.5,1.75]h of a manager and 7h of an employee in the case of SMEs and [1,3.5]h of a manager and 14h in the case of large enterprises <i>External inspections are expected to take place in less than 1% of the companies. Each external inspection will involve 3.5h manager and 7h of an employee.</i> | Expert judgement by a panel based on data collected for previous measures |
| Retailers | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but also analysing the steps that need to be taken to comply with it.</i> SME: [7,35]h legal team; 42h key employees Large Enterprises: 35h legal team, 84h key employees | Expert judgement by a panel based on data collected for previous measures |
| Training (one-off) | <i>This includes an initial training of managers and key employees. This training will ensure that employees understand the repair index and that can, on the one hand, score a product according to the index and explain the repair score to consumers. As this will be a completely new concept, it is expected that the training will involve more resources</i> SME: 3.5h manager + [7,42]h key employees Large enterprises: 7h managers + [42,84]h key employees | Expert judgement by a panel based on data collected for previous measures |
| Retrieving relevant information from existing data and adjusting existing data | <i>This involves collecting all the information and preparing the procedures to be able to assess the reparability of products per product category (including negotiations with manufacturers and importers)</i> SME: 140h Large enterprises: 280h | Expert judgement by a panel based on data collected for previous measures |
| Producing new data | <i>This includes assessing the reparability of products for which the information is not available and stick the label on the product plus updating internal systems.</i> SME: 2h a week Large enterprises: 4h employees a week | Expert judgement by a panel |
| Designing and placing information material | <i>Costs with the placement of tags</i> 5 minutes to stick the labels on those products that do not have it, but that were provided by the importer/manufacture (assumed to be about 2.5%) | Expert judgement by a panel based on data collected for previous measures |
| Adjust forms and tables (one-off) | - | Expert judgement by a panel based on data collected for previous measures |
| Inspections (internal and external) | SME: 1h manager plus 7h employee per year Large enterprises: 2h manager plus 14h employee per year | Expert judgement by a panel based on data collected for previous measures |

Enforcement costs

Based on interviews with some CPC authorities, it is assumed that the measure would require some additional resources on top of the existing ones to enforce CRD and SGD. We therefore assume that the measure will require two additional Full Time Equivalents (per Member State), with their time divided equally between monitoring, inspecting, and handling complaints.

We assumed 70h for familiarization with the measure and adjust the internal procedures to start enforcing the measure. 16 employees will receive a 7h training.

It is also assumed that there might be a yearly action per Member State, which will cost EUR 20,000 (based on market research).

The other unit costs are assumed to be the same as in the previous measures.

Impact on monetisable consumer welfare

The quantification of benefits was done by adjusting the stated willingness to pay for information about the availability of repair services of products¹⁶⁵ (including the availability of spare parts, repair services and updates) by the respondents to the consumer survey and multiplying it by the number of consumers in the EU.

| Assumption | | Source |
|--|---|-----------------|
| Share of consumers that willing to pay for the information | 43% depending on the product | Consumer survey |
| Average willingness to pay | Values adapted from the information provided respondents to the survey. | Consumer survey |

Option 1.3.E: Provision of Repair Scoring Index, or other relevant repair information on a where applicable/available basis

This option was identified after the consultations had been concluded.

The data on costs was extrapolated from the data collected for other related measures.

Administrative burden

| Assumption | | Source |
|--|---|--------|
| Manufacturers (excluding those that only produce components) | | |
| Familiarization with the measure (one-off) | - | - |

¹⁶⁵ The question did not specify for what products the information would be available, so we adjusted the value based on the share that consumers spend on the three product categories considered in the analysis (large household appliances, small household appliances and ICT and electronic services).

| | | |
|--|---|--|
| Training (one-off) | - | - |
| Retrieving relevant information from existing data and adjusting existing data (including adapting system to retrieve information) (one-off) | - | - |
| Producing new data | - | - |
| Designing and placing information material | - | - |
| Adjust forms and tables (one-off) | - | - |
| Inspections (internal and external) | - | - |
| Retailers | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but also analysing the steps that need to be taken as a result of the measure</i> SME: 7h legal team, 10.5h key employees Large Enterprises: 10.5h legal team, 21h key employees | Expert judgement based on data collected for previous measures |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> SME: [0.5,3.5]h manager + [4,7]h key employees Large enterprises: [1,7]h managers + [8,14]h key employees | Expert judgement based on data collected for previous measures |
| Retrieving relevant information from existing data and adjusting existing data (one-off) | <i>This includes identifying and compiling all the information available</i> SME: 35h Large enterprises: 70h | Expert judgement based on data collected for previous measures |
| Producing new data | | - |
| Designing and placing information material | Negligible - | Expert judgement based on data collected for previous measures |
| Adjust forms and tables (one-off) | - | - |
| Inspections (internal and external) | - | - |

Enforcement costs

It is assumed that this option would not require additional resources from enforcement authorities other than the ones related to the one-off costs of familiarization and training. (it was assumed 70h for familiarisation with the option and adjusting the internal procedures to start enforcing the measure. 16 employees will receive a 7h training.)

Impact on monetisable consumer welfare

Lack of data did not allow to quantify the benefits of this option.

- 4.4. “Sub-problem 2.1: Consumers are sold products that do not last as long as they should, and consumers expect”

For the purpose of the assessment obsolescence is defined by failures happening in the first 60% of the expected lifespan of a good.

Option 2.1.A Information on early failures of products identified by authorised entities

This measure was identified after the consultations had been concluded and the estimations relied on the expert judgement of a panel.

Administrative burden

| Assumption | | Source |
|---|--|--|
| Third-parties (assumption based on the contact list developed during the study: about 20 per Member State) | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but also analysing the steps that need to be taken to comply with it</i> 35h legal team, 35h employees | Expert judgement by a panel based on data available for other measures |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> 1h manager + 7h employees | Expert judgement by a panel based on data available for other measures |
| Retrieving relevant information from existing data and adjusting existing data (including adapting system to retrieve information) (one-off) | <i>This includes identifying and compiling all the information available regarding early failure of products</i> 35h of employee | Expert judgement by a panel |
| Updating data | 14h adjust website and 2h per month to update the website in case of new relevant data. | Market research and expert judgement by a panel based on data available for other measures |

Enforcement costs

Based on interviews with some CPC authorities, it is assumed that the measure would not require significant additional resources on top of the existing ones to enforce UCPD.

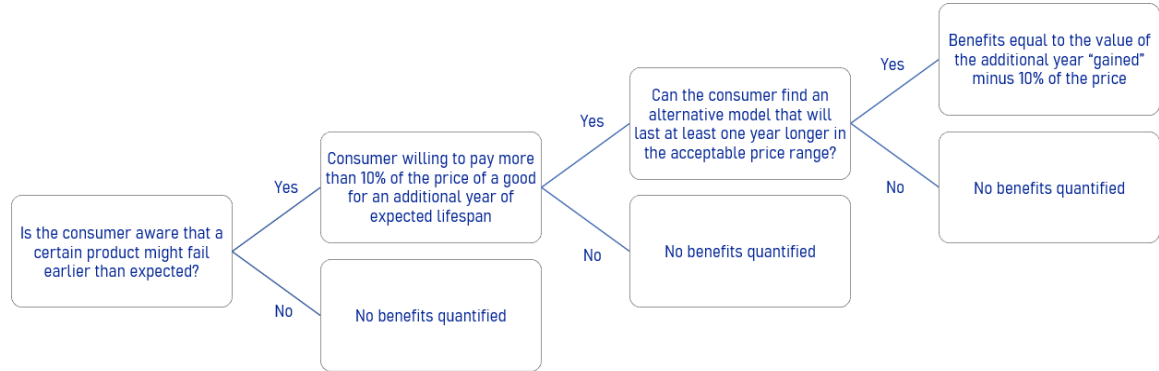
We therefore assume that the measure will require Full Time Equivalent (per Member State), with 50% of their time devoted to surveillance, 25% devoted to inspections and 25% to handling complaints.

We assumed 35h for one person getting familiarized with the measure and adjust the internal procedures to start enforcing the measure. 16 employees will receive a 3.5h training.

The costs of adjudication are expected to be in line with the unit costs presented in the previous measures.

Impact on monetisable consumer welfare

The approach followed to monetise the consumer welfare is illustrated in the figure below.



| | Assumption | Source |
|--|--|-----------------|
| Share of early failures | 6%-20% depending on the product (for 60% scenario) | Consumer survey |
| Average price of goods | Depends on the good | Statista |
| Additional lifespan as a result of the improvement | 40% or 25% (depending on the scenario 60% or 75%) | NA |

Option 2.1.B. Ban of certain identified practices associated to early obsolescence

The incidence of banned practices is not known. For this reason we monetised the costs and benefits for two scenarios for the incidence of the banned practices (i.e., the percentage of early failures that are due to the practices that will be banned under the measure): 15% and 30%.

Substantive Compliance Costs

| Assumption | Source |
|--|--------|
| Manufacturers (excluding those that only produce components) | |

| | | |
|---|--|--|
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but also analysing the steps that need to be taken to comply with it</i> SME: [7,35]h legal team, [14,35]h product development team, 7 commercial team Large Enterprises: 35h legal team, [35,70]h product development team, 14 commercial team | Interviews with companies and industry associations |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> SME: 3.5h manager + 10.5h key employees Large enterprises: 7h managers + 21h key employees | Interviews with companies and industry associations |
| Retrieving relevant information from existing data and adjusting existing data (including adapting system to retrieve information) (one-off) | <i>This includes identifying and compiling all the information available to ensure that banned practices are being practices and if they are to ensure the procedures are put in place to address them</i> SME: [70,140]h in total Large enterprises: 280h in total | Interviews with companies and industry associations |
| Updating models to comply with measure | <p>Companies producing models that do not comply with the measure will have to revise their production process in order to not engage in the banned practices and possibly improve their products. The latter costs are particularly difficult to estimate as they depend on two things:</p> <ul style="list-style-type: none"> the list of practices that will be banned, and the nature of those practices, i.e., if the practice is to prevent access to components or avoid software updates that will reduce the performance of the product, then they are not expected to lead to costs, if the banned practice is to ensure that the design of the product ensures its robustness and its reparability, then the companies may need to adapt their production process. the specificities of the production process of those companies engaging in these practices. <p>While fully aware of these limitations, we decided to carry out a very rough estimation of the possible costs for companies. This was done by screening the prices of various product types on online marketplaces, identifying the price of the cheapest product, and then assume that it will cost between 7.5% and 15% extra to comply with the measure and improve the product accordingly.¹⁶⁶</p> | Market research |
| Inspections (internal and external) | <p><i>Internal inspections take place quarterly and in total involve</i></p> <ul style="list-style-type: none"> <i>0.5h of a manager in the case of SMEs and 1h for large enterprises</i> <i>[3.5,7]h of an employee in the case of SMEs or 14h in the case of large enterprises</i> | <p>Interviews with companies and industry associations</p> <p>Expert judgment by panel</p> |

¹⁶⁶ This was incorporated in the analysis by ensuring that the costs of improving follow a uniform distribution (0.075, 0.15).

| | | | |
|---|--|---|--|
| External inspections are expected to take place in less than 1% of the companies. Each external inspection will involve 1h manager and 2h of an employee. | | | |
| Retailers | | | |
| Familiarization with the measure (one-off) | This includes not only identifying the new obligations imposed by the measure but analysing what are the necessary steps that need to be taken to comply with it SME: [7,17.5]h legal team Large Enterprises: 17.5h legal team | Interviews with companies and industry associations | |

Enforcement costs

Based on interviews with some CPC authorities, it is assumed that the measure would require significant additional resources on top of the existing ones to enforce UCPD (except for one Member States – France).

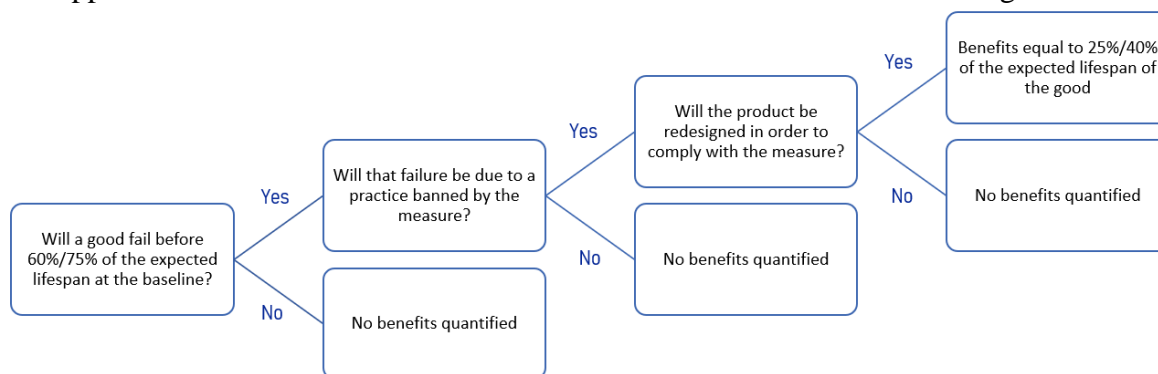
We therefore assume that the measure will require a team of seven additional Full Time Equivalent (per Member State), with 42% of their time devoted to surveillance, 42% devoted to inspections and 16% to handling complaints.

We assumed 70h for three people getting familiarized with the measure and adjust the internal procedures to start enforcing the measure. 16 employees will receive a 14h training.

The costs of adjudication are expected to be significantly higher than average given the complexity of the matter. We assume that one ADR case will cost around EUR 7,756 and a court case around five times the average.

Impact on monetisable consumer welfare

The approach followed to monetize the consumer welfare is illustrated in the figure below.



| Assumption | | Source |
|---|--|-----------------|
| Share of early failures | 6%-20% depending on the product (for 60% scenario) | Consumer survey |
| Average price of goods | Depends on the good | Statista |
| Likelihood of the failure being due to the practice banned | See incidence of practice | NA |

| | |
|---|--|
| Additional lifespan as a result of the improvement | 40% or 25% (depending on the scenario 60% or 75%) NA |
|---|--|

- 4.5. “Sub-problem 2.2: Consumers are faced with the practice of making unclear or not well-substantiated green claims (“Greenwashing”)”

Option 2.2.A. Ban of general /vague environmental claims

Substantive compliance costs

The adopted approach to the monetisation of the substantive compliance costs of the measure took into account the lack of data on the number of products offered in the market and so assumed cost per company (SMEs and Large enterprises) but not per product.

Data regarding the share of products with unsubstantiated vague claims (to avoid double counting of benefits with measures under problem 2.3, we only considered non-label/logo type of claims) was obtained from the Study on “Environmental claims in the EU: Inventory and reliability assessment”.¹⁶⁷

| Assumption | | Source |
|---|--|---|
| Manufacturers and Service Providers | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but analysing what the necessary steps are that need to be taken to comply with it.</i> ¹⁶⁸ SMEs: 3.5 legal team, 1h product development team, 1h commercial team Large Enterprises: 3.5 legal team, 2h product development team, 2h commercial team | Interviews with companies and industry associations |
| Training (one-off) | <i>This includes an initial training of managers</i> SME: 0.5h manager Large enterprises: 1h managers | Interviews with companies and industry associations |
| Retrieving relevant information from existing data and adjusting existing data (including adapting system to retrieve information) (one-off) | <i>This includes gathering data about which products have claims that are not allowed according to the measure. We assume the information is very easy to trace as it is included with the products.</i> SME: 7h employees Large enterprises: 14h employees | Interviews with companies and industry associations |
| Producing new data (one-off per model) | | |

¹⁶⁷ Milieu & IPSOS, 2020. To be published.

¹⁶⁸ The measure is relatively simple, specific, and already in line with many guidelines. It also prohibits an action instead of requiring one. For these reasons, the time required for legal analysis is considered to be much less than the one considered for other measures.

| | | |
|---|--|---|
| Designing and placing information material | <i>This includes re-designing the packages that still include banned claims at the time the measure enters into force</i> SME: [14,28]h employees Large enterprises: [28,42]h employees | Interviews with companies and industry associations |
| Adjust forms and tables (one-off) | - | |
| Inspections (internal and external) | Internal inspections involve 0.5h of a manager and 1h of an employee in the case of SMEs and 1h of managers and 4h in the case of large enterprises <i>External inspections are expected to take place in less than 1% of the companies. Each external inspection will require an amount of time similar to an internal inspection.</i> | Interviews with companies and industry associations Expert judgment by panel |
| Retailers | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but also analysing the necessary steps that need to be taken to comply with it</i> SME: 3.5h legal team, 1h commercial team Large Enterprises: 3.5h legal team, 2h commercial team | Interviews with companies and industry associations |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> SME: 0.5h manager + 1h key employees Large enterprises: 1h managers + 2h key employees | Interviews with companies and industry associations |
| Retrieving relevant information from existing data and adjusting existing data | - | |
| Producing new data | - | |
| Designing and placing information material | <i>This includes ensuring that the packages do not have banned claims. We assume that in the first years after the implementation of the measure, there might be products in stock with claims that need to be "removed" using for example a sticker</i> SME: 7h employees Large enterprises: 14h employees | Expert judgment by panel |
| Adjust forms and tables (one-off) | - | |
| Inspections (internal and external) | <i>External inspections are expected to take place in less than 1% of the companies. Each external inspection will require 0.5h of manager and 3.5h employees for SMEs and 1h of managers and 7h employees for Large Enterprises.</i> | Expert judgment by panel |

Enforcement costs

It is assumed that the measure would not require significant additional resources on top of the existing ones to enforce UCPD. In fact, some of the interviewed CPC authorities even indicated that the measure might lead to savings as it will help them to prove the practice of "greenwashing" more easily (less resources are needed to substantiate their assessment). For these Member States we considered that the measure does not bring incremental costs.

For the others, we assume that one Full Time equivalent would work half time with 50% of its time devoted to monitoring, 25% to inspections and the remaining 25% to handle complaints.

For all Member States, we assumed 35h for two people getting familiarized with the measure and adjust the internal procedures to start enforcing the measure. 16 employees will receive a 7h training.

It is also assumed that there might be a yearly action per Member State, which will cost EUR 20,000 (based on market research).

The costs of an ADR body adjudication and of a court adjudication were obtained from the Impact Assessment of CPC authorities and supporting study¹⁶⁹.

Impact on monetisable consumer welfare

The approach to quantification of the impact of the measure on the monetisable consumer welfare was the following:

- Step 1. Estimate the percentage of products carrying claims that will become banned if the measure is implemented.¹⁷⁰
- Step 2. Estimate the share of consumers that were purchasing those products (in the baseline) and that are willing to pay to be sure that the information is trustworthy.
- Step 3. Estimate how much these consumers are willing to pay for more trustworthy information for those sales covered by the measure.¹⁷¹
- In the scenario where we assume that the measure will increase the level of trust of consumers, and for that reason more consumers (than in the baseline) will purchase greener products, then the monetisation of the benefits of the new demand was done by:
- Step 4. Estimate the share of consumers that were not purchasing those greener products (in the baseline) and that would start doing as a result of the measure.
- Step 5. Estimate the surplus of these new consumers based on their stated willingness to pay to have products with trustworthy information.

| Assumption | | Source |
|--|--|--|
| Consumers that always buy more environmentally friendly products (when available) | 15% | Consumer survey |
| Consumers that will start trusting the information and buying greener products more often | Three scenarios were developed to consider three possible impacts of the measure on the trust of consumers on environmental claims and therefore (following evidence collected from the consumer survey and other studies) purchase products that claim to be more environmentally friendly: | Expert judgement based on results of the consumer survey |

¹⁶⁹ European Commission, Support study for the impact assessment on the review of the CPC Regulation 2006/2004/EC: https://ec.europa.eu/info/sites/info/files/cpc_review_support_study_1_en.pdf and European Commission, SWD(2016) 164 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016SC0164&from=EN>.

¹⁷⁰ We do not have data on volume but on sales, so had to assume proportionality between the share of products and the share of sales.

¹⁷¹ We assume the costs of the products with vague non-substantiated claims and with vague substantiated claims is similar.

| | | |
|--|--|---|
| | <ul style="list-style-type: none"> • 0% no impact on trust • 0.5% low-moderate impact on trust • 1% moderate-high | |
| Willingness to pay for having trustworthy environmental information | <ul style="list-style-type: none"> • Existing demand: 0.35 (average, depends on the product) • New demand: 4.91% (average, depends on the product) | Consumer survey |
| Sales within scope | Products with textual claims: 27% (average) Share of textual vague claims: 36% Sales within scope: 27% X Uniform (34%,36%) ¹⁷² | Study on "Environmental claims in the EU: Inventory and reliability assessment". ¹⁷³ Mystery shopping carried out in the context of the present study |
| Likelihood of finding a greener product without a misleading claim | The uncertainty regarding this parameter required us to define it as a triangular distribution function with a lower limit of 0, an upper limit of 0.5 and a peak of 25% | Expert judgment by a panel |

Option 2.2.B. Prohibition of environmental claims that do not fulfil a minimum set of criteria

The substantive compliance costs and enforcement costs followed the same approach and assumptions presented for the previous measure.

- 4.6. "Sub-problem 2.3: Consumers are faced with the use of sustainability labels and digital information tools that are not always transparent or credible"

Administrative burdens

Since the measures impose both administrative burden and substantive compliance costs, we split the costs related to familiarization with the measure, training, retrieving data and adjusting internal systems and procedures between administrative burden and substantive compliance costs.

| | Assumption | Source |
|---|---|--|
| Labels/Logo managers | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but analysing what the necessary steps are that need to be taken to comply with it.</i> ¹⁷⁴ 17.5h legal team, 17.5h technical team | Interviews with two organisations running labels/logos |

¹⁷² Vague claims will not be banned for products that are best in class. We do not have data on the share of those products, but it is expected to be very small. We modelled this by using a uniform distribution.

¹⁷³ Milieu & IPSOS, 2020. To be published.

¹⁷⁴ The measure is relatively simple, specific, and already in line with many guidelines. It also prohibits an action instead of requiring one. For these reasons the time required for legal analysis is considered to be much less than the one considered for other measures.

| | | |
|---|--|---|
| Training (one-off) | <i>This includes an initial training of managers and employees</i> 0.5h managers and 14h employees | Interviews with two organisations running labels/logos |
| Retrieving relevant information from existing data and adjusting existing data (including adapting system to retrieve information) (one-off) | <i>This includes gathering data about the label/logo and adjusting internal procedures and systems to systematically collect, analyse and disclose the necessary information</i> 210h for those labels/logos that currently do comply with at least one the criterion (based on the analysis of the ecolabels listed in the ecolabelindex.com that would be about 94%) | Interviews with two organisations running labels/logos |
| Designing and placing information material | <i>This includes re-designing the websites to include the information required by the measure</i> 70h employees | Market research |
| Adjust forms and tables (one-off) | - | |
| Inspections (internal and external) | Internal inspections involve 0.25h of a manager and 0.75h of an employee. We assume that internal inspections already take place in the baseline and that the incremental burden of the measure in this respect is very limited. <i>External inspections are expected to take place in less than 5% of the companies. Each external inspection will require involve 0.5h of a manager and 3.5h of an employee</i> | Interviews with two organisations running labels/logos Expert judgement by panel |
| Retailers | | |
| Familiarization with the measure (one-off) | <i>This includes not only identifying the new obligations imposed by the measure but also analysing the necessary steps that need to be taken to comply with it</i> SME: 3.5h legal team, 1h commercial team | Expert judgment by panel based on data for previous measures |
| Training (one-off) | <i>This includes an initial training of managers and key employees</i> SME: 0.5h manager + 1h key employees Large enterprises: 1h managers + 2h key employees | Expert judgment by panel based on data for previous measures |

Substantive compliance costs

| | Assumption | Source |
|---|--|--------|
| Labels/Logo managers | | |
| Familiarization with the measure (one-off) | As for administrative burden (we split these costs between the two categories) | |
| Training (one-off) | As for administrative burden (we split these costs between the two categories) | |
| Retrieving relevant information from existing data and | As for administrative burden (we split these costs between the two categories) | |

| | | | |
|---|----------------------------------|--|---|
| adjusting existing data (including adapting system to retrieve information) (one-off) | | | |
| Producing data (one-off model) | new per | These costs are passed on to the companies applying to the label/logo, so they are accounted accordingly (see below) | |
| Fee to get approval from EU body (only for measure 2.3.4) | | EUR [1 000, 2 000] every two years | Based on data for EU Ecolabel |
| Designing and placing information material | | - | |
| Adjust forms and tables (one-off) | | - | |
| Inspections (internal and external) | As for administrative burden and | (we split these costs between the two categories) | |
| Manufacturers and Service Providers | | | |
| Producing data (one-off model) | new per | <i>This includes the costs of having to carry out a third-party verification in the case of labels/logos that currently do not do it and that are passed on to companies applying for the label/logo</i> Share of logos/labels that do not require third-party verification in the baseline: 46% Number of products awarded with a given label/logo (in the baseline, average): 25 666 Incremental cost of a third-party verification: EUR 388/per year | Interviews with two organisations running labels/logos Ecolabelindex.com Data on the number of products with EU ecolabel, Fair trade, Nordic Swan |

Enforcement costs

It is assumed that the measure would not require significant additional resources on top of the existing ones to enforce UCPD. In fact, some of the interviewed CPC authorities even indicated that the measure might lead to savings as it will help them tackle the issue of lack of transparency and reliability of labels/logos more easily (less resources are needed to substantiate their assessment). For these Member States we considered that the measure does not bring incremental costs. For the others, we assume that one Full Time equivalent will work to monitor (50%), carry out inspections (40%) and handle complaints (10%).

For all Member States, we assumed 35h for two people getting familiarized with the measure and adjust the internal procedures to start enforcing the measure. 16 employees will receive a 7h training.

The costs of an ADR body adjudication and of a court adjudication were obtained from the Impact Assessment of CPC authorities and supporting study¹⁷⁵.

¹⁷⁵ European Commission, Support study for the Impact Assessment on the review of the CPC Regulation 2006/2004/EC: https://ec.europa.eu/info/sites/info/files/cpc_review_support_study_1_en.pdf and European Commission, SWD(2016) 164 final: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016SC0164&from=EN>.

In the case of measure 2.3.C, all labels/logos will need to be pre-approved by an EU body. The costs of setting up and running the EU body were considered to be around EUR 4.02 million¹⁷⁶ per year.

Impact on monetisable consumer welfare

The approach to quantification of the impact of the measure on the monetisable consumer welfare was the following:

- Step 1. Estimate the percentage of products carrying labels/logos that will become more transparent and reliable if the measure is implemented.¹⁷⁷
- Step 2. Estimate the share of consumers that were purchasing those products (in the baseline) and that are willing to pay to be sure that the information is trustworthy.
- Step 3. Estimate how much these consumers are willing to pay for more trustworthy information for those sales covered by the measure.¹⁷⁸
- In the scenario where we assume that the measure will increase the level of trust of consumers on labels/logos, and that for that reason more consumers (than in the baseline) will purchase products that are more sustainable, then the monetisation of the benefits of the new demand was done by:
- Step 4. Estimate the share of consumers that were not purchasing those “more sustainable” products (in the baseline) and that would start doing it as a result of the measure.
- Step 5. Estimate the surplus of these new consumers based on their stated willingness to pay to have products with trustworthy labels/logos.

| Assumption | | Source |
|--|---|---|
| Consumers that always buy more environmentally friendly products (when available) | 15% | Consumer survey |
| Consumers that will start trusting the information and buying sustainable products more often | Three scenarios were developed in line with what was described for measure 2.2.1 | |
| Willingness to pay for having trustworthy environmental information | <ul style="list-style-type: none"> • Existing demand: 0.18% (average, depends on the product) • New demand: 4.91% (average, depends on the product) | Consumer survey |
| Sales within scope | Products with labels/logos: 10% (average) Share of labels/logos not fully complying: 94% Sales within scope: 10% X 94% | Study on “Environmental claims in the EU: |

¹⁷⁶ Source: costs setting up and running BERECA office.
<https://ec.europa.eu/transparency/regdoc/rep/10102/2016/EN/SWD-2016-303-F1-EN-MAIN-PART-1.PDF>

¹⁷⁷ We do not have data on volume but on sales, so we had to assume proportionality between the share of products and the share of sales.

¹⁷⁸ We assume the costs of the products with vague non-substantiated claims and with vague substantiated claims is similar.

Inventory and reliability
assessment".¹⁷⁹

Mystery shopping carried
out in the context of the
present study

Ecolabelindex.com

¹⁷⁹ Milieu & IPSOS, 2020. To be published.

ANNEX 5: ADDITIONAL DATA AND EXPLANATION OF ESTIMATES OF CONSUMERS AND ENVIRONMENTAL IMPACTS

This annex presents in more details data and estimates of the impacts of the problems identified in [Section 2](#) above on consumers and the environment.

1. Problem 1: Consumers lack reliable information at the point of sale to make environmentally sustainable consumption choices

Table 1: Estimated loss of consumer welfare¹⁸⁰ due to suboptimal choices for lack of reliable information on the environmental sustainability of products

| Sub-problems | Loss of consumer welfare |
|--|---|
| S-P 1: Lack of reliable environmental information | Between EUR 900 million ¹⁸¹ and 2 100 million per year ¹⁸² |
| S-P 2: Lack of reliable information on lifespan | Between EUR 966 million ¹⁸³ and 1 119 million per year ¹⁸⁴ |
| S-P 3: Lack of reliable information on reparability | Between EUR 900 million ¹⁸⁵ per year and 1 300 million per year ¹⁸⁶ |

1. ICF Estimates

1.1. Sub-Problem 1.1: Lack of reliable information about products' environmental characteristics

Consequences on Consumers

The main consequence of the lack of reliable information for consumers is consumer detriment as a result of sub-optimal choices. This consumer detriment can be roughly estimated either by using the consumers' willingness to pay for reliable information on the environmental impacts/characteristics for all products; or by estimating the

¹⁸⁰ This consumer detriment has been estimated by using two methods: the consumers' willingness to pay for reliable information on the environmental impacts/characteristics for all products and the non-realised consumer surplus because consumers are not able to select more environmentally friendly products.

¹⁸¹ Estimated by multiplying the share of consumers willing to pay to have environmental information available for all products and EUR 5.32 (average).

¹⁸² Non-realised consumer surplus because consumers are not able to select more environmentally friendly products.

¹⁸³ 161 million consumers willing to pay on average EUR 5.88 per year for the information, in line with the data from the consumer survey.

¹⁸⁴ This is a conservative approach as it only covers household appliances, electronic and IT products, cars sofas and seats and mattresses. Furthermore, it only considers consumers that are willing to pay more than 10% of the price of a good for an additional year of lifespan and that only less than half will not be able to find an alternative within the acceptable price range.

¹⁸⁵ 157 million willing to pay on average EUR 5.53 per year for the information (from the consumer survey).

¹⁸⁶ Non-realised consumer surplus because consumers are not able to select more repairable products

nonrealised- consumer surplus because consumers are not able to select more environmentally friendly products¹⁸⁷. Consequently, the opportunity cost of this sub-problem to consumers is roughly estimated to be between EUR 0.9¹⁸⁸ and 2.1 billion¹⁸⁹ per year (depending on the adopted approach).¹⁹⁰

Table 2: Estimated loss of consumer monetisable welfare due to sub-optimal choices for lack of reliable information on environmental characteristics of products (per year)

| | Loss of consumer welfare (million euros, prices 2019) |
|---|--|
| Large Household Appliances | 3 |
| Small Household Appliances | 4 |
| Electronics and IT goods | 26 |
| Clothes & Footwear | 97 |
| Furniture | 38 |
| Cars | 1 |
| Cosmetics and personal care | 12 |
| Cleaning products | 4 |
| Food & Drinks | 228 |
| Hospitality and restaurants | 152 |
| Housing, energy, water, etc. provision | 40 |
| Transportation | 170 |
| Other | 539 |
| Total | 1,315 |

Source: ICF calculations based on evidence from various sources

Consequences for the Market

Market shares of more environmentally friendly products are lower than they would be if consumers would be aware of the environmental characteristics of their purchases (see ICF estimation in table below).

¹⁸⁷ According to the survey, on average consumers would be willing to pay an additional 2.3% to 3.5% of the price of a product to have an identical product that would be more environmentally sustainable. However, frequently “greener products” have higher prices than “non-greener” ones, often 10% or more based on reviewed literature. Consequently, for the calculations we only considered the percentage of consumers that would be willing to pay 10% or more for “greener” products, i.e., between 2% and 5% depending on the product. See for example <https://eng.mst.dk/sustainability/sustainable-consumption-and-production/green-nordic-retail/what-retailers-can-do/downstream-activities/>.

¹⁸⁸ Estimated by multiplying the share of consumers willing to pay to have environmental information available for all products and EUR 5.32 (average).

¹⁸⁹ The methodology is described in the accompanying study.

¹⁹⁰ These estimations have limitations due to the lack of data and the need to rely on non-representative data or on expert judgment to fill the gaps.

Indirectly, the fact that consumers cannot compare products based on their environmental characteristics leads to fewer incentives for companies to improve the environmental performance of their products.¹⁹¹

Consequences for the Environment

The opportunity costs to the climate and environment today for not providing this information are equal to the gains to the environment resulting from consumers buying more environmentally friendly products if this information were to be available.

We assessed these costs for two scenarios¹⁹² regarding how much more “environmentally friendly” the purchased alternatives would be compared to the current situation 5% and 10% more “environmentally friendly”. Table 3. Shows the results of this calculation.

Table 3: Possible environmental impacts of shifting demand towards more environmentally friendly products

| | 5% scenario | 10% scenario |
|--|-----------------------------|-------------------------------|
| Climate Change (per year) | 1.1 MtCO ₂ e | 2.2 MtCO ₂ e |
| (MtCO ₂ e per year; EUROS EUR 34 - 68 ¹⁹³ per tonne CO ₂ e) | EUR 40 million | EUR 80 million |
| Particulate matter (deaths per year; VSL ¹⁹⁴ per year - euros) | 80 death EUR 385 million | 160 deaths EUR 770 million |
| Acidification (109 mol H ⁺ eq) | 0.008 | 0.016 |
| Water use (billion m ³ water eq) | 1.5 | 3 |
| Resource use, fossils (EJ) | 0.015 | 0.03 |

¹⁹¹ See: European Commission, 2012. Impact Assessment on Building the Single Market for Green Products: Facilitating better and credible information on environmental performance of products and organisations, which supports its conclusions, amongst other, on available evidence that energy labelling has increased the share of more efficient products on the market. Available at: https://ec.europa.eu/environment/eussd/smgp/pdf/ia_report.pdf.

¹⁹² There is a lack of data on how much more “environmentally friendly” the products purchased by consumers would be if this information would be available.

¹⁹³ European Bank for Reconstruction and Development, *Methodology for the economic assessment of EBRD projects with high greenhouse gas emissions*, 2020, available at: <https://www.ebrd.com/news/publications/institutional-documents/methodology-for-the-economic-assessment-of-ebrd-projects-with-high-greenhouse-gasemissions.html>

¹⁹⁴ “Based on national statistics, the Value of Statistical Life (VOSL) has been estimated at EUR 400,000 per fatality and EUR 65,000 per injury. In addition, a value of EUR 13,500 per casualty has been estimated to cover direct medical and administrative costs associated with accidents.” Source: CBA guide available at: https://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/cba_guide.pdf

| | | |
|--|-------|------|
| Resource use, minerals and metals (kt Sb eq) | 0.005 | 0.01 |
|--|-------|------|

Source: ICF own calculations

1.2. Sub-Problem 1.2: Lack of reliable information about products' lifespan

Consequences on Consumers

The main consequence of the lack of reliable information for consumers is non-realised consumer surplus and potential consumer personal detriment as a result of sub-optimal choices. In fact, according to EC Study on “The durability of products”, goods that have longer lifespans generally have a lower TCC compared to the standard option, mostly due to postponing the purchase of the replacement appliance.

These losses can be roughly estimated either by using the consumers' willingness to pay for reliable information on the lifespan for all products, or by estimating the non-realised consumer surplus because consumers are not able to select goods that last longer¹⁹⁵. Consequently, the opportunity cost of this sub-problem to consumers is estimated to be around EUR 1 billion per year.

Table 4: Estimated consumer losses due to sub-optimal choices for lack of reliable information on environmental characteristics of products (impact of one year of lack of reliable information)

| Product category | Share of products that could be replaced by an alternative that would last at least one additional year | Consumer losses (million euros – prices 2019) |
|-----------------------------------|---|---|
| Large Household Appliances | 2.7% | 87 |
| <i>Cookers and Ovens</i> | 2.7% | 23 |
| <i>Dishwasher</i> | 2.9% | 15 |
| <i>Microwaves</i> | 2.7% | 4 |
| <i>Refrigerator</i> | 2.4% | 21 |
| <i>Washing Machines</i> | 3.1% | 5 |
| Small Household Appliances | 2.9% | 102 |
| <i>Vacuum cleaners</i> | 2.9% | 16 |
| <i>Small Kitchen appliances</i> | 3.1% | 47 |
| <i>Irons</i> | 3.1% | 3 |
| <i>Hair clippers</i> | 2.9% | 5 |
| <i>Hair dryers</i> | 2.9% | 3 |
| <i>Electric Kettles</i> | 2.9% | 2 |
| <i>Coffee Machines</i> | 2.9% | 18 |

¹⁹⁵ The approach used to do estimations is described in the accompanying study.

| | | |
|---------------------------------|------|--------------|
| Electronics and IT goods | 2.9% | 787 |
| <i>Laptops and tablets</i> | 3.4% | 154 |
| <i>TVs</i> | 2.7% | 76 |
| <i>Mobile phones</i> | 2.5% | 411 |
| Furniture | | - |
| <i>Sofas and Seats</i> | 3.4% | 90 |
| <i>Mattresses</i> | 3.4% | 54 |
| Total | | 1,119 |

Source: ICF calculations based on evidence from various sources

Consequences for the Environment

While it is not expected that all goods are only replaced at the end of their lives (as for example, fashion and other factors also play a role in the decision to replace a good), there is evidence that a significant share of consumers will keep goods for a long time. For example, the results of the Eurobarometer 503 show that the main reasons that led respondents to replace their digital devices were that the device broke (38%), the performance of the device had significantly deteriorated (30%) and certain applications or software stopped working on the device (18%).¹⁹⁶

Increasing the market share of products with a longer lifespan is generally^{197,198} expected to contribute to a reduction of resource depletion, waste, emissions and other environmental costs associated with the production, distribution and disposal life-cycle stages^{199,200,201,202,203}

¹⁹⁶ European Commission, *Attitudes towards the impact of digitalisation on daily lives*, 2019.

¹⁹⁷ Some studies point out that some large household appliances might be an exception if newer models are significantly more energy efficient than the models own by consumers. In this case, it is possible that the environmental costs associated with materials, production, distribution and disposal of buying an appliance sooner than later are outweighed by the environmental benefits related to the energy savings of using a more efficient model. See for example: Iraldo, F., Facheris, C. and Nucci, B. Is product durability better for environment and for economic efficiency? A comparative assessment applying LCA and LCC to two energy-intensive products. *Journal of Cleaner Production*, 140, pp.1353-1364.2017.; Ardente, F. and Mathieux, F. Environmental assessment of the durability of energy-using products: method and application. *Journal of cleaner production*, 74, pp.62-73. 2014; and Reale, F., Castellani, V., Hischer, R., Corrado, S. and Sala, S.. Consumer Footprint-Basket of Products indicator on Household appliances. Technical report. European Commission, Joint Research Centre. 2019.

¹⁹⁸ The results of a JRC study showed that, “for the global warming potential, prolonging the lifetime of a washing machine and dishwasher case studies is environmentally beneficial when the potential replacement product has up to 15 % less energy consumption during the use. For the abiotic depletion potential impact, mainly influenced by the use of materials during the production phase, prolonging the lifetime of both machines was shown always to be beneficial, regardless of the energy efficiency of newer products. Freshwater eutrophication showed a great influence by the impact of the detergent used during the use phase; thus, prolonging the device’s lifetime is still beneficial for this impact category, although the benefits are negligible compared to the life cycle impacts of the products.”. See <https://op.europa.eu/en/publication-detail/-/publication/72cd56e4-bab7-11e6-9e3c-01aa75ed71a1/language-en/format-PDF/source-126402524>.

¹⁹⁹ See for example Estevan, H., Schaefer, B. and Adell, A., 2017. Life Cycle Costing State of the art report. Local Governments for Sustainability, European Secretariat. Available at: https://sppregions.eu/fileadmin/user_upload/Life_Cycle_Costing_SoA_Report.pdf.

²⁰⁰ Bakker C, Wang F, Huisman J, Den Hollander M: Products that go round: Exploring product life extension through design. *J Clean Prod* 2014, 69:10–16.

²⁰¹ Bakker, C., den Hollander, M., Van Hinte, E. and Zijlstra, Y., 2019. Products that Last 2.0: Product Design for Circular Business Models. BIS Publishers.

²⁰² Cooper, T. ed., 2016. *Longer lasting products: Alternatives to the throwaway society*. CRC Press.

²⁰³ Ruth Mugge, Jan P. L. Schoormans & Hendrik N. J. Schifferstein, 2005. Design Strategies to Postpone Consumers' Product Replacement: The Value of a Strong Person-Product Relationship, *The Design Journal*, 8:2, 38-48.

The opportunity costs to the climate and environment today for not providing information on the lifespan are equal to the gains to the environment resulting from consumers buying products that would last longer if this information were to be available. Table 5 shows the results of the assessed environmental impact per year following the approach described in the accompanying study.

Table 5: Possible environmental impacts of shifting demand towards products that would have a +1 year of lifespan (per year of lack of reliable information)

| Appliances, Electronics and ICT and other electronics, sofas and mattresses | |
|--|---|
| Climate Change (per year) (MtCO ₂ e per year; EUROS EUR 34 - 68 ²⁰⁴ per tonne CO ₂ e) | 1 MtCO ₂ e EUR 34 million |
| Particulate matter (deaths per year; VSL per year - euros) | 27 deaths EUR 131 million |
| WEEE (tonnes) | +/- 30,000 |

1.3. Sub-Problem 1.3: Lack of reliable information about products' reparability

Consequences on Consumers

The main consequence of the lack of reliable information for consumers is non realised surplus and/or personal consumer detriment as a result of sub-optimal choices. This can be roughly estimated by using the consumers' willingness to pay for reliable information on the reparability for all products or per product per type of information.²⁰⁵ Consequently, the opportunity cost of this sub-problem to consumers is estimated to be around EUR 0.9 and 1.3 billion.).

Environment

The opportunity costs to the climate and environment today for not providing information on the lifespan are equal to the gains to the environment resulting from consumers buying products that would last longer if this information were to be available. The table below shows the estimated key environmental impacts for the scenario where the repair would have increased the lifespan of the broken product by 1 year (this was calculated following the approach described in the accompanying study).

²⁰⁴ European Bank for Reconstruction and Development, *Methodology for the economic assessment of EBRD projects with high greenhouse gas emissions*, 2020.

²⁰⁵ Both questions were asked in the consumers survey

Table 6: Possible environmental impacts of shifting demand towards products that are easier to repair (per year of lack of reliable information)

| Appliances, Electronics and ICT and other electronics, sofas and mattresses | |
|---|---|
| Climate Change (per year) (MtCO ₂ e per year; EUROS EUR 34 - 68 ²⁰⁶ per tonne CO ₂ e) | 0.4 MtCO ₂ e EUR 13 million |
| Particulate matter (deaths per year; VSL per year - euros) | 11 deaths EUR 51 million |
| WEEE (tonnes) | +/- 10,000 |

2. Problem 2: Consumers face misleading commercial practices related to the sustainability of products

Table 7: Estimated consumer detriment linked to misleading information and practices

| Sub-problems | Estimated consumer detriment |
|---------------------------|---|
| S-P 1: Early obsolescence | EUR 1 600 million per year ²⁰⁷ |
| S-P 2: Greenwashing | EUR 500 million per year ²⁰⁸ |

2. ICF Estimates

2.1. Sub-Problem 2.1: Consumers are sold products that do not last as long as they could or consumers expect

Consequences for consumers

Consumer detriment as consumers pay more than they would be willing to pay for the “effective” lifespan of goods with premature obsolescence and they suffer personal detriment related to the need to repair and/or replace the goods earlier than they could reasonably expect when they purchased the good.

Based on available data we estimate that the consumer detriment as a result of one year of this practice would be around EUR 1.6 billion (see approach in the accompanying study).

²⁰⁶ European Bank for Reconstruction and Development, *Methodology for the economic assessment of EBRD projects with high greenhouse gas emissions*, 2020.

²⁰⁷ Estimated consumer detriment due to premature obsolescence, defined as failures that happen before the product reaches 60% of its expected lifespan.

²⁰⁸ Consumer detriment due to sub-optimal choices as consumers might chose a product over other alternatives (that are in reality no less environmentally friendly than that product) based on misleading claims. Estimation assuming consumers pay a premium of 2.5% of the price of the product.

Table 7: Estimated consumer detriment due to premature obsolescence (defined as failures that happen before the product reaches 60% of its expected lifespan, millions of euros in 2019 prices)

| Product | Method cost of replacement |
|-----------------------------------|----------------------------|
| Large Household Appliances | 268.04 |
| <i>Cookers and Ovens</i> | 53.49 |
| <i>Dishwasher</i> | 52.65 |
| <i>Microwaves</i> | 7.05 |
| <i>Refrigerator</i> | 75.49 |
| <i>Washing Machines</i> | 20.04 |
| Small Household Appliances | 103.31 |
| <i>Vacuum cleaners</i> | 35.57 |
| <i>Small Kitchen appliances</i> | 32.94 |
| <i>Irons</i> | 2.08 |
| <i>Hair clippers</i> | 4.05 |
| <i>Hair dryers</i> | 2.64 |
| <i>Electric Kettles</i> | 2.05 |
| <i>Coffee Machines</i> | 22.85 |
| Electronics and IT goods | 1213.38 |
| <i>Laptops and tablets</i> | 141.61 |
| <i>TVs</i> | 150.00 |
| <i>Mobile phones</i> | 521.79 |
| Total | 1,584 |

Consequences for the Environment

Early failure of products leads to their early replacement and, therefore, to environmental impacts related to the production, transport and disposal of products. The table below presents the estimations of the possible environmental impacts of premature obsolescence.

Table 8: Possible environmental impacts of premature obsolescence (defined as failures that happen before the product reaches 60% of its expected lifespan and as a consequence of one year of this practice, millions of euros in 2019 prices)

| Impacts |
|---------|
|---------|

| | |
|--|------------------------------|
| Climate Change (per year) | 1.874 MtCO ₂ e |
| (MtCO ₂ e per year; EUROS EUR 34 - 68 ²⁰⁹ per tonne CO ₂ e) | EUR 64 million |
| Particulate matter (deaths per year; VSL ²¹⁰ per year - euros) | 54 deaths EUR 256 million |
| WEEE (tonnes) | 51,000 |

- 2.2. Sub-Problem 2.2: Consumers are faced with the practice of making unclear or not well-substantiated environmental claims (“Greenwashing”)

Consequences for Consumers

Greenwashing can harm consumers through consumer detriment (due to sub-optimal choices) as they might choose a product over other alternatives (that are in reality no less environmentally friendly than that product) based on misleading claims, sometimes paying a premium in order to buy a supposedly more environmentally friendly product. Based on the available evidence, we estimate that the consumer detriment as a result of this practice is at least around 0.5 billion a year. This is conservative estimate based on the willingness to pay for trustworthy information, and it is likely that the losses for consumers are higher.

Consequences for the environment

The fact that consumers end up purchasing products that are not as environmentally friendly as existing alternatives lead to undesired environmental impacts (i.e., the difference between the environmental impact of the purchased product based on misleading claims and the environmental impact of the product that would have been purchased in the absence of greenwashing)²¹¹. Please see estimation of the impacts in the table below

Table 9: Possible environmental impacts of greenwashing (as a consequence of one year of this practice, millions of euros in 2019 prices)

| | 5% scenario | 10% scenario |
|--|---------------------------------------|---|
| Climate Change (per year) | 1.4 MtCO ₂ e | 2.8 MtCO ₂ e |
| (MtCO ₂ e per year; EUROS EUR 34 per tonne CO ₂ e) | EUR 50 million | EUR 100 million |
| Particulate matter (deaths per year; VSL per year - euros) | 80 premature death EUR 475 million | 200 premature deaths EUR 950 million |

²⁰⁹ European Bank for Reconstruction and Development, *Methodology for the economic assessment of EBRD projects with high greenhouse gas emissions*, 2020.

²¹⁰ “Based on national statistics, the Value of Statistical Life (VOSL) has been estimated at EUR 400,000 per fatality and EUR 65,000 per injury. In addition, a value of EUR 13,500 per casualty has been estimated to cover direct medical and administrative costs associated with accidents.” Source: CBA guide available at: https://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/cba_guide.pdf

²¹¹ BEUC, 2018. Factsheet – Premature obsolescence when products fail too quickly. Available at: https://www.beuc.eu/publications/beuc-x-2018-057_premature_obsolescence.pdf

| | | |
|--|--------|-------|
| Acidification (109 mol H+ eq) | 0.0085 | 0.019 |
| Water use (billion m3 water eq) | 1.8 | 3.6 |
| Resource use, fossils (EJ) | 0.02 | 0.04 |
| Resource use, minerals and metals (kt Sb eq) | 0.005 | 0.01 |

Source: ICF estimations based on a variety of sources

- 2.3. Sub-Problem 2.3: Consumers are faced with a the use of sustainability labels and digital information tools that are not always transparent or credible

Consequences for Consumers

This problem can harm consumers because they purchase products based on the assumption that a certain label is reliable when in fact it is not and because they want to purchase more sustainable products (and even pay a premium) but they do not do it because they do not trust or are confused due to the multitude of labels. However, it is not possible to quantify the detriment as labels cover various sustainability attributes.

Consequences for the Environment

The fact that consumers end up purchasing products that are not as environmentally friendly as existing alternatives lead to undesired environmental impacts (i.e., the difference between the environmental impact of the purchased product based on misleading claims and the environmental impact of the product that would have been purchased in the absence of greenwashing)²¹². These losses are, however, difficult to quantify as many sustainability labels and logos cover other sustainability aspects that are not related to the environment pillar of sustainability.

²¹² BEUC, 2018. Factsheet – Premature obsolescence when products fail too quickly. Available at: https://www.beuc.eu/publications/beuc-x-2018-057_premature_obsolescence.pdf

ANNEX 6: OVERVIEW OF RELEVANT EXISTING AND UPCOMING NATIONAL LEGISLATIVE INITIATIVES

The table below presents national legislative initiatives, either already adopted or in the pipeline, and which aim at addressing the problems and sub-problems identified in this Impact Assessment.

| | Provision of information | | | Untrustworthy information or practices | | |
|--|---|---|---------------------------|---|--|--|
| | Durability | Reparability | Environmental information | Obsolescence | Greenwashing | Sustainable labels and logos |
| Legislation and initiatives at national level | France | France, Slovenia and Finland | Not identified | France and Greece | Denmark, Finland and Sweden | Austria, Germany, and Sweden |
| | Durability index France – Durability Index: introduced by the Circular Economy Law 2020, it will integrate/replace the Reparability Index from 2024. It obliges producers, importers, distributors or any other person placing electrical and electronic products on the market to inform consumers on reliability and robustness of a list of products to be established. | Reparability index France – Reparability Index: The Circular Economy Law obliges producers, importers, distributors or any other person placing electrical and electronic products on the market to provide the reparability index of their product to sellers of their products or any other person requesting it. The aim is to inform consumers about the ability to repair five groups of products (televisions, smartphones, laptops, | | Ban France – Criminalisation of planned obsolescence: Consumer Code and Law on energy transition for green growth defines and forbids the practise of planned obsolescence. In case of breach of this provision, the person responsible for placing the product on the market can be sentenced to two years' imprisonment and a fine of EUR 300,000. | Ban / Prohibition Sweden - Prohibition on misleading statements: The Swedish Marketing Act prohibits traders from making incorrect statement and other representations that are misleading, specifically statement relating to a 'product's origin, uses and risks such as impact on health or environment. | Public websites with feedback labels and logo Austria – Website Buy Consciously: The Federal Ministry for climate protection, energy, mobility, innovation and technology developed a website that provides information on 200 sustainable labels in Austria. Germany - Siegelklarheit (label clarity): It is a portal that explains and evaluates labels used by manufacturers |

| | | | | | |
|--|--|---|--|---|--|
| | | <p>lawnmowers and washing machine)</p> <p>Information on spare parts and/or repair manuals and/or software updates</p> <p>France – Obligation to inform consumers on the availability of spare parts: The Circular Economy Law establishes that manufacturers and importers have the obligation to inform retailers on the availability or non-availability of essential spare parts and of the time period during which they will be available. It also establishes that the retailer has the obligation to inform consumers on the updates necessary to maintain the conformity of the product, how to install these updates and the consequences of refusing to install them.</p> <p>Slovenia – Consumer Protection Act: It obliges the producer and/or seller, in case of obligatory conformity guarantee for certain types of technical</p> | | <p>France – Criminalisation of intentional irreparability and deliberate obstruction of access to repair information: Circular Economy Law criminalise any technique used by the person responsible for placing the product on the market, which makes it impossible to repair or recondition outside its approved/licensed repairers.</p> <p>Provision of spare parts and repair service</p> <p>France – Obligation to provide spare parts for a certain time period: The Circular Economy Law requires producers of household appliances, small IT and telecommunications equipment, screens and monitors to make spare parts available for a minimum duration of five years.</p> <p>Greece – Provision of technical service for repair and maintenance and supply of spare parts: Consumer Protection Law establishes that</p> | <p>placing products on the German markets. It considers sustainability and social standards.</p> <p>Sweden – The Service Hello Consumer of the Swedish Consumer Agency: It provides consumers with information on a number of environmental and sustainability related topics, including information on ecolabels</p> |
|--|--|---|--|---|--|

| | | | | | | |
|--|--|--|--|---|--|--|
| | | <p>goods²¹³ to provide information on the duration of services for maintenance of goods, spare parts, and supplementary devices (at least 3 years after the elapse of the guarantee). It also obliges the producer and/or seller, in case of obligatory conformity guarantee for certain types of technical goods²¹⁴, to provide an assembly manual and a list of authorised services centres (at least 3 years after the elapse of the guarantee). This guarantee is provided on top of EU harmonised 2-year guarantee.</p> <p>Finland – Legislative ban on untrue or misleading information: the Finnish Consumer Protection legislation introduces a ban to provide untrue or misleading information in marketing or during the course of the customer relationship including information especially relating to</p> | | <p>the supplier (including both the manufacturer and the retailer) of new durable goods must ensure that consumers are consistently provided with technical services for maintenance and repair of these goods, as well as supply of spare parts, for at least 2 years from delivery.</p> | | |
|--|--|--|--|---|--|--|

²¹³ Household appliances, vehicles and similar products, machines for agricultural and small-area cultivation, information technology products, sport equipment, products in the field of radio communications, audio and video technology and devices connected thereto, electro-medical devices intended for personal use, fire protection devices and wastewater treatment plants.

²¹⁴ Household appliances, vehicles and similar products, machines for agricultural and small-area cultivation, information technology products, sport equipment, products in the field of radio communications, audio and video technology and devices connected thereto, electro-medical devices intended for personal use, fire protection devices and wastewater treatment plants.

| | | | | | | |
|--|---|--|---------------------------|--|---------------------------|---------------------------|
| | | 'the availability and need for maintenance, repairs and spare parts'. | | | | |
| Legislative proposals at national level | <div>Belgium and Italy</div> <p>Belgium – Proposals for a Bill aiming at combating planned and premature obsolescence and increasing the possibilities of repair (9 November 2019): it prohibits producers from engaging in planned and premature obsolescence practices; it proposes to include in pre-contractual information the reparability and non-reparability of products, as well as the length of time of spare parts are available; it suggests that all products have on the surface, on the packaging, and on advertisement, an indication of the lifetime of the product and the possibility for repair in a legible, apparent and unequivocal manner. Lifespan is expressed in hours, month or years or, where relevant, in number of</p> | <div>Belgium, Italy, Spain and Portugal</div> <p>Belgium – Proposals for a Bill aiming at combating planned and premature obsolescence and increasing the possibilities of repair (9 November 2019): it prohibits producers from engaging in planned and premature obsolescence practices; it proposes to include in pre-contractual information the reparability and non-reparability of products, as well as the length of time of spare parts are available; it suggests that all products have on the surface, on the packaging, and on advertisement, an indication of the lifetime of the product and the possibility for repair in a legible, apparent and unequivocal manner. Lifespan is expressed in hours, month or years or, where relevant, in number of</p> | <div>Not identified</div> | <div>Belgium, Italy and Portugal</div> <p>Belgium – Proposal for a bill to address planned obsolescence and support repair economy (19 July 2019): This proposal introduces a definition of planned obsolescence and bans it. In case of breach of this provision, it provides a sanction for the producer. It also suggests the creation of a product passport, an extension of the legal guarantee to 5 years. It also provides that it can be decided to require manufacturers and importers to provide professional sellers and repairers with essential spare parts.</p> <p>Belgium – Proposal for a Bill to address organised obsolescence and support the circular economy (7 January 2020): It introduces a definition of organised obsolescence and</p> | <div>Not identified</div> | <div>Not identified</div> |

| | | | | | |
|--|---|--|---|--|--|
| | <p>operating cycles. The obligation to provide information on lifespan to consumers and to ensure that the product does not fail earlier than the indicated lifespan is on the producer.</p> <p>Italy – information obligation on the durability of the product (9 July 2018): This legislative proposal would introduce an obligation to inform consumers on the "guaranteed lifespan and the presumable lifespan"²¹⁵ of products on the packaging. It is the producer who is in charge of providing the information and guaranteeing the correct durability of the product.</p> | <p>operating cycles. The obligation to provide information on lifespan to consumers and to ensure that the product does not fail earlier than the indicated lifespan is on the producer.</p> <p>Italy – Consumer rights on lifespan and possibility of reparations at accessible prices (9 July 2018): This legislative proposal would recognise the consumer's right to be informed by producers on the possibility of reparation at accessible prices.</p> <p>Spain – Reparability index (15 March 2021): This legislative proposal would consist of a classification of electrical and electronic equipment on a scale of zero to ten points awarded based on five objective criteria. Awareness-raising actions will accompany the Reparability Index. It will create an opportunity for the industry to have a new incentive for innovation in eco-design and repairable,</p> | <p>prohibits it. If the product is considered affected by organised obsolescence, it is the producer who is deemed responsible unless the producer is established abroad, in which case the trader is considered responsible. It proposes to include in the pre-contractual information the lifetime of the products, the period during which spare parts that are essential for the use of the product are available in a visible and unequivocal way on the packaging and advertisement of the product. It obliges producers to guarantee the availability of a product's spare parts - which are essential for its use - at a reasonable price.</p> <p>Italy – Definition and prohibition of planned obsolescence (9 July 2020): This legislative proposal would define and ban the practice of planned obsolescence and introduce criminal sanctions for the producer or distributor of goods who mislead the consumers on a</p> | | |
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²¹⁵ No methodology is proposed to assess this, yet.

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| | | <p>upgradeable, sustainable technology without obsolescence.</p> <p>Portugal – reparability (4 November 2019): Legislative proposal requiring that producers and importers must ensure the availability of user’s manuals.</p> | | <p>number of issues including planned obsolescence.</p> <p>Portugal – Promoting product durability and combating planned obsolescence (4 November 2019): Legislative proposals to prohibit planned obsolescence by producers.</p> | | |
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ANNEX 7: OVERVIEW OF EU LEGISLATION RELEVANT FOR THE PROBLEMS THE INITIATIVE AIMS TO ADDRESS

This Annex presents in detail the interaction between the initiative subject to this Impact Assessment and existing EU legislation, as well as its interaction with other EU initiatives which are currently under preparation.

Part 1




The table below presents in a succinct way whether and to what extent the problems identified in this IA are addressed by other existing EU legislation.




□ partially addressed for all products ▲ fully addressed for a set of products ▤ partially addressed for a set of products / not addressed

| EU law/initiative | Provision of information | | | Obsolescence | Greenwashing | Sustainable labels & logos | Product scope | Gaps |
|--------------------------------------|--------------------------|--------------|-------------------------------|--------------|--------------|----------------------------|---------------|---|
| | Durability | Reparability | Environmental characteristics | | | | | |
| Consumer Rights Directive 2011/83/EU | / | / | / | / | / | / | Horizontal | The Directive requires traders to provide consumers with information on, among others, the main characteristics of the goods or services. It includes specific information requirements about the existence of the legal guarantee of conformity and commercial guarantees, which are related to “durability”. There are, no explicit requirements regarding the other substantively analysed elements. |






| Provision of information | | | | Obsolescence | Greenwashing | Sustainable labels & logos | Product scope | Gaps |
|---|------------|--------------|-------------------------------|--------------|--------------|----------------------------|---------------|--|
| EU law/initiative | Durability | Reparability | Environmental characteristics | | | | | |
| Consumer Sales and Guarantees Directive 1999/44/EC, until 1 January 2022 and Sale of Goods Directive 2019/771 | △ | △ | △ | △ | / | / | Horizontal | While the Directive promotes durability and reparability of products through the legal guarantee, the impact is limited to the minimum 2-years legal guarantee period. |

| EU law/initiative | Provision of information | | | Obsolescence | Greenwashing | Sustainable labels & logos | Product scope | Gaps |
|--|--------------------------|--------------|-------------------------------|--------------------------|--------------------------|----------------------------|---------------|--|
| | Durability | Reparability | Environmental characteristics | | | | | |
| Unfair Commercial Practices Directive 2005/29/EC | / | / | / | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Horizontal | <p>The UCPD is a principle-based instrument prohibiting unfair commercial practices. It operates as a safety net complementing sector and product-specific legal requirements. It generally requires the traders to provide the consumers with information that they need to take informed, independent transactional decisions but it does not contain specific information requirements about product durability or reparability. Its general provisions on unfair practices apply also to planned obsolescence and greenwashing practices when those are misleading and negatively affect consumers on the basis of a case-by-case assessment. There are no specific provisions in these areas in the Directive or in its Annex I (blacklist) which sets out practices regarded as unfair in all circumstances. Greenwashing is considered in the Guidance to the UCPD as a type of misleading claims that can be prohibited in accordance with the Directive. However, the absence of specific rules on misleading environmental claims in the Directive and the requirement for case-by-case assessment of their effects on the consumers reduces its potential to be enforced in this area. Planned obsolescence could be considered contrary to the professional diligence requirements in Article 5 or information about planned obsolescence practices could be deemed material under Article 7 that, if not provided, could fall under the definition of misleading omission. However, the lack of explicit rules and the need for case-by-case assessment of the effects of the practice on the consumers makes it difficult to enforce in this area.</p> |

| Provision of information | | | | Obsolescence | Greenwashing | Sustainable labels & logos | Product scope | Gaps |
|--|---|--------------|---|--------------|--|---|---------------|--|
| EU law/initiative | Durability | Reparability | Environmental characteristics | | | | | |
| EU Ecolabel Regulation 66/2010/EC and related EU Ecolabel criteria |  | / |  | / |  |  | Horizontal | <p>The EU Ecolabel scheme is a voluntary system covering the “best in class” products in terms of environmental performance for a given product category. It is the official European Union EU wide labelling scheme for environmental excellence which can be considered as an important tool to avoid the proliferation of environmental labelling schemes.</p> <p>Art 6 of the Regulation requires the criteria for environmental performance to consider ‘the potential to reduce environmental impacts due to durability and reusability of the products’. Product durability and reparability, being crucial aspects of the circular economy, are already included in the criteria for relevant product groups. However, the information on how long a product is expected or guaranteed to last is not given through the logo. Often consumers do not have information on the product regarding the extent to which durability has been considered to grant the ecolabel, but they can research in EU Ecolabel webpage.</p> |

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| <p>Ecodesign Directive 2009/125/EC and related Regulations and voluntary agreements</p> |  |  | <p>/</p> |  | <p>/</p> | <p>/</p> | <p>Energy related products</p> | <p>The Ecodesign framework establishes minimum requirements on energy efficiency and other environmental aspects via product design requirements and, where relevant, information requirements for various categories of energy related products. This is being operationalised via implementing regulations per product category, in accordance with regular working plans (the latest available is the Working Plan 2016-2019; Working plan 2020-2024 is forthcoming (in 2021) setting out priorities and timelines for product categories. These regulations, when they enter into force, prevent the worst-performing products in terms of energy efficiency and other environmental aspects (including durability, reparability) to enter the EU market for a given product category. While durability requirements have been very limited due to technological methodological and enforcement challenges (there are durability requirements only for 2 components of a vacuum cleaner; as well information on durability for lightbulbs), a series of reparability requirements will enter into force in March 2021 for a number of product categories. Since the first Circular Economy Action Plan (2015) the Commission considers more systematically durability, reparability, upgrade, reuse, recyclability and recycled content aspects when preparing or revising Ecodesign requirements. In future, a possible scoring system on products reparability, based on the JRC method, could be considered (see also EU Energy Label below). Ecodesign establishes a public enforcement mechanism for non-compliance (including fines and possible withdrawal of the product from EU market) but does not foresee consumer redress/rights in case a product (or component) fails to comply with specific requirements.</p> <p>In Q4 2021, the Commission plans to table a legislative proposal which will aim to widen the scope of the</p> |
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| Provision of information | | | | Obsolescence | Greenwashing | Sustainable labels & logos | Product scope | Gaps |
|--------------------------|------------|--------------|-------------------------------|--------------|--------------|----------------------------|---------------|--|
| EU law/initiative | Durability | Reparability | Environmental characteristics | | | | | |
| | | | | | | | | Ecodesign Directive to include the broadest possible range of products and to other aspects of sustainability and circularity. |

| Provision of information | | | | Obsolescence | Greenwashing | Sustainable labels & logos | Product scope | Gaps |
|--|---|--------------|---|---|--|---|-------------------------|---|
| EU law/initiative | Durability | Reparability | Environmental characteristics | | | | | |
| Energy Labelling Framework Regulation EU/2017/1369 |  | / |  |  |  |  | Energy related products | <p>The Energy labelling Framework legislation has the same product scope and follows a similar approach and timeline like the Ecodesign legislation, with implementing options per product category in accordance with regular working plans.</p> <p>It establishes a consistent and for consumers easy to understand EU wide labelling system with information on the energy efficiency of goods (the most prominent feature of the label with A-G scale), its energy use as well other environmental (e.g. water use, noise) and functional parameters (e.g. washing efficiency) where relevant. Unlike other claims, all energy products must display the claim of how much energy is used based on a consistent labelling system used and comparable across Member States. It aims to encourage consumers to purchase and use goods which use less energy and are more environmentally friendly.</p> <p>Planned obsolescence is not specifically covered by the Regulation, however, Art 3 refers to planned obsolescence linked to updates that could reduce a product's energy efficiency and be detrimental to the energy efficiency label. A European product database for energy labels and product information sheets (EPREL) is expected to be available for consumers in 2021.</p> <p>The possibility of showing a reparability score (based on a JRC method) will be explored in the future.</p> |

| EU law/initiative | Provision of information | | | Obsolescence | Greenwashing | Sustainable labels & logos | Product scope | Gaps |
|--------------------------------|--------------------------|--------------|-------------------------------|--------------------------|--------------|----------------------------|---------------|--|
| | Durability | Reparability | Environmental characteristics | | | | | |
| Directive 2018/851/EU on waste | / | / | / | <input type="checkbox"/> | / | / | Horizontal | <p>The Directive aims to improve and transform waste management in the Union into 'circular material management' and facilitate the transition to 'more sustainable material management and to a circular economy.</p> <p>It provides MS with the opportunity to take options to encourage the design of products to reduce their environmental impacts and the generation of waste by developing, producing and marketing of products that are technically durable 'and easily repairable'. There is an obligation to modulate fees in the collective Extended Producer's Responsibility (EPR) schemes based on criteria such as durability, reparability, reusability and recyclability as well as the presence of hazardous substances, which, however, are not harmonized at EU level (Art. 8a).</p> <p>Member States must take options to prevent waste generation, including options to 'encourage the design, manufacturing, and use of products that are resource-efficient, durable (including in terms of life span and absence of planned obsolescence), repairable, re-usable and upgradable.</p> <p>The legislation does not set out harmonized requirements in relation to durability and reparability. In addition to criteria suggested for eco-modulation of collective EPR schemes (Articles 8, 8a), it rather requires (Article 9) Member States to encourage the production of durable and repairable products. Member States are required to monitor and assess the implementation of options taken to prevent waste.</p> |

| Provision of information | | | | Obsolescence | Greenwashing | Sustainable labels & logos | Product scope | Gaps |
|---|------------|--------------|-------------------------------|--------------|--------------|----------------------------|--|---|
| EU law/initiative | Durability | Reparability | Environmental characteristics | | | | | |
| Energy Market Directive 2019/944/EU amending the Energy Efficiency Directive 2012/27/EU | / | / | △ | / | △ | / | Horizontal Energy generation and storage | <p>It establishes common rules for the generation, transmission, distribution, energy storage and supply of electricity, together with consumer protection provisions, with a view to creating truly integrated competitive, consumer-centred, flexible, fair and transparent electricity markets in the Union.</p> <p>The Directive does not directly concern the areas of the IA, however, it has strong information elements, especially with regard to consumer rights, for example when choosing an energy supplier. It implicitly contributes to preventing greenwashing, as it ensures consumers are well informed.</p> <p>The enforcement system designed to ensure the implementation of the internal market on electricity is applicable.</p> |

| EU law/initiative | Provision of information | | | Obsolescence | Greenwashing | Sustainable labels & logos | Product scope | Gaps |
|---|--------------------------|--------------|-------------------------------|--------------|--------------|----------------------------|---------------------------|---|
| | Durability | Reparability | Environmental characteristics | | | | | |
| Renewable Energy Directive 2018/2001/EU recasting Directive 2009/28/EC, Directive 2015/1513/EU and Directive 2013/18/EU | / | / | △ | / | △ | △ | Horizontal Energy sources | The Renewable Energy Directive promotes the use of renewable energy sources by consumers. It primarily concerns the sustainability of energy – both in terms of reducing the need for conventional energy by promoting and facilitating the use of renewable energy, but also ensures the sustainability of renewable energy itself, through the guarantee of origin and certification systems. The Directive has a strong information requirement, which, coupled with the certifications, reduces the amount of greenwashing. It requires consumers, as well as other stakeholders, are clearly and accurately informed, with regard to the energy options available to them as well as the origin of the energy. The guarantee of origin ensures suppliers have sourced renewable fuels (e.g. for biofuels). It also facilitates self-consumption by clarifying the legal and regulatory framework and ensuring that justified, fair/and non-discriminatory rules are applied to final or household customers. |
| Car labelling Directive 1999/94/EC | △ | / | △ | / | △ | △ | Cars | The Directive aims to help consumers buy or lease cars which use less fuel and thereby emit less CO ₂ and to encourage manufacturers to reduce the fuel consumption of new cars. The Directive is a complementary option to the CO ₂ emission standards set under Regulation (EU) 2019/631. It requires the use of information tools addressed to consumers including a label showing fuel economy and CO ₂ emissions to be attached to all new cars or displayed nearby at the point of sale and a poster or display showing prominently the official fuel consumption and CO ₂ emissions data of all new car models displayed or offered for sale. |

| Provision of information | | | | Obsolescence | Greenwashing | Sustainable labels & logos | Product scope | Gaps |
|--|------------|--------------|-------------------------------|--------------|--------------|----------------------------|----------------------|---|
| EU law/initiative | Durability | Reparability | Environmental characteristics | | | | | |
| Regulation (EU) 2020/740 on energy labelling for tyres | △ | / | △ | / | △ | △ | Road transport tyres | It establishes a framework for the provision of harmonised information on tyre parameters through labelling to allow end-users to make an informed choice when purchasing tyres, for the purpose of increasing safety, the protection of health, and the economic and environmental efficiency of road transport, by promoting fuel-efficient, long-lasting and safe tyres with low noise levels. |

| EU law/initiative | Provision of information | | | Obsolescence | Greenwashing | Sustainable labels & logos | Product scope | Gaps |
|--|--------------------------|--------------|-------------------------------|--------------|--------------|----------------------------|---|--|
| | Durability | Reparability | Environmental characteristics | | | | | |
| Recommendation 2013/179/EU ²¹⁶ on common methods for measuring and communicating the life cycle environmental performance of products and organisations (establishing the Product and Organisation Environmental Footprint (PEF and OEF) methods) | ▴ | ▴ | ▴ | / | ▴ | ▴ | Horizontal Overall method applicable to any product category. 19 product-specific calculation rules were developed. 16 environmental impacts are covered. | The UCPD Guidance refers to the use of lifecycle environmental performance of products and organisations, referencing also the Commission's PEF and OEF methods. PEF studies can be carried out both based on the overall PEF method (applicable to any product) and based on Product Environmental Footprint Category Rules (PEFCRs). PEFCRs are quite detailed to guarantee the reproducibility, comparability and reliability of the information. The information that can be derived from a PEF study or a PEFCR concerns any of the 16 environmental impacts in scope, information about the most relevant production processes (those contributing with a larger share to the total impact), the most relevant life cycle stages, even the most relevant emissions. When a PEFCR exists, it is also possible to compare the different elements of information with those of the benchmark (the environmental performance of the average product sold on the EU market). Some of the information in PEFCRs may require a certain amount of product-specific & environmental expertise to fully understand and link to an environmental claim. A PEF Study, whether based on the PEF or based on a PEFCR, considers duration/life time of the product. Under the use-stage processes, repair and maintenance of the product are covered. Current PEFCRs were developed during a pilot phase, where the interest of volunteering industry was determining the scope of the document. This resulted in some PEFCRs that have a good coverage of a product category (e.g. dairy, beer) and a limited scope to others (e.g. the washing machine detergent PEF only covers liquid heavy-duty detergent; laptops only cover storage; pasta only covers wheat pasta). There is a risk that consumers would not understand which products are covered by this information and can be compared to a benchmark. In case a company communicates information based on the PEF study to external parties, they have to make available the full PEF study and they have to carry out a 3 rd party verification. |

| EU law/initiative | Provision of information | | | Obsolescence | Greenwashing | Sustainable labels & logos | Product scope | Gaps |
|---|--------------------------|--------------|-------------------------------|--------------|--------------|----------------------------|---------------|---|
| | Durability | Reparability | Environmental characteristics | | | | | |
| Directive (EU) 2020/1828 on representative actions for the protection of collective interests of consumers (repealing Directive 2009/22/EC) | / | / | / | / | / | / | Horizontal | The Directive does not provide for information obligations or for substantive consumer rights. It improves the protection of collective consumer interests, thus strengthening enforcement of consumer rights. |
| Consumer Protection Cooperation Regulation 2017/2394 | / | / | / | / | / | / | Horizontal | The CPC Regulation aims to improve enforcement of EU consumer protection legislation. It establishes a network of national competent authorities of EEA countries (CPC Network) to address cross border infringements of EU consumer rules, and sets rules for cooperation between Member States. |

Part 2

²¹⁶ This Recommendation was updated in December 2021 via Recommendation C(2021) 9332 final available at https://ec.europa.eu/environment/publications/recommendation-use-environmental-footprint-methods_en

The table below presents the interaction between this initiative and other EU initiatives that are currently under preparation.

| Title | Brief description | Interaction with initiative on Empowering Consumers for the Green Transition |
|--------------------------------|---|---|
| Green Claims Initiative | <p>The Green Claims initiative was announced by the European Green Deal, the Circular Economy Action Plan²¹⁷ and the New Consumer Agenda²¹⁸. It aims to ensure that environmental claims are substantiated based on reliable, comparable and verifiable information. The initiative would apply horizontally to voluntary claims related to products (goods and services, including food and non-food), and organisations, in a business-to-consumer and business-to-business context. It does not cover social sustainability.</p> | <p>The interaction between the initiatives is focused on business-to-consumer (B2C) claims (Green Claims Initiative aims to cover both B2B and B2C claims), and to measures that aim to fight greenwashing. On these areas, initiative on Empowering consumers for the green transition will act as a B2C <i>lex generalis</i>, a safety net for other EU-level technical or sector-specific instruments providing more detailed rules (<i>lex specialis</i>) for environmental claims. The Green Claims Initiative is such a <i>lex specialis</i> technical instrument. More specifically, this will mean that a green claim will need to be substantiated based on requirements of the Green Claims Initiative.</p> <p>The policy options under examination in the context of the Green Claims Initiative interact with this initiative in the following areas:</p> <ul style="list-style-type: none"> - Certain policy options considered under the Green Claims Initiative would make it mandatory for companies to observe certain methodological requirements regarding the substantiation and the communication of their voluntary environmental claims. For claims related to specific environmental impacts, life cycle or overall environmental performance, they would need to substantiate them via a PEF or OEF report (based on a PEFCRs or OEFSRs, where they exist, and based on the PEF or OEF method²¹⁹, where no PEFCR/OEFSR is available) and respect requirements on minimum information content in their communication. |

²¹⁷ COM(2020)98 final.

²¹⁸ COM(2020)696 final.

²¹⁹ <https://ec.europa.eu/environment/eussd/smgp/>

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| | | <p>The initiative would gradually introduce methodological requirements for a wider range of priority claims. Companies would remain free to decide if they make an environmental claim.</p> <ul style="list-style-type: none"> • The Empowering Consumers for the Green Transition initiative will introduce a ban on generic statements on the environmental performance of products (generic environmental claims such as “good for the environment”, “environmentally friendly” “friend of nature”, “green” would be forbidden unless the excellent environmental performance of the product can be demonstrated either by compliance with the EU Ecolabel regulation; officially recognised ecolabelling schemes in the Member States (in accordance with Article 11 of EU Ecolabel regulation); or by compliance with top environmental performance in accordance with applicable EU laws, i.e. the green claims or any other specific EU law applicable for certain sectors (e.g. linked to future SPI instrument or green finance etc.). |
| Sustainable Products Initiative | <p>The Sustainable Products Initiative (SPI) will introduce sustainability requirements for products placed on the market, mainly targeting manufacturers. The SPI will create a framework that allows setting both performance requirements and information requirements for specific product or groups of products. The initiative should expand the scope of the Ecodesign Directive to a wider range of products, and to new types of requirements to better cover the life cycle of products, circularity and possibly social aspects. SPI will be implemented based on a work programme set in line with priority criteria, establishing requirements as relevant to the products included in the work programme. The SPI also aims to establish a digital product passport which would give access to such information along</p> | <p>By laying down more specific product requirements, the SPI will be able to elaborate on and further complement the measures foreseen in the initiative on Empowering Consumers for the Green Transition, in particular in relation to the reparability and durability of products:</p> <ul style="list-style-type: none"> • For durability, the SPI may e.g. set requirements on what the minimum life duration of a specific product (or its components) should be or how long its spare parts should be kept available after purchase to facilitate its repair. In addition, the SPI could set information requirements on the expected durability of specific products. Therefore, the Empowering Consumer initiative’s horizontal information requirement on producer’s commercial guarantee is fully complementary to SPI. • For reparability, the SPI could set design requirements to improve the reparability of specific products, e.g. on a product’s ease of dis-assembly. In addition, the SPI could set information requirements on reparability, possibly including a reparability scoring index. Future SPI measures may also specify how this information should be communicated in relation to the relevant |

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| | <p>the value chain, with differentiated access to consumers, businesses and compliance authorities.</p> | <p>product or product group, including to consumers. Where appropriate and feasible, reparability information could also be required to be included in the Digital Product Passport. In so far as these communication rules are relevant to sellers as defined under the Empowering Consumers initiative, the SPI would function as a <i>lex specialis</i> and could provide more demanding or precise instructions where needed in relation to specific products or product groups. If not, the Empowering Consumers initiative provides default rules for the seller's obligations in relation to reparability information required by SPI. Therefore, the Empowering Consumer initiative's horizontal information requirement on reparability is fully complementary to SPI.</p> <p>In relation to misleading practices, such as early obsolescence, the SPI aims to introduce specific requirements (e.g. on durability and reparability) for products or groups of products, thus complementing the Empowering Consumers initiative which will facilitate public enforcement in order to stop unfair practices and will allow the harmed consumers to claim individual remedies where such practices are deemed unfair under consumer law</p> <p>For example, under the Empowering Consumers for the Green Transition initiative, the producer of a coffee machine would have to inform consumers about any feature of a good introduced to limit its durability. The SPI could complement this by establishing specific minimum requirements, for instance, on the durability, reparability, recyclability, recycled content and energy efficiency of all coffee machines.</p> |
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ANNEX 8: IMPACTS OF THE POLICY OPTIONS – DETAILED ASSESSMENT

This annex presents in a detailed way the impacts of the various policy options and complements [Section 6](#) above. The impacts and sub-impacts against which the policy options are assessed have been selected in line with the Better Regulation Guidelines and guided by the problem tree. The assessment is predominantly qualitative and complemented, when and where possible, by a quantitative assessment, which relies on estimates gathered from the literature review, stakeholder consultation and modelling work. The process for selecting the impacts and the methodology underpinning the quantitative assessment is explained in [Annex 4](#). The monetised costs and benefits of each measure considered in the assessment are incremental to those of the **baseline**, which is therefore assigned EUR 0 for these impact categories (as the costs and benefits of the baseline against the baseline is obviously zero). As regards the qualitative assessment, each policy option is given a mark on a scale from 0 to 10 per sub-criteria, with 5 being given to the **baseline**. When the option leads to an improvement of the situation compared to the baseline, a grade above 5 is given, commensurate to the qualitatively estimated impact. Similarly, if the option deteriorates the situation compared to the baseline, it receives a grade below 5, commensurate to the impact.

1. Problem 1: Consumers lack reliable information at the point of sale to make environmentally sustainable consumption choices

1.1. Sub-Problem 1.2: Lack of reliable information about products' lifespan

Assessment of the options

Option 1.2.A: EU-level obligation to inform consumers of the expected lifespan of products

Impacts on consumers:

Quality of decision-making: Consumers are interested in having information about the lifespan/durability of products and are even willing to pay for it. However, option 1.2.A will not improve the quality of decision-making for consumers. This is because the reliability of the information provided under this option (and the comparability it would allow between products) will depend on the methodology used by companies to assess such an expected lifetime. These methodologies are likely to vary depending on the companies, therefore leading to diverging assessments within a given product category. Several stakeholders have highlighted this challenge as a significant limitation of this option. It may only partly be solved by future Eco-design requirements when these become available for certain product categories. (4/10)

Consumer protection: In principle, the option ensures consumers receive information that helps them avoid products with low lifespans. However, the expected lifespan information could also result in unjustified consumer expectations as it could give the wrong impression of creating individual rights equivalent to commercial guarantees. While consumer claims for remedies under EU consumer law²²⁰ could be possible in

²²⁰ The Better enforcement and modernisation Directive (EU) 2019/2161 amended the Unfair Commercial Practices Directive 2005/29/EC, requiring Member States to ensure that consumers can seek individual redress for unfair commercial practices as of May 2022. Unfounded statements of expected durability could be eventually found misleading under the UCPD where the deceptive nature of the statement and its negative impact on the integrity of the

specific situations of ‘misleading’ durability statements, (many) consumers will not be able to obtain redress where their products fail earlier than expected and this could result in consumer confusion. This limitation was highlighted by experts, consumer organisations and NGOs. (5/10)

Consumer trust: Receiving this information is likely to create expectations among consumers that they would easily obtain remedies in case a product fails before the indicated lifespan. Since such remedies are not straightforward here, consumers who experience this type of situation will feel misled and their trust in the market is expected to be reduced. On the other hand, this information might give reassurance to consumers regarding the durability of products in the market. (4/10)

Monetisable Consumer welfare:

Depending on the level of effectiveness of the option in contributing to consumers purchasing alternatives that last one year longer than in the baseline (under our scenario), the monetisable consumer welfare is therefore estimated to be around EUR 300 - 500 (present value for period 2025-2040) if the information is reliable. It could, however, become negative if each company decides on its methodology²²¹. The reason behind a possible negative impact is that since each company can decide its own methodology, some consumers may believe (and even pay a premium) based on the indicated lifespan that they are buying products that last longer than the ones they were buying in the baseline when in fact they are not. (6/10)

Impacts on businesses:

Level-playing field: The option will penalise (via reduction of demand) companies producing products with shorter lifespans than could be expected and that freeride on consumer expectations based on the lifespan of their competitors’ products. The impact on the level-playing field is, however, dependent on the reliability of the assessment of lifespan by companies and effective enforcement. (4/10)

Reduction of barriers to cross-border trade: The option is not expected to have an impact on reducing the barrier to cross-border trade. (5/10)

Administrative burdens: This option will have significant administrative burden on businesses, related to the production of new data to be able to provide information on the expected lifespan of products²²² and, to a lesser extent, the tagging of the product²²³.

transactional decision (to buy the specific good) can be established. Showing the deceptive nature of the statement will require proving that the estimate was wrong, that the trader did not assess it properly etc. Furthermore, the statement about expected durability could also constitute a “public statement” pursuant to Article 7(1)(d) Sale of Goods Directive (objective conformity criterion). Accordingly, it could also establish reasonable consumer expectations and might lead to potential remedies against the seller for non-conformity, although only within the legal guarantee period. *For example: In a situation where a product’s expected durability is indicated as 5 years and later it turns out that the average durability of that product is only 4 years, a consumer who has bought such a product less than 2 years ago (i.e. the EU wide minimum legal guarantee period; in some Member States longer period applies) could be entitled to remedies for non-conformity, although only within the legal guarantee depending on the circumstances of the particular case to be decided ultimately by a court . This means that even though such a declaration does not constitute a “commercial guarantee” (see Option 1.2.B), it cannot be excluded that it may still lead to remedies against the seller based on the Sale of Goods Directive.*

²²¹ The impact of the option was assessed for large household appliances, small household appliances and IT and other electronic goods. This assessment has limitations in particular because it relies on extrapolation of anecdotal data for consumer behaviour and for the lifespan of products available on the market and it only considers gains for one additional year of lifespan while in reality the measure will help consumers choose products with lifespans that might be two or more years higher than the products they would have bought in the baseline scenario.

²²² Data obtained for the costs of the tests varied significantly and so we incorporated this in the cost model by assuming that these costs follow a triangular distribution. Another challenge to assess these costs was to estimate how many models exist per product category. The sources used were the Impact Assessments of the eco-design regulations complemented by a desk research of the offer of main online retailers in different EU countries.

²²³ It is assumed that in 97.5% of the cases this will be done by the manufacturer on the package and that in 2.5% of the cases stickers will have to be placed on the product package by sellers. Data on how much time it takes to place the stickers was obtained from the Impact Assessments for the proposal of Ecodesign regulations (5 minutes per sticker).

Business organisations have pointed to the high cost of this obligation. While the obligation is on the seller, it is assumed that sellers will request this information from manufacturers. These extra costs are estimated between EUR 2 435 - 2 680 million for the period 2025-2040 (present value). This, however, depends on various assumptions, including whether manufacturers are already producing this data in a business-as-usual scenario. Another cost relates to the tagging of the good.

Substantive compliance costs: As this measure imposes an information obligation, the costs identified are categorised as administrative burden and no relevant substantive compliance costs were identified.

Indirect costs: The total costs of the option divided by the volume of projected sales is estimated to be on average EUR 0.10 for all products. While such extra costs might be passed on the consumers, it is not expected to have an effect on the demand given the limited impact on the average price of the products affected by the option. Some companies might need to improve the quality of their products in order to remain competitive and thus incur costs. These costs are, however, expected to be compensated by an increase in the demand for these products. (5/10)

SME growth: This option will have a higher relative impact on SME manufacturers but its costs are not expected to have a significant negative impact on SME growth as such as SMEs are more likely to be sub-contractors but less so the final manufacturers who would have to carry out the assessment. (5/10)

Impacts on public administrations:

Enforcement costs are estimated to be of EUR 86-97 million for the period 2025-2040²²⁴. These costs will be generated by the time and expertise needed to check the information provided by businesses (monitoring, inspections, complaint handling), which will be particularly challenging and time-consuming in the absence of common standards/methodology.

Environmental impacts:

Climate change: Due to the limitation of the option mentioned above, consumers are unlikely to purchase products that effective last longer and so the impact on CO2 emissions is considered negligible.

Other environmental impacts change. For the same reason as above the option is expected to have negligible effects on other environmental impacts. (5/10)

Coherence: The option does not state which methodology should be used to assess the expected lifespan. This space can therefore be filled by future Eco-design (and planned SPI) requirements. The (future) provisions under the Sale of Goods Directive and the Unfair Commercial Practices Directive would allow for individual consumer remedies (e.g. compensation for damage suffered by the consumer; or a price reduction or the termination of the contract) in case of unfounded statement on the expected durability. This could actually result – even in absence of harmonised methodology under Eco-design or SPI - in prudent/realistic estimations from sellers/traders on expected lifespan. (6/10)

Overarching impacts:

Circularity and sustainable consumption: The option will help increase awareness among consumers of products' durability (at the time of purchase) and reduce, to some

²²⁴ Estimated based on the creation of a team of 5 experts per MS (25% of their time would be dedicated to monitoring the compliance with the measure, 50% would be to carry out inspections and 25% with handling complaints), 140 hours of familiarization with the measures and adjust the internal procedures and a yearly enforcement action amounting to EUR 40 000.

extent, the frequency of replacement of products. This contributes to a reduction of waste, and to a more circular and sustainable economy. (5/10)

Application of the EU legal consumer framework: No improvement expected since the option relies on an assessment carried out by businesses according to the methodology of their choice, and thus more difficult to verify for enforcers. Half of the authorities surveyed pointed to difficulties in monitoring this obligation. (5/10)

Option 1.2.B: Obligation to inform consumers of the existence (or absence) of a producer's commercial guarantee for durability

Impacts on consumers:

Quality of decision-making: This option would also give consumers information that they want to receive and for which they would be willing to pay. Commercial guarantees are used by companies to signal that their products are of high-quality and that they are expected to last long. The provision of information about the existence and length of commercial guarantees could thus serve as an excellent proxy to indicate which products are expected to have a longer lifespan. Simulations carried out for the purposes of this Impact Assessment show that, in the medium term, the share of products covered by commercial guarantees and the duration of the commercial guarantees will increase as a result of the option. These results are in line with the expectations voiced by some consumer associations and NGOs consulted. To avoid information overload (highlighted by national authorities as a risk), attention will have to be paid to the way information is provided to avoid confusion among consumers between the period covered by the legal guarantee and the additional period covered by a commercial guarantee. The comparability of the provided information across products, and the reliability of such information, are expected to be very high. (7/10)

Consumer protection: Consumers will be able to more easily identify and purchase products covered by commercial guarantees and thus be better protected from problems that occur during the period of the commercial guarantee, once the legal guarantee has elapsed. It will also contribute to protecting consumers that are currently unaware of the period covered by a legal guarantee. (7/10)

Consumer trust: This option will increase the trust of consumers in the market, first by increasing consumer awareness of the existence of legal and commercial guarantees and their duration and, second, by reassuring consumers of the quality and durability of products covered by commercial guarantees. (7/10)

Monetisable Consumer welfare: The option is estimated to bring an increase to the monetisable consumer welfare of approximately EUR 1 775 – 2 465 million for the period 2025-2040 (present value). The extent of the impact is dependent on how the market will adjust to the measure in the long terms and consequently on how the offer (number and duration) of commercial guarantees will evolve. The approach used was to calculate the surplus of those consumers that end up buying products²²⁵ that are covered by a commercial guarantee²²⁶ as a result of the options (consequently, at the baseline they would have not purchased a product covered by a commercial guarantee). (7/10)

Impacts on businesses:

²²⁵ The estimation took into account the willingness to pay for a product covered by one year longer than the legal guarantee.

²²⁶ Which means a gross gain of the willingness to pay, and a net gain equal to the gross gain minus the price premium they paid to purchase a product with a commercial guarantee of one year. The average price premium considered was based on the results of the mystery shopping and of the DG study on Legal and commercial guarantees available at: https://ec.europa.eu/info/sites/info/files/legal-guarantees-final-report_en.pdf

Level-playing field: The option will systematically increase transparency regarding the commercial guarantee offered for goods and penalise companies that do not offer or offer less attractive commercial guarantees (through a reduction of demand). If companies are producing products with shorter lifespans or lower quality then it could be reasonably expected that the sellers will most likely not offer commercial guarantees for these products, so the option will contribute to a level playing field. (6/10)

Reduction of barriers to cross-border trade: Evidence indicates that without EU action, Member States will start addressing this sub-problem independently and in a non-harmonised way. It can therefore be expected that a harmonised approach at EU level to address this sub-problem will have a positive impact on business confidence and cross-border transactions. (6/10)

Administrative burdens: This option will impose relatively high one-off administrative burdens on businesses, primarily sellers, mostly related to adapting systems, procedures and existing data (e.g. updating websites) and to replacing price tags in offline shops (e.g. on shelves). However, it will have low recurrent administrative burdens as the activities necessary to provide the information would have been carried out in business-as-usual scenario. These extra costs are estimated to be approximately EUR 890 – 1 065 million for the period 2025-2040 (present value). The costs fall largely on sellers as they are mainly linked to the display of the required information.

Substantive compliance costs: None have been identified. (5/10)

Indirect costs: The total costs of the option divided by the volume of product sales is around EUR 0.04. While such extra costs might be passed on the consumers, it is not expected to have an effect on the demand. It is also not expected to lead to a significant increase of the operational costs of companies, as they are aware of the quality and lifespan of their products and will select the optimal duration for the commercial guarantee and optimum price premium accordingly, depending also on the needs of the consumers in a given market or a given product category. These costs are expected to be compensated by an increase in the price of products (as consumers are willing to pay for longer commercial guarantees) and possibly by an increase in demand for those same products. (5/10)

SME growth: No significant impact. (5/10)

Impacts on public administrations:

Enforcement costs are estimated to be of **EUR 15-27 million** for the period 2025-2040²²⁷. These costs will be generated by the time and expertise needed to check the information provided by businesses. Based on interviews with national authorities in the context of the supporting study the option would not require significant additional resources on top of the existing ones to enforce CRD and SGD.

Environmental impacts:

Climate change: Due to the implementation of the option, (some) consumers will purchase products that last longer, therefore leading to a reduction of produced units. This will lead to a reduction of CO2 emissions estimated at 0.3 – 0.4 mega tons (present value of EUR 6 - 8 million) during production (estimate based on products lasting at least 1 year longer) for the period 2025-2040.

Other environmental impacts change: In addition, it will lead to less water used, fewer particulate matter and polluting agents released and a reduction of the amount of waste, and will support the transition towards a more circular and sustainable economy. (6/10)

²²⁷ Based on 1 staff per Member State, 70 hours of familiarisation with the measure and a yearly action amounting to EUR 40 000.

Coherence: The option is coherent with the legal framework and usefully completes the provisions set out in the Sales and Guarantees Directive and the Consumer Rights Directive as it will ensure clearer information to consumers at the point of sale on the length of the producer's commercial guarantees of durability for all goods in scope. (9/10)

Overarching impacts:

Circularity and sustainable consumption: The option will, to some extent, help increase the awareness among consumers of products' durability (at the time of purchase) and reduce, to some extent, the frequency of replacement of products. This contributes to waste reduction and a more circular and sustainable economy. (6/10)

Application of the EU legal consumer framework: The option is easily enforceable. It will also ensure a better and coherent application of the EU legal consumer framework (in particular the SGD) as it specifies that information on the existence or absence of a producer's commercial guarantee of durability should be provided to consumers. (7/10)

Option 1.2.C: Obligation to inform consumers of the existence (or absence) of a producer's commercial guarantee for durability and on the period of time during which free software updates will be provided by manufacturers

Impacts on consumers:

Quality of decision-making: Evidence from literature and from the consumer survey and stakeholder consultations show that consumers are interested in purchasing products with better software updates. This need has to some extent been addressed by Directive (EU) 2019/771 which requires sellers to ensure that software updates are provided for a period of time that a consumer may reasonably expect (where the sales contract provides for a single act of supply of the digital element). However, it does not specify the exact period of time nor how this should be communicated to the consumers at the point of sale. The option (**in addition to the impacts described for option 1.2.B**) would allow consumers to identify which products offer better conditions in terms of availability of software updates and therefore improve their decision-making process. In addition, it could have the additional benefit of quantifying what "reasonable expectation" could mean (as some stakeholders pointed out that there would be advantages in qualifying "reasonable expectations" for consumers and for enforcement). To address possible information overload, this information on software updates should be only provided in absence of a commercial guarantee of durability (which will cover software updates), unless the software updates are provided for a longer time than the commercial guarantee of durability. (8/10)

Consumer protection: In addition to the positive impacts described for option 1.2.B, the option would also have a positive impact on the protection of consumers as it is expected to qualify to some extent what manufacturers consider to be a "reasonably expected" period under the Sale of Goods Directive. Furthermore, manufacturers might decide to provide software updates for a longer period than the "period reasonably expected" for the sellers in the Sale of Goods Directive and so consumers would be protected for a longer period due to the option. (8/10)

Consumer trust: The option would have a positive impact in addition, to the positive impacts described for option 1.2.B, primarily because it increases transparency on the length of the period during which software updates will be available. (8/10)

Monetisable Consumer welfare: Evidence shows that some consumers give up repairing a broken product because of a lack of updates. Data from the consumer survey indicates that this is the case in about 6%, 10% and 9% of repair attempts of laptops, TVs and smartphones, respectively. The option may contribute to ensuring consumers

are better informed and select products with software updates ensured for longer periods (when compared to the baseline) and to some extent ensure that some of the failed repair attempts (due to lack of software updates) will, in fact, succeed. In these cases, consumers will experience a “gain”, which according to the partial calculations carried out by the supporting study is likely to be around EUR 2 355 – 3 555 million for the period 2025-2040 (net present value). (8/10)

Impacts on businesses:

Level-playing field: The option is expected to have some positive impact on a level-playing field on top of those described for option 1.2.B as it will increase transparency about commitments regarding software update and allow consumers to compare products based on these commitments. (7/10)

Reduction of barriers to cross-border trade: The option is expected to have some impact on barriers to cross-border trade, as it is expected that some Member States will independently legislate on this if no EU level legislation is in place. (6/10)

Administrative burdens: The option will have costs to manufacturers as they need to decide on the period during which they will provide software updates, and communicate them to sellers. Sellers will then have costs to ensure that consumers receive this information at the point of sale, however, digital means are allowed. These extra costs are estimated to be between EUR 990 – 1 170 million (of which the great majority for SMEs) for the period 2025-2040 (present value).

Substantive compliance costs: None have been identified. (5/10)

Indirect costs: The total costs of the option divided by the volume of product sales is around EUR 0.04. As explained previously, it is not expected to have an effect on the demand given the average price of the products affected by the option. (5/10)

SME growth: Same as with option 1.2.B. (5/10)

Impacts on public administrations:

Enforcement costs: These costs are expected to be the same as for option 1.2.B.

Environmental impacts:

Climate change: In addition to the impacts of option 1.2.B, due to the implementation of the option, (some) consumers will be able to repair some goods that would have been replaced if the software had not been available. Consequently, the repaired products will have a longer lifespan than they would have had in the baseline. This will lead to a reduction of produced units and thus of CO2e emissions estimated to be around 0.4 – 0.7 mega tons (present value of EUR 8 - 13 million) during production (estimate under a scenario based on products lasting at least 1 year longer) for the period 2025-2040.

Other environmental impacts change. Same as for option 1.2.B. (6/10)

Coherence: In addition to the impacts of option 1.2.B, this option would ensure further coherence with SGD, as it would stipulate the number of years during which manufacturers commit to providing updates, without prejudice to the statutory SGD right on software updates if the ‘reasonably expected period’ for updates turns out to be longer. The seller would be required to pass on the manufacturer’s information. This would make the statutory SGD right more tangible and meaningful –i.e. the consumer will know that at least for the indicated period he is entitled to software updates. (9/10)

Overarching impacts:

Circularity and sustainable consumption: In addition to the impacts described for option 1.2.B, the option will help to slightly increase the share of products that are repaired instead of replaced. (6/10)

Application of the EU legal consumer framework: In addition to the impacts of option 1.2.B, the option is expected to strengthen the application of the relevant provision in the SGD. (7/10)

Recap of the assessment of the options

| 1. Criteria and sub-criteria | | Option 1.2.A Information on expected lifespan | Option 1.2.B Information on guaranteed lifespan | Option 1.2.C = 1.2.B + Obligation to inform consumers on the period of time during which free software updates will be provided by manufacturers |
|---------------------------------|---|--|---|--|
| Impact consumers on | Quality of consumer decision-making | 4/10 | 7/10 | 8/10 |
| | Consumer protection | 5/10 | 7/10 | 8/10 |
| | Consumer trust | 4/10 | 7/10 | 8/10 |
| | Monetisable consumer welfare (present value for period 2025- 2040) | 6/10 (EUR 850 - 1 110 million) | 7/10 (EUR 1775 – 2 465 million) | 8/10 (EUR 2 355– 3 555 million) |
| Impact businesses on | Level-playing field | 4/10 | 6/10 | 7/10 |
| | Reduction of barriers to cross- border trade | 5/10 | 6/10 | 6/10 |
| | Administrative burdens (present value for period 2025-2040) | EUR 2 435 – 2 680 million | EUR 890 – 1 065 million | EUR 990 – 1 170 million |
| | Substantive compliance costs (present value for period 2025- 2040) | 0 | 0 | 0 |
| | Indirect costs | 5/10 | 5/10 | 5/10 |
| | SME growth | 5/10 | 5/10 | 5/10 |

| | | | | |
|---|--|-------------------|-------------------|--------------------|
| Impacts on public administration | Enforcement costs and other costs (present value for period 2025-2040) | EUR 86-97 million | EUR 15-27 million | EUR 15-27 million |
| Environmental impacts | Climate change (present value for period 2025-2040) | Negligible | EUR 6 - 8 million | EUR 8 – 13 million |
| | Other environmental impacts | 5/10 | 6/10 | 6/10 |
| Coherence | Coherence with other EU legislation | 6/10 | 9/10 | 9/10 |
| Overarching impacts | Circularity and sustainable consumption | 5/10 | 6/10 | 6/10 |
| | Application of the EU legal framework | 5/10 | 7/10 | 7/10 |

- 1.2. Sub-Problem 1.3: Lack of reliable information about products' reparability

Assessment of the options

Option 1.3.A: Provision of updated, user-friendly repair and maintenance manuals to consumers

Impacts on consumers:

Quality of decision-making: No major impact expected as the information provided by the manual will come handy mainly during the use of the product but not necessarily at the point of sale; certain consumers will still look at it, of course, and thus it will contribute to informed purchasing decisions. The decision to allow digital means to provide the information was taken to reduce potential “information overload”, but it does have a slight negative impact on the visibility and accessibility of the information. (5/10)

Consumer protection: This option contributes to ensuring good maintenance during the use phase which will contribute to extending the useful lifetime of the product. Moreover, it will support self-repair and also protect consumers from problems faced when trying to independently carry out repairs without having the necessary instructions to do so. It can also prevent consumers from carrying out unsafe repairs (by non-certified people), by warning them what repairs may be done by themselves and which ones should be left to professional repair services. (6/10)

Consumer trust: This option will slightly increase the trust of consumers in the market and removes some barriers to self-repair and independent repair, giving a sense of empowerment to consumers. This potential benefit was mentioned by a few stakeholders (two NGOs and one consumer association) in the stakeholder interviews. (6/10)

Monetisable Consumer welfare: About 3.5% of consumers attempt to repair a broken product and give up because of a lack of repair manuals or information on how to carry

out the repair. By providing consumers with repair manual, some of these 3.5% failed repair attempts will, in fact, succeed and consumers will experience a “gain” equal to the value of the additional lifespan gained as a result of the repair, which is estimated to amount to EUR 435 – 760 million for the period 2025-2040 (present value). Moreover, consumers may also benefit from better services from independent repairers who have now also better access to repair manuals. (7/10)

Impacts on businesses:

Level-playing field: No impact expected. (5/10)

Reduction of barriers to cross-border trade: The option is expected to have some impact on barriers to cross-border trade, as in the future it is expected that some Member States will independently legislate on this if no EU level legislation is in place. A harmonised approach prevents the need for companies to comply with different standards (which will lead to a multiplication of costs). (6/10)

Administrative burdens: Manufacturers will have to produce repair manuals for each model. Based on data collected through interviews we estimate the minimum cost of producing a repair manual (for users) to be between EUR 4 000 and 6 000. The costs of a digital solution to providing this information are significantly lower when compared to the paper solution. This is in line with the views collected from industry associations. The costs fall mainly on manufacturers, but sellers will also be affected as having to ensure that consumers receive the repair manual (which could be also just providing a link to the website of the manufacturer for online shops; for offline shops also digital means are allowed or via the repair manual that is included in the packaging). In the case of a digital solution, these extra costs (present value) are estimated to be around between EUR 785 – 935 million in the period 2025-2040 (of which 20% for SMEs). In the case of a paper version, the extra costs are much higher.

Substantive compliance costs: None have been identified. (EUR 0)

Indirect costs: The total costs of the option divided by the volume of product sales is around EUR 0.04. As explained previously, it is not expected to have an effect on the demand given the average price of the products affected by the option. (5/10)

SME growth: This option will have a higher relative impact on SME manufacturers since their volume of sales per model is likely lower than those of the large manufacturers. Nevertheless, the costs imposed by the option are not expected to be significant and therefore will not have a significant negative impact on SME growth. (5/10)

Impacts on public administrations:

Enforcement costs are estimated to be of EUR 16-21 million for the period 2025-2040²²⁸ (present value). The costs will be generated by the time needed to check the availability of manuals. Based on interviews with some CPC authorities, it is assumed that the option would not require significant additional resources on top of the existing ones to enforce CRD and SGD.

Environmental impacts:

Climate change: Due to the implementation of the option, consumers will be able to maintain their goods in a proper way and repair some goods that would have been replaced in the absence of the manuals. Consequently, the (repaired) products will have a longer lifespan than they would have had in the baseline. This will lead to a reduction of produced units and thus of CO2 emissions estimated at 0.9 – 1.6 mega tons (present

²²⁸ Based on 1 extra staff per Member State, 70 hours of familiarization with the measure, and a yearly action estimated at EUR 20 000 per MS.

value of EUR 19 - 33 million) during production (estimate for a scenario based on products lasting at least 1 year longer) for the period 2025-2040.

Other environmental impacts change. For the same reasons, it is expected that less water will be used and fewer particulate matters and polluting agents will be released. Longer-lasting products are also expected to reduce the amount of waste (7/10)

Coherence: Fully coherent with existing or future Ecodesign/SPI requirements which may provide for specific product categories further details concerning what the specific 'repair and user manual' should include (8/10)

Overarching impacts:

Circularity and sustainable consumption: The option will help increase the share of products that are repaired instead of replaced and also extend the useful lifetime of new products. This contributes to a reduction of waste, and to a more circular and sustainable economy. However, as shown above, the magnitude of the impact is expected to be relatively small. (7/10)

Application of the EU legal consumer framework: No impact. (5/10)

Option 1.3.B: Provision of information about which spare parts are available and until when

Impacts on consumers:

Quality of decision-making: Consumers are interested in purchasing products with better availability of spare parts as this reassures them that finding spare parts is (and will remain) possible so that the product can be repaired in case of future failures. This option will thus help consumers identify which products offer better conditions in terms of availability of spare parts and therefore improve their decision-making process. The decision to allow digital means to provide this information was taken to reduce potential "information overload", but it does have a small negative impact on the visibility and accessibility of the information. This is mitigated by ensuring that consumers are informed of where the information is available. (6/10)

Consumer protection: This option will help consumers to find the right spare parts for their defective products and thus contributes to protecting consumers trying to repair products as they can know if and which spare parts are available. It prevents them from buying or introducing the wrong spare parts (6/10)

Consumer trust: Same as option 1.3.A. (6/10)

Monetisable Consumer welfare: About 7%-12% of repair attempts by consumers are unsuccessful because of a lack of spare parts or information on how to obtain them. By providing consumers with information about the availability of spare parts, some of these failed repair attempts will, in fact, succeed and consumers will experience a "gain" equal to the value of the additional lifespan gained as a result of the repair, which is estimated to amount to approximately EUR 1 220 – 2 970 million for the period 2025-2040 (present value). Moreover, consumers may also benefit from better services from independent repairers who have now also better access to spare parts.

Impacts on businesses:

Level-playing field: The option is expected to have a very slight positive impact as it will increase transparency regarding commitments related to the availability of spare parts and will allow consumers to compare products based on that. (5/10)

Reduction of barriers to cross-border trade: Same as option 1.3.A. (6/10)

Administrative burdens: Administrative burdens affect manufacturers having to provide the necessary information to sellers (which include the costs of identifying which spare parts will be available and for how long) as well as sellers having to ensure

that consumers receive this information (which could be just providing a link to the website of the manufacturer for online shops; for offline shops also digital means are allowed). These extra costs fall mainly on sellers and are estimated to be between EUR 1 685 – 1 715 million in the period 2025-2040 (present value).

Substantive compliance costs: None have been identified. (5/10)

Indirect costs: The total costs of the option divided by the volume of product sales is around EUR 0.07. As explained previously, it is not expected to have an effect on the demand given the limited impact on the average price of the products affected by the option. (5/10)

SME growth: Same as with 1.3.A. However, the option will further promote the reparability of products and increase the demand for repair services, often provided by SMEs. The magnitude of the impact is not expected to be significantly higher in the period of analysis. (5/10)

Impacts on public administrations:

Enforcement costs are estimated to be of EUR 16-21 Million for the period 2025-2040²²⁹ (present value), generated by the time needed to check whether the information is provided. Based on interviews with some CPC authorities, it is assumed that the option would not require significant additional resources on top of the existing ones to enforce CRD and SGD.

Environmental impacts:

Climate change: Due to the implementation of the option, (some) consumers and independent repair services will be able to repair some goods that would have been replaced in the absence of information on spare parts. Consequently, the repaired products will have a longer lifespan than they would have had in the baseline. This will lead to a reduction of produced units and thus of CO2 emissions estimated 1.9 – 3.3 mega tons (**present value of EUR 39-68 million**) during production (estimate under a scenario based on products lasting at least 1 year longer) for the period 2025-2040.

Other environmental impacts change. Similar to option 1.3.A but with a slightly higher magnitude. (6/10)

Coherence: As it focuses on informing consumers on the availability of spare parts, the option is coherent and complements eco-design rules if and when they define whether spare parts should be available for a given product category. (8/10)

Overarching impacts:

Circularity and sustainable consumption: Same as with option 1.3.A, although the magnitude of impact is slightly higher. (7/10)

Application of the EU legal consumer framework: No impact but the option was considered difficult to enforce by some authorities. (5/10)

Option 1.3.C: Information about availability of repair services

Impacts on consumers:

Quality of decision-making: While the option might help consumers select products that appear to have better availability of repair services at the moment of purchase, problems related to the capacity of sellers to provide comprehensive and complete information regarding repair services not specifically recommended by brands, might potentially contribute to worsening the decision-making of consumers as well as reducing their trust. Furthermore, the option will have less impact on consumers who do

²²⁹ Based on 1 extra staff per Member State, 70 hours of familiarization with the measure, and a yearly action estimated at EUR 20 000 per MS.

not live near the place where the product was purchased. Although producers will be able to provide information on repair services in other regions and Member States with which they are affiliated or associated, sellers will be less likely to have available information on the existence of local or independent repair services in other regions. National authorities pointed to this risk. (4/10)

Consumer protection: No impact expected. (5/10)

Consumer trust: The information provided by traders might be unintentionally biased (towards recommended repair services as other repair services are more difficult and costly to identify) and incomplete (as it may not cover certain regions or Member States). Thus, the option might have a negative impact on consumer trust. (4/10)

Monetisable Consumer welfare: About 2%-5% of repair attempts by consumers are unsuccessful because of a lack of repair services or because consumers cannot find these services. However, the lack of effectiveness of the option in providing complete information is expected to lead only to a minor increase of the consumer surplus, which is estimated to amount to between EUR 115 - 250 million in the period 2025-2040²³⁰ (present value).

Impacts on businesses:

Level-playing field: The option is expected to have a small negative impact as a result of the limitations related to the comprehensiveness of the list of repair services provided by traders and the potential unintentional biases towards repair services recommended by brands. (4/10)

Reduction of barriers to cross-border trade: The option might have a possible negative impact on the cross-border trade as sellers from one Member State might experience difficulties in identifying repair services in another Member State, which might prevent them from selling product across borders. (3/10)

Administrative burdens: This option involves the need to maintain an updated list of repair services and to ensure that consumers have access to that list. These costs are on the seller. These extra costs are estimated to be between EUR 3 120 – 3 380 million (present value) for the period 2025-2040 (of which largely for SMEs).

Substantive compliance costs: None have been identified

Indirect costs: The total costs of the option divided by the volume of product sales is around EUR 0.13. As explained previously, it is not expected to have an effect on the demand given the average price of the products affected by the option. (5/10)

SME growth: Similar to option 1.3.A. Furthermore, it might have also a negative impact on SME repair services that are not specifically recommended by manufacturers. (4/10)

Impacts on public administrations:

Enforcement costs are estimated to be of EUR 8-13 million for the period 2025-2040²³¹ (present value), generated by the time needed to check whether the information is provided. Based on interviews with some CPC authorities, it is assumed that the option would not require significant additional resources on top of the existing ones to enforce CRD and SGD.

Environmental impacts:

²³⁰ The quantification of benefits was done by adjusting the stated willingness to pay for information about the availability of repair services of products by the respondents to the consumer survey and multiplying it by the number of consumers in the EU. The question did not specify for what products the information would be available, so the value was adjusted based on the share that consumers spend on the three product categories considered in the analysis (large household appliances, small household appliances and ICT and electronic services). Furthermore, the question also covered information on the period of time that repair services would be available. For this reason, we only considered 25% of the stated value

²³¹ Based on 0.5 extra staff per Member State, 70 hours of familiarization with the measure, and a yearly action estimated at EUR 20 000 per MS.

Climate change: Due to the implementation of the option, (some) consumers will be able to repair some goods that would have been replaced if information about repair services had not been available. Consequently, the repaired products will have a longer lifespan than they would have had in the baseline. This will lead to a reduction of produced units and thus of CO2 emissions estimated at between 0.04- 0.08 mega tons or EUR 1 – 2 million during production (**present value** estimate under a scenario based on products lasting at least 1 year longer) for the period 2025-2040.

Other environmental impacts change. Same as option 1.3.A. (6/10)

Coherence: No issue of coherence identified. (8/10)

Overarching impacts:

Circularity and sustainable consumption: The impact on the production is expected to be minor, as will be the effect of the measure on other environmental impacts and on the production of electric and electronic waste. (6/10)

Application of the EU legal consumer framework: the option will be difficult to enforce as it will be time and resource consuming for authorities to assess whether the information provided by retailers is comprehensive and not biased. (4/10)

Option 1.3.D: Reparability scoring Index

Impacts on consumers:

Quality of decision-making: The option is expected to have a positive impact on the quality of consumer decisions, as a score allows to cover a wide range of reparability aspects effectively, without leading to information overload. It requires, however, that all manufacturers are implementing the JRC general methodology in exactly the same way to guarantee a reliable comparability between products (and in the absence of more product-specific methodology to be defined under Ecodesign/SPI) which would be very difficult in reality. This may lead to products being assessed differently within the same category, which could impact negatively consumer trust in the index and prevent comparability. The cost of repair is not covered under the JRC methodology which is seen by stakeholders as an important condition for the repair of a product. (6/10)

Consumer protection: No impact expected. (5/10)

Consumer trust: The impact on consumer trust will be dependent on whether the index is based on the same methodology for a given product category. However as manufacturers would apply a general methodology, it is likely to lead to variations, which could affect consumer trust. (4/10)

Monetisable Consumer welfare: A repair score will allow consumers to select products that are easier to repair. However, it might not provide actionable information that will help consumers to repair the products (e.g., which spare parts are available, where spare parts can be obtained; what is the cost of repair, how quickly can the repair be done by the repair service etc.). This reduces, to some extent, the effectiveness of the option. Nevertheless, this option is expected to lead to an increase in the consumer surplus, which is estimated to amount to between EUR 455 – 995 million in the period 2025-2040 (present value). (7/10)

Impacts on businesses:

Level-playing field: The option is expected to have a minor positive impact on the level playing field, as consumers will be able to compare products based on their reparability. However, this impact is largely dependent on whether the index is based on a common methodology followed by all manufacturers. (5/10)

Reduction of barriers to cross-border trade: The option might prevent future barriers to cross-border trade as one Member State has already developed a reparability score for

certain product categories, and other Member States might each adopt their own score system. This lack of harmonisation (that the option would prevent) would require companies wanting to trade across borders to assess the reparability of products according to different systems and to a duplication (or more) of costs. (7/10)

Administrative burdens: The administrative burden of this option involves the need to assess the reparability of products and inform consumers of that assessment. Given the complexity of providing a repair score, it will require a substantial amount of resources from manufacturers, but even more on the seller as the information obligation falls on them. Sellers will be asked to provide this information at the point of sale, but this can be also done via digital means. These total extra costs are estimated to be between EUR 4 180 – 4 360 million for the period 2025-2040 (present value).

Substantive compliance costs: None have been identified.

Indirect costs: The total costs of the option divided by the volume of product sales is around EUR 0.16. As explained previously, it is not expected to have an effect on the demand given the average price of the products affected by the option. (5/10)

SME growth: Given the substantial amount of resources that the assessment will require, in particular in view of the absence of detailed guidance/methodology for a specific product category, it is expected that the option could have a minor negative impact on SME growth. (4/10)

Impacts on public administrations:

Enforcement costs are estimated to be of EUR 32 - 37 million for the period 2025-2040 (present value), generated by the time needed to check whether the information is provided and **accurate**²³². Based on interviews with some CPC authorities, it is assumed that the option would not require significant additional resources on top of the existing ones to enforce CRD and SGD.

Environmental impacts:

Climate change: Due to the implementation of the option, (some) consumers will opt for goods that can be more easily repaired. Consequently, the repaired products will have a longer lifespan than they would have had in the baseline. This will lead to a reduction of produced units and thus of CO₂e emissions estimated at between 1.2 – 2.2 mega tons (present value of EUR 52 - 78 million) during production (estimate under a scenario based on products lasting at least 1 year longer) in the period 2025-2040.

Other environmental impacts change. The impact on the production is estimated to be moderate, and so will be the effect of the option on other environmental impacts and on the production of electric and electronic waste. (7/10)

Coherence: No issue of coherence with existing EU law identified. (8/10)

Overarching impacts:

Circularity and sustainable consumption: The option will help to increase the share of products that are repaired instead of replaced. This contributes to a reduction of waste, and to a more circular and sustainable economy. (7/10)

Application of the EU legal consumer framework: The option may be very challenging to enforce as authorities may not have the means and resources to verify the reliability of the repair score and the methodology used by companies (particularly for those cases where no product specific methodology exists). (4/10)

²³² Based on 2 extra staff per Member State, 70 hours of familiarization with the measure, and a yearly action estimated at EUR 20 000 per MS.

Option 1.3.E: Provision of Repair Scoring Index, or other relevant repair information on a where applicable or where available basis

Impacts on consumers:

Quality of decision-making: This option will increase the quality of consumer decision-making as it will increase the likelihood that high quality information (i.e. a repair score when available, and other relevant repair information when no repair score is available) is provided to the consumer at the point of sale. (7/10)

Consumer protection: The option combines the benefits of the repair information to be provided under options 1.3.A, 1.3.B, 1.3.C and 1.3.D, in that it will allow consumers to select products that are easier to repair when such repair information is available. (6/10)

Consumer trust: The option avoids the drawback of option 1.3.D which relies on all manufacturers implementing the JRC general repair score methodology in exactly the same way. This option, on the other hand, provides for the provision at the point of sale of those repair scores which are applicable in the case of the product and sector in question. This is expected to have a positive impact on consumer trust. (6/10)

Monetisable Consumer welfare: The option has the benefit that the information will be able to be provided on a wider range of products, as options 1.3.A, 1.3.B, 1.3.C and 1.3.D would provide repair information on a defined, hence more narrow, product scope (i.e. energy-using goods only), while manufacturers may be potentially interested/able to provide repair information for other product categories as well. Also, the fact that manufacturers who provide repair information on their products can be certain that such information will be presented to consumers at the point of sale will mean that manufacturers will be incentivised to compete to provide the best repair conditions on their products. This increased competition is expected to provide further benefits for consumers. A lack of data did not allow to quantify the benefits of this option. (7/10)

Impacts on businesses:

Level-playing field: As mentioned above, this option is expected to increase competition and have a positive impact on the level playing field. (6/10)

Reduction of barriers to cross-border trade: The option is expected to have a minor positive impact on the reduction of barriers to cross-border trade. (6/10)

Administrative burdens: The costs of this option for businesses are expected to be low, as sellers will have to provide only such information as manufacturers make it available. There will be no additional obligation for manufacturers to provide such information on their products. The administrative costs are expected to be between EUR 222 million in the period 2025-2040.

Substantive compliance costs:

Indirect costs: These costs are expected to be low, and are not expected to have an effect on the demand given the average price of the products affected by the option. (5/10)

SME growth: The costs imposed by the option are not expected to be significant and therefore will not have a significant negative impact on SME growth. (5/10)

Impacts on public administrations:

Enforcement costs: This option is expected to entail minimal enforcement costs, estimated at EUR 0.12 million in the period 2025-2040, generated by the time needed to check whether the seller has provided such information at the point of sale when made available by the manufacturer.

Environmental impacts:

Due to the implementation of the option, some consumers will opt for goods that can be more easily repaired. Consequently, the repaired products will have a longer lifespan than they would have had in the baseline. For this reason we can conclude that this option will have a positive impact on the environment.

Climate change: Due to the implementation of the option, some consumers will opt for goods that can be more easily repaired. Consequently, the repaired products will have a longer lifespan than they would have had in the baseline. For this reason we can conclude that this option will have a positive impact on the environment. As the option will not require any physical paper repair manuals to be provided at the point of sale we can estimate that it will lead to a reduction in CO2 emissions which is at least greater than that of Option 1.3.A in the period 2025-2040.

Other environmental impacts change: The impact on the production is estimated to be moderate, and so will be the effect of the option on other environmental impacts. (7/10)

Coherence: Due to the fact that the information to be provided under this option is to be provided at the point of sale only when made available by the manufacturer or where made available under applicable national or EU law, a very high level of coherence with existing EU law is ensured (9/10)

Overarching impacts:

Circularity and sustainable consumption: The option will help to increase the share of products that are repaired instead of replaced. This contributes to a reduction of waste, and to a more circular and sustainable economy. (7/10)

Application of the EU legal consumer framework: This option is coherent with the legal framework, in that it provides for repair information to be made available at the point of sale in precisely those cases where the existing legal framework already requires such information to be provided by manufacturers, as well as where manufacturers chose to provide such information voluntarily. It is also complementary to potential future Ecodesign/SPI requirements which may provide for further specifications concerning what repair information should be included for specific product categories, as well as its method of presentation (e.g. via product passport or other). (6/10)

Recap of the assessment of the options

| Criteria and sub-criteria | Option 1.3.A Repair manual | Option 1.3.B Info on spare parts | Option 1.3.C | Option 1.3.D | Option 1.3.E |
|---------------------------|-------------------------------|-------------------------------------|-------------------------|--------------------|--|
| | | | Info on repair services | Rep. Scoring Index | Provision of Repair Scoring Index, or other relevant repair information on a where applicable or |

| | | | | | | | where available basis |
|---|--|------------------------------|----------------------------------|------------------------------|------------------------------|---------------------|-----------------------|
| Impact on consumers | Quality of consumer decision-making | 5/10 | 6/10 | 4/10 | 6/10 | 7/10 | |
| | Consumer protection | 6/10 | 6/10 | 5/10 | 5/10 | 6/10 | |
| | Consumer trust | 6/10 | 6/10 | 4/10 | 4/10 | 6/10 | |
| | Monetisable consumer welfare (present value for period 2025-2040) | 7/10 (EUR 435 – 760 million) | 8/10 (EUR 1 220 – 2 970 million) | 6/10 (EUR 115 - 250 million) | 7/10 (EUR 455 – 995 million) | 7/10 ²³³ | |
| Impact on businesses | Level-playing field | 5/10 | 5/10 | 4/10 | 5/10 | 6/10 | |
| | Reduction of barriers to cross-border trade | 6/10 | 6/10 | 3/10 | 7/10 | 6/10 | |
| | Administrative burdens (present value for period 2025-2040) | EUR 785 – 935 million | EUR 1 685 – 1 715 million | EUR 3 120 – 3 380 million | EUR 4 180 – 4 360 million | EUR 222 million | |
| | Substantive compliance costs (present value in EUR for period 2025-2040) | 0 | 0 | 0 | 0 | 0 | |
| | Indirect costs | 5/10 | 5/10 | 5/10 | 5/10 | 5/10 | |
| | SME growth | 5/10 | 5/10 | 4/10 | 4/10 | 5/10 | |
| Impacts on public administration | Enforcement costs and other costs (present value for period 2025-2040) | EUR 16-21 million | EUR 16-21 million | EUR 8-13 million | EUR 32-37 million | EUR 0.12 million | |
| Environmental impacts | Climate change (present value for period 2025-2040) | EUR 19-33 million | EUR 39-68 million | EUR 1-2 million | EUR 52-78 million | >0 | |

²³³ A lack of data did not allow to quantify the benefits of this option.

| | | | | | | |
|----------------------------|---|------|------|------|------|------|
| | Other environmental impacts | 7/10 | 7/10 | 6/10 | 7/10 | 7/10 |
| Coherence | Coherence with other EU legislation | 8/10 | 8/10 | 8/10 | 8/10 | 9/10 |
| Overarching impacts | Circularity and sustainable consumption | 7/10 | 7/10 | 6/10 | 7/10 | 7/10 |
| | Application of the EU legal framework | 5/10 | 5/10 | 4/10 | 4/10 | 6/10 |

2. Problem 2: Consumers face misleading commercial practices related to the sustainability of products

- 2.1. Sub-Problem 2.1: Consumers are sold products that do not last as long as they should and consumers expect

Assessment of the options

Option 2.1.A: Collection of evidence on early failures of products identified by authorised entities

Impacts on consumers:

Quality of decision-making: The option is expected to help consumers become aware of possible problems with certain products and therefore take more informed decisions. The effectiveness of the option might be reduced by the fact that the consumers will have to actively look for the information on the websites of third parties (for instance, consumer organisations or market monitoring public bodies that are assigned by the MS).

Furthermore, the option does not require third parties to consistently record evidence of early failures of products present in the market. It only requires third parties to communicate it if they have recorded it. This means that the share of products effectively covered will depend on voluntary actions and that the sample of products covered might not be fully balanced. (6/10)

Consumer protection: This option contributes to protecting consumers from unknowingly purchasing products that are likely to fail earlier than they would expect. (6/10)

Consumer trust: This option will increase the consumer trust in the market as it increases transparency regarding possible problems with certain products. (6/10)

Monetisable Consumer welfare: Evidence collected in the context of this study indicate that a share of products fails before what could be reasonably expected²³⁴, causing personal consumer detriment. As such this option is expected to lead to an increase in the consumer surplus, which is estimated to amount to EUR 100-180 million (present value for the period 2025-2040) as consumers will avoid product that would fail earlier than they expect. (6/10)

Impacts on businesses:

²³⁴ These “expectations” refer to indicative expected lifespan from reviewed technical studies.

Level-playing field: The option is expected to have an impact on the level playing field. However, issues related to possible incomprehensive and unbalanced coverage might limit this impact and some third parties might be more active than others. Nevertheless, cooperation between the assigned third parties in different Member States may limit costs and allows for specialisation (e.g. on certain product categories). (7/10)

Reduction of barriers to cross-border trade: The option is expected to have some impact on barriers to cross-border trade, as in the future, it is expected that some Member States will independently legislate on this if no EU level legislation is in place. A harmonised approach to inform consumers about possible evidence of early failure will therefore contribute to a more consistent approach and avoid duplication. (7/10)

Administrative burdens: The option does not oblige third parties to collect the information, only to make it available to consumers. Consequently, third parties have costs with updating their websites with the information collected (estimated at is EUR 4-5 million for the period 2025-2040) but the non-public third parties may compensate it through membership fees, or public funds made available to them.

Substantive compliance costs: None have been identified. (EUR 0)

Indirect costs: No impact expected. (5/10)

SME growth: No impact expected. (5/10)

Impacts on public administrations:

Enforcement costs: Enforcement of the option will be challenging due to the voluntary nature of collecting information, which means that enforcement authorities will have difficulties in identifying situations in which the third party has information but does not disclose it. However, these situations are expected to be rare. Based on interviews with some authorities, it is assumed that the option would not require significant additional resources on top of the existing ones to enforce UCPD. The costs are estimated to be of EUR 7-8 million for the period 2025-2040²³⁵(present value).

Environmental impacts:

Climate change: Due to the implementation of the option, (some) consumers will purchase products that will last longer. Consequently, the average lifespan of the products owned by consumers will increase. This will lead to a reduction of produced units and thus of CO2 emissions estimated at 0.2 – 0.4 mega tons (present value for the period 2025-2040 of EUR 4 - 8 million) during production (estimate under a scenario based on products lasting at least 1 year longer), for the period 2025-2040.

Other environmental impacts change. The impact on the production is estimated to be moderate, and so will be the effect of the option on other environmental impacts and on the production of electric and electronic waste. (7/10)

Coherence: No issue of coherence identified. (8/10)

Overarching impacts:

Circularity and sustainable consumption: The option will help to increase the share of products that last longer. This contributes to a reduction of waste, and to a more circular and sustainable economy. (6/10)

Application of the EU legal consumer framework: No impact expected. (5/10)

Option 2.1.B: Ban of certain identified practices associated to early obsolescence

Impacts on consumers:

Quality of decision-making: No impact expected. (5/10)

²³⁵ Based on 0.5 extra staff per Member State, 35 hours of familiarization with the measure.

Consumer protection: This option contributes to protecting consumers by removing products from the market that would fail earlier than consumers would expect as a result of certain practices banned by the option. It would also help at protecting vulnerable consumers that may be more susceptible to aggressive, manipulative techniques that lure them into buying products that fail early. The magnitude of the impact will depend on the incidence of the banned practices and on the compliance level. (8/10)

Consumer trust: This option will increase the consumer trust in the market as it prevents situations where consumers would be misled by traders. (9/10)

Monetisable Consumer welfare: A share (5%-20% depending on the product type) of products fails significantly earlier than could be reasonably expected, which leads to personal consumer detriment. This option is expected to lead to an increase in the consumer surplus, which is estimated to amount to EUR 1 800 – 2 250 million for the period 2025-2040 (present value based on failures occurring the first 60% of the product lifespan). (8/10)

Impacts on businesses:

Level-playing field: The option is expected to contribute very positively to the level playing field. This is because, in the baseline, companies engaging in the banned practices have lower costs than their competitors and charge higher prices to consumers (than they would if consumers knew the real expected lifespan of the products) because consumers assume that the products would have an expected lifespan not much different from the average. (9/10)

Reduction of barriers to cross-border trade: The option is expected to reduce barriers to cross-border trade, as one Member State has already legislated on this issue and others may legislate as well (two are currently discussing specific proposals for legislation) if no EU-level legislation is in place. (8/10)

Administrative burdens: None identified.

Substantive compliance costs: The substantive compliance costs of companies will be caused by the need to revise their production process in order to not engage in the banned practices and possibly improve their products. The costs are difficult to estimate as they depend on the list of practices that will be banned, the scale of these practices and the specificities of the production process of those companies engaging in these practices. While fully aware of these limitations, a very rough estimation of the possible costs for companies was done by screening the prices of various product types on online marketplaces, identifying the price of the cheapest product, and assuming that it will cost between 7.5% and 15% extra to comply with the option and improve the product accordingly. Such costs are estimated to amount to EUR 1 190 – 1630 million for the period 2025-2040 (present value), falling mainly on large manufacturers. These costs include those related to the familiarisation with the measures (applicable to all businesses) as well as those linked to the need to review internal processes for these companies using practices targeted by the option.

Indirect costs: The substantive compliance costs will be passed on to consumers, and will be compensated by revenues to some extent (as the volume of sales might be lower due to the increase in prices). (5/10)

SME growth: The number of SMEs manufacturers is very small and so the negative impact of the option on the overall SMEs growth is expected to be negligible. By preventing these unfair practices, SMEs that were not practicing them and suffered from uneven playing field will have a better opportunity to grow. (6/10)

Impacts on public administrations:

Enforcement costs and other costs: Enforcement of the option will require the creation or strengthening of the team currently responsible for addressing obsolescence practices

in each Member State. Technical knowledge will be required so that authorities can assess compliance with a certain banned practice.

Currently only 1 Member State has specific legislation on planned obsolescence, so it is expected that nearly all Member States will need to strengthen their teams dealing with the matter. Under the assumption that each Member State would need 7 full-time staff to monitor the market, handle complaints and carry out inspections, the enforcement costs are estimated at EUR 103-104 million (present value) for the period from 2025 until 2040²³⁶.

Environmental impacts:

Climate change: Due to the implementation of the option, the average lifespan of the product owned by consumers will increase and the need to produce replacement products decreases proportionally. This will lead to a reduction of produced units and thus of CO2 emissions estimated at 3.5 – 4.3 mega tons (present value of EUR 72 - 90 million) during production for the period 2025- 2040.

Other environmental impacts change. For the same reasons, it is expected that less water will be used and few matriculate latter and polluting agents will be released. Longer-lasting products are also expected to reduce the amount of waste. (8/10)

Coherence: No issue of coherence identified. (8/10)

Overarching impacts:

Circularity and sustainable consumption: The option will help to increase the share of products that are repaired instead of replaced. This contributes to a reduction of waste, and to a more circular and sustainable economy. (8/10)

Application of the EU legal consumer framework: This option is expected to have a significant impact on ensuring a better and coherent application of the EU legal consumer framework, in particular the Unfair Commercial Practice Directive. (8/10)

Recap of the assessment

| Criteria and sub-criteria | | Option 2.1.A Gathering evidence on recorded early failures | Option 2.1.B Ban of certain practices associated to premature obsolescence |
|----------------------------|--|--|--|
| Impact on consumers | Quality of consumer decision-making | 6/10 | 5/10 |
| | Consumer protection | 6/10 | 8/10 |
| | Consumer trust | 6/10 | 9/10 |
| | Monetisable Consumer Welfare (present value) | 6/10 (EUR 100-180 million) | 8/10 (EUR 1 800 – 2 250 million) |

²³⁶ Based on 7 extra staff per Member State, 70 hours of familiarization with the measure. The costs of adjudication are expected to be significantly higher than average given the complexity of the matter. We assume that one ADR case will costs around EUR 7,756 and a court case around five times the average.

| | | | |
|---|--|-------------------|---------------------------|
| | for period 2025-2040) | | |
| Impact on businesses | Level-playing field | 7/10 | 9/10 |
| | Reduction of barriers to cross-border trade | 7/10 | 8/10 |
| | Administrative burdens (present value for period 2025-2040) | EUR 4-5 million | EUR 0 |
| | Substantive compliance costs (present value for period 2025-2040) | EUR 0 | EUR 1 190 – 1 630 million |
| | Indirect costs | 5/10 | 5/10 |
| | SME growth | 5/10 | 6/10 |
| Impacts on public administration | Enforcement costs and other costs (present value for period 2025-2040) | EUR 7-8 million | EUR 103-104 million |
| Environmental impacts | Climate change (present value for period 2025-2040) | EUR 4 - 8 million | EUR 72 - 90 million |
| | Other environmental impacts | 7/10 | 8/10 |
| Coherence | Coherence with other EU legislation | 8/10 | 8/10 |
| Overarching impacts | Circularity and sustainable consumption | 6/10 | 8/10 |
| | Application of the EU legal framework | 5/10 | 8/10 |

2.2. Sub-Problem 2.2: Consumers are faced with the practice of making unclear or not well-substantiated green claims (“Greenwashing”)

Assessment of the options

Option 2.2.A: Ban of general /vague environmental claims

Impacts on consumers:

Quality of decision-making:

Under this option, general/vague statements on the environmental performance of products (such as “good for the environment”, “friend of nature” etc.) would be forbidden unless the product is considered to have an “environmentally excellent performance”. This can be proven by the EU Eco-label, or equivalent public ecolabels at the national level or in accordance with the Green Claims Initiative. This option would complement the Green Claims Initiative that will not specifically address vague statements. General and vague environmental claims can mislead consumers into purchasing products that are not as “good for the environment” as the consumers are made to believe. This problem is one of the most common greenwashing practices and has been documented by various studies. It is also in line with the evidence collected in the stakeholder consultations carried out in the context of this study, including the feedback from the national enforcers further to the recent “sweep”. The Guidance on the application of the Unfair Commercial Practices Directive already recommended in 2016 to avoid such vague statements. By banning such vague statements (unless there are robust indications of environmental excellence of products) the option prevents consumers from taking decisions based on unreliable information and also highlights which products are truly “environmentally excellent”. The option is expected to have a positive impact on the decision making of consumers. (8/10)

Consumer protection: This option contributes to protecting consumers from basing their purchasing decisions (possibly involving monetary trade-offs) on misleading decision. (7/10)

Consumer trust: Evidence from literature suggests that the proliferation of vague environmental claims has been contributing to a decrease in consumer confidence in environmental information. By banning this type of statements (unless properly substantiated) this option is expected to have a positive impact on consumer trust. This has also been highlighted by stakeholders from all groups and by the independent experts consulted. (8/10)

Monetisable Consumer welfare: The approach to quantification of the impact of the option on the monetisable consumer welfare was the following:

Step 1. Estimate the percentage of products carrying vague/general environmental claims that will be forbidden if the option is implemented.²³⁷

Step 2. Estimate the share of consumers that were purchasing those products (in the baseline) and that will not buy them anymore and will purchase “greener” products instead.

Step 3. Estimate how much the consumers that switched to greener products are willing to pay for these “greener products”.²³⁸

²³⁷ This will be based on sales data, and have assumed proportionality between the share of products and the share of sales. The source of the data was the DG ENV study.

²³⁸ It is assumed that the costs of the products with vague non-substantiated claims and with vague substantiated claims is similar.

The option is thus expected to lead to an increase in the consumer surplus, which is estimated to amount to EUR 2 155 – 3 960 million (present value for the period 2025-2040). (8/10)

Impacts on businesses:

Level-playing field: The impact of the option on the level-playing field is expected to be positive as products with unsubstantiated vague claims will no longer be as competitive as products that are indeed environmentally excellent and favoured to the detriment of products without environmental claims. (8/10)

Reduction of barriers to cross-border trade: No impacts identified. (5/10)

Administrative burdens: No impacts identified.

Substantive compliance costs:

Products with unsubstantiated vague claims will have to have these claims removed. The time between the approval of the option and its implementation will allow businesses to adjust to the new rules and so most of the products will not hold those claims any longer. The removal of the claims would require adjustments to product packages, flyers, etc., but this will be a one-off cost. For the very small share of products in stock just before the implementation of the option, it is assumed that the claims will be removed by the seller (for example, by covering them with a sticker). This will impose some costs in the first two years of implementation of the option, after which we assume that all these products have been sold. The substantive compliance costs are estimated at EUR 2 900 – 3 150 million for the period 2025-2040 (present value)²³⁹.

Indirect costs: No impacts identified. (5/10)

SME growth: No impacts identified. (5/10)

Impacts on public administrations:

Enforcement costs and other costs: Enforcement of the option will be facilitated by the fact that it specifies what type of proof is accepted in order to use vague environmental claims (e.g. environmentally excellent performance as attested for example by the presence of the EU Ecolabel). Some of the interviewed CPC authorities indicated that the option could lead to savings as it will help them to prove the practice of “greenwashing” more easily (less resources are needed to substantiate their assessment). For these Member States, the option is not expected to bring incremental costs. For the others, it will require one Full Time equivalent working half time with 50% of its time devoted to monitoring, 25% to inspections and the remaining 25% to handle complaints. Overall, the enforcement costs are estimated at EUR 7-12 million for the period 2025-2040 (present value).

Environmental impacts:

Climate change: As a result of the implementation of the option, (some) consumers will purchase products that will be truly greener (instead of those that only claim to be). It is not possible to assess how much “greener” those products will be (compared to the alternative that would be purchased in the baseline). For this reason, while it is expected that this impact is highly positive, an exact quantification of the impacts is not possible.

Other environmental impacts change. The impact on other environmental impacts is also expected to be positive. (7/10)

Coherence: No issue of coherence identified. The option will complement the general safety net of the UCPD. (8/10)

²³⁹ The total costs are high because the measure applies to a very high number of companies, with the costs per company per year in the period 2025-2040 estimated to be around EUR 40.

Overarching impacts:

Circularity and sustainable consumption: The option will, in principle, increase the consumption of more sustainable products. (7/10)

Application of the EU legal consumer framework: This option will have a positive impact on ensuring a better and coherent application of the EU legal consumer framework, in particular of the UCPD. (8/10)

Option 2.2.B: Prohibition of environmental claims that do not fulfil a minimum set of criteria**Impacts on consumers:****Quality of decision-making:**

Unsubstantiated environmental claims misinform consumers and also reduce the capacity of the substantiated claims to inform decisions. This option would particularly act as a safety net for the claims not covered under the Green Claims Initiative (for instance, claims made on biodiversity, forest management, reparability, durability or implicit claims like imagery and overall product presentation including layout, choice of colours, images, pictures and sounds).

By forbidding claims that do not meet minimum criteria, this option will contribute to improving the reliability of the information provided to consumers and therefore will have a positive impact on the decision making of consumers. (8/10)

Consumer protection: Same as option 2.2.A. (7/10)

Consumer trust: Same as option 2.2.A. (8/10)

Consumer welfare: The approach to quantification of the impact of the option on the monetisable consumer welfare is similar to the one followed for option 2.2.A. This impact is estimated to amount to be EUR 1 580 – 2 910 million (present value for the period 2025-2040). (8/10)

Impacts on businesses:

Level-playing field: Same as with option 2.2.A. (8/10)

Reduction of barriers to cross-border trade: No impacts identified. (5/10)

Administrative burdens: No impacts identified. (5/10)

Substantive compliance costs:

Products with claims that do not meet the criteria will have to have these claims removed. The time between the approval of the option and its implementation will allow businesses to adjust to the new rules and so most of the products will not hold those claims any longer. The removal of the claims will require adjustments to product packages, flyers, etc., but this will be a one-off cost. For the very small share of products in stock just before the approval of the option, it is assumed that the claims will be removed by the seller (for example, by covering them with a sticker). This will impose some costs in the first two years of implementation of the option, after which we assume that all these products have been sold. The substantive compliance costs are estimated at EUR 2 900 – 3 150 million for the period 2025-2040 (present value), of which about 99% will be for SMEs²⁴⁰.

Indirect costs: No impacts identified. (5/10)

SME growth: No impacts identified. (5/10)

Impacts on public administrations:

²⁴⁰ The total costs are high because the measure applies to a very high number of companies, with the costs per company per year in the period 2025-2040 estimated to be around EUR 40.

Enforcement costs and other costs: The contribution of this option to more effective enforcement will be less pronounced than that of option 2.2.A as authorities would need to assess to what extent the specific claim complies with the criteria set out under this option. However a number of the interviewed CPC authorities indicated that the option might lead to savings as it will mean that less resources are needed to substantiate their assessment of “greenwashing”. Overall, the costs are expected to be similar to those of option 2.2.A and amount to EUR 7-12 million for the period 2025-2040 (present value).

Environmental impacts:

Climate change: The option will not have a direct impact on climate change as it does not cover claims related to this aspect. However, it is still expected to have a minor indirect impact.

Other environmental impacts change. The impact on other environmental impacts is also expected to be positive but reduced as the main environmental impacts are covered by PEF and therefore not within the scope of this option. (6/10)

Coherence: No issue of coherence identified. The option will feature as part of the general safety net of the UCPD and will be complementary to the Green Claims initiative. (8/10)

Overarching impacts:

Circularity and sustainable consumption: The option will, in principle, slightly increase the consumption of more sustainable products. (6/10)

Application of the EU legal consumer framework: This option will have a positive impact on ensuring a better and coherent application of the EU legal consumer framework, in particular of the UCPD. (8/10)

Option 2.2.C: 2.2.A+2.2.B

Impacts on consumers:

Quality of decision-making: Combination of the impacts described for option 2.2.A and option 2.2.B (9/10)

Consumer protection: Combination of the impacts described for option 2.2.A and option 2.2.B (8/10)

Consumer trust: Combination of the impacts described for option 2.2.A and option 2.2.B (9/10)

Monetisable Consumer welfare: Combination of the impacts described for option 2.2.A and option 2.2.B. The option is thus expected to lead to an increase in the consumer surplus, which is estimated to amount to approximately EUR 3 735 – 6 870 million (present value for the period 2025-2040). (9/10)

Impacts on businesses:

Level-playing field: Combination of the impacts described for option 2.2.A and option 2.2.B (8/10)

Reduction of barriers to cross-border trade: No impacts identified. (5/10)

Administrative burdens: No impacts identified.

Substantive compliance costs: There are certain economies of scales when the two options are combined, related to the fact that the removal of the relevant claims for the small share of products in stock for which each of the two types of claims are made (vague claims which are not based on “environmentally excellent performance” in accordance with applicable EU laws + environmental claims that do not fulfil a minimum set of criteria) can be conducted simultaneously. The substantive compliance

costs are estimated EUR 3 300 – 3500 million for the period 2025-2040 (present value), of which about 99% will be for SMEs²⁴¹.

Indirect costs: No impacts identified. (5/10)

SME growth: No impacts identified. (5/10)

Impacts on public administrations:

Enforcement costs and other costs: There are significant economies of scales when the two options are combined due to the fact that the expertise needed to investigate the two different types of claims at issue will be quite similar. Overall, the enforcement costs are estimated at EUR 7-12 million for the period 2025-2040 (present value).

Environmental impacts:

Climate change: This impact is highly positive (at least as high as the one of option 2.2.A, but an exact quantification of the impacts is not possible).

Other environmental impacts change. The impact on other environmental impacts is also expected to be positive. (7/10)

Coherence: No issue of coherence identified. (8/10)

Overarching impacts:

Circularity and sustainable consumption: The option will, in principle, increase the consumption of more sustainable products. (8/10)

Application of the EU legal consumer framework: This option will have a positive impact on ensuring a better and coherent application of the EU legal consumer framework, in particular of the UCPD. (8/10)

Recap of the assessment

| Criteria and sub-criteria | | Option 2.2.A Ban of unfounded general green claims | Option 2.2.B Ban of claims not fulfilling minimum criteria | Option 2.2.C = 2.2.A + 2.2.B |
|-----------------------------|---|--|--|---------------------------------|
| Impact on consumers | Quality of consumer decision-making | 8/10 | 8/10 | 9/10 |
| | Consumer protection | 7/10 | 7/10 | 8/10 |
| | Consumer trust | 8/10 | 8/10 | 9/10 |
| | Monetisable Consumer Welfare (present value for period 2025-2040) | 8/10 (EUR 2 155 – 3 960 million) | 8/10 (EUR 1 580 – 2 910 million) | 9/10 (EUR 3 735 – 6870 million) |
| Impact on businesses | Level-playing field | 8/10 | 8/10 | 8/10 |
| | Reduction of barriers to cross-border trade | 5/10 | 5/10 | 5/10 |

²⁴¹ The total costs are high because the measure applies to a very high number of companies, with the costs per company per year in the period 2025-2040 estimated to be around EUR 40.

| | | | | |
|---|--|----------------------------|--------------------|----------------------------|
| | Administrative burdens (present value for period 2025-2040) | EUR 0 | EUR 0 | EUR 0 |
| | Substantive compliance costs (present value for period 2025-2040) | EUR 2 900 – 3 150 | EUR 2 900 – 3 150 | EUR 3 300 – 3 500 million |
| | Indirect costs | 5/10 | 5/10 | 5/10 |
| | SME growth | 5/10 | 5/10 | 5/10 |
| Impacts on public administration | Enforcement costs and other costs (present value for period 2025-2040) | EUR 7-12 million | EUR 7-12 million | EUR 7-12 million |
| Environmental impacts | Climate change | Positive and possibly high | Positive but minor | Positive and possibly high |
| | Other environmental impacts | 7/10 | 6/10 | 7/10 |
| Coherence | Coherence with other EU legislation | 8/10 | 8/10 | 8/10 |
| Overarching impacts | Circularity and sustainable consumption | 7/10 | 6/10 | 7/10 |
| | Application of the EU legal framework | 8/10 | 8/10 | 8/10 |

- 2.3. Sub-Problem 2.3: Consumers are faced with the use of sustainability labels and digital information tools that are not always transparent or credible

Assessment of the options

Option 2.3.A: Development of principles promoting the transparency and credibility of sustainability labels and digital information tools for voluntary uptake

Impacts on consumers:

Quality of decision-making: The proliferation of labels with varying degrees of transparency and reliability has been identified as a barrier to the adoption of more sustainable consumption behaviour.

Desk research shows that there is still a reduced number of fully dedicated digital information tools to help consumers compare products based on their sustainability. On the other hand, desk research also shows that more and more marketplaces and online shops are giving consumers an indication of the sustainability of the products they sell and also that the number of dedicated comparison tools is expected to increase.

The consumer survey also showed that the number of consumers currently using these tools is moderate (6% use them all the time and 19% often) and that many (25%) are not aware of the existence of these tools. The digitalisation of the economy and positive trends regarding consumer interest in adopting more sustainable consumption behaviour is expected to boost the use of such apps and promote their proliferation.

The introduction of minimum criteria for sustainability labels and digital information tools which would increase the transparency and reliability of labels (and possibly slow down or even invert the current proliferation of these labels) and of the assessments provided by the digital information tools, would therefore enhance the quality of consumer decision-making.

However, this option would rely on voluntary uptake only which would mean that there would be no obligation to fulfil the minimum criteria. The option does not foresee a way to help consumers identify which labels and digital information tools adhere to those minimum criteria and which do not so the impact of the option on the quality of the decision-making is assessed as negligible. The view of some independent experts and consumer associations consulted was that voluntary actions would have a very low effectiveness. (5/10)

Consumer protection: No impact expected. (5/10)

Consumer trust: No impact expected. (5/10)

Monetisable Consumer welfare: Given the expected very low effectiveness, the expected impact on the monetisable consumer welfare is around zero. (5/10)

Impacts on businesses:

Level-playing field: The impact of the option on the level-playing field is also expected to be negligible as consumers will not be able to distinguish which labels/logos adhere to the minimum criteria and which do not. (5/10)

Reduction of barriers to cross-border trade: No impacts identified. (5/10)

Administrative burdens: No impacts identified. (5/10)

Substantive compliance costs:

No substantive compliance costs were identified for this option given its voluntary nature and the expectation that only labels/logos already meeting minimum standards will adopt the option.

Indirect costs: No impacts identified. (5/10)

SME growth: No impacts identified. (5/10)

Impacts on public administrations:

Enforcement costs and other costs: Given the voluntary nature of the option there will be no enforcement costs associated.

Other costs to public bodies (including the Commission) will be related to the organisation of meetings and preparation of the minimum criteria. These are estimated to be around EUR 94 000 in the first year and about EUR 16 000 per year²⁴².

Environmental impacts:

Climate change: The climate change impact is expected to be negligible (around zero) for the reasons mentioned above.

Other environmental impacts change. The impact on other environmental impacts is also expected to be negligible. (5/10)

Coherence: No issue of coherence identified. (8/10)

Overarching impacts:

Circularity and sustainable consumption: The impact on circularity and consumption of sustainable products is expected to be negligible. (5/10)

Application of the EU legal consumer framework: No impact expected. (5/10)

²⁴² Assuming six meetings in the first year to discuss and prepare the minimum criteria and then one meeting a year to revise the criteria.

Option 2.3.B: Prohibition of sustainability labels and digital information tools not meeting minimum transparency and credibility requirements

Impacts on consumers:

Quality of decision-making: The introduction of minimum criteria that all sustainability labels and digital information tools would have to adhere to would increase the transparency and credibility of labels (and possibly slow down or even reverse the current proliferation of these labels) and digital information tools, and will enhance the quality of consumer decision-making.

Consumers will be assured that the products holding a sustainability label will meet minimum requirement on transparency and credibility so consumers can rely on them in their purchasing decisions. As labels will be more transparent, consumers will be also able to obtain this information on the labels' website which can help them assess and select the products they find most useful to inform their purchase decisions. Given the amount of information and the high number of labels, it is expected that not all consumers will compare all labels for a given product category, which may reduce the potential impact of the option to some extent. This option may also reduce the number of labels which will improve consumer trust and consumer understanding of the labels. Furthermore, this option also ensures the transparency of the assessments provided by the digital information tools, which has a positive impact on the decision making (slightly positive at the beginning but with an upward trend). The magnitude of the impact will depend on the strictness of the criteria. The analysis was done assuming the criteria will be relatively similar to the governance criteria of a number of well-known and reputable public and private sustainability labelling schemes. (8/10)

Consumer protection: This option will prevent consumers from being misled by labels and digital information tools that do not meet minimum criteria and ensure that they have the necessary information about their functioning and reliability. (8/10)

Consumer trust: The impact on consumer trust is expected to be high. This is in line with the results of the consumer survey carried out in this study (and with evidence from literature) and was also highlighted by the consulted experts and consumer organisations and NGOs. However, the reliance on self-assessment and ex-post enforcement may not give the full reassurance to consumers that labels and digital information tools really do comply with the minimum criteria. (8/10)

Monetisable Consumer welfare: The impact on consumer welfare depends on the extent of the impact of the measure in increasing consumer trust in logos/labels (it was not possible to calculate the monetisable consumer welfare related to digital information tools). When assuming a moderate impact on consumer trust, this option is estimated to increase consumer welfare by approximately EUR 4 500 – 6 610 million for the period 2025-2040²⁴³ (present value). (9/10)

Impacts on businesses:

Level-playing field: The option is expected to contribute to a level-playing field between products displaying labels or being compared by digital information tool, as all will have to adhere to the same minimum criteria.

Furthermore, it will also contribute to a level playing field between organisations running labels and digital information tools. (8/10)

Reduction of barriers to cross-border trade: Member States are more and more concerned with the proliferation of labels/logos that are non-transparent or not credible.

²⁴³ Based on the share of labels that do not currently comply with the criteria, the share of consumers that do not take account of logos as they do not trust them, the increase in the share of more sustainable products and the estimated willingness to pay for these products.

The consumer association in the Netherlands has called the Dutch government to legislate on this matter. Other Member States are expected to follow the same path. In the future, it is likely that Member States will have non-harmonised legislation to address this issue. This will increase legal uncertainty and costs to companies (as they will have to adhere to different rules) wanting to undertake cross-border trade. (8/10)

Administrative burdens: The entities running and managing the labels/logos and digital information tools will have administrative costs resulting from:

- becoming familiarised with the option and the minimum criteria and assessing to what extent they meet the criteria and what changes they will need to implement (a share of these costs could be considered substantive compliance costs);
- training staff (a share of these costs could be considered substantive compliance costs);
- ensure that all the necessary information is available on their website (or through other means) and that it is up to date;
- carrying out the necessary (internal and external) inspections (a share of these costs could be considered substantive compliance costs).

These costs are estimated to amount to EUR 615 – 620 million for the period 2025-2040 (present value). These do not include the costs for digital information tools as there is very limited data about the number of apps currently.

Substantive compliance costs:

The entities running and managing the labels and digital information tools will have substantive compliance costs resulting from implementing the necessary changes in their internal processes, including carrying out third party certifications for each application (if they are not doing it already at the baseline). The costs incurred by the entities running and managing the labels will be passed on to the manufacturers and sellers applying for the label. These costs are estimated to amount to EUR 3 025 - 3 500 million for the period 2025-2040 (present value). These do not include the costs for digital information tools as there is very limited data about the number of tools currently.

Indirect costs: The costs of applying for labels are expected to increase. On the other hand, the increased harmonisation might reduce the need to apply to several labels. (5/10)

SME growth: No impacts identified. (5/10)

Impacts on public administrations:

Enforcement costs and other costs: Enforcement costs were estimated assuming that one Full Time Equivalent will work to monitor (50%), carry out inspections (40%) and handle complaints (10%)”. Enforcement is not expected to be very challenging since the proposed minimum criteria require all relevant information to be provided online.

A few CPC authorities indicated that the introduction of clear criteria to increase transparency and reliability will, in fact, make the process of fighting misleading labels less complex and resource-intensive and could lead to savings. These costs are estimated to amount to EUR 14 – 15 million for the period 2025-2040 (present value).

Environmental impacts:

Climate change:

The climate change impact is expected to be positive as:

- consumers of products holding sustainable labels in the baseline, will be able to select the truly sustainable ones instead of products that only claimed to be sustainable;
- some consumers who in the baseline would not buy sustainable products because they did not trust labels, will now start trusting those labels and purchase products that have them.

However, estimation of the impacts is extremely challenging for various reasons:

- sustainability labels cover various impacts, which may or may not include climate change;
- there is no available data on the share of sales per label
- there is no data on the difference between the CO₂e of a product holding a certain label or holding a different one or not holding any.

For these reasons, it is not possible to quantify and monetise this impact.

Other environmental impacts change. The impact on other environmental impacts is also expected to be positive. The magnitude of the impact depends on various factors; however, including coverage of these impacts by labels/logos and update of those labels/logos. (7/10)

Coherence: No issue of coherence identified. **This option will be complementary to the Green Claims Initiative as it will introduce only ‘credibility/transparency requirements on sustainability labels and the scope will be broader than only ecolabels.** (8/10)

Overarching impacts:

Circularity and sustainable consumption: The impact on circularity and consumption of sustainable products is expected to be positive. (7/10)

Application of the EU legal consumer framework: This option will have a positive impact on ensuring a better and coherent application of the EU legal consumer framework, in particular of the UCPD. (8/10)

Option 2.3.C: Option 2.3.C: Pre-approval of sustainability labels and digital information tools via an EU body

Impacts on consumers:

Quality of decision-making: The impacts are similar to those described for option 2.3.B. (8/10)

Consumer protection: The impacts are similar to those described for option 2.3.B but higher, as the compliance level will be higher given that only pre-approved labels/logos and digital information tools will be allowed. (9/10)

Consumer trust: The impacts are similar to those described for option 2.3.B. (8/10)

Monetisable Consumer welfare: The consumer welfare is estimated to amount to EUR 4 500 – 6 610 million for the period 2025-2040 (**present value**), similar to option 2.3.B. (9/10)

Impacts on businesses:

Level-playing field: The impacts are similar to those described for option 2.3.B because on the one hand compliance level might be higher given that only pre-approved labels/logos will be allowed on the other hand the fees and bureaucratic procedure as well as the time required to get the pre-approval might be entry barriers to smaller companies. (8/10)

Reduction of barriers to cross-border trade: The impacts are similar to those described for option 2.3.B but slightly higher, as the compliance level may be higher given that only pre-approved labels and digital information tools will be allowed. (8/10)

Administrative burdens: The administrative burdens are similar to the ones described for the managers of labels in the context of option 2.3.B. These costs are estimated to amount to EUR 615 – 620 million for the period 2025-2040.

Substantive compliance costs:

The substantive compliance costs are similar to those described for option 2.3.B plus an additional fee when applying for pre-approval (which we assume will be similar to the

upper limit of the EU Ecolabel fee). This will amount to EUR 3 120 - 3 580 million for the period 2025-2040.

Indirect costs: No significant indirect costs were identified. (5/10)

SME growth: The pre-approval of labels and of digital information tools may constitute a relevant entry barrier for SME (4/10)

Impacts on public administrations:

Enforcement costs and other costs:

Costs will be significantly higher than in option 2.3.B as all labels will need to be pre-approved by an EU body. The costs of setting up and running the EU body²⁴⁴ were considered to be around EUR 4.02 million per year, which corresponds to a net present value for the period 2025-2040 of about EUR 42 million.

National enforcement costs are estimated to be similar to those under option 2.3.B and amount to EUR 14 - 15 million for the period 2025-2040.

Environmental impacts:

Climate change:

The climate change impact is expected to be similar to those estimated for option 2.3.B.

Other environmental impacts change. The other environmental impacts are expected to be similar to the ones of option 2.3.B. (7/10)

Coherence: No issue of coherence identified. (8/10)

Overarching impacts:

Circularity and sustainable consumption: The impact on circularity and consumption of sustainable products is expected to be more positive than that of option 2.3.B. (7/10)

Application of the EU legal consumer framework: This option will have a positive impact on ensuring a better and coherent application of the EU legal consumer framework, in particular of the UCPD. (8/10)

Recap of the assessment

| Criteria and sub-criteria | | Option 2.3.A Development of principles promoting the transparency and credibility of sustainability labels and digital information tools for voluntary uptake | Option 2.3.B Prohibition of sustainability labels and digital information tools not meeting minimum transparency and credibility requirements | Option 2.3.C Pre-approval of sustainability labels and digital information tools via an EU body |
|----------------------------|--|--|--|--|
| Impact on consumers | Quality of consumer decision-making | 5/10 | 8/10 | 8/10 |

²⁴⁴ Source: costs setting up and running BEREC office.
<https://ec.europa.eu/transparency/regdoc/rep/10102/2016/EN/SWD-2016-303-F1-EN-MAIN-PART-1.PDF>

| | | | | |
|---|--|-----------------|----------------------------------|----------------------------------|
| | Consumer protection | 5/10 | 8/10 | 9/10 |
| | Consumer trust | 5/10 | 8/10 | 8/10 |
| | Monetisable consumer welfare (present value for period 2025-2040) | 5/10 (EUR 0) | 9/10 (EUR 4 500 – 6 610 million) | 9/10 (EUR 4 500 – 6 610 million) |
| Impact on businesses | Level-playing field | 5/10 | 8/10 | 8/10 |
| | Reduction of barriers to cross-border trade | 5/10 | 8/10 | 8/10 |
| | Administrative burdens (present value for period 2025-2040) | EUR 0 | EUR 600 – 625 million | EUR 600 – 625 million |
| | Substantive compliance costs (present value for period 2025-2040) | EUR 0 | EUR 3 025 - 3 500 million | EUR 3 120 - 3 580 million |
| | Indirect costs | 5/10 | 5/10 | 5/10 |
| | SME growth | 5/10 | 5/10 | 5/10 |
| Impacts on public administration | Enforcement costs and other costs (present value for period 2025-2040) | EUR 0.3 million | EUR 14-15 million | EUR 56-57 million |
| Environmental impacts | Climate change (present value for period 2025-2040) | EUR 0 | >EUR 0 | >EUR 0 |
| | Other environmental impacts | 5/10 | 7/10 | 7/10 |
| Coherence | Coherence with other EU legislation | 8/10 | 8/10 | 8/10 |
| Overarching impacts | Circularity and sustainable consumption | 5/10 | 7/10 | 7/10 |
| | Application of the EU legal framework | 5/10 | 8/10 | 8/10 |

ANNEX 9: DETAILED RESULTS FROM THE COST AND BENEFIT ANALYSIS AND FROM THE MULTI-CRITERIA ANALYSIS

1. General approach to compare the various option/options

The options are compared following the Better Regulation Guidelines, in particular section 2.6 of Chapter III, ‘How do the options compare?’. In spite of all efforts to monetise identified impacts, it was not possible to monetise all impacts in full due to methodological challenges and insufficient quantitative evidence. Therefore, in order not to make judgements based on a sub-set of impacts (those monetisable), a cost-benefit analysis (CBA) was carried out and integrated in a MCA where the monetisable impacts are complemented by and compared with intangible impacts to be able to make a fully-fledged comparison.

The CBA provides a limited view of the net benefits of the measures / options as these are calculated by subtracting the monetisable costs (administrative burdens, substantive compliance costs and enforcement costs) from the monetisable benefits (monetisable consumer welfare and the impact on climate change), disregarding non-monetisable impacts. The (partial) CBA considered a social discount rate of 4%, as recommended by the Better Regulation Guidelines Toolbox (Tool#61)²⁴⁵. It was carried out for two periods: 2025-2040 (15 years, as recommended by the BRG) and 2025-2050. The selection of a second period of analysis beyond the 15-year recommendation reflected that it takes more than 10 years for measures on lifespan and reparability to start to have an effect for some product categories. The downside of longer periods of analysis is the increased uncertainty in respect of the economic, social, technological developments that can influence the impact of the measure. The analysis was done in constant prices, at 2019 levels. The limitations of the (partial) CBA analysis are significant and are primarily related to the limitations of the monetising the costs and benefits. There is, however, one additional limitation that is important to highlight – the fact that some of the identified benefits and costs may represent redistributions of welfare between agents of the economy.

The MCA has three high-level assessment criteria (as required by the Better Regulation guidelines): Efficiency, Effectiveness, Coherence. Each of the identified impacts are a sub-criterion of one of those three high-level criteria). The assessment of the options follows the ‘non-linear/non-compensatory approach’ described in Tool #63. In the efficiency criteria we incorporated the five impacts that were monetisable either as benefits or costs:

- as benefits, we incorporated the monetisable consumer welfare and the impact on climate change (which complement the intangible benefits included in the MCA - reduction of cross-border barriers and other environmental impacts).
- as costs, we incorporated the administrative burdens, substantive compliance costs and enforcement costs (which complemented the intangible costs included in the MCA - indirect costs and reduction of SME growth).

²⁴⁵ As explained in the Tool#61 of the Better Regulation Guidelines: ‘The social discount rate is used to compare costs and benefits that occur in different time periods from the point of view of society. It is based on different arguments, one is the principle that people prefer to receive goods and services now rather than later, another one on the shadow costs of risk-free capital.’ ‘A social discount rate is used to convert all costs and benefits to "present values" so that they can be compared. This discount rate is a correction factor applied to costs and benefits expressed in constant prices.’

This approach assigns weights to the criteria/sub-criteria. This is a subjective exercise and relies on judgements on the relative importance of each criteria/sub-criterion. That subjectivity is both an important limitation and an advantage of the MCA, as it allows other considerations to be incorporated in the assessment in a way that other approaches do not.

A reasonable scenario was selected as default scenario in order to ensure coverage of all criteria and sub-criteria without giving significantly more weight to benefits than to costs. In the default scenario, 30 points are assigned to Effectiveness, 60 points to Efficiency and 10 points to Coherence. The points are divided equally between the various subcriteria- of each criterion:

- each of the 6 sub-criteria in the effectiveness criterion was assigned 1/6 of its 30 points;
- each of the 9 sub-criteria of the efficiency criterion was assigned 1/9 of its 60 points; which means that overall benefits (4 of the 9 sub-criteria of efficiency) have less weight than costs (5 out of 9 sub-criteria of efficiency).

As assignment of criteria is subjective and there is some overlap between some of the criteria under Effectiveness and Efficiency, a sensitivity analysis was carried out for various possible weight combinations:

- All three criteria (Effectiveness, Efficiency, Coherence) have the same weights (100/3), and the points are divided equally between the various sub-criteria of each criterion;
- Effectiveness has a weight of 45, Efficiency 45 and Coherence 10, and the points are divided equally between the various sub-criteria of each criterion;
- Effectiveness has a weight of 20, Efficiency 70 and Coherence 10, and the points are divided equally between the various sub-criteria of each criterion;
- Effectiveness has a weight of 10, Efficiency 80 and Coherence 10, and the points are divided equally between the various sub-criteria of each criterion;
- Effectiveness has a weight of 0, Efficiency 90 and Coherence 10, and the points are divided equally between the various sub-criteria of each criterion;
- Average of the weights assigned by five independent experts to each subcriterion-. This was done by asking each expert independently (through an online survey) to express their views on the relative importance of each criterion and sub-criterion. They were given 100 points to allocate between all three criteria and then had to distribute the points they had assigned to each criterion between its corresponding sub-criteria.
- Worst-case scenario, where Effectiveness has a weight of 0, Efficiency 100 and Coherence 0; 60% of the points allocated to efficiency are divided equally between the various sub-criteria related to costs and the remaining 40% are divided equally between the various sub-criteria related to benefits.

Figure 2. Assessment table

| CRITERIA | EFFECTIVENESS | | | | | | EFFICIENCY | | | | | | | | | COHERENCE |
|-------------------------------|--|--|---------------------|------------------------------|--|--|------------------------------|--------------------------------|----------------|-----------------------------|-----------------------|------------------------------|----------------|------------|------------------------|-----------|
| | Specific objective 1. Enable informed purchasing decisions by consumers to foster sustainable consumption | Specific objective 2. Eliminate untrustworthy practices that run against sustainable economy and mislead consumers away from sustainable consumption | | | Specific objective 3. Ensure a better and coherent application of the EU legal framework thanks to clearer and more enforceable rules | Benefits | | | | Costs | | | | | | |
| SUB-CRITERIA/ IMPACTS | Quality of consumer decision making | Circularity and sustainable consumption | Consumer protection | Consumer trust in the market | Level playing field | Application of the EU legal consumer framework | Monetisable consumer welfare | Barriers to cross-border trade | Climate change | Other environmental impacts | Administrative burden | Substantive compliance costs | Indirect costs | SME growth | Costs to public bodies | |
| STAKEHOLDER DIRECTLY AFFECTED | Consumers | Society | Consumers | Consumers | Businesses | Society | Consumers | Businesses | Society | Society | Businesses | Businesses | Businesses | Businesses | Public bodies | |
| Unit | 0 → 10 | 0 → 10 | 0 → 10 | 0 → 10 | 0 → 10 | 0 → 10 | 0 → 10 | 0 → 10 | Euros | 0 → 10 | Euros | Euros | 0 → 10 | 0 → 10 | Euros | 0 → 10 |

2. Presentation of the results per sub-problems

2.1. Sub-problem 1.2: Lack of reliable information about product's lifespan

Three options were selected for analysis:

Option 1.2.A: Obligation to inform consumers about the expected lifespan of goods

Option 1.2.B: Obligation to inform consumers of the existence (or absence) of a producer's commercial guarantee for durability

Option 1.2.C: Option 1.2.B + Obligation to inform consumers on the period of time during which free software updates will be provided

The table below summarises the assessment of the baseline and of each option against each assessment criterion (the assessment of their impacts is described in detail in [Annex 8](#)).

The overall comparison of the options using a multi-criteria analysis shows that in the default scenario where Effectiveness has a weight of 30 points, Efficiency 60 points and Coherence 10 points, the ranking of options with the highest score is the following: first Option C (Option 1.2.C), followed by Option B (Option 1.2.B), followed by Baseline and then by Option A (Option 1.2.A).

The results of the sensitivity analysis show that the ranking of options with the highest score remains unchanged in all 8 scenarios of weights tested. The final scores for each scenario and for all possible option rankings are presented below.

Results of the sensitivity analysis for the options for Sub-Problem 1.2

| Ranking of options | Default: Effectiveness 30%, Efficiency 60% and Coherence 10% | Effectiveness 1/3, Efficiency 1/3 and Coherence 1/3 | Effectiveness 45%, Efficiency 45% and Coherence 10% | Effectiveness 20%, Efficiency 70% and Coherence 10% | Effectiveness 10%, Efficiency 80% and Coherence 10% | Effectiveness 0%, Efficiency 90% and Coherence 10% | Experts | Worst-case scenario: Efficiency 100% (of which 60% allocated to costs and 40% to benefits) |
|--------------------|--|---|---|---|---|--|---------|--|
| 0ABC | 92 | 143 | 88 | 94 | 97 | 100 | 102 | 84 |
| A0BC | 67 | 93 | 55 | 74 | 82 | 90 | 70 | 80 |

| | | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|-----|-----|
| B0AC | 205 | 239 | 218 | 197 | 188 | 180 | 232 | 164 |
| 0BAC | 172 | 231 | 173 | 171 | 171 | 170 | 195 | 148 |
| AB0C | 100 | 100 | 100 | 100 | 100 | 100 | 108 | 96 |
| BA0C | 180 | 189 | 185 | 177 | 173 | 170 | 200 | 160 |
| CA0B | 207 | 215 | 220 | 198 | 189 | 180 | 227 | 168 |
| AC0B | 127 | 126 | 135 | 121 | 116 | 110 | 135 | 104 |
| 0CAB | 198 | 257 | 208 | 192 | 186 | 180 | 222 | 156 |
| C0AB | 232 | 265 | 253 | 218 | 204 | 190 | 260 | 172 |
| A0CB | 93 | 119 | 90 | 96 | 98 | 100 | 97 | 88 |
| 0ACB | 118 | 169 | 123 | 116 | 113 | 110 | 130 | 92 |
| 0BCA | 252 | 320 | 258 | 248 | 244 | 240 | 287 | 212 |
| B0CA | 285 | 328 | 303 | 273 | 262 | 250 | 325 | 228 |
| C0BA | 312 | 354 | 338 | 294 | 277 | 260 | 352 | 236 |
| 0CBA | 278 | 346 | 293 | 269 | 259 | 250 | 314 | 220 |
| BC0A | 318 | 335 | 348 | 299 | 279 | 260 | 362 | 244 |
| CB0A | 345 | 361 | 383 | 320 | 295 | 270 | 390 | 252 |
| CBA0 | 320 | 311 | 350 | 300 | 280 | 260 | 357 | 248 |
| BCA0 | 293 | 285 | 315 | 279 | 264 | 250 | 330 | 240 |
| ACB0 | 160 | 133 | 180 | 147 | 133 | 120 | 173 | 120 |
| CAB0 | 240 | 222 | 265 | 223 | 207 | 190 | 265 | 184 |
| BAC0 | 213 | 196 | 230 | 202 | 191 | 180 | 238 | 176 |
| ABC0 | 133 | 107 | 145 | 126 | 118 | 110 | 146 | 112 |

When comparing monetisable costs and benefits using the Cost-Benefit analysis approach described in [Annex 9.1](#) above, option 1.2.C is the option that brings the highest net benefits for the society as a whole.

Problem 1.2.: CBA of the various options (present value (@4%) at prices of 2019, millions of euros)

| | Average \pm One Standard deviation | | |
|-------------|--------------------------------------|-----------------|-----------------|
| | Option 1.2.A | Option 1.2.B | Option 1.2.C |
| 2025 - 2040 | -2 273 \pm 213 | 1 129 \pm 447 | 1 865 \pm 745 |
| 2025 - 2050 | -2 705 \pm 325 | 2 210 \pm 839 | 3244 \pm 1156 |

2.2. Sub-problem 1.3: Lack of reliable information about product's reparability

Five options were selected for further analysis:

- Option 1.3.A: Provision of updated, user-friendly repair and user manuals
- Option 1.3.B: Provision of information about how long and which spare parts are available
- Option 1.3.C: Provision of information on availability of repair services
- Option 1.3.D: Reparability Scoring Index
- Option 1.3.E: Provision of Repair Scoring Index, or other relevant repair information on a where applicable/available basis

The table below summarises the assessment of the baseline and of each option against each assessment criterion (the assessment of their impacts is described in detail in [Annex 8](#)).

The comparison of the options using a multi-criteria analysis shows that in the default scenario where Effectiveness has a weight of 30 points, Efficiency 60 points and Coherence 10 points:

- Option E (1.3.E) ranks higher than Option B (1.3.B), which is followed by the baseline, which ranks higher than Option D (1.3.D), which ranks higher than Option A (1.3.A), which ranks higher than Option C (1.3.C).

The results of the sensitivity analysis show that the above ranking of options remains unchanged for half of the scenarios of weights tested. When Efficiency has a higher weight, the ranking of options changes slightly, in that Option E and Option B jointly rank highest. The final scores for each scenario and for all possible option ranking can be found in the table below.

Results of the sensitivity analysis for the options for Sub-Problem 1.3

| Ranking | Default: Effectiveness 30%, Efficiency 60% and Coherence 10% | Effectiveness 1/3, Efficiency 1/3 and Coherence 1/3 | Effectiveness 45%, Efficiency 45% and Coherence 10% | Effectiveness 20%, Efficiency 70% and Coherence 10% | Effectiveness 10%, Efficiency 80% and Coherence 10% | Effectiveness 0%, Efficiency 90% and Coherence 10% | Experts | Worst-case scenario: Efficiency 100% (of which 60% allocated to costs and 40% to benefits) |
|---------|--|--|--|--|--|---|---------|--|
| OABCDE | 123 | 85 | 115 | 129 | 134 | 140 | 119 | 154 |
| AOBCE | 152 | 109 | 148 | 154 | 157 | 160 | 154 | 172 |
| BOACDE | 157 | 115 | 155 | 158 | 159 | 160 | 159 | 172 |
| OBACDE | 122 | 87 | 118 | 124 | 127 | 130 | 118 | 142 |
| ABOCDE | 133 | 96 | 130 | 136 | 138 | 140 | 131 | 152 |
| BAOCDE | 127 | 93 | 125 | 128 | 129 | 130 | 124 | 140 |
| BACODE | 150 | 111 | 150 | 150 | 150 | 150 | 149 | 160 |
| ABCODE | 152 | 109 | 148 | 154 | 157 | 160 | 150 | 172 |
| CBAODE | 103 | 74 | 100 | 106 | 108 | 110 | 103 | 118 |
| BCAODE | 162 | 120 | 163 | 161 | 161 | 160 | 162 | 172 |
| ACBODE | 167 | 126 | 170 | 164 | 162 | 160 | 168 | 172 |
| CABODE | 110 | 78 | 105 | 113 | 117 | 120 | 110 | 130 |
| COBADE | 98 | 69 | 93 | 102 | 106 | 110 | 97 | 120 |
| OCBADE | 113 | 85 | 115 | 112 | 111 | 110 | 104 | 124 |
| BCOADE | 157 | 115 | 155 | 158 | 159 | 160 | 156 | 174 |
| CBOADE | 115 | 83 | 113 | 117 | 118 | 120 | 116 | 132 |
| OBCADE | 138 | 102 | 138 | 139 | 139 | 140 | 134 | 156 |
| BOCADE | 148 | 113 | 153 | 146 | 143 | 140 | 145 | 154 |

| | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| AOCBDE | 150 | 111 | 150 | 150 | 150 | 150 | 144 | 164 |
| OACBDE | 145 | 106 | 143 | 147 | 148 | 150 | 138 | 166 |
| CAOBDE | 117 | 81 | 110 | 121 | 126 | 130 | 115 | 142 |
| ACOBDE | 163 | 119 | 160 | 166 | 168 | 170 | 161 | 184 |
| OCABDE | 122 | 87 | 118 | 124 | 127 | 130 | 110 | 146 |
| COABDE | 107 | 70 | 95 | 114 | 122 | 130 | 103 | 142 |
| DOABCE | 133 | 96 | 130 | 136 | 138 | 140 | 136 | 150 |
| ODABCE | 132 | 98 | 133 | 131 | 131 | 130 | 124 | 142 |
| ADOBCE | 155 | 117 | 158 | 153 | 152 | 150 | 155 | 164 |
| DAOBCE | 143 | 107 | 145 | 142 | 141 | 140 | 146 | 148 |
| OADBCE | 132 | 98 | 133 | 131 | 131 | 130 | 125 | 144 |
| AODBCE | 155 | 117 | 158 | 153 | 152 | 150 | 153 | 160 |
| AOBDCE | 138 | 102 | 138 | 139 | 139 | 140 | 142 | 150 |
| OABDCE | 110 | 78 | 105 | 113 | 117 | 120 | 107 | 132 |
| BAODCE | 125 | 94 | 128 | 123 | 122 | 120 | 130 | 126 |
| ABODCE | 132 | 98 | 133 | 131 | 131 | 130 | 137 | 138 |
| OBADCE | 102 | 76 | 103 | 101 | 101 | 100 | 102 | 110 |
| BOADCE | 137 | 104 | 140 | 134 | 132 | 130 | 143 | 140 |
| BDAOCE | 148 | 113 | 153 | 146 | 143 | 140 | 141 | 152 |
| DBAOCE | 113 | 85 | 115 | 112 | 111 | 110 | 111 | 116 |
| ABDOCE | 138 | 102 | 138 | 139 | 139 | 140 | 131 | 154 |
| BADOCE | 130 | 100 | 135 | 127 | 123 | 120 | 125 | 132 |
| DABOCE | 125 | 94 | 128 | 123 | 122 | 120 | 123 | 128 |
| ADBOCE | 142 | 109 | 148 | 138 | 134 | 130 | 136 | 142 |
| ODBACE | 125 | 94 | 128 | 123 | 122 | 120 | 118 | 130 |
| DOBACE | 132 | 98 | 133 | 131 | 131 | 130 | 135 | 138 |
| BODACE | 165 | 128 | 173 | 160 | 155 | 150 | 164 | 160 |
| OBDAE | 143 | 107 | 145 | 142 | 141 | 140 | 135 | 154 |
| DBOACE | 143 | 107 | 145 | 142 | 141 | 140 | 146 | 148 |

| | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| BDOACE | 162 | 120 | 163 | 161 | 161 | 160 | 160 | 174 |
| CDOABE | 90 | 56 | 75 | 100 | 110 | 120 | 91 | 130 |
| DCOABE | 107 | 70 | 95 | 114 | 122 | 130 | 115 | 136 |
| OCDABE | 105 | 72 | 98 | 110 | 115 | 120 | 96 | 132 |
| CODABE | 100 | 67 | 90 | 107 | 113 | 120 | 98 | 128 |
| DOCABE | 117 | 81 | 110 | 121 | 126 | 130 | 117 | 140 |
| ODCABE | 105 | 72 | 98 | 110 | 115 | 120 | 106 | 130 |
| ODACBE | 138 | 102 | 138 | 139 | 139 | 140 | 133 | 152 |
| DOACBE | 140 | 100 | 135 | 143 | 147 | 150 | 145 | 160 |
| AODCBE | 133 | 96 | 130 | 136 | 138 | 140 | 140 | 148 |
| OADCBE | 110 | 78 | 105 | 113 | 117 | 120 | 112 | 132 |
| DAOCBE | 127 | 93 | 125 | 128 | 129 | 130 | 126 | 138 |
| ADOCBE | 138 | 102 | 138 | 139 | 139 | 140 | 136 | 154 |
| ACODBE | 152 | 109 | 148 | 154 | 157 | 160 | 150 | 170 |
| CAODBE | 105 | 72 | 98 | 110 | 115 | 120 | 104 | 128 |
| OACDBE | 123 | 85 | 115 | 129 | 134 | 140 | 119 | 152 |
| AOCDBE | 128 | 91 | 123 | 132 | 136 | 140 | 125 | 150 |
| COADBE | 100 | 67 | 90 | 107 | 113 | 120 | 98 | 130 |
| OCADBE | 115 | 83 | 113 | 117 | 118 | 120 | 105 | 134 |
| DCAOBE | 117 | 81 | 110 | 121 | 126 | 130 | 127 | 136 |
| CDAOBE | 100 | 67 | 90 | 107 | 113 | 120 | 101 | 128 |
| ADCOBE | 128 | 91 | 123 | 132 | 136 | 140 | 134 | 150 |
| DACOB | 140 | 100 | 135 | 143 | 147 | 150 | 143 | 158 |
| CADOBE | 105 | 72 | 98 | 110 | 115 | 120 | 106 | 132 |
| ACDOBE | 147 | 104 | 140 | 151 | 156 | 160 | 150 | 172 |
| BCDOAE | 140 | 100 | 135 | 143 | 147 | 150 | 145 | 162 |
| CBDOAE | 105 | 72 | 98 | 110 | 115 | 120 | 106 | 132 |
| DBC0AE | 128 | 91 | 123 | 132 | 136 | 140 | 133 | 148 |
| BDC0AE | 128 | 91 | 123 | 132 | 136 | 140 | 134 | 150 |

| | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| CDBOAE | 93 | 63 | 85 | 99 | 104 | 110 | 97 | 118 |
| DCBOAE | 115 | 83 | 113 | 117 | 118 | 120 | 129 | 126 |
| DCOBAE | 98 | 69 | 93 | 102 | 106 | 110 | 110 | 114 |
| CDOBAE | 82 | 54 | 73 | 88 | 94 | 100 | 86 | 108 |
| ODCBAE | 97 | 70 | 95 | 98 | 99 | 100 | 100 | 108 |
| DOCBAE | 108 | 80 | 108 | 109 | 109 | 110 | 111 | 118 |
| CODBAE | 87 | 59 | 80 | 91 | 96 | 100 | 87 | 106 |
| OCDBAE | 92 | 65 | 88 | 94 | 97 | 100 | 85 | 110 |
| OBDCAE | 110 | 78 | 105 | 113 | 117 | 120 | 112 | 132 |
| BODCAE | 132 | 98 | 133 | 131 | 131 | 130 | 141 | 138 |
| DOBCAE | 133 | 96 | 130 | 136 | 138 | 140 | 141 | 150 |
| ODBCAE | 127 | 93 | 125 | 128 | 129 | 130 | 123 | 142 |
| BDOCAE | 138 | 102 | 138 | 139 | 139 | 140 | 136 | 154 |
| DBOCAE | 120 | 89 | 120 | 120 | 120 | 120 | 122 | 128 |
| CBODAE | 108 | 80 | 108 | 109 | 109 | 110 | 111 | 118 |
| BCODAE | 150 | 111 | 150 | 150 | 150 | 150 | 151 | 160 |
| OCBDAE | 120 | 89 | 120 | 120 | 120 | 120 | 111 | 134 |
| COBDAE | 105 | 72 | 98 | 110 | 115 | 120 | 104 | 130 |
| BOCDAE | 132 | 98 | 133 | 131 | 131 | 130 | 132 | 140 |
| OBCDAE | 122 | 87 | 118 | 124 | 127 | 130 | 121 | 142 |
| ABCD0E | 147 | 104 | 140 | 151 | 156 | 160 | 149 | 174 |
| BACD0E | 145 | 106 | 143 | 147 | 148 | 150 | 148 | 162 |
| CABD0E | 112 | 76 | 103 | 118 | 124 | 130 | 110 | 144 |
| ACBD0E | 168 | 124 | 168 | 169 | 169 | 170 | 169 | 186 |
| BCAD0E | 162 | 120 | 163 | 161 | 161 | 160 | 164 | 176 |
| CBAD0E | 103 | 74 | 100 | 106 | 108 | 110 | 105 | 122 |
| CBDA0E | 122 | 87 | 118 | 124 | 127 | 130 | 120 | 142 |
| BCDA0E | 157 | 115 | 155 | 158 | 159 | 160 | 159 | 172 |
| DCBA0E | 115 | 83 | 113 | 117 | 118 | 120 | 126 | 126 |

| | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| CDBA0E | 93 | 63 | 85 | 99 | 104 | 110 | 94 | 118 |
| BDCA0E | 145 | 106 | 143 | 147 | 148 | 150 | 151 | 162 |
| DBCA0E | 145 | 106 | 143 | 147 | 148 | 150 | 149 | 160 |
| DACB0E | 155 | 117 | 158 | 153 | 152 | 150 | 161 | 160 |
| ADCB0E | 143 | 107 | 145 | 142 | 141 | 140 | 152 | 152 |
| CDAB0E | 105 | 72 | 98 | 110 | 115 | 120 | 107 | 130 |
| DCAB0E | 122 | 87 | 118 | 124 | 127 | 130 | 133 | 138 |
| ACDB0E | 157 | 115 | 155 | 158 | 159 | 160 | 159 | 172 |
| CADB0E | 115 | 83 | 113 | 117 | 118 | 120 | 116 | 132 |
| BADC0E | 127 | 93 | 125 | 128 | 129 | 130 | 133 | 140 |
| ABDC0E | 135 | 94 | 128 | 140 | 145 | 150 | 139 | 162 |
| DBAC0E | 133 | 96 | 130 | 136 | 138 | 140 | 136 | 148 |
| BDAC0E | 168 | 124 | 168 | 169 | 169 | 170 | 166 | 184 |
| ADBC0E | 157 | 115 | 155 | 158 | 159 | 160 | 156 | 174 |
| DABC0E | 140 | 100 | 135 | 143 | 147 | 150 | 143 | 160 |
| DABCE0 | 175 | 161 | 183 | 170 | 165 | 160 | 177 | 158 |
| ADBCE0 | 192 | 176 | 203 | 184 | 177 | 170 | 191 | 172 |
| BDACE0 | 203 | 185 | 215 | 196 | 188 | 180 | 201 | 182 |
| DBACE0 | 168 | 157 | 178 | 162 | 156 | 150 | 171 | 146 |
| ABDCE0 | 170 | 156 | 175 | 167 | 163 | 160 | 173 | 160 |
| BADCE0 | 162 | 154 | 173 | 154 | 147 | 140 | 167 | 138 |
| BACDE0 | 182 | 165 | 188 | 178 | 174 | 170 | 184 | 170 |
| ABCDE0 | 183 | 163 | 185 | 182 | 181 | 180 | 185 | 182 |
| CBADE0 | 140 | 133 | 145 | 137 | 133 | 130 | 140 | 130 |
| BCADE0 | 198 | 180 | 208 | 192 | 186 | 180 | 200 | 184 |
| ACBDE0 | 205 | 183 | 213 | 200 | 195 | 190 | 204 | 194 |
| CABDE0 | 148 | 135 | 148 | 149 | 149 | 150 | 146 | 152 |
| CDBAE0 | 118 | 113 | 118 | 119 | 119 | 120 | 121 | 116 |
| DCBAE0 | 140 | 133 | 145 | 137 | 133 | 130 | 153 | 124 |

| | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| BCDAEO | 182 | 165 | 188 | 178 | 174 | 170 | 186 | 170 |
| CBDAEO | 147 | 137 | 150 | 144 | 142 | 140 | 147 | 140 |
| DBCAEO | 170 | 156 | 175 | 167 | 163 | 160 | 176 | 158 |
| BDCAEO | 170 | 156 | 175 | 167 | 163 | 160 | 178 | 160 |
| ADCBE0 | 170 | 156 | 175 | 167 | 163 | 160 | 178 | 160 |
| DACBE0 | 182 | 165 | 188 | 178 | 174 | 170 | 186 | 168 |
| CADBE0 | 142 | 131 | 143 | 141 | 141 | 140 | 142 | 140 |
| ACDBE0 | 183 | 163 | 185 | 182 | 181 | 180 | 185 | 180 |
| DCABE0 | 148 | 135 | 148 | 149 | 149 | 150 | 159 | 146 |
| CDABE0 | 132 | 120 | 128 | 134 | 137 | 140 | 133 | 138 |
| EDABCO | 193 | 174 | 200 | 189 | 184 | 180 | 205 | 182 |
| DEABCO | 195 | 172 | 198 | 193 | 192 | 190 | 205 | 192 |
| AEDBCO | 182 | 165 | 188 | 178 | 174 | 170 | 195 | 170 |
| EADBCO | 217 | 193 | 225 | 211 | 206 | 200 | 224 | 206 |
| DAEBCO | 193 | 174 | 200 | 189 | 184 | 180 | 206 | 180 |
| ADEBCO | 217 | 193 | 225 | 211 | 206 | 200 | 224 | 206 |
| ADBECO | 167 | 148 | 165 | 168 | 169 | 170 | 170 | 172 |
| DABECO | 150 | 133 | 145 | 153 | 157 | 160 | 157 | 158 |
| BADECO | 165 | 150 | 168 | 163 | 162 | 160 | 169 | 162 |
| ABDECO | 173 | 152 | 170 | 176 | 178 | 180 | 175 | 184 |
| DBAECO | 137 | 126 | 135 | 138 | 139 | 140 | 146 | 136 |
| BDAECO | 172 | 154 | 173 | 171 | 171 | 170 | 176 | 172 |
| BEADCO | 188 | 169 | 193 | 186 | 183 | 180 | 202 | 182 |
| EBADCO | 187 | 170 | 195 | 181 | 176 | 170 | 201 | 172 |
| ABEDCO | 160 | 144 | 160 | 160 | 160 | 160 | 178 | 158 |
| BAEDCO | 152 | 143 | 158 | 148 | 144 | 140 | 172 | 136 |
| EABDCO | 195 | 172 | 198 | 193 | 192 | 190 | 206 | 194 |
| AEBDCO | 188 | 169 | 193 | 186 | 183 | 180 | 202 | 182 |
| DEBACO | 193 | 174 | 200 | 189 | 184 | 180 | 204 | 180 |

| | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| EDBACO | 187 | 170 | 195 | 181 | 176 | 170 | 199 | 170 |
| BDEACO | 223 | 196 | 230 | 219 | 214 | 210 | 229 | 216 |
| DBEACO | 195 | 172 | 198 | 193 | 192 | 190 | 205 | 190 |
| EBDACO | 228 | 202 | 238 | 222 | 216 | 210 | 234 | 216 |
| BEDACO | 193 | 174 | 200 | 189 | 184 | 180 | 206 | 180 |
| CEDABO | 145 | 139 | 153 | 140 | 135 | 130 | 156 | 128 |
| ECDABO | 172 | 154 | 173 | 171 | 171 | 170 | 179 | 172 |
| DCEABO | 175 | 161 | 183 | 170 | 165 | 160 | 192 | 158 |
| CDEABO | 160 | 144 | 160 | 160 | 160 | 160 | 169 | 162 |
| EDCABO | 175 | 161 | 183 | 170 | 165 | 160 | 195 | 160 |
| DECABO | 160 | 144 | 160 | 160 | 160 | 160 | 169 | 160 |
| DEACBO | 210 | 189 | 220 | 203 | 197 | 190 | 223 | 192 |
| EDACBO | 208 | 191 | 223 | 199 | 189 | 180 | 223 | 182 |
| ADECBO | 182 | 165 | 188 | 178 | 174 | 170 | 188 | 174 |
| DAECBO | 158 | 146 | 163 | 156 | 153 | 150 | 170 | 148 |
| EADCB0 | 203 | 185 | 215 | 196 | 188 | 180 | 220 | 184 |
| AEDCB0 | 168 | 157 | 178 | 162 | 156 | 150 | 191 | 148 |
| ACDEB0 | 217 | 193 | 225 | 211 | 206 | 200 | 227 | 204 |
| CADEB0 | 175 | 161 | 183 | 170 | 165 | 160 | 184 | 164 |
| DACEB0 | 208 | 191 | 223 | 199 | 189 | 180 | 220 | 180 |
| ADCEB0 | 197 | 181 | 210 | 188 | 179 | 170 | 211 | 172 |
| CDAEB0 | 158 | 146 | 163 | 156 | 153 | 150 | 170 | 150 |
| DCAEB0 | 175 | 161 | 183 | 170 | 165 | 160 | 196 | 158 |
| ECADB0 | 182 | 165 | 188 | 178 | 174 | 170 | 188 | 174 |
| CEADB0 | 168 | 157 | 178 | 162 | 156 | 150 | 175 | 152 |
| AECDB0 | 160 | 144 | 160 | 160 | 160 | 160 | 169 | 160 |
| EACDB0 | 217 | 193 | 225 | 211 | 206 | 200 | 227 | 204 |
| CAEDB0 | 140 | 133 | 145 | 137 | 133 | 130 | 155 | 128 |
| ACEDB0 | 197 | 181 | 210 | 188 | 179 | 170 | 209 | 170 |

| | | | | | | | | |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| BCEDAO | 197 | 181 | 210 | 188 | 179 | 170 | 209 | 170 |
| CBEDAO | 147 | 137 | 150 | 144 | 142 | 140 | 159 | 138 |
| EBCDAO | 217 | 193 | 225 | 211 | 206 | 200 | 227 | 204 |
| BECD AO | 167 | 148 | 165 | 168 | 169 | 170 | 173 | 170 |
| CEBD AO | 175 | 161 | 183 | 170 | 165 | 160 | 179 | 162 |
| ECBD AO | 188 | 169 | 193 | 186 | 183 | 180 | 193 | 184 |
| ECDB AO | 160 | 144 | 160 | 160 | 160 | 160 | 167 | 160 |
| CEDB AO | 133 | 130 | 140 | 129 | 124 | 120 | 144 | 116 |
| DECBAO | 153 | 141 | 155 | 152 | 151 | 150 | 162 | 148 |
| EDCBAO | 168 | 157 | 178 | 162 | 156 | 150 | 189 | 148 |
| CDEBAO | 153 | 141 | 155 | 152 | 151 | 150 | 162 | 150 |
| DCEBAO | 168 | 157 | 178 | 162 | 156 | 150 | 185 | 146 |
| DBECAO | 155 | 139 | 153 | 157 | 158 | 160 | 163 | 158 |
| BDECAO | 183 | 163 | 185 | 182 | 181 | 180 | 187 | 184 |
| EDBCAO | 198 | 180 | 208 | 192 | 186 | 180 | 212 | 182 |
| DEBCAO | 205 | 183 | 213 | 200 | 195 | 190 | 217 | 192 |
| BEDCAO | 170 | 156 | 175 | 167 | 163 | 160 | 190 | 158 |
| EBDCAO | 205 | 183 | 213 | 200 | 195 | 190 | 218 | 194 |
| CBDEAO | 177 | 159 | 180 | 174 | 172 | 170 | 182 | 174 |
| BCDEAO | 212 | 187 | 218 | 208 | 204 | 200 | 221 | 204 |
| DCBEAO | 177 | 159 | 180 | 174 | 172 | 170 | 195 | 168 |
| CDBEAO | 155 | 139 | 153 | 157 | 158 | 160 | 163 | 160 |
| BDCEAO | 198 | 180 | 208 | 192 | 186 | 180 | 209 | 182 |
| DBCEAO | 198 | 180 | 208 | 192 | 186 | 180 | 208 | 180 |
| ABCEDO | 187 | 170 | 195 | 181 | 176 | 170 | 199 | 172 |
| BACEDO | 185 | 172 | 198 | 177 | 168 | 160 | 198 | 160 |
| CABEDO | 137 | 126 | 135 | 138 | 139 | 140 | 150 | 140 |
| ACBEDO | 193 | 174 | 200 | 189 | 184 | 180 | 208 | 182 |
| BCAEDO | 187 | 170 | 195 | 181 | 176 | 170 | 203 | 172 |

| | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| CBAEDO | 128 | 124 | 133 | 126 | 123 | 120 | 144 | 118 |
| CBEADO | 165 | 150 | 168 | 163 | 162 | 160 | 174 | 164 |
| BCEADO | 215 | 194 | 228 | 207 | 198 | 190 | 223 | 196 |
| ECBADO | 170 | 156 | 175 | 167 | 163 | 160 | 177 | 164 |
| CEBADO | 157 | 148 | 165 | 151 | 146 | 140 | 164 | 142 |
| BECADO | 172 | 154 | 173 | 171 | 171 | 170 | 178 | 174 |
| EBCADO | 222 | 198 | 233 | 214 | 207 | 200 | 232 | 208 |
| EACBDO | 228 | 202 | 238 | 222 | 216 | 210 | 236 | 218 |
| AECBDO | 172 | 154 | 173 | 171 | 171 | 170 | 178 | 174 |
| CEABDO | 165 | 150 | 168 | 163 | 162 | 160 | 169 | 164 |
| ECABDO | 178 | 157 | 178 | 179 | 179 | 180 | 183 | 186 |
| ACEBDO | 222 | 198 | 233 | 214 | 207 | 200 | 227 | 206 |
| CAEBDO | 165 | 150 | 168 | 163 | 162 | 160 | 174 | 164 |
| BAECDO | 148 | 135 | 148 | 149 | 149 | 150 | 158 | 150 |
| ABECDO | 157 | 137 | 150 | 161 | 166 | 170 | 164 | 172 |
| EBACDO | 205 | 183 | 213 | 200 | 195 | 190 | 216 | 194 |
| BEACDO | 207 | 181 | 210 | 204 | 202 | 200 | 217 | 204 |
| AEBCDO | 200 | 178 | 205 | 197 | 193 | 190 | 213 | 194 |
| EABCD0 | 207 | 181 | 210 | 204 | 202 | 200 | 217 | 206 |
| EAB0DC | 205 | 183 | 213 | 200 | 195 | 190 | 218 | 194 |
| AEB0DC | 198 | 180 | 208 | 192 | 186 | 180 | 213 | 182 |
| BEA0DC | 200 | 178 | 205 | 197 | 193 | 190 | 212 | 192 |
| EBA0DC | 198 | 180 | 208 | 192 | 186 | 180 | 211 | 182 |
| ABE0DC | 172 | 154 | 173 | 171 | 171 | 170 | 176 | 170 |
| BAE0DC | 163 | 152 | 170 | 159 | 154 | 150 | 170 | 148 |
| BA0EDC | 175 | 161 | 183 | 170 | 165 | 160 | 193 | 160 |
| AB0EDC | 182 | 165 | 188 | 178 | 174 | 170 | 200 | 172 |
| OBAEDC | 140 | 133 | 145 | 137 | 133 | 130 | 154 | 130 |
| BOAEDC | 175 | 161 | 183 | 170 | 165 | 160 | 195 | 160 |

| | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| AOBEDC | 177 | 159 | 180 | 174 | 172 | 170 | 194 | 170 |
| OABEDC | 148 | 135 | 148 | 149 | 149 | 150 | 160 | 152 |
| OEBADC | 175 | 161 | 183 | 170 | 165 | 160 | 183 | 166 |
| EOBADC | 175 | 161 | 183 | 170 | 165 | 160 | 181 | 162 |
| BOEADC | 210 | 189 | 220 | 203 | 197 | 190 | 224 | 196 |
| OBEADC | 177 | 159 | 180 | 174 | 172 | 170 | 184 | 176 |
| EB0ADC | 210 | 189 | 220 | 203 | 197 | 190 | 224 | 196 |
| BE0ADC | 177 | 159 | 180 | 174 | 172 | 170 | 182 | 172 |
| AE0BDC | 177 | 159 | 180 | 174 | 172 | 170 | 182 | 172 |
| EA0BDC | 212 | 187 | 218 | 208 | 204 | 200 | 223 | 206 |
| OAEBDC | 177 | 159 | 180 | 174 | 172 | 170 | 184 | 176 |
| AOEBDC | 212 | 187 | 218 | 208 | 204 | 200 | 223 | 206 |
| EOABDC | 183 | 163 | 185 | 182 | 181 | 180 | 186 | 184 |
| OEABDC | 183 | 163 | 185 | 182 | 181 | 180 | 188 | 188 |
| DEAB0C | 193 | 174 | 200 | 189 | 184 | 180 | 198 | 184 |
| EDAB0C | 192 | 176 | 203 | 184 | 177 | 170 | 199 | 174 |
| ADEB0C | 215 | 194 | 228 | 207 | 198 | 190 | 217 | 198 |
| DAEB0C | 192 | 176 | 203 | 184 | 177 | 170 | 200 | 172 |
| EADB0C | 215 | 194 | 228 | 207 | 198 | 190 | 217 | 198 |
| AEDB0C | 180 | 167 | 190 | 173 | 167 | 160 | 189 | 162 |
| AEBD0C | 205 | 183 | 213 | 200 | 195 | 190 | 208 | 198 |
| EABD0C | 212 | 187 | 218 | 208 | 204 | 200 | 212 | 210 |
| BAED0C | 168 | 157 | 178 | 162 | 156 | 150 | 178 | 152 |
| ABED0C | 177 | 159 | 180 | 174 | 172 | 170 | 183 | 174 |
| EBAD0C | 203 | 185 | 215 | 196 | 188 | 180 | 206 | 188 |
| BEAD0C | 205 | 183 | 213 | 200 | 195 | 190 | 208 | 198 |
| BDAE0C | 187 | 170 | 195 | 181 | 176 | 170 | 181 | 174 |
| DBAE0C | 152 | 143 | 158 | 148 | 144 | 140 | 151 | 138 |
| ABDE0C | 188 | 169 | 193 | 186 | 183 | 180 | 180 | 186 |

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|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| BADEOC | 180 | 167 | 190 | 173 | 167 | 160 | 174 | 164 |
| DABEOC | 165 | 150 | 168 | 163 | 162 | 160 | 162 | 160 |
| ADBEOC | 182 | 165 | 188 | 178 | 174 | 170 | 175 | 174 |
| EDBAOC | 180 | 167 | 190 | 173 | 167 | 160 | 186 | 162 |
| DEBAOC | 187 | 170 | 195 | 181 | 176 | 170 | 192 | 172 |
| BEDAO C | 187 | 170 | 195 | 181 | 176 | 170 | 193 | 172 |
| EBDAO C | 222 | 198 | 233 | 214 | 207 | 200 | 222 | 208 |
| DBEAOC | 188 | 169 | 193 | 186 | 183 | 180 | 193 | 182 |
| BDEAOC | 217 | 193 | 225 | 211 | 206 | 200 | 216 | 208 |
| ODEABC | 200 | 178 | 205 | 197 | 193 | 190 | 200 | 198 |
| DOEABC | 207 | 181 | 210 | 204 | 202 | 200 | 217 | 206 |
| EODABC | 205 | 183 | 213 | 200 | 195 | 190 | 203 | 194 |
| OEDABC | 182 | 165 | 188 | 178 | 174 | 170 | 187 | 176 |
| DEOABC | 183 | 163 | 185 | 182 | 181 | 180 | 185 | 182 |
| EDOABC | 200 | 178 | 205 | 197 | 193 | 190 | 212 | 196 |
| EDA OBC | 210 | 189 | 220 | 203 | 197 | 190 | 222 | 194 |
| DEA OBC | 212 | 187 | 218 | 208 | 204 | 200 | 221 | 204 |
| AED OBC | 193 | 174 | 200 | 189 | 184 | 180 | 208 | 184 |
| EAD OBC | 228 | 202 | 238 | 222 | 216 | 210 | 236 | 220 |
| DAE OBC | 182 | 165 | 188 | 178 | 174 | 170 | 186 | 170 |
| ADE OBC | 205 | 183 | 213 | 200 | 195 | 190 | 204 | 196 |
| AOEDBC | 205 | 183 | 213 | 200 | 195 | 190 | 216 | 194 |
| OAEDBC | 170 | 156 | 175 | 167 | 163 | 160 | 177 | 164 |
| EA ODBC | 228 | 202 | 238 | 222 | 216 | 210 | 234 | 216 |
| AE ODBC | 193 | 174 | 200 | 189 | 184 | 180 | 193 | 182 |
| OEADBC | 205 | 183 | 213 | 200 | 195 | 190 | 206 | 200 |
| EOADBC | 205 | 183 | 213 | 200 | 195 | 190 | 204 | 196 |
| DOAEBC | 200 | 178 | 205 | 197 | 193 | 190 | 213 | 194 |
| ODAEBC | 198 | 180 | 208 | 192 | 186 | 180 | 201 | 186 |

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|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| ADOEBC | 228 | 202 | 238 | 222 | 216 | 210 | 236 | 220 |
| DAOEBC | 217 | 193 | 225 | 211 | 206 | 200 | 227 | 204 |
| OADEBC | 205 | 183 | 213 | 200 | 195 | 190 | 206 | 200 |
| AODEBC | 228 | 202 | 238 | 222 | 216 | 210 | 234 | 216 |
| BODEAC | 233 | 207 | 245 | 226 | 218 | 210 | 240 | 216 |
| OBDEAC | 212 | 187 | 218 | 208 | 204 | 200 | 210 | 210 |
| DBOEAC | 217 | 193 | 225 | 211 | 206 | 200 | 227 | 204 |
| BDOEAC | 235 | 206 | 243 | 230 | 225 | 220 | 241 | 230 |
| ODBEAC | 200 | 178 | 205 | 197 | 193 | 190 | 200 | 196 |
| DOBEAC | 207 | 181 | 210 | 204 | 202 | 200 | 217 | 204 |
| DOEBAC | 205 | 183 | 213 | 200 | 195 | 190 | 216 | 194 |
| ODEBAC | 198 | 180 | 208 | 192 | 186 | 180 | 199 | 186 |
| EDOBAC | 198 | 180 | 208 | 192 | 186 | 180 | 211 | 184 |
| DEOBAC | 182 | 165 | 188 | 178 | 174 | 170 | 184 | 170 |
| OEDBAC | 175 | 161 | 183 | 170 | 165 | 160 | 181 | 164 |
| EODBAC | 198 | 180 | 208 | 192 | 186 | 180 | 197 | 182 |
| EBDOAC | 235 | 206 | 243 | 230 | 225 | 220 | 241 | 230 |
| BEDOAC | 200 | 178 | 205 | 197 | 193 | 190 | 212 | 194 |
| DEBOAC | 217 | 193 | 225 | 211 | 206 | 200 | 227 | 204 |
| EDBOAC | 210 | 189 | 220 | 203 | 197 | 190 | 222 | 194 |
| BDEOAC | 212 | 187 | 218 | 208 | 204 | 200 | 208 | 206 |
| DBEOAC | 183 | 163 | 185 | 182 | 181 | 180 | 185 | 180 |
| OBEDAC | 182 | 165 | 188 | 178 | 174 | 170 | 187 | 174 |
| BOEDAC | 215 | 194 | 228 | 207 | 198 | 190 | 228 | 194 |
| EOBDAC | 217 | 193 | 225 | 211 | 206 | 200 | 214 | 206 |
| OEBDAC | 217 | 193 | 225 | 211 | 206 | 200 | 216 | 210 |
| BEODAC | 205 | 183 | 213 | 200 | 195 | 190 | 203 | 192 |
| EBODAC | 238 | 213 | 253 | 229 | 219 | 210 | 246 | 216 |
| ABODEC | 183 | 163 | 185 | 182 | 181 | 180 | 186 | 184 |

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|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| BA0DEC | 177 | 159 | 180 | 174 | 172 | 170 | 179 | 172 |
| OABDEC | 162 | 143 | 158 | 164 | 167 | 170 | 157 | 178 |
| A0BDEC | 190 | 167 | 190 | 190 | 190 | 190 | 191 | 196 |
| BOADEC | 188 | 169 | 193 | 186 | 183 | 180 | 192 | 186 |
| 0BADEC | 153 | 141 | 155 | 152 | 151 | 150 | 151 | 156 |
| 0BDAEC | 160 | 144 | 160 | 160 | 160 | 160 | 158 | 166 |
| B0DAEC | 182 | 165 | 188 | 178 | 174 | 170 | 187 | 172 |
| DOBAEC | 148 | 135 | 148 | 149 | 149 | 150 | 158 | 150 |
| ODBAEC | 142 | 131 | 143 | 141 | 141 | 140 | 141 | 142 |
| BDOAEC | 178 | 157 | 178 | 179 | 179 | 180 | 183 | 186 |
| DBOAEC | 160 | 144 | 160 | 160 | 160 | 160 | 169 | 160 |
| DA0BEC | 167 | 148 | 165 | 168 | 169 | 170 | 173 | 170 |
| AD0BEC | 178 | 157 | 178 | 179 | 179 | 180 | 183 | 186 |
| ODABEC | 155 | 139 | 153 | 157 | 158 | 160 | 152 | 164 |
| DOABEC | 157 | 137 | 150 | 161 | 166 | 170 | 164 | 172 |
| A0DBEC | 178 | 157 | 178 | 179 | 179 | 180 | 180 | 182 |
| OADBEC | 155 | 139 | 153 | 157 | 158 | 160 | 152 | 166 |
| BAD0EC | 177 | 159 | 180 | 174 | 172 | 170 | 181 | 176 |
| ABD0EC | 185 | 161 | 183 | 187 | 188 | 190 | 187 | 198 |
| DBA0EC | 160 | 144 | 160 | 160 | 160 | 160 | 167 | 160 |
| BDA0EC | 195 | 172 | 198 | 193 | 192 | 190 | 197 | 196 |
| ADB0EC | 188 | 169 | 193 | 186 | 183 | 180 | 192 | 186 |
| DAB0EC | 172 | 154 | 173 | 171 | 171 | 170 | 179 | 172 |
| DAC0EB | 200 | 178 | 205 | 197 | 193 | 190 | 213 | 194 |
| ADC0EB | 188 | 169 | 193 | 186 | 183 | 180 | 204 | 186 |
| CDA0EB | 160 | 144 | 160 | 160 | 160 | 160 | 171 | 164 |
| DCA0EB | 177 | 159 | 180 | 174 | 172 | 170 | 197 | 172 |
| ACD0EB | 207 | 181 | 210 | 204 | 202 | 200 | 219 | 208 |
| CAD0EB | 165 | 150 | 168 | 163 | 162 | 160 | 176 | 168 |

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|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| CA0DEB | 165 | 150 | 168 | 163 | 162 | 160 | 174 | 164 |
| AC0DEB | 212 | 187 | 218 | 208 | 204 | 200 | 220 | 206 |
| 0CADEB | 175 | 161 | 183 | 170 | 165 | 160 | 175 | 170 |
| COADEB | 160 | 144 | 160 | 160 | 160 | 160 | 168 | 166 |
| AOCDEB | 188 | 169 | 193 | 186 | 183 | 180 | 195 | 186 |
| OACDEB | 183 | 163 | 185 | 182 | 181 | 180 | 189 | 188 |
| ODCAEB | 158 | 146 | 163 | 156 | 153 | 150 | 171 | 154 |
| DOCAEB | 170 | 156 | 175 | 167 | 163 | 160 | 182 | 164 |
| CODAEb | 153 | 141 | 155 | 152 | 151 | 150 | 163 | 152 |
| OCDAEB | 158 | 146 | 163 | 156 | 153 | 150 | 162 | 156 |
| DC0AEB | 160 | 144 | 160 | 160 | 160 | 160 | 181 | 160 |
| CD0AEB | 143 | 130 | 140 | 146 | 148 | 150 | 157 | 154 |
| AD0CEB | 192 | 176 | 203 | 184 | 177 | 170 | 196 | 178 |
| DA0CEB | 180 | 167 | 190 | 173 | 167 | 160 | 187 | 162 |
| OADCEB | 163 | 152 | 170 | 159 | 154 | 150 | 173 | 156 |
| A0DCEB | 187 | 170 | 195 | 181 | 176 | 170 | 201 | 172 |
| DOACEB | 193 | 174 | 200 | 189 | 184 | 180 | 206 | 184 |
| ODACEB | 192 | 176 | 203 | 184 | 177 | 170 | 194 | 176 |
| EDAC0B | 193 | 174 | 200 | 189 | 184 | 180 | 208 | 184 |
| DEAC0B | 195 | 172 | 198 | 193 | 192 | 190 | 207 | 194 |
| AEDC0B | 153 | 141 | 155 | 152 | 151 | 150 | 175 | 150 |
| EADC0B | 188 | 169 | 193 | 186 | 183 | 180 | 204 | 186 |
| DAEC0B | 143 | 130 | 140 | 146 | 148 | 150 | 155 | 150 |
| ADEC0B | 167 | 148 | 165 | 168 | 169 | 170 | 173 | 176 |
| ADCE0B | 163 | 152 | 170 | 159 | 154 | 150 | 171 | 152 |
| DACE0B | 175 | 161 | 183 | 170 | 165 | 160 | 179 | 160 |
| CADE0B | 142 | 131 | 143 | 141 | 141 | 140 | 144 | 144 |
| ACDE0B | 183 | 163 | 185 | 182 | 181 | 180 | 187 | 184 |
| DCAE0B | 142 | 131 | 143 | 141 | 141 | 140 | 156 | 138 |

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|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| CDAEOB | 125 | 117 | 123 | 127 | 128 | 130 | 130 | 130 |
| CEADOB | 158 | 146 | 163 | 156 | 153 | 150 | 167 | 156 |
| ECADOB | 172 | 154 | 173 | 171 | 171 | 170 | 180 | 178 |
| ACEDOB | 187 | 170 | 195 | 181 | 176 | 170 | 201 | 174 |
| CAEDOB | 130 | 122 | 130 | 130 | 130 | 130 | 147 | 132 |
| EACDOB | 207 | 181 | 210 | 204 | 202 | 200 | 219 | 208 |
| AECDOB | 150 | 133 | 145 | 153 | 157 | 160 | 161 | 164 |
| DECAOB | 155 | 139 | 153 | 157 | 158 | 160 | 166 | 162 |
| EDCAOB | 170 | 156 | 175 | 167 | 163 | 160 | 192 | 162 |
| CDEAOB | 155 | 139 | 153 | 157 | 158 | 160 | 165 | 164 |
| DCEAOB | 170 | 156 | 175 | 167 | 163 | 160 | 188 | 160 |
| ECDAOB | 167 | 148 | 165 | 168 | 169 | 170 | 176 | 174 |
| CEDA0B | 140 | 133 | 145 | 137 | 133 | 130 | 153 | 130 |
| OEDACB | 175 | 161 | 183 | 170 | 165 | 160 | 185 | 166 |
| EODACB | 198 | 180 | 208 | 192 | 186 | 180 | 201 | 184 |
| DOEACB | 200 | 178 | 205 | 197 | 193 | 190 | 215 | 196 |
| ODEACB | 193 | 174 | 200 | 189 | 184 | 180 | 198 | 188 |
| EDOACB | 193 | 174 | 200 | 189 | 184 | 180 | 210 | 186 |
| DEOACB | 177 | 159 | 180 | 174 | 172 | 170 | 183 | 172 |
| DEAOCB | 182 | 165 | 188 | 178 | 174 | 170 | 191 | 174 |
| EDAOCB | 180 | 167 | 190 | 173 | 167 | 160 | 191 | 164 |
| ADEOCB | 175 | 161 | 183 | 170 | 165 | 160 | 173 | 166 |
| DAEOCB | 152 | 143 | 158 | 148 | 144 | 140 | 155 | 140 |
| EADOCB | 198 | 180 | 208 | 192 | 186 | 180 | 205 | 190 |
| AEDOCB | 163 | 152 | 170 | 159 | 154 | 150 | 177 | 154 |
| AODECB | 172 | 154 | 173 | 171 | 171 | 170 | 178 | 174 |
| OADECB | 148 | 135 | 148 | 149 | 149 | 150 | 150 | 158 |
| DAOECB | 160 | 144 | 160 | 160 | 160 | 160 | 171 | 162 |
| ADOECB | 172 | 154 | 173 | 171 | 171 | 170 | 180 | 178 |

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|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| ODAECB | 142 | 131 | 143 | 141 | 141 | 140 | 145 | 144 |
| DOAECB | 143 | 130 | 140 | 146 | 148 | 150 | 157 | 152 |
| EOADCB | 170 | 156 | 175 | 167 | 163 | 160 | 180 | 164 |
| OEADCB | 170 | 156 | 175 | 167 | 163 | 160 | 182 | 168 |
| AEODCB | 158 | 146 | 163 | 156 | 153 | 150 | 169 | 150 |
| EAODCB | 193 | 174 | 200 | 189 | 184 | 180 | 210 | 184 |
| OAEDCB | 135 | 128 | 138 | 133 | 132 | 130 | 153 | 132 |
| AOEDCB | 170 | 156 | 175 | 167 | 163 | 160 | 192 | 162 |
| COEDAB | 137 | 126 | 135 | 138 | 139 | 140 | 149 | 142 |
| OCEDAB | 145 | 139 | 153 | 140 | 135 | 130 | 147 | 134 |
| ECODAB | 167 | 148 | 165 | 168 | 169 | 170 | 172 | 174 |
| CEODAB | 135 | 128 | 138 | 133 | 132 | 130 | 134 | 130 |
| OECDAB | 138 | 124 | 133 | 142 | 146 | 150 | 141 | 156 |
| EOCDAB | 165 | 150 | 168 | 163 | 162 | 160 | 164 | 164 |
| EODCAB | 165 | 150 | 168 | 163 | 162 | 160 | 173 | 162 |
| OEDCAB | 142 | 131 | 143 | 141 | 141 | 140 | 157 | 144 |
| DEOCAB | 153 | 141 | 155 | 152 | 151 | 150 | 154 | 152 |
| EDOCAB | 170 | 156 | 175 | 167 | 163 | 160 | 181 | 166 |
| ODECAB | 143 | 130 | 140 | 146 | 148 | 150 | 144 | 156 |
| DOECAB | 150 | 133 | 145 | 153 | 157 | 160 | 161 | 164 |
| DCEOAB | 142 | 131 | 143 | 141 | 141 | 140 | 152 | 138 |
| CDEOAB | 127 | 115 | 120 | 131 | 136 | 140 | 129 | 142 |
| EDCOAB | 160 | 144 | 160 | 160 | 160 | 160 | 180 | 162 |
| DECOAB | 145 | 128 | 138 | 150 | 155 | 160 | 153 | 162 |
| CEDOAB | 130 | 122 | 130 | 130 | 130 | 130 | 143 | 132 |
| ECDOAB | 157 | 137 | 150 | 161 | 166 | 170 | 166 | 176 |
| OCDEAB | 160 | 144 | 160 | 160 | 160 | 160 | 160 | 168 |
| CODEAB | 155 | 139 | 153 | 157 | 158 | 160 | 162 | 164 |
| DOCEAB | 170 | 156 | 175 | 167 | 163 | 160 | 177 | 164 |

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|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| ODCEAB | 158 | 146 | 163 | 156 | 153 | 150 | 166 | 154 |
| CDOEAB | 150 | 133 | 145 | 153 | 157 | 160 | 161 | 166 |
| DCOEAB | 167 | 148 | 165 | 168 | 169 | 170 | 185 | 172 |
| ACOEDB | 188 | 169 | 193 | 186 | 183 | 180 | 202 | 184 |
| CAOEDB | 142 | 131 | 143 | 141 | 141 | 140 | 156 | 142 |
| OACEDB | 163 | 152 | 170 | 159 | 154 | 150 | 171 | 154 |
| AOCEDB | 168 | 157 | 178 | 162 | 156 | 150 | 176 | 152 |
| COAEDB | 125 | 117 | 123 | 127 | 128 | 130 | 139 | 130 |
| OCAEDB | 140 | 133 | 145 | 137 | 133 | 130 | 146 | 134 |
| OCEADB | 168 | 157 | 178 | 162 | 156 | 150 | 166 | 158 |
| COEADB | 160 | 144 | 160 | 160 | 160 | 160 | 168 | 166 |
| EOCADB | 175 | 161 | 183 | 170 | 165 | 160 | 173 | 166 |
| OECADB | 148 | 135 | 148 | 149 | 149 | 150 | 150 | 158 |
| CEOADB | 135 | 128 | 138 | 133 | 132 | 130 | 135 | 132 |
| ECOADB | 167 | 148 | 165 | 168 | 169 | 170 | 173 | 176 |
| EAOCDB | 188 | 169 | 193 | 186 | 183 | 180 | 195 | 186 |
| AEOCDB | 153 | 141 | 155 | 152 | 151 | 150 | 154 | 152 |
| OEACDB | 183 | 163 | 185 | 182 | 181 | 180 | 189 | 188 |
| EOACDB | 183 | 163 | 185 | 182 | 181 | 180 | 187 | 184 |
| AOECDB | 162 | 143 | 158 | 164 | 167 | 170 | 170 | 174 |
| OAECDB | 127 | 115 | 120 | 131 | 136 | 140 | 131 | 144 |
| CAEODB | 130 | 122 | 130 | 130 | 130 | 130 | 133 | 130 |
| ACEODB | 187 | 170 | 195 | 181 | 176 | 170 | 186 | 172 |
| ECAODB | 172 | 154 | 173 | 171 | 171 | 170 | 178 | 174 |
| CEAODB | 158 | 146 | 163 | 156 | 153 | 150 | 165 | 152 |
| AECODB | 155 | 139 | 153 | 157 | 158 | 160 | 162 | 162 |
| EACODB | 212 | 187 | 218 | 208 | 204 | 200 | 220 | 206 |
| EBCODA | 217 | 193 | 225 | 211 | 206 | 200 | 226 | 206 |
| BECODA | 167 | 148 | 165 | 168 | 169 | 170 | 172 | 172 |

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|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| CEBODA | 168 | 157 | 178 | 162 | 156 | 150 | 176 | 152 |
| ECBODA | 182 | 165 | 188 | 178 | 174 | 170 | 190 | 174 |
| BCEODA | 192 | 176 | 203 | 184 | 177 | 170 | 192 | 172 |
| CBEODA | 142 | 131 | 143 | 141 | 141 | 140 | 143 | 140 |
| CBOEDA | 152 | 143 | 158 | 148 | 144 | 140 | 167 | 142 |
| BCOEDA | 193 | 174 | 200 | 189 | 184 | 180 | 208 | 184 |
| OCBEDA | 152 | 143 | 158 | 148 | 144 | 140 | 157 | 144 |
| COBEDA | 137 | 126 | 135 | 138 | 139 | 140 | 150 | 140 |
| BOCEDA | 178 | 169 | 193 | 169 | 159 | 150 | 188 | 152 |
| OBCEDA | 168 | 157 | 178 | 162 | 156 | 150 | 176 | 154 |
| OECBDA | 160 | 144 | 160 | 160 | 160 | 160 | 160 | 168 |
| EOCBDA | 187 | 170 | 195 | 181 | 176 | 170 | 183 | 176 |
| COEBDA | 172 | 154 | 173 | 171 | 171 | 170 | 178 | 176 |
| OCEBDA | 180 | 167 | 190 | 173 | 167 | 160 | 176 | 168 |
| ECOBDA | 178 | 157 | 178 | 179 | 179 | 180 | 183 | 186 |
| CEOBDA | 147 | 137 | 150 | 144 | 142 | 140 | 145 | 142 |
| BEOCDA | 165 | 150 | 168 | 163 | 162 | 160 | 164 | 162 |
| EBOCDA | 198 | 180 | 208 | 192 | 186 | 180 | 206 | 186 |
| OBECD A | 138 | 124 | 133 | 142 | 146 | 150 | 141 | 154 |
| BOECD A | 172 | 154 | 173 | 171 | 171 | 170 | 181 | 174 |
| EOBCDA | 188 | 169 | 193 | 186 | 183 | 180 | 193 | 184 |
| OEBCDA | 188 | 169 | 193 | 186 | 183 | 180 | 195 | 188 |
| DEBCOA | 195 | 172 | 198 | 193 | 192 | 190 | 207 | 194 |
| EDBCOA | 188 | 169 | 193 | 186 | 183 | 180 | 202 | 184 |
| BDECOA | 173 | 152 | 170 | 176 | 178 | 180 | 177 | 186 |
| DBECO A | 145 | 128 | 138 | 150 | 155 | 160 | 154 | 160 |
| EBDCOA | 195 | 172 | 198 | 193 | 192 | 190 | 208 | 196 |
| BEDCO A | 160 | 144 | 160 | 160 | 160 | 160 | 180 | 160 |
| BECDOA | 157 | 137 | 150 | 161 | 166 | 170 | 166 | 174 |

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|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| EBCDOA | 207 | 181 | 210 | 204 | 202 | 200 | 219 | 208 |
| CBEDO A | 137 | 126 | 135 | 138 | 139 | 140 | 152 | 142 |
| BCEDO A | 187 | 170 | 195 | 181 | 176 | 170 | 201 | 174 |
| ECBD OA | 178 | 157 | 178 | 179 | 179 | 180 | 185 | 188 |
| CEBD OA | 165 | 150 | 168 | 163 | 162 | 160 | 171 | 166 |
| CDBE OA | 127 | 115 | 120 | 131 | 136 | 140 | 129 | 140 |
| DCBE OA | 148 | 135 | 148 | 149 | 149 | 150 | 161 | 148 |
| BCDE OA | 183 | 163 | 185 | 182 | 181 | 180 | 187 | 184 |
| CBDE OA | 148 | 135 | 148 | 149 | 149 | 150 | 148 | 154 |
| DBCE OA | 170 | 156 | 175 | 167 | 163 | 160 | 174 | 160 |
| BDCE OA | 170 | 156 | 175 | 167 | 163 | 160 | 175 | 162 |
| EDCB OA | 175 | 161 | 183 | 170 | 165 | 160 | 197 | 162 |
| DECB OA | 160 | 144 | 160 | 160 | 160 | 160 | 171 | 162 |
| CEDB OA | 140 | 133 | 145 | 137 | 133 | 130 | 153 | 130 |
| ECDB OA | 167 | 148 | 165 | 168 | 169 | 170 | 176 | 174 |
| DCEB OA | 175 | 161 | 183 | 170 | 165 | 160 | 194 | 160 |
| CDEB OA | 160 | 144 | 160 | 160 | 160 | 160 | 171 | 164 |
| ODEBCA | 193 | 174 | 200 | 189 | 184 | 180 | 198 | 188 |
| DOEBCA | 200 | 178 | 205 | 197 | 193 | 190 | 215 | 196 |
| EODBCA | 193 | 174 | 200 | 189 | 184 | 180 | 195 | 184 |
| OEDBCA | 170 | 156 | 175 | 167 | 163 | 160 | 180 | 166 |
| DEOBCA | 177 | 159 | 180 | 174 | 172 | 170 | 183 | 172 |
| EDOBCA | 193 | 174 | 200 | 189 | 184 | 180 | 210 | 186 |
| EDBOCA | 180 | 167 | 190 | 173 | 167 | 160 | 191 | 164 |
| DEBOCA | 187 | 170 | 195 | 181 | 176 | 170 | 196 | 174 |
| BEDOCA | 170 | 156 | 175 | 167 | 163 | 160 | 181 | 164 |
| EBDOCA | 205 | 183 | 213 | 200 | 195 | 190 | 210 | 200 |
| DBEOCA | 153 | 141 | 155 | 152 | 151 | 150 | 154 | 150 |
| BDEOCA | 182 | 165 | 188 | 178 | 174 | 170 | 177 | 176 |

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|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| BOEDCA | 175 | 161 | 183 | 170 | 165 | 160 | 197 | 162 |
| OBEDCA | 142 | 131 | 143 | 141 | 141 | 140 | 157 | 142 |
| EBODCA | 198 | 180 | 208 | 192 | 186 | 180 | 215 | 184 |
| BEODCA | 165 | 150 | 168 | 163 | 162 | 160 | 173 | 160 |
| OEBDCA | 177 | 159 | 180 | 174 | 172 | 170 | 186 | 178 |
| EObDCA | 177 | 159 | 180 | 174 | 172 | 170 | 184 | 174 |
| DOBECA | 150 | 133 | 145 | 153 | 157 | 160 | 161 | 162 |
| ODBECA | 143 | 130 | 140 | 146 | 148 | 150 | 144 | 154 |
| BDOECA | 178 | 157 | 178 | 179 | 179 | 180 | 185 | 188 |
| DBoECA | 160 | 144 | 160 | 160 | 160 | 160 | 171 | 162 |
| OBDECA | 155 | 139 | 153 | 157 | 158 | 160 | 155 | 168 |
| BODECA | 177 | 159 | 180 | 174 | 172 | 170 | 184 | 174 |
| CODEBA | 153 | 141 | 155 | 152 | 151 | 150 | 161 | 152 |
| OCDEBA | 158 | 146 | 163 | 156 | 153 | 150 | 159 | 156 |
| DCOEBA | 165 | 150 | 168 | 163 | 162 | 160 | 184 | 160 |
| CDOEBA | 148 | 135 | 148 | 149 | 149 | 150 | 160 | 154 |
| ODCEBA | 157 | 148 | 165 | 151 | 146 | 140 | 165 | 142 |
| DOCEBA | 168 | 157 | 178 | 162 | 156 | 150 | 176 | 152 |
| DOECBA | 148 | 135 | 148 | 149 | 149 | 150 | 160 | 152 |
| ODECBA | 142 | 131 | 143 | 141 | 141 | 140 | 143 | 144 |
| EDOCBA | 168 | 157 | 178 | 162 | 156 | 150 | 180 | 154 |
| DEOCBA | 152 | 143 | 158 | 148 | 144 | 140 | 153 | 140 |
| OEDCBA | 140 | 133 | 145 | 137 | 133 | 130 | 156 | 132 |
| EODCBA | 163 | 152 | 170 | 159 | 154 | 150 | 172 | 150 |
| ECDOBA | 155 | 139 | 153 | 157 | 158 | 160 | 165 | 164 |
| CEDOBA | 128 | 124 | 133 | 126 | 123 | 120 | 142 | 120 |
| DECOBA | 143 | 130 | 140 | 146 | 148 | 150 | 152 | 150 |
| EDCOBA | 158 | 146 | 163 | 156 | 153 | 150 | 179 | 150 |
| CDEOBA | 125 | 117 | 123 | 127 | 128 | 130 | 128 | 130 |

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|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| DCEOBA | 140 | 133 | 145 | 137 | 133 | 130 | 151 | 126 |
| OCEDBA | 138 | 135 | 148 | 132 | 126 | 120 | 141 | 122 |
| COEDBA | 130 | 122 | 130 | 130 | 130 | 130 | 143 | 130 |
| EOCDBA | 158 | 146 | 163 | 156 | 153 | 150 | 157 | 152 |
| OECDDBA | 132 | 120 | 128 | 134 | 137 | 140 | 134 | 144 |
| CEODDBA | 128 | 124 | 133 | 126 | 123 | 120 | 127 | 118 |
| ECODDBA | 160 | 144 | 160 | 160 | 160 | 160 | 165 | 162 |
| BCODEA | 212 | 187 | 218 | 208 | 204 | 200 | 220 | 206 |
| CBODEA | 170 | 156 | 175 | 167 | 163 | 160 | 180 | 164 |
| OBCDEA | 183 | 163 | 185 | 182 | 181 | 180 | 189 | 188 |
| BOCDEA | 193 | 174 | 200 | 189 | 184 | 180 | 201 | 186 |
| COBDEA | 167 | 148 | 165 | 168 | 169 | 170 | 173 | 176 |
| OCBDEA | 182 | 165 | 188 | 178 | 174 | 170 | 180 | 180 |
| OCDBEA | 160 | 144 | 160 | 160 | 160 | 160 | 160 | 166 |
| CODBEA | 155 | 139 | 153 | 157 | 158 | 160 | 162 | 162 |
| DOCBEA | 177 | 159 | 180 | 174 | 172 | 170 | 186 | 174 |
| ODCBEA | 165 | 150 | 168 | 163 | 162 | 160 | 175 | 164 |
| CDOBEA | 150 | 133 | 145 | 153 | 157 | 160 | 161 | 164 |
| DCOBEA | 167 | 148 | 165 | 168 | 169 | 170 | 185 | 170 |
| DBOCEA | 180 | 167 | 190 | 173 | 167 | 160 | 187 | 162 |
| BDOCEA | 198 | 180 | 208 | 192 | 186 | 180 | 201 | 188 |
| ODBCEA | 187 | 170 | 195 | 181 | 176 | 170 | 189 | 176 |
| DOBCEA | 193 | 174 | 200 | 189 | 184 | 180 | 206 | 184 |
| BODCEA | 192 | 176 | 203 | 184 | 177 | 170 | 206 | 172 |
| OBDCEA | 170 | 156 | 175 | 167 | 163 | 160 | 177 | 166 |
| CBDOEA | 172 | 154 | 173 | 171 | 171 | 170 | 180 | 178 |
| BCDOEA | 207 | 181 | 210 | 204 | 202 | 200 | 219 | 208 |
| DCBOEA | 182 | 165 | 188 | 178 | 174 | 170 | 203 | 172 |
| CDBOEA | 160 | 144 | 160 | 160 | 160 | 160 | 171 | 164 |

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|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| BDCOEAE | 195 | 172 | 198 | 193 | 192 | 190 | 208 | 196 |
| DBCOEAE | 195 | 172 | 198 | 193 | 192 | 190 | 207 | 194 |
| ABCOED | 188 | 169 | 193 | 186 | 183 | 180 | 201 | 186 |
| BACOED | 187 | 170 | 195 | 181 | 176 | 170 | 200 | 174 |
| CABOED | 147 | 137 | 150 | 144 | 142 | 140 | 161 | 144 |
| ACBOED | 203 | 185 | 215 | 196 | 188 | 180 | 219 | 186 |
| BCAOED | 198 | 180 | 208 | 192 | 186 | 180 | 213 | 186 |
| CBAOED | 140 | 133 | 145 | 137 | 133 | 130 | 154 | 132 |
| CBOAED | 140 | 133 | 145 | 137 | 133 | 130 | 156 | 132 |
| BCOAED | 182 | 165 | 188 | 178 | 174 | 170 | 197 | 174 |
| OCBAED | 138 | 135 | 148 | 132 | 126 | 120 | 144 | 124 |
| COBAED | 123 | 119 | 125 | 122 | 121 | 120 | 137 | 120 |
| BOCAED | 173 | 163 | 185 | 166 | 158 | 150 | 186 | 154 |
| OBCAED | 163 | 152 | 170 | 159 | 154 | 150 | 174 | 156 |
| OACBED | 170 | 156 | 175 | 167 | 163 | 160 | 179 | 166 |
| AOCBED | 175 | 161 | 183 | 170 | 165 | 160 | 184 | 164 |
| COABED | 132 | 120 | 128 | 134 | 137 | 140 | 143 | 142 |
| OCABED | 147 | 137 | 150 | 144 | 142 | 140 | 150 | 146 |
| ACOBED | 188 | 169 | 193 | 186 | 183 | 180 | 201 | 184 |
| CAOBED | 142 | 131 | 143 | 141 | 141 | 140 | 155 | 142 |
| BAOCED | 167 | 159 | 180 | 158 | 149 | 140 | 174 | 142 |
| ABOCED | 173 | 163 | 185 | 166 | 158 | 150 | 181 | 154 |
| OBACED | 162 | 154 | 173 | 154 | 147 | 140 | 168 | 144 |
| BOACED | 197 | 181 | 210 | 188 | 179 | 170 | 210 | 174 |
| AOBCED | 192 | 176 | 203 | 184 | 177 | 170 | 204 | 174 |
| OABCED | 163 | 152 | 170 | 159 | 154 | 150 | 170 | 156 |
| EABCOD | 212 | 187 | 218 | 208 | 204 | 200 | 219 | 208 |
| AEBCOD | 205 | 183 | 213 | 200 | 195 | 190 | 215 | 196 |
| BEACOD | 212 | 187 | 218 | 208 | 204 | 200 | 219 | 206 |

| | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| EBACOD | 210 | 189 | 220 | 203 | 197 | 190 | 218 | 196 |
| ABECOD | 162 | 143 | 158 | 164 | 167 | 170 | 165 | 174 |
| BAECOD | 153 | 141 | 155 | 152 | 151 | 150 | 160 | 152 |
| BACEOD | 185 | 172 | 198 | 177 | 168 | 160 | 184 | 162 |
| ABCEOD | 187 | 170 | 195 | 181 | 176 | 170 | 185 | 174 |
| CBAEOD | 128 | 124 | 133 | 126 | 123 | 120 | 131 | 120 |
| BCAEOD | 187 | 170 | 195 | 181 | 176 | 170 | 190 | 174 |
| ACBEOD | 193 | 174 | 200 | 189 | 184 | 180 | 195 | 184 |
| CABEOD | 137 | 126 | 135 | 138 | 139 | 140 | 136 | 142 |
| CEBAOD | 157 | 148 | 165 | 151 | 146 | 140 | 163 | 142 |
| ECBAOD | 170 | 156 | 175 | 167 | 163 | 160 | 176 | 164 |
| BCEAOD | 215 | 194 | 228 | 207 | 198 | 190 | 222 | 196 |
| CBEAOD | 165 | 150 | 168 | 163 | 162 | 160 | 173 | 164 |
| EBCAOD | 222 | 198 | 233 | 214 | 207 | 200 | 231 | 208 |
| BECAOD | 172 | 154 | 173 | 171 | 171 | 170 | 177 | 174 |
| AECBOD | 170 | 156 | 175 | 167 | 163 | 160 | 179 | 164 |
| EACBOD | 227 | 204 | 240 | 218 | 209 | 200 | 237 | 208 |
| CAEBOD | 163 | 152 | 170 | 159 | 154 | 150 | 174 | 154 |
| ACEBOD | 220 | 200 | 235 | 210 | 200 | 190 | 228 | 196 |
| ECABOD | 177 | 159 | 180 | 174 | 172 | 170 | 183 | 176 |
| CEABOD | 163 | 152 | 170 | 159 | 154 | 150 | 170 | 154 |
| OEABCD | 183 | 163 | 185 | 182 | 181 | 180 | 188 | 190 |
| EOABCD | 183 | 163 | 185 | 182 | 181 | 180 | 186 | 186 |
| AOEBCD | 212 | 187 | 218 | 208 | 204 | 200 | 223 | 208 |
| OAEBOD | 177 | 159 | 180 | 174 | 172 | 170 | 184 | 178 |
| EA0BCD | 212 | 187 | 218 | 208 | 204 | 200 | 223 | 208 |
| AE0BCD | 177 | 159 | 180 | 174 | 172 | 170 | 182 | 174 |
| AEB0CD | 187 | 170 | 195 | 181 | 176 | 170 | 195 | 176 |
| EAB0CD | 193 | 174 | 200 | 189 | 184 | 180 | 200 | 188 |

| | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| BAEOCD | 152 | 143 | 158 | 148 | 144 | 140 | 152 | 142 |
| ABEOCD | 160 | 144 | 160 | 160 | 160 | 160 | 157 | 164 |
| EBAOCD | 187 | 170 | 195 | 181 | 176 | 170 | 193 | 176 |
| BEAOCD | 188 | 169 | 193 | 186 | 183 | 180 | 194 | 186 |
| BOAECD | 160 | 144 | 160 | 160 | 160 | 160 | 170 | 164 |
| OBAECD | 125 | 117 | 123 | 127 | 128 | 130 | 129 | 134 |
| ABOECD | 167 | 148 | 165 | 168 | 169 | 170 | 175 | 176 |
| BAOECD | 160 | 144 | 160 | 160 | 160 | 160 | 168 | 164 |
| OABECD | 133 | 119 | 125 | 139 | 144 | 150 | 134 | 156 |
| AOBECD | 162 | 143 | 158 | 164 | 167 | 170 | 169 | 174 |
| EOBACD | 182 | 165 | 188 | 178 | 174 | 170 | 185 | 174 |
| OEBACD | 182 | 165 | 188 | 178 | 174 | 170 | 187 | 178 |
| BEOACD | 183 | 163 | 185 | 182 | 181 | 180 | 186 | 184 |
| EBOACD | 217 | 193 | 225 | 211 | 206 | 200 | 228 | 208 |
| OBEACD | 183 | 163 | 185 | 182 | 181 | 180 | 188 | 188 |
| BOEACD | 217 | 193 | 225 | 211 | 206 | 200 | 228 | 208 |
| COEABD | 167 | 148 | 165 | 168 | 169 | 170 | 172 | 178 |
| OCEABD | 175 | 161 | 183 | 170 | 165 | 160 | 170 | 170 |
| ECOABD | 173 | 152 | 170 | 176 | 178 | 180 | 176 | 188 |
| CEOABD | 142 | 131 | 143 | 141 | 141 | 140 | 138 | 144 |
| OECABD | 155 | 139 | 153 | 157 | 158 | 160 | 154 | 170 |
| EOCABD | 182 | 165 | 188 | 178 | 174 | 170 | 176 | 178 |
| EOACBD | 205 | 183 | 213 | 200 | 195 | 190 | 205 | 198 |
| OEACBD | 205 | 183 | 213 | 200 | 195 | 190 | 207 | 202 |
| AEOCBD | 175 | 161 | 183 | 170 | 165 | 160 | 172 | 166 |
| EAOCBD | 210 | 189 | 220 | 203 | 197 | 190 | 213 | 200 |
| OAECBD | 148 | 135 | 148 | 149 | 149 | 150 | 149 | 158 |
| AOECBD | 183 | 163 | 185 | 182 | 181 | 180 | 188 | 188 |
| ACEOBD | 198 | 180 | 208 | 192 | 186 | 180 | 196 | 186 |

| | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| CAEOBD | 142 | 131 | 143 | 141 | 141 | 140 | 143 | 144 |
| EACOB | 223 | 196 | 230 | 219 | 214 | 210 | 230 | 220 |
| AECOB | 167 | 148 | 165 | 168 | 169 | 170 | 172 | 176 |
| CEAOB | 170 | 156 | 175 | 167 | 163 | 160 | 175 | 166 |
| ECAOB | 183 | 163 | 185 | 182 | 181 | 180 | 188 | 188 |
| OCAEB | 175 | 161 | 183 | 170 | 165 | 160 | 174 | 170 |
| COAEB | 160 | 144 | 160 | 160 | 160 | 160 | 167 | 166 |
| AOCEB | 203 | 185 | 215 | 196 | 188 | 180 | 204 | 188 |
| OACEB | 198 | 180 | 208 | 192 | 186 | 180 | 198 | 190 |
| CAOEB | 177 | 159 | 180 | 174 | 172 | 170 | 184 | 178 |
| ACOE | 223 | 196 | 230 | 219 | 214 | 210 | 230 | 220 |
| BCOEAD | 217 | 193 | 225 | 211 | 206 | 200 | 225 | 210 |
| CBOEAD | 175 | 161 | 183 | 170 | 165 | 160 | 185 | 168 |
| OBCEAD | 192 | 176 | 203 | 184 | 177 | 170 | 194 | 180 |
| BOCEAD | 202 | 187 | 218 | 191 | 181 | 170 | 205 | 178 |
| COBEAD | 160 | 144 | 160 | 160 | 160 | 160 | 167 | 166 |
| OCBEAD | 175 | 161 | 183 | 170 | 165 | 160 | 174 | 170 |
| OCEBAD | 167 | 159 | 180 | 158 | 149 | 140 | 164 | 148 |
| COEBAD | 158 | 146 | 163 | 156 | 153 | 150 | 166 | 156 |
| EOCBAD | 173 | 163 | 185 | 166 | 158 | 150 | 171 | 156 |
| OECBAD | 147 | 137 | 150 | 144 | 142 | 140 | 148 | 148 |
| CEOBAD | 133 | 130 | 140 | 129 | 124 | 120 | 133 | 122 |
| ECOBAD | 165 | 150 | 168 | 163 | 162 | 160 | 170 | 166 |
| EBOCAD | 208 | 191 | 223 | 199 | 189 | 180 | 214 | 190 |
| BEOCAD | 175 | 161 | 183 | 170 | 165 | 160 | 172 | 166 |
| OEBCAD | 198 | 180 | 208 | 192 | 186 | 180 | 203 | 192 |
| EOBCAD | 198 | 180 | 208 | 192 | 186 | 180 | 201 | 188 |
| BOECAD | 182 | 165 | 188 | 178 | 174 | 170 | 189 | 178 |
| OBECAD | 148 | 135 | 148 | 149 | 149 | 150 | 149 | 158 |

| | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| CBEOAD | 142 | 131 | 143 | 141 | 141 | 140 | 143 | 144 |
| BCEOAD | 192 | 176 | 203 | 184 | 177 | 170 | 192 | 176 |
| ECBOAD | 182 | 165 | 188 | 178 | 174 | 170 | 189 | 178 |
| CEBOAD | 168 | 157 | 178 | 162 | 156 | 150 | 176 | 156 |
| BECOAD | 167 | 148 | 165 | 168 | 169 | 170 | 172 | 176 |
| EBCOAD | 217 | 193 | 225 | 211 | 206 | 200 | 225 | 210 |

When comparing monetisable costs and benefits using the Cost-Benefit analysis approach²⁴⁶ described in [Annex 9.1](#) above, we conclude that in none of the options 1.3.A, 1.3.B, 1.3.C, or 1.3.C do the estimated benefits clearly outweigh the costs of the measure (also taking into account the standard deviation). As regards option 1.3.E, no Cost-Benefit analysis was conducted as this option was identified after the consultations had been concluded, and the necessary data for the CBA was therefore lacking.

Problem 1.3.: CBA of the various options (present value (@4%) at prices of 2019, millions of euros)

| | Average ± One Standard deviation | | | | |
|-------------|----------------------------------|-------------|-------------|-------------|-------|
| | 1.3.A | 1.3.B | 1.3.C | 1.3.D | 1.3.E |
| 2025 - 2040 | -255 ± 230 | 430 ± 1060 | -3077 ± 90 | -3515 ± 332 | NA |
| 2025 - 2050 | 12 ± 340 | 1070 ± 1480 | -4030 ± 115 | -4277 ± 457 | NA |

²⁴⁶ The discount rate is 4%.

2.3. Sub-problem 2.1: Early obsolescence

Two options were selected for analysis:

Option 2.1.A: Collection of evidence on early failures of products identified by authorised entities

Option 2.1.B: Ban of certain identified practices associated with early obsolescence

The table below summarises the assessment of the baseline and of each option against each assessment criterion (the assessment of their impacts is described in detail in [Annex 8](#)).

The comparison of the measures/options using a multi-criteria analysis shows that in the default scenario where Effectiveness has a weight of 30 points, Efficiency 60 points and Coherence 10 points:

- Both options rank higher than the baseline scenario
- Option B (2.1.B) ranks the highest, followed by Option A (2.1.A) and then the baseline.

The results of the sensitivity analysis show that the ranking of options with the highest score remains unchanged in all 8 scenarios of weights tested. The final scores for each scenario and for all possible option ranking are presented in the table below.

Results of the sensitivity analysis for the options for Sub-Problem 2.1

| Ranking of options | Default: Effectiveness 30%, Efficiency 60% and Coherence 10% | Effectiveness 1/3, Efficiency 1/3 and Coherence 1/3 | Effectiveness 45%, Efficiency 45% and Coherence 10% | Effectiveness 20%, Efficiency 70% and Coherence 10% | Effectiveness 10%, Efficiency 80% and Coherence 10% | Effectiveness 0%, Efficiency 90% and Coherence 10% | Experts | Worst-case scenario: Efficiency 100% (of which 60% allocated to costs and 40% to benefits) |
|--------------------|--|---|---|---|---|--|---------|--|
| OAB | 84 | 94 | 58 | 70 | 75 | 80 | 75 | 72 |
| OBA | 114 | 131 | 108 | 114 | 117 | 120 | 119 | 112 |
| AOB | 86 | 96 | 95 | 92 | 91 | 90 | 105 | 88 |
| ABO | 102 | 102 | 138 | 122 | 116 | 110 | 136 | 116 |
| BOA | 130 | 137 | 150 | 144 | 142 | 140 | 150 | 140 |
| BAO | 132 | 139 | 188 | 167 | 158 | 150 | 180 | 156 |

When comparing monetisable costs and benefits using the Cost-Benefit analysis approach²⁴⁷ described in [Annex 9.1](#) above, we conclude that both Option 2.1.A and Option 2.1.B bring net benefits, however the uncertainty of Option 2.1.A is higher compared to the total costs and benefits.

Problem 2.1.: CBA of the various options (present value (@4%) at prices of 2019, millions of euros)

| | Average ± One Standard deviation | |
|-------------|----------------------------------|------------|
| | 2.1.A | 2.1.B |
| 2025 - 2040 | 134 ± 50 | 592 ± 310 |
| 2025 - 2050 | 242 ± 74 | 1197 ± 450 |

2.4. Sub-problem 2.2: Greenwashing

Three options were selected for analysis:

- Option 2.2.A: Ban of general/vague environmental claims
- Option 2.2.B: Prohibition of environmental claims that do not fulfil a minimum set of criteria
- Option 2.2.C: Option 2.2A + 2.2B

The table below summarises the assessment of the baseline and of each option against each assessment criterion (the assessment of their impacts is described in detail in [Annex 8](#)).

The comparison of the options using a multi-criteria analysis shows that in the default scenario where Effectiveness has a weight of 30 points, Efficiency 60 points and Coherence 10 points:

- All options rank higher than the baseline scenario

²⁴⁷ The discount rate is 4%.

- Option C (2.2.C) ranks the highest, followed by Option A (2.2A), followed by Option B (2.2B), and followed by the baseline.

The results of the sensitivity analysis show that the ranking of options remains unchanged for all 8 of the scenarios considered. The final scores for each scenario and for all possible option ranking are presented in the table below.

Results of the sensitivity analysis for the options for Sub-Problem 2.2

| Ranking of options | Default: Effectiveness 30%, Efficiency 60% and Coherence 10% | Effectiveness 1/3, Efficiency 1/3 and Coherence 1/3 | Effectiveness 45%, Efficiency 45% and Coherence 10% | Effectiveness 20%, Efficiency 70% and Coherence 10% | Effectiveness 10%, Efficiency 80% and Coherence 10% | Effectiveness 0%, Efficiency 90% and Coherence 10% | Experts | Worst-case scenario: Efficiency 100% (of which 60% allocated to costs and 40% to benefits) |
|--------------------|--|---|---|---|---|--|---------|--|
| OABC | 72 | 43 | 58 | 81 | 91 | 100 | 80 | 116 |
| A0BC | 108 | 80 | 108 | 109 | 109 | 110 | 125 | 122 |
| BOAC | 90 | 67 | 90 | 90 | 90 | 90 | 98 | 102 |
| OBAC | 53 | 30 | 40 | 62 | 71 | 80 | 53 | 96 |
| ABOC | 145 | 117 | 158 | 137 | 128 | 120 | 171 | 128 |
| BAOC | 127 | 104 | 140 | 118 | 109 | 100 | 144 | 108 |
| CA0B | 200 | 167 | 225 | 183 | 167 | 150 | 232 | 154 |
| AC0B | 178 | 146 | 198 | 166 | 153 | 140 | 212 | 146 |
| OCAB | 127 | 93 | 125 | 128 | 129 | 130 | 141 | 142 |
| COAB | 163 | 130 | 175 | 156 | 148 | 140 | 187 | 148 |
| A0CB | 142 | 109 | 148 | 138 | 134 | 130 | 166 | 140 |
| OACB | 105 | 72 | 98 | 110 | 115 | 120 | 120 | 134 |
| OBCA | 75 | 50 | 68 | 80 | 85 | 90 | 73 | 104 |
| BOCA | 112 | 87 | 118 | 108 | 104 | 100 | 119 | 110 |
| COBA | 145 | 117 | 158 | 137 | 128 | 120 | 160 | 128 |
| OCBA | 108 | 80 | 108 | 109 | 109 | 110 | 114 | 122 |
| BCOA | 148 | 124 | 168 | 136 | 123 | 110 | 164 | 116 |

| | | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|-----|-----|
| CBOA | 182 | 154 | 208 | 164 | 147 | 130 | 205 | 134 |
| CBA0 | 218 | 191 | 258 | 192 | 166 | 140 | 251 | 140 |
| BCA0 | 185 | 161 | 218 | 163 | 142 | 120 | 210 | 122 |
| ACB0 | 215 | 183 | 248 | 193 | 172 | 150 | 257 | 152 |
| CAB0 | 237 | 204 | 275 | 211 | 186 | 160 | 278 | 160 |
| BAC0 | 163 | 141 | 190 | 146 | 128 | 110 | 189 | 114 |
| ABC0 | 182 | 154 | 208 | 164 | 147 | 130 | 216 | 134 |

When comparing monetisable costs and benefits using the Cost-Benefit analysis approach²⁴⁸ described in [Annex 9.1](#) above, it was concluded that Option 2.2.C clearly brings net benefits to society, while this is not necessarily the case for options 2.2.A and 2.2.B considered independently.

Problem 2.2.: CBA of the various options (present value (@4%) at prices of 2019, millions of euros)

| | Average ± One Standard deviation | | |
|-------------|----------------------------------|------------|-------------|
| | 2.2.A | 2.2.B | 2.2.C |
| 2025 - 2040 | 23 ± 1005 | -789 ± 986 | 1893 ± 1005 |
| 2025 - 2050 | 1067 ± 1156 | 978 ± 1067 | 3916 ± 2153 |

2.5. Sub-problem 2.3: Sustainability labels and digital information tools

Three options were selected for analysis:

- Option 2.3.A: Development of principles promoting the transparency and credibility of sustainability labels and information tools for voluntary uptake
- Option 2.3.B: Prohibition of sustainability labels and digital information tools not meeting minimum transparency and credibility requirements

²⁴⁸ The discount rate is 4%.

- Option 2.3.C: Pre-approval of sustainability labels and digital information tools via an EU body

The table below summarises the assessment of the baseline and of each option against each assessment criterion (the assessment of their impacts is described in detail in [Annex 8](#)).

The comparison of the options using a multi-criteria analysis shows that in the default scenario where Effectiveness has a weight of 30 points, Efficiency 60 points and Coherence 10 points:

- Option B (2.3.B) ranks the highest, followed by Option C (2.3.C). Option A (2.3.A) is tied with the baseline.

The results of the sensitivity analysis show that Option B (2.3.B) ranks the highest in all 8 of the scenarios considered. The final scores for each scenario and for all possible option rankings are presented in the table below.

Results of the sensitivity analysis for the options for Sub-Problem 2.3

| Ranking of options | Default: Effectiveness 30%, Efficiency 60% and Coherence 10% | Effectiveness 1/3, Efficiency 1/3 and Coherence 1/3 | Effectiveness 45%, Efficiency 45% and Coherence 10% | Effectiveness 20%, Efficiency 70% and Coherence 10% | Effectiveness 10%, Efficiency 80% and Coherence 10% | Effectiveness 0%, Efficiency 90% and Coherence 10% | Experts | Worst-case scenario: Efficiency 100% (of which 60% allocated to costs and 40% to benefits) |
|--------------------|--|---|---|---|---|--|---------|--|
| OABC | 120 | 67 | 90 | 140 | 160 | 180 | 97 | 216 |
| A0BC | 120 | 67 | 90 | 140 | 160 | 180 | 92 | 214 |
| BOAC | 193 | 141 | 190 | 196 | 198 | 200 | 190 | 224 |
| OBAC | 157 | 104 | 140 | 168 | 179 | 190 | 143 | 220 |
| AB0C | 157 | 104 | 140 | 168 | 179 | 190 | 139 | 218 |
| BA0C | 193 | 141 | 190 | 196 | 198 | 200 | 185 | 222 |
| CA0B | 165 | 128 | 173 | 160 | 155 | 150 | 175 | 162 |
| AC0B | 135 | 94 | 128 | 140 | 145 | 150 | 129 | 170 |
| OCAB | 135 | 94 | 128 | 140 | 145 | 150 | 133 | 172 |
| COAB | 165 | 128 | 173 | 160 | 155 | 150 | 180 | 164 |
| A0CB | 105 | 61 | 83 | 120 | 135 | 150 | 82 | 178 |

| | | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|-----|-----|
| OACB | 105 | 61 | 83 | 120 | 135 | 150 | 87 | 180 |
| OBCA | 187 | 137 | 185 | 188 | 189 | 190 | 190 | 212 |
| BOCA | 223 | 174 | 235 | 216 | 208 | 200 | 237 | 216 |
| COBA | 202 | 165 | 223 | 188 | 174 | 160 | 227 | 168 |
| OCBA | 172 | 131 | 178 | 168 | 164 | 160 | 180 | 176 |
| BCOA | 253 | 207 | 280 | 236 | 218 | 200 | 283 | 208 |
| CB0A | 238 | 202 | 273 | 216 | 193 | 170 | 273 | 172 |
| CBA0 | 238 | 202 | 273 | 216 | 193 | 170 | 269 | 170 |
| BCA0 | 253 | 207 | 280 | 236 | 218 | 200 | 279 | 206 |
| ACB0 | 172 | 131 | 178 | 168 | 164 | 160 | 175 | 174 |
| CAB0 | 202 | 165 | 223 | 188 | 174 | 160 | 222 | 166 |
| BAC0 | 223 | 174 | 235 | 216 | 208 | 200 | 232 | 214 |
| ABC0 | 187 | 137 | 185 | 188 | 189 | 190 | 185 | 210 |

When comparing monetisable costs and benefits using the Cost-Benefit analysis approach²⁴⁹ described in [Annex 9.1](#) above, we conclude that Option 2.3.B brings net benefits to society. Due to the voluntary nature of Option 2.3.A no CBA analysis was conducted for this option.

Problem 2.3.: CBA of Option 2.3.B and Option 2.3.C (present value (@4%) at prices of 2019, millions of euros)

| | 2.3.B | 2.3.C |
|-------------|-------------|-------------|
| 2025 - 2040 | 1675 ± 1162 | 1587 ± 1072 |
| 2025 - 2050 | 2518 ± 1597 | 2296 ± 1474 |

²⁴⁹ The discount rate is 4%.

ANNEX 10: MONITORING INDICATORS

The following table provides an overview of the monitoring indicators, sources of data and targets. The date indicated for target indicators is "5 years after entry into application" to enable data processing and preparation of the evaluation 5 years after entry into application.

| Objectives | Monitoring indicators | Baseline | Target in 5 years after entry into application ²⁵⁰²⁵¹ | Source of data/or collection methods | Data collected already? | Actors responsible for data collection |
|---|---|-------------------------|--|--------------------------------------|---|--|
| Enable informed purchasing decision by consumers to foster sustainable consumption | Share of consumers interested to receive information on the durability of goods | 62% ²⁵² | 70-80% | Consumer survey | Not in a recurrent way but baseline available | EC |
| | Share of consumers who found it difficult to know how products compared on aspects other than price, such as quality, how long they would last etc. | 60% ²⁵³ -70% | 30-40% | Consumer survey | Yes | EC |
| | Share of consumers who were provided with information about the existence and length (or absence) of the producer's commercial guarantee of durability | / | 90% ²⁵⁴ -100% | Consumer survey | No | EC |
| | For those products for which a commercial guarantee is offered, the period covered is at least two years | 82% ²⁵⁵ | 100% | Mystery shopping | Not in a recurrent way but baseline available | EC |
| | Most common duration of commercial guarantees offered | 3 years | 4-5 years | Mystery shopping | Not in a recurrent way but baseline available | EC |
| | Share of consumers interested to receive information relevant for the repair of goods in | 55% ²⁵⁶ | 70-80% | Consumer survey | Not in a recurrent way but baseline available | EC |

²⁵⁰ Based on the analysis of problems and the expected impact of the preferred policy options.

²⁵¹ Percentage of products falling under the product scope of the preferred options

²⁵² See: *Behavioural Study on Consumers' Engagement in the Circular Economy*, 2018, p. 47.

²⁵³ Percentages vary depending on source and product. See *Behavioural Study on Consumers' Engagement in the Circular Economy*, 2018, p.147; and *Consumer Market Monitoring Survey* 2019, p. 14.

²⁵⁴ Assuming a certain level of non-compliance.

²⁵⁵ European Commission, Impact Assessment supporting study: *Study on Empowering Consumers Towards the Green Transition*, July 2021, Annexes, p.422.

²⁵⁶ European Commission, *Behavioural Study on Consumers' Engagement in the Circular Economy*, 2018, p. 47.

| | | | | | | |
|--|---|----------------------|--------|---|---|---------|
| | Share of consumers who are informed about the reparability of products | 19% ²⁵⁷ | 40-50% | Consumer survey | Not in a recurrent way but baseline available | EC |
| | Share of consumers who are informed of the existence and length of the period of availability of free software updates | / | | Consumer survey | Not in a recurrent way but baseline available | EC |
| Eliminate misleading practices that run against sustainable economy and mislead consumers away from sustainable consumption choices | Share of consumers for who the product broke shortly after the legal guarantee or commercial guarantee period | 15% ²⁵⁸ | 0-5% | Consumer Scoreboard /Market Monitoring Survey | Yes | EC |
| | Share of consumers for whom a software update negatively affected a product's functioning | 18% ²⁵⁹ | 0-5% | Consumer Scoreboard /Market Monitoring Survey | Yes | EC |
| | Number of consumer complaints for products that fail early | / | | Feedback from MSs, ODR platform | No | EC, MSs |
| | Level of consumer trust in environmental claims | 55,3% ²⁶⁰ | 70-80% | Consumer Scoreboard /Market Monitoring Survey | Yes | EC |
| | Level of consumer trust in sustainability labels | 62% ²⁶¹ | 70-80% | Consumer survey | Not in a recurrent way but baseline available | EC |
| | Share of consumers influenced by environmental claims | 56,8% ²⁶² | 70-80% | Consumer Scoreboard | Yes | EC |
| | | | | | | |

²⁵⁷ Study Supporting IA, Annexes, p.437.

²⁵⁸ Consumer Market Monitoring Survey 2019, Household Appliances, p.33.

²⁵⁹ Consumer Market Monitoring Survey 2019, Internet connected products p.5.

²⁶⁰ European Commission, *Consumer Conditions Scoreboard, Consumers at home in the Single Market*, 2019, p.11.

²⁶¹ European Commission, Impact Assessment supporting study: *Study on Empowering Consumers Towards the Green Transition*, July 2021, Annexes, p. 172.

²⁶² European Commission, *Consumer Conditions Scoreboard, Consumers at home in the Single Market*, 2019, p.11.

| | | | | | | |
|---|---|--------------------|----------|---|---|---------|
| Ensure a better and coherent application of the EU legal framework | Number of cases where information on the existence of the producer's commercial guarantee of durability is not provided to consumers | / | | Regular checks in the context of (coordinated) market surveillance activities | No | MSs, EC |
| | Number of cases where reparability information (scoring, manual, spare parts, etc.) is applicable or made available by manufacturers, but is not provided to consumers | / | | Regular checks in the context of (coordinated) market surveillance activities | No | MSs, EC |
| | Number of general/vague environmental claims which are not substantiated | 37% ²⁶³ | 0% - 10% | Regular checks in the context of (coordinated) market surveillance activities | Not in a recurrent way but baseline available | MSs, EC |
| | Number of environmental claims that do not respect the criteria defined in this initiative | / | | Regular checks in the context of (coordinated) market surveillance activities | No | MSs, EC |
| | Number of legal cases for early obsolescence practices launched by Member States | / | | Feedback from MSs | No | MSs, EC |
| | Number of sustainability labels and digital information tools that do not respect the transparency and credibility requirements | / | | Regular checks in the context of (coordinated) market surveillance activities | No | MSs, EC |
| | Monitoring and compliance costs for national authorities | / | / | Information to be collected via the | No | MSs, EC |
| | | | | | | |

²⁶³ See: 2020 – sweep on misleading sustainability claims.

| | | | | | | |
|--|--|---|---------|--|----|---------|
| | | | | network of consumer protection authorities | | |
| | Share of national authorities that consider that the initiative has rendered it easier to address greenwashing, early obsolescence and non-transparent sustainability labels. | / | 90-100% | Feedback from MSs after coordinated market surveillance activities | No | MSs, EC |

ANNEX 11: OPTIONS DISCARDED AT AN EARLY STAGE

1. Problem 1: Consumers lack reliable information at the point of sale to make environmentally sustainable consumption choices

1.1. Sub-problem 1.1: Lack of reliable information about products' environmental characteristics

For this sub-problem, a number of options have been discarded at an early stage, as their added value could not be demonstrated if taken via a horizontal consumer law instrument. These options are the following: an obligation to inform on product's environmental characteristics for all consumer products (goods and services), an obligation to warn on products with high negative impacts on the environment, an obligation to warn when there is "no proof" of good environmental performance of the product, and an obligation to inform on one single key environmental characteristic, i.e. related to climate change. Further details of these options and the reasons for discarding them is provided below. In general, environmental characteristics of products are always specific to product groups. Depending on the product group, the relevant information on environmental characteristics to be provided at the point of sale differs significantly. For these reasons, it was concluded that a horizontal consumer law instrument would not be the appropriate place to introduce such requirements.

In relation to this particular sub-problem, the Green Claims Initiative will provide a common framework for those companies wishing to provide information on the environmental characteristics of their products. In the future, the SPI initiative or future eco-design information requirements and mandatory EU labelling schemes (i.e. EU energy label) will address this problem for certain product categories.

The SPI framework will introduce requirements through measures potentially covering a range of product groups wider than eco-design (i.e. not only energy-related products), key value chains (electronics, batteries and cars, textile, packaging, plastics, construction and buildings), high-impact intermediary products (cement, steel and chemicals) and furniture, including key sectors identified in the CEAP but excluding food, and possibly including services.

The information to be required under these initiatives can be both quantitative and qualitative, depending on the availability of Product Environmental Footprint Category Rules (PEFCRs). This means it could include a qualitative listing of the most relevant environmental impacts of the product (based on the general PEF method), an improvement on environmental performance over time (qualitative if based on the PEF method, quantitative when PEFCRs available), or a “traffic-light” system with 3 to 5 performance classes (depending on the Product Environmental Footprint Category Rules).

For these reasons, the following options have been discarded at an early stage:

| Options discarded at an early stage | Rationale |
|---|--|
| Obligation to inform on product’s environmental characteristics for all consumer products (goods and services) | <p>This option would require sellers, based on information provided by manufacturers, to provide information at the point of sale of the environmental characteristics of products (all goods and services) based on a life-cycle assessment study in accordance with the Product Environmental Footprint (PEF) method²⁶⁴.</p> <p>This option has been discarded at an early stage given the likely very high costs such information would entail, both <i>indirectly</i> (on sellers; in searching for this information) and <i>directly</i> (on manufacturers: in producing this information), when implemented in a mandatory way on a horizontal scale. Moreover, such information would be only useful for consumers if a traffic light system can be developed, which is depending on the availability of more specific Product Environmental Footprint Category Rules (PEFCRs) in the future.</p> <p>Furthermore, whilst based on the PEF method, this option would not be coherent with the objective of the planned Green Claims Initiative as it would de facto oblige all companies to assess the environmental performance of their products by following the PEF method. The upcoming Green Claims initiative is not intended to render obligatory for all products to undertake a PEF assessment. Such mandatory information will only be possible when considered for a specific sector or market, subject to an in-depth Impact Assessment for that sector, for example in the context of a future product implementing measure under the future SPI.</p> |
| Obligation to warn on products with high negative | <p>This option would require sellers, based on information provided by manufacturers, to inform consumers by way of a warning of the high</p> |

²⁶⁴ Product Environmental Footprint (PEF). PEF studies can be carried out both based on the overall PEF method (applicable to any product) and based on Product Environmental Footprint Category Rules (PEFCRs). PEFCRs are quite detailed to guarantee the reproducibility, comparability and reliability of the information. The information that can be derived from a PEF study or a PEFCR concerns any of the 16 environmental impacts in scope, information about the most relevant production processes (those contributing most significantly to the total impact), the most relevant life cycle stages, even the most relevant emissions. When a PEFCR exists, it is also possible to compare the performance of the specific product with the benchmark (the environmental performance of the average product sold on the EU market).

| | |
|--|---|
| impacts on the environment | <p>negative environmental impacts of the product, within a given product category ('worst in class'), during its life cycle.</p> <p>This option has been discarded at an early stage as the impact on consumer decision-making will depend on the availability of PEFCR for the specific product category in the future, which can confirm the high negative impacts. Moreover, companies are expected to be discouraged to assess the environmental impacts of their products (even if PEFCRs are available) as they would be obliged to inform the seller/consumer in case of negative environmental impacts and may thus prefer to remain in the "unknown". This could have the consequence that fewer companies perform a PEF analysis for fear of a negative result that they would then have to disclose. This is contrary to the objectives of the Green Claims Initiative in preparation.</p> |
| Obligation to warn when there is "no proof" of good environmental performance of the product | <p>This option would require sellers, based on information provided by manufacturers, to inform consumers by way of a warning statement at the point of sale when a product has not been the subject of an environmental life cycle assessment in accordance with the Product Environmental Footprint method or when no good environmental performance could be confirmed from this assessment.</p> <p>Concretely, this option would inform consumers in this situation that "the product has no proof of good environmental performance in accordance with applicable EU legislation".</p> <p>This option has been discarded at an early stage given the limited added value in terms of consumer information (due to length of such warning statement; the complications it may have with several languages in the EU; uncertain consumer understanding etc.) while being intrusive and creating costs for companies.</p> |
| Obligation to inform on one single key environmental characteristic, i.e. related to climate change | <p>This option would require companies to provide information to consumers on one single key environmental characteristic, i.e. related to climate change. It would contain information on greenhouse gas emissions considering the life cycle of the product, expressed in CO2 equivalents or alternatively require companies to warn consumers in case the product within its product category has a high impact on climate change (again expressed in CO2 equivalents).</p> <p>This option has been discarded at an early stage as it would provide incomplete and potentially misleading information to consumers, given the focus on only one single environmental impact. By omitting many other relevant environmental impacts, it would also be inconsistent with the use of the Product Environmental Footprint method, as foreseen in the upcoming Green Claims Initiative, which covers more (16) impacts than just those on climate change.</p> |

2. Problem 2: Consumers face misleading commercial practices related to the sustainability of products

2.1. Sub-problem 2.1: Consumers are sold products that do not last as long as they could and consumers expect

For this sub-problem, the following options have been discarded at an early stage:

| Options discarded at an early stage | Rationale |
|---|--|
| General ban of planned/intentional/deliberate obsolescence | <p>Under this option, planned/intentional/deliberate obsolescence would be horizontally banned. Such a ban would cover practices, like for instance:</p> <ul style="list-style-type: none"> - the practice of incorporating <i>intentionally</i> product design features for the specific purpose of reducing the durability of the product; - the practice of <i>deliberately</i> introducing a device/component into the product, which renders the product unusable after a certain period of time or a certain number of uses. <p>This option has been discarded at an early stage given the expected difficulties in enforcement, mostly due to documented challenges in proving intent as highlighted by the various stakeholder groups consulted and the French experience.</p> <p>However, Option 2.1.B ‘Ban of certain identified practices associated with early obsolescence’ would be able to address planned obsolescence practices without the need for market surveillance authorities to prove intent.</p> |
| Setting minimum lifetimes per product category | <p>This option would have consisted in setting minimum lifetimes per product category.</p> <p>It has been discarded from the outset as it is, by its nature, too product specific and it would require the development of product-specific methodologies and requirements. It is thus not fit for a horizontal consumer law instrument, which does not regulate the design of specific products and which focuses primarily on the obligations of the seller towards the consumers.</p> <p>It is more appropriate to consider such an option under product design rules. For instance, the upcoming Sustainable Product Initiative will consider specific options to improve the sustainability and circularity of certain product categories.</p> |

- 2.2. Sub-problem 2.2: Consumers are faced with the practice of making unclear or not well-substantiated green claims (“Greenwashing”)

For this sub-problem, the following option has been discarded at an early stage:

| Options discarded at an early stage | Rationale |
|--|--|
| Pre-approval of environmental claims via an EU body | <p>Under this option, environmental claims would have had to be pre-approved by an EU body to check their reliability and truthfulness²⁶⁵.</p> <p>This option has been discarded given the expected high costs of setting up and running such EU body while providing only limited added value compared to the alternatives identified which can be done via targeted amendments of consumer law.</p> |

²⁶⁵ BEUC, *Getting rid of greenwashing*, Restoring consumer confidence in green claims, 2020.

ANNEX 12: CONSEQUENCES OF THE PROBLEMS FOR CONSUMERS, THE MARKET AND THE ENVIRONMENT

1. Consequences of Problem 1

1.1. Consequences for consumers

A lack of reliable information at the point of sale about a product's environmental sustainability prevents consumers from translating their desire to purchase sustainable products into green purchasing decisions. This shows a non-realised potential to increase the share of consumers who choose more sustainable products.

Having **information about the environmental characteristics of products** is important for about 50% of consumers who report that they want to purchase products that are environmentally-friendly²⁶⁶, many of whom **are willing to pay a premium for more environmentally friendly products**²⁶⁷. The number of consumers affected by this sub-problem is at least equal to the number of consumers who would like to receive the information and consider that the information is insufficient, i.e., 60%²⁶⁸ of consumers or about 225 million European consumers. Based on the consumer survey carried out for this Impact Assessment, around 164 million of those would even be willing to pay for this information (EUR 5.32 on average). The same consumer survey also suggests that 56% of consumers, i.e., 210 million consumers when extrapolated, would use the information to buy “more environmentally friendly products”.

Equally, **consumers are very interested in having information about the lifespan of goods**: as mentioned, 92% of European consumers (e.g. around 344 million when extrapolated) would like to receive such information. Based on the consumer survey for this Impact Assessment, around 74% would even be willing to pay for this information (EUR 5.88 per year on average). Consumers also say that **durability is one of the most important decision factors** for them when buying goods such as dishwashers, vacuum cleaners, televisions, smartphones or coats (with quality and price)²⁶⁹. Evidence also shows that a significant share of consumers is interested in purchasing products with longer lifespans. **A recent behavioural experiment showed²⁷⁰ that when durability information is provided at the point of sale, consumers are almost three times more likely to choose products with the longest durability on offer.** Another behavioural experiment²⁷¹ showed that adding a label informing consumers of the relative lifespan performance of all products on the market could increase the market share of the products with the best lifespan, decrease the market share of the products with the worst lifespan, and increase the overall lifespan score of products purchased. Another study²⁷² found that across the tested products (which included washing machines, vacuum cleaners and coffee makers), products with a label showing a longer lifespan than the competing products were chosen an average of 13.8% more. Moreover, the same study showed **many consumers are willing to pay more for products that have a longer durability: 90% of the consumers surveyed indicated that they would be willing to pay an additional EUR 102 for a dishwasher with two additional years of lifespan.** A similar outcome was

²⁶⁶ European Commission, *Consumers Conditions Scoreboard*, 2019, p. 57.

²⁶⁷ 77% of the respondents indicated that they would be willing to pay more for environmentally-friendly products if they were confident that the products are truly environmentally-friendly.

European Commission, *Flash Eurobarometer 367*, 2015, p. 8.

²⁶⁸ European Commission, *Flash Eurobarometer 367*, 2015, p. 73.

²⁶⁹ European Commission, *Behavioural Study on Consumers' engagement in the circular economy*, 2018, p. 146.

²⁷⁰ European Commission, *Behavioural Study on Consumers' engagement in the circular economy*, 2018, p. 157-158.

²⁷¹ Dessart, F. J., Marandola, G., Hille, S., Thøgersen, J. (2021). *Comparing the impact of positive, negative, and graded sustainability labels on purchase decisions*. JRC Science for Policy Brief. JRC127006.

²⁷² European Economic and Social Committee, *The influence of lifespan labelling on consumers*, 2016.

demonstrated by another behavioural study which showed that when durability information was present, respondents were on average willing to pay €19 more for high (versus low) durability products²⁷³. Other recent evidence reveals that an increasing number of consumers are willing to know the expected lifespan of a product.²⁷⁴

Evidence from the consumer survey for this IA indicates that 80% of consumers (about 300 million consumers) **would be interested in receiving information about the reparability of goods** (e.g. availability of repair services, spare parts, repair manuals, repair scoring). Around 52% of those would be willing to pay for this information (EUR 5.53 per year on average). 50%-55% of all consumers (187-205 million consumers) would use such information to buy “products that would be easier to repair”. Further evidence shows that **consumers are generally willing to pay more for products with better reparability**²⁷⁵. **Evidence from behavioural experiments suggest that when reparability information, in particular repair scoring in this case, is provided at the point of sale, it is effective in guiding consumers towards more repairable products**^{276,277}.

Studies also show that a **significant share of consumers is interested in repairing broken goods** (instead of replacing them)²⁷⁸. However, about 36% consumers do not generally repair defective products²⁷⁹. **The fact that respondents did not know how to repair it/where to get it repaired** (i.e. due to lack of repair manual and information about the availability of repair services) and the unavailability of spare parts **play a role in the decision not to repair a broken good**.

1.2. Consequences for the market

Manufacturers do not improve the environmental performance of their products

The fact that consumers cannot compare and choose products **based on their environmental sustainability characteristics** leads to manufacturers having fewer incentives to improve the environmental sustainability performance of their products²⁸⁰.

The market share of goods with longer lifespans is likely to be lower than what it would be if consumers would have information on the lifespan of goods²⁸¹. A study of

²⁷³ European Commission, *Consumer market study to support the fitness check of EU consumer and marketing law*, 2017, p. 431-435.

²⁷⁴ Rüdener INA, Siddharth Prakash, Öko-Institut e.V., *Ökonomische und ökologische Auswirkungen einer Verlängerung der Nutzungsdauer von elektrischen und elektronischen Geräten*, study commissioned by Verbraucherzentrale Bundesverband (vzbv), 2020.

²⁷⁵ Consumers indicated being ready to pay EUR 29 – EUR 54 more for vacuum cleaners; EUR 83 – EUR 105 for dishwashers; EUR 77 – EUR 171 for televisions; EUR 48 – EUR 98 for smartphones; and EUR 10-30 for coats. *ibid*, p. 129.

²⁷⁶ European Commission, *Consumer study on the impact of reparability information formats on consumer understanding and purchase decisions*, 2020, p. 57.

²⁷⁷ European Commission, *Behavioural Study on Consumers' engagement in the circular economy*, 2018, p. 160.

²⁷⁸ European Commission, Eurobarometer, 2013, p. 55.

²⁷⁹ The most important reasons for not repairing products is the high price of repairs, followed by the preference for a new product, and the feeling that the old product was simply obsolete or out of fashion. Depending on the product type, between 5 and 10% of consumers surveyed did not repair the product because they did not know where to get it repaired and between 1 and 7% because of the unavailability of spare parts.

European Commission, *Behavioural Study on Consumers' engagement in the circular economy*, 2018, p. 86.

²⁸⁰ Producers who have better environmental products and could communicate about them may find themselves in unfair situation (e.g. high costs) compared to other manufacturers who wrongfully claim the environmental characteristics for their products – c.f. problem 2 of this IA.

²⁸¹ The share of products that could be replaced by an alternative that would last at least one additional year is estimated to be around 3% depending on the product category. See [Annex 5](#).

the European Parliament²⁸² concludes that providing information on expected and/or guaranteed lifespan can bring net positive impacts to the Single Market, to consumers and to the environment. Furthermore, in a related area, the experience from mandatory EU energy labelling for household appliances also shows how consumer information – when clear and easy to compare - can trigger positive and large-scale market change.²⁸³

As consumers are not able to take into account the reparability of goods in their decisions, the market share of easy-to-repair goods and, consequently, the demand for repair services are potentially lower than they would be if information on reparability would be available to consumers²⁸⁴. **In addition, producers have fewer incentives to improve their commitments regarding availability of repair services, spare parts and repair manuals and their software update/upgrade policies.**

Manufacturers and sellers risk increased compliance costs due to fragmented legislation

In the absence of EU-wide harmonised rules to ensure consumers are informed about a product's environmental sustainability, including its durability or reparability, manufacturers and sellers operating cross-border may also face different legal regimes with which they must comply²⁸⁵, thereby **increasing their compliance costs and limiting their ability to compete on a level-playing field**. This legal fragmentation also **prevents an effective and coherent enforcement** of consumer protection across the EU²⁸⁶.

1.3. Consequences for the environment

The negative environmental impacts of consumption, including climate impacts, are increased

This lack of reliable information on products' sustainability ultimately leads to **negative environmental and climate impacts** of European consumption, as consumers cannot make their consumption choices based on this information. This further leads to negative health, social and economic impacts on consumers. As a result, market shares of more environmentally friendly products are lower than if information on products' environmental sustainability was available to consumers.

For example, rough estimates²⁸⁷ show that in case 5% more environmentally sustainable products were purchased, this would lead to a reduction of CO₂ emitted of 1.1 MtCO₂e per year (EUR 40 million). In case the demand is shifted towards products that have a **longer lifespan of one more year**, this would lead to a reduction of CO₂ emitted of 1 MtCO₂e per year (EUR 34 million). In case the demand is shifted towards products that

²⁸² European Parliament, *Study on the introduction of a lifespan guarantee in the proposed online sales and digital content Directives*, 2017.

²⁸³ The mandatory EU Energy Label has been a key driver for helping consumers choose goods which are more energy efficient. For instance, while roughly two-thirds of refrigerators and washing machines sold in 2006 were labelled as class A, over 90% of those sold in 2017 were labelled A+, A++ or A+++. https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/about_en

²⁸⁴ An increase of 1% of the use of the maintenance, repair, rental services etc. sectors, has an effect of 6.3 billion EUR. European Parliament, *A Longer Lifetime for Products: Benefits for Consumers and Companies*, 2016, p. 10.

²⁸⁵ France, Sweden, Slovenia, Finland and Portugal are among the countries who have already enacted specific legislation so that consumers are informed about certain aspects of the durability and reparability of products. Belgium and Italy are in the process of doing so. See [Annex 6](#) for further details.

²⁸⁶ Evidence from the survey in the context of the supporting study indicates some degree of support by the public authorities for a number of EU-level information requirements to be enforced.

European Commission, Impact Assessment supporting study: *Study on Empowering Consumers Towards the Green Transition*, July 2021.

²⁸⁷ Further details on the calculation of these estimates can be found in [Annex 5](#). They rely on several assumptions and should thus mainly serve as pointers.

are **easier to repair** (and thus can last one year longer), the estimated impact would be of 0,4 MtCO₂e (EUR 13 million).

2. Consequences of Problem 2

2.1. Consequences for consumers

Consumers face detriment and make sub-optimal choices

While consumers may replace some goods before the end of their lifespan (sometimes exacerbated by marketing campaigns leading consumers to perceive existing products as out-of-date), some recent **studies suggest that consumers would like their goods to last longer than they currently do**^{288,289}. **Consumers face additional costs** related to the need to repair and/or replace the goods earlier than they could reasonably expect when they purchased the good^{290,291}.

Moreover, consumers may choose a product over other alternatives based on **misleading claims**, sometimes paying a premium in order to buy a supposedly more environmentally friendly product. Thus, greenwashing affects all consumers that purchase “green products” some of which even pay a premium, i.e., 26% to 40% of consumers or 74-150 million consumers.

Similarly, **non-transparent and non-credible sustainability labels** can harm consumers because they purchase products based on the assumption that all labels are credible when they are not²⁹². However, the extent to which this affects consumers (and notably those wishing to purchase more sustainable products and ready to pay a premium) is difficult to quantify given the variety of labels.

Consumers do not trust the sustainability information provided to them

Evidence shows that **consumers are increasingly confused about green claims**. 61% of consumers state that they find it difficult to understand which products are truly environmentally friendly, and 44% indicate that they **do not trust** this type of information²⁹³. Furthermore, trust in environmental claims is decreasing²⁹⁴. Surveys²⁹⁵ show that while 75% of EU consumers indicated they would buy green products, only 17% had actually done this in the month prior to the survey. This was because of a lack of trust in the environmental information provided by producers and retailers, among other reasons.

Consumers also **appear unable to understand the meaning of sustainability labels**, and make no distinction between non-certified (self-declarations) and third-party certified labels²⁹⁶. The proliferation of sustainability labels and their lack of transparency, reliability

²⁸⁸ Bakker, C. A., Schuit, C. S. C., et al., *The long view: Exploring product lifetime extension*, 2017, p. 21.

²⁸⁹ Séré de Lanauze, G., Siadou-Martin, B., *Durée de vie anormalement courte du produit : Effets sur la relation à la marque et perceptions de responsabilité*. Gestion 2000, volume 32(3), 2015, p.43-65.

²⁹⁰ BEUC, *Premature obsolescence – when products fail too quickly*, 2018, p. 1.

²⁹¹ In Germany, it is estimated that consumers could save EUR 110 every month.

Christian Kreiß, *Geplanter Verschleiß*, 2014, p. 63.

²⁹² Brécard, D., *Consumer confusion over the profusion of eco-labels: Lessons from a double differentiation model*. Resource and energy economics, 37, 2014, pp. 64-84.

²⁹³ European Commission, *Consumer Market Study on Environmental claims for non-food products*, 2014, p. 19-20.

²⁹⁴ The EU28 overall trust level in environmental claims in 2018 was 4% lower than the one in 2016.

European Commission, *Consumer Conditions Scoreboard*, 2019, p. 59.

²⁹⁵ European Commission, *Consumer Market Study on Environmental claims for non-food products*, 2014, P. 32.

²⁹⁶ European Commission, *Consumer Market Study on Environmental claims for non-food products*, 2014, p. 20.

or comprehensibility was considered as an obstacle to more sustainable consumption behaviour by 27% of the respondents to the OPC.

2.2. Consequences for the market

Uneven level playing field between companies (e.g. between manufacturers and between sellers)

Unfair practices and imperfect information to consumers will harm the Single Market, as **goods with a shorter lifespan may be cheaper to produce and are therefore competing with other goods in price**, as consumers are not aware of the differences in the lifespan of goods.

Greenwashing also harms the functioning of the Single Market as it allows products and companies to gain an unfair advantage over their competitors through the provision of unfounded or misleading information. As about 35% of companies undertake a life-cycle assessment study to assess the environmental impacts of (some of) their products²⁹⁷, it may be assumed that at least these companies are faced with unfair practices from those which provide false or misleading information without any justifications. Greenwashing practices can also further stimulate the import and production of unsustainable products through supply chains in third-countries where lower environmental or consumer protection rules would apply. It will also drive unsustainable business practices of companies in the Single Market.

Risks of increased compliance costs for manufacturers and sellers due to fragmented legislation and proliferation of labels

The multitude of labelling schemes also means that companies often **adhere to more than one scheme and thus incur additional costs**. 22% of sellers consulted in a 2019 study used at least three sustainability standards or codes for sourcing sustainable products²⁹⁸. This may explain why, out of all the problems looked at in this Impact Assessment, the proliferation of labels was considered the most problematic for businesses in the OPC. In addition to the impact on costs, the **lack of harmonisation of rules can also become a barrier** for companies to sell their goods and services in other markets (where different rules may exist), thus hindering the Single Market.

Furthermore, as some Member States are enacting specific legislation to address early obsolescence, companies wishing to be active in those Member States face increased compliance costs²⁹⁹.

2.3. Consequences for the environment

The need to **replace products more frequently and the reduced potential for circularity** (i.e. re-sale and reuse)^{300,301} linked to early obsolescence lead to higher

²⁹⁷ COWI/ECOFYS, *Support for potential policies implementing the Environmental Footprint methods*, 2019.

²⁹⁸ International Trade Centre for the European Commission, *The European Market for Sustainable Products – The retail perspective on sourcing policies and consumer demand*, 2019, p. 18.

²⁹⁹ France has already criminalised planned obsolescence. Belgium, Italy and Portugal are in the process of introducing new legislation to tackle planned obsolescence. See [Annex 6](#) for further details.

³⁰⁰ European Environment Agency, *Circular by Design – products in the circular economy*, 2017, p. 7.

³⁰¹ For example, extending the lifetime of all washing machines, notebooks, vacuum cleaners and smartphones in the EU by just one year would save around 4 MtCO₂ annually by 2030, the equivalent of taking over 2 million cars off the roads for a year. European Environmental Bureau

environmental impacts of consumption, estimated at 1,874 MtCO₂e (EUR 64 million)³⁰² per year.

The fact that products offered and purchased in the Single Market **are not as environmentally friendly as presented, leads to negative environmental impacts** (i.e., the difference between the environmental impact of the purchased product based on misleading claims and the environmental impact of the product that would have been purchased in the absence of greenwashing). The consequence of this practice is estimated at 1.4 MtCO₂e (EUR 50 million) per year.

Whilst sustainability labels can have a positive impact on the environment, their proliferation and their various degrees of robustness and transparency can lead to distrust among consumers and hamper their effectiveness in guiding them towards more sustainable consumption choices. These losses are, however, difficult to quantify as many sustainability labels and logos cover other sustainability aspects that are not related to the environment pillar of sustainability.

Overall, these practices increase **the negative environmental and climate impacts of consumption**.

³⁰² Possible environmental impacts of premature obsolescence, defined as failures that happen before the product reaches 60% of its expected lifespan and as a consequence of one year of this practice, in 2019 prices. Further details on the estimates presented in this section can be found in [Annex 5](#).

ANNEX 13: ANALYSIS OF PRODUCT SCOPE FOR PROVIDING DURABILITY/REPARABILITY INFORMATION

| Possible product scopes | Availability of evidence about the existence and the size of the problem (limited durability and reparability) | Availability of evidence on consumer expectations regarding better durability and reparability beyond legal guarantee period | Availability of evidence on the interest of consumers on information on durability and reparability | | Level of uncertainty regarding expected benefits of providing information on durability and reparability per product type |
|---|---|---|---|---|--|
| | | | Primary data: surveys, interviews, focus groups, behavioural experiments | Proxy: availability of commercial guarantees in the market | |
| Narrow product scope (i.e. all goods with digital content ³⁰³) | ✓✓ Evidence available and stakeholder views on some key types of goods in this product category, such as smartphones and laptops, suggest the existence of problems with limited durability and reparability in this product category <i>Main source: preparatory study</i> | ✓✓ Evidence available and stakeholder views on some key types of goods in this category, such as smartphones and laptops, suggest, to some extent, expectations of consumers regarding better durability and reparability (in this product group some evidence also suggests that consumers replace goods in order to have the latest model/technology) <i>Main source: preparatory study</i> | ✓✓ Evidence available and stakeholder views on some key types of goods in this category, such as smartphones and laptops, suggest certain consumer interest of receiving information on durability and reparability in this product group <i>Main sources: preparatory study, the EC "Behavioural Study on Consumers' Engagement in the Circular Economy,"³⁰⁴ 2019 Market Monitoring survey³⁰⁵,</i> | ✓ Desk research and mystery shopping exercises indicates some presence of commercial guarantees in the market in this product group <i>Main sources: preparatory study; 2015 commercial/legal guarantee study³⁰⁷</i> | Low The level of uncertainty was considered low as there is sufficient evidence on the size of the problem and on the expectations and needs of consumers to assess benefits of measures related to providing information on durability and reparability per product scope Source. |

³⁰³ Goods with digital elements are any tangible movable items that incorporate or are inter-connected with digital content.

³⁰⁴ Europe, L.E., Europe, V.V.A., Ipsos Opinion-Infometrie, ConPolicy GmbH and Trinomics, B.V., 2018. Behavioural study on consumers' engagement in the circular economy. Publications Office of the European Union.

³⁰⁵ Available at: https://ec.europa.eu/info/policies/consumers/consumer-protection/evidence-based-consumer-policy/market-monitoring/market-monitoring-2019-factsheets-market_en

³⁰⁷ DG JUST, Ipsos-London Economics-Deloitte consortium, 2015. Consumer market study on the functioning of legal and commercial guarantees for consumers in the EU. Publications Office of the European Union.

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|---|--|--|---|--|--|
| | | | <i>EESC “The influence of lifespan labelling on consumers”</i> . 306 | | |
| Medium product scope (i.e. all energy-using goods ³⁰⁸) | <p>✓✓✓</p> <p>Evidence available and stakeholder views covering a significant number of key types of goods in this category such as the ones mentioned under the narrow product scope as well as washing machines, refrigerators, microwaves/electric ovens, vacuum cleaners, dishwashers, coffee machines, irons, mixers, kettles, electric shavers/razors/trimmers, hair dryers, demonstrates the existence of problems with limited durability and reparability in this product category</p> <p><i>Main source: preparatory study</i></p> | <p>✓✓✓</p> <p>Evidence available and stakeholder views covering a significant number of key types of goods in this category such as the ones mentioned under the narrow product scope as well as washing machines, refrigerators, microwaves/electric ovens, vacuum cleaners, dishwashers, coffee machines, irons, mixers, kettles, electric shavers/razors/trimmers, hair dryers, suggests expectations of consumers regarding higher durability and reparability of a significant share of type of goods in this category</p> <p><i>Main source: preparatory study</i></p> | <p>✓✓✓</p> <p>Evidence available covering a wide variety of large household appliances, small household appliance and IT and electronic goods suggests high consumer interest of receiving information on durability and reparability in this product group</p> <p><i>Main sources: preparatory study, the EC “Behavioural Study on Consumers’ Engagement in the Circular Economy”³⁰⁹, 2019 Market Monitoring survey³¹⁰, EESC “The influence of lifespan labelling on</i></p> | <p>✓</p> <p>Desk research and mystery shopping exercises indicates some presence of commercial guarantees in the market in this product group</p> <p><i>Main sources: preparatory study; 2015 commercial/legal guarantee study³¹²</i></p> | <p>Low</p> <p>The level of uncertainty was considered low as there is sufficient evidence on the size of the problem and on the expectations and needs of consumers to assess benefits of measures related to providing information on durability and reparability per product scope</p> |

³⁰⁶ EESC (2016): The influence of lifespan labelling on consumers, 2016. Available at: https://www.eesc.europa.eu/resources/docs/16_123_duree-dutilisation-des-produits_complet_en.pdf

³⁰⁸ Energy-using goods are goods depending on energy input (electricity, fossil fuels and renewable energy sources) to work as intended.

³⁰⁹ Europe, L.E., Europe, V.V.A., Ipsos Opinion-Infometrie, ConPolicy GmbH and Trinomics, B.V., 2018. Behavioural study on consumers' engagement in the circular economy. Publications Office of the European Union.

³¹⁰ Available at: https://ec.europa.eu/info/policies/consumers/consumer-protection/evidence-based-consumer-policy/market-monitoring/market-monitoring-2019-factsheets-market_en

³¹² DG JUST, Ipsos-London Economics-Deloitte consortium, 2015. Consumer market study on the functioning of legal and commercial guarantees for consumers in the EU. Publications Office of the European Union.

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| | | | <i>consumers”</i> . 311 | | |
| Wide product scope (i.e. all goods with assembled parts that move relative to one another (e.g., most furniture, some suitcases, some non-energy using toys, bicycles, etc)) | <p>✓</p> <p>Limited evidence available demonstrating the existence of problems with limited durability and reparability in this product category, e.g. with data available covering a only few product types not included in the previous two categories (e.g., sofas and mattresses)</p> <p><i>Main sources: preparatory study,</i></p> | <p>✓</p> <p>Limited evidence available demonstrating consumer expectations on durability/reparability in this product group, with data available covering only a few product types not included in the previous two categories (e.g., sofas and mattresses)</p> <p><i>Main sources: preparatory study,</i></p> | <p>✓</p> <p>Limited evidence available on consumer interest on receiving information on durability and reparability in this product group, with data available covering only a few product types not included in the previous two categories (e.g., sofas and mattresses)</p> <p><i>Main sources: preparatory study,</i></p> | <p>✓</p> <p>Desk research and mystery shopping exercises indicate some presence of certain commercial guarantees in the market in this product category</p> | <p>Medium-High</p> <p>The level of uncertainty was considered medium-high as there is limited evidence on the size of the problem and on the expectations and needs of consumers to assess benefits of measures related to providing information on durability and reparability per product scope</p> |
| Very wide product scope (i.e. all consumer goods except consumables and fast-moving ones, e.g. cloths, pans, bed linen) | <p>✓</p> <p>Limited evidence available for the category as a whole, with data available covering only a few product types that are not included in the previous three categories (e.g., garments and shoes)</p> | <p>✓</p> <p>Limited evidence available for the category as a whole, with data available covering only a few product types that are not included in the previous three categories (e.g., garments and shoes)</p> | <p>✓</p> <p>Limited evidence available on consumer interest on receiving information on reparability in this product group, with data available covering only a few product types not included in the previous three categories (e.g., garments and shoes)</p> <p><i>Main sources:</i></p> | <p>✓</p> <p>Desk research and mystery shopping exercises indicates the limited presence of certain commercial guarantees in the market in this product category</p> | <p>High</p> <p>The level of uncertainty was considered high as there is insufficient evidence on the size of the problem and on the expectations and needs of consumers to assess benefits of measures related to providing information on durability and reparability</p> |

³¹¹ EESC (2016): The influence of lifespan labelling on consumers, 2016. Available at: https://www.eesc.europa.eu/resources/docs/16_123_duree-dutilisation-des-produits_complet_en.pdf

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| | | | <i>preparatory study, the EC “Behavioural Study on Consumers’ Engagement in the Circular Economy”³¹³,</i> | | per product scope |
|--|--|--|--|--|-------------------|

Conclusion:

As shown in the table, evidence regarding the existence of limited durability and reparability), consumer expectations regarding durability and reparability of goods (beyond the legal guarantee period), and consumer interest in receiving information on durability and reparability, is mostly available for the **medium product scope** (i.e. energy using products); for the remaining types of products far less evidence is available.

Furthermore, the availability of evidence can be considered a proxy for the size of the problem (and of the expected benefits if addressed) for the various product groups as it is reasonable to expect that research tends to focus on the most relevant problems/product categories.

For this reason, while the available evidence allows for robust conclusions on the benefits of possible measures (to address sub-problem 1.2 and sub-problem 1.3) for the medium product scope, it is insufficient to soundly confirm them for a wider product scope).

Given the aforementioned lack of evidence to cover a “Very wide product scope” or a “wide product scope”, two alternatives were assessed in the scope of the preparatory study: a) cover only the product category for which a wealth of evidence is available (i.e., energy-using products); or b) opt for a wider product scope and establish an EU body responsible for defining and updating the criteria that determine whether a given product is exempt. A screening of the political, operational and financial feasibility of the two options clearly showed many obstacles to the implementation of option b, including the high costs of setting up and running such an EU body and also the potential overlap with the SPI initiative. **Therefore, it was decided to restrict the product scope to all energy-using products when considering those options to address sub-problems 1.2 and 1.3 for which a product scope is defined.**

³¹³ Europe, L.E., Europe, V.V.A., Ipsos Opinion-Infometrie, ConPolicy GmbH and Trinomics, B.V., 2018. Behavioural study on consumers' engagement in the circular economy. Publications Office of the European Union.