



# STANDARDS IN THE TIME OF THE EUROPEAN GREEN DEAL

HOW STANDARDS CAN SUPPORT THE ENVIRONMENT



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 @ECOS\_Standard

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## Contents

Summary .....	2
1. Introduction .....	3
2. A Sustainable Product Policy Framework .....	4
2.1. Product design and producer responsibility .....	4
2.2. Empowering consumers and public buyers .....	5
2.3. Circularity in production processes.....	6
3. Key Product Value Chains.....	7
3.1. Electronics and ICT .....	7
3.2. Batteries and vehicles .....	7
3.3. Packaging.....	7
3.4. Plastics.....	8
3.5. Textiles .....	8
3.6. Construction and buildings .....	9
4. Waste Prevention and Circularity .....	10
5. Carbon Neutrality and Sustainable Finance.....	10
6. Monitoring and Enforcement.....	10
7. Conclusion .....	11

## Summary

The European Green Deal should facilitate the transition to a decarbonised and circular economy. A transition which, although challenging, is crucial in order to address the climate emergency, stimulate our economy, and promote sustainable development.

In order to support the implementation of the expected legislative and policy initiatives, robust and reliable methods will need to be used. The standardisation system has the potential to offer those services in a wide range of sectors as identified in this document, so long as the methods delivered are appropriate and come in a timely manner.

## 1. Introduction

The [European Green Deal](#) and its [Circular Economy Action Plan](#) lay out a bold and ambitious plan to transition from a “throwaway” economy to a clean and circular one. While the plan seems to work very well on paper, its realisation depends on an equally ambitious and timely execution of the underpinning initiatives and policies, as well as a recognition that the EU Green Deal should be a key pillar of any economic stimulus following the COVID-19 pandemic.

One fundamental element of policy implementation is European standardisation. Standards not only play a key role in the Single Market by harmonising product and service technical specifications, but also have a significant impact on other aspects of society by providing presumption of conformity with regulatory requirements. As such, they are widely used for policy implementation in sectors related to the environment and their importance is also bound to increase together with the increase of environmental initiatives.



The upcoming plethora of policy initiatives under the EU Green Deal covers a wide range of sectors and aims at making both production practices and products themselves more sustainable and less toxic. This wide sectorial coverage combined with an ambitious timeframe means methods and technical specifications will also be in high demand. This may entail the revision of existing standards or the development of new ones to account for new sectors, new materials, new testing procedures and new business models.

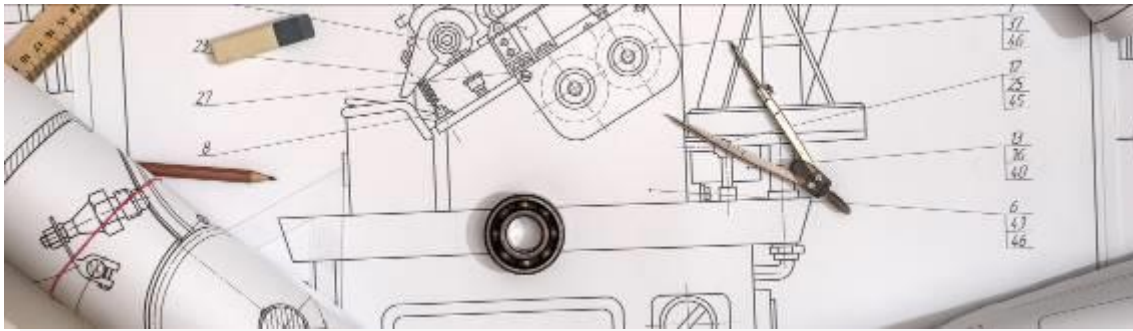
To reach this objective, ECOS and the environmental NGO community are ready to support the standardisation system with technical expertise and policy guidance. In this paper, we put forward our views on what the standardisation system should deliver in key sectors related to the environment, basing our reflection on the recently published Circular Economy Action Plan.

## 2. A Sustainable Product Policy Framework

### 2.1. Product design and producer responsibility

Product design constitutes the most important stage in a product's lifetime when it comes to minimising its environmental impact. Consequently, regulatory initiatives to green the design phase will intensify, and the supporting metrics, tests and assessment methods will need to be developed.

There already exists an effective and successful policy framework fully at EU's disposal: ecodesign. Expanding ecodesign principles to all sectors is a very positive proposal from the European Commission. For it to reach its full potential, methods and standards need to be developed across a wide range of products, covering a number of aspects, from energy efficiency to material efficiency, and from chemicals to microplastics.



- **Product durability.** Covering both stress tests and accelerated tests, product-specific metrics would allow to set minimum requirements and to effectively inform consumers about the expected stress resistance and lifetime of a product or its components (such as batteries).
- **Product repairability.** Building on the horizontal [standard EN 45554](#), product-specific metrics will need to be established, allowing to effectively assess and compare the ease of non-destructive disassembly of products, and to provide the basis for the mandatory repair scoring of products.
- **Product upgradeability, reuse and remanufacture.** In addition to repair, product-specific standards for the assessment of upgradeability, reusability and remanufacturing can also contribute to product lifetime extension, part harvesting and waste reduction.
- **Material use.** Standards will need to be developed in order to help assess and declare certain parameters relevant to material use such as reduced use of virgin material, increased material recovery and the share of recycled content, as well as relating to material quality to facilitate the use of low-carbon materials and to reduce the use of hazardous substances.
- **Energy efficiency.** New and updated standards containing methods and tests for the determination of product energy efficiency need to reflect technological progress, represent real-life use and discourage circumvention attempts, so that both the

requirements and the information on the energy label are accurate and can genuinely drive lower energy consumption.

- **Declaration of chemical content.** As the presence of certain substances in products poses obstacles to circularity, standards can provide formats for the communication of chemical content to inform recyclers of appropriate end-of-life treatment methods of specific waste streams, and thereby help the uptake of secondary raw materials.

Beyond the wealth of metrics and standards tackling product sustainability aspect by aspect, exploring methods which bring these characteristics together would pave the way towards an integrated sustainability approach and provide legislators and consumers with a powerful policy tool. Such methods include:

- **Life cycle assessment standards** enabling the accurate measurement of the environmental performance of products, while facilitating comparison between single-use products based on virgin materials, and durable, reusable, repairable products based on recycled content.
- **Standards on product and component-related information** (integrating aspects related to durability, reparability, composition, etc.) to support the development of a product passport. This information should be transferred from one supply chain actor to another, enabling to connect the various stages of a product's life cycle: product manufacturers, repairers, remanufacturers and recyclers.

The greening of **high-impact sectors** such as steel, cement and chemicals is also key for reducing primary resource use and improving the overall resource efficiency for decarbonisation and reduced environmental footprint. A number of standards are needed to support this, in particular covering the following aspects:

- **Product Carbon and Environmental Footprints:** Standards enabling comparability of carbon and environmental footprints of products from different high-impact sectors through harmonised methods can support sustainability-oriented decision-making in product design and market demand. Furthermore, standards fully accounting for environmental impacts from resource extraction and production are also needed to support the use of secondary raw materials.
- **Standards for the design of products using high-impact resources** must be adapted to go beyond purely functional requirements and incorporate sustainability focused ones that support resource-efficient design and production, minimise material use for equivalent functionality and safety, and reduce overall emissions. Standardisers should develop an accurate formula or ratio that captures the quantity of material needed and associated emissions to fulfil functional requirements in order to highlight best performing products.

## 2.2. Empowering consumers and public buyers

Tackling product supply directly will not foster the broad-scale circularity on its own. Empowering consumers and public buyers by providing credible information would, however, encourage sustainable purchasing decisions and reward products with low environmental impact. At the same time, the support of new circular business models would enable consumers to become agents of sustainability themselves. Standardisation should explore this field:

- **Support for a Right to Repair.** The development of product-specific repairability standards as referenced in section 2.1., would allow to establish a mandatory repair scoring system, and to provide consumers with trustworthy information. In addition, standardisation activities will also be necessary to counter premature obsolescence, for example through the development of verification procedures in support of requirements on the availability and compatibility of firmware updates or data deletion tools that enable reuse.
- **Labelling indices and environmental claims** on products, organisations, processes and services should be clear, relevant, transparent, accurate, reliable, accessible and serve long-term sustainability goals. The revision of international standards on environmental labelling should not lead to the watering down of the existing provisions, in order to minimise the risk of greenwashing and misleading green claims.



### 2.3. Circularity in production processes

Environmental impacts do not only stem from product use but also from the production processes. Standards can support the transition of these processes to less resource-intensive and more circular ones.

- **Defining what “circular” means and harmonising circular metrics** applied to organisations and processes. These metrics should enable to assess direct impacts, such as durability, extended life cycle, material consumption and reduced waste generation – as well as facilitate the integration of indirect impacts, such as climate change, resource depletion or eco-toxicity.
- **Circular business models.** Standards should be developed to harmonise the principles for services and processes of circular business models to support sharing and collaborative economy and product-as-service models.
- **Circularity in the Industrial Emissions Directive (IED).** While the [IED](#) Best Available Techniques are focused on conventional primary raw material production processes, standards for equivalent and any additional processes enabling the use of secondary raw materials should be developed. Standards that place more stringent values on the presence of toxic materials will also contribute to a non-toxic environment.
- **Industrial symbiosis.** Standards to verify the environmental suitability of certain symbiosis configurations will be important to ensure that industrial symbiosis does not in fact create revenue streams and additional markets for polluting processes and products.

## 3. Key Product Value Chains

### 3.1. Electronics and ICT

The newly proposed [Circular Electronics Initiative](#) could greatly benefit from the support of a wide range of different standardisation deliverables. For example, standards for products such as portable devices (e.g. computers or mobile phones) and their components (e.g. batteries) are currently missing. As listed in section 2.1., such standards should cover a number of aspects including energy efficiency, durability, reparability, upgradeability, reuse and remanufacture, material use and chemical content.



### 3.2. Batteries and vehicles

Batteries are bound to play a central role within decarbonisation efforts; they should also be produced in compatibility with circular economy principles. Standards are necessary to support battery sustainability requirements for both product and vehicle batteries and enable product lifetime extension and end-of-life treatment. Specifically:

- **Standards in support of battery durability**, allowing to test, assess and communicate the information on the expected lifetime of batteries and their performance, notably in portable devices and electric vehicles.
- **Standards that encourage battery reuse, repair and recyclability**, including through standardisation of battery types for electric vehicles and portable devices such as laptops or mobile phones.
- **Standards that encourage the reuse of materials used in vehicles** (metals, plastics, glass), such as methods to calculate targets for reuse.

### 3.3. Packaging

The amount of packaging continues to rise to record levels. Strengthening mandatory sustainability requirements will be key. In support of these, the standardisation system could offer:

- **Standardised reusable packaging formats.** Standards can provide common types of packaging design in terms of size, format and dimensioning that can enable the acceptance of reusable packaging across different reuse schemes, also internationally. This can help drive the development of the necessary infrastructure to collect, wash and re-circulate packaging items across borders and reduce operational costs for reuse schemes. Such universally accepted formats can therefore support the market uptake of alternative distribution models and packaging-free solutions. In addition, they can help achieve waste prevention and reuse targets, for example as part of the announced legislative initiative on reuse in the food services sector.
- **Streamlining packaging design.** Standards can support improved recyclability and effective recycling of packaging by streamlining materials used for certain packaging applications, including chemicals used in material formulations. Greater foreseeability in product formulations is likely to result in more willingness from recyclers to take up new packaging waste streams.
- **Standardised reusable containers.** Universal formats for packaging used in food delivery systems are a core piece of the puzzle to ensure reuse systems and alternative distribution models, such as packaging-free solutions, gain market uptake. Common typing for food packaging containers, bottles and transport crates can increase the acceptance of such items in multiple reuse schemes and contribute to easily achieving potential reuse targets in the food services sector.

### 3.4. Plastics

Plastic consumption continues to rise and so does the plastic waste, generating a devastating environmental impact. Bold future initiatives towards circularity should be supported by necessary standards:

- **Assessment method for recycled plastic content.** The introduction of recycled (plastic) content was already made mandatory for beverage bottles by the Single-Use Plastics Directive. The Circular Economy Action Plan, similar to the [2018 Plastics Strategy](#), refers to the wider uptake of recycled plastics as secondary raw materials. However, a harmonised method for assessing and declaring recycled plastics content is still missing.
- **Measurement of the unintentional release of microplastics and microfibrils.** Harmonised methods to quantify tyre abrasion and the shedding of microfibrils from the washing of synthetic clothing, as well as a harmonised set of best practices to minimise pellet loss throughout the supply chain would support regulatory action to limit microplastics released into the environment, and drive innovation towards more durable goods.
- **Assessment of the presence of microplastics in various environmental compartments.** Harmonised data collection to account for microplastics found in the environment is key to addressing microplastics pollution.

### 3.5. Textiles

The textiles sector is very resource-demanding and generates large amounts of waste. Consequently, future regulatory initiatives aimed at introducing circularity principles throughout the supply chain should be supported by robust methods, namely:



- **A common definition of sustainable and circular textiles**, based on circularity performance of textiles, their material efficiency, the absence of substances of concern, and the minimisation of microfibre release.
- **Product durability, repairability and recyclability.** Methods should be developed to assess such material efficiency aspects as the durability, repairability and recyclability, as well as the determination of recycled content, presence of chemicals and the quantification of the shedding of microfibres.
- **Textile reuse and recycling.** Standards should be developed laying out processes that encourage textile reuse and high-quality textile-to-textile recycling.
- **Standardised labelling and environmental claims** on sustainable and circular textile, enabling consumers and procurers to make informed decisions.

### 3.6. Construction and buildings

Sustainable buildings have the potential to slash emissions and resource use, both in terms of the materials used for construction and the impact during their use. As part of the proposal to promote circularity principles throughout the lifecycle of buildings, and considering the variation of building approaches used amongst countries, a harmonisation of methods and criteria is an area in which standards can play a leading role:



- **Supporting the Construction Products Regulation (CPR).** Harmonised standards supporting the implementation of the [CPR](#) should establish ways to assess sustainability and declare environmental performance alongside core functional requirements based on essential mechanical characteristics. Standards must offer technical specifications and methods for testing, measurement and assessment of all minimum sustainability criteria established in a revised CPR which should require sustainability focused information on a mandatory basis.
- **Building design.** Standards used within European, national or regional building codes and relevant product standards must support improved resource efficiency to reduce embodied and operational emissions of buildings. Moreover, standards related to energy performance of buildings should aim at providing robust state-of-the-art methods to support this objective.

## 4. Waste Prevention and Circularity

Waste prevention should be a consistent priority of the EU, even more so amidst ever-increasing waste generation. Apart from the methods that can facilitate waste prevention at design stage addressed in section 1.1., standards can contribute to preventing waste, enhancing circularity and creating favourable conditions for secondary raw material use:

- **Reporting waste prevention.** In support of implementing guidelines for waste prevention requirements under European waste legislation, standards can facilitate operational aspects related to Member State reporting such as harmonised formats for declaring waste reduction per material stream.
- **Sampling.** Standards can provide the methodological aspects needed to ensure the effective enforcement of regulatory limits on certain substances of concern in specific products. Common methods to choose the amounts and types of product formulations and matrixes to be tested for a regulated substance can ensure the comparability and harmonised implementation of regulatory requirements on substances of concern.
- **Markets for secondary raw materials.** Standards can establish methodologies for the quality assessment of various material streams, helping to create demand for secondary raw materials. Specific end-of-waste criteria for material streams should be based on a comprehensive set of analytical methods provided in harmonised European standards.

## 5. Carbon Neutrality and Sustainable Finance

Circularity is not only about saving resources and material, but also contributes to climate change mitigation. Standards have the potential to support the EU's objective towards climate neutrality:

- **A common definition of “carbon neutrality”,** ensuring that GHG emissions reduction efforts primarily focus on absolute reduction of emissions rather than their offset. The scope of application of this concept should be restricted only to the cases where speaking about carbon neutrality can be meaningful (in a given geographical area and over a limited, specific timeframe in order to properly account for long-term offsetting strategies).
- **International standards underpinning sustainable finance,** including the identification of economic activities contributing to a circular economy and waste minimisation. These standards should be compatible with the EU sustainable finance agenda and provide clarity to international market actors with regard to what is “green”, what is “transitional” and what is “brown”.

## 6. Monitoring and Enforcement

Establishing regulations and mandatory requirements is only meaningful when appropriate surveillance and enforcement are also in place. It is therefore crucial that implementation aspects are properly considered at policy design stage, drawing lessons from a variety of approaches currently in place to support existing regulations, such as verification procedures, certification and labelling.

Standardisation has a role to play here not only in exploring the development of alternative verification procedures but also in making sure standards are properly developed in full compatibility with provisions in Standardisation Requests and in a timely manner. This, in turn, will help ensure that Member States and the relevant authorities properly enforce regulations.



## 7. Conclusion

The European Green Deal aspires to facilitate the transition to a clean and circular economy, a transition which, although challenging, is crucial in order to address the climate emergency, stimulate our economy, and promote sustainable development.

In order to support the implementation of the expected legislative and policy initiatives, robust and reliable methods will need to be used. The standardisation system has the potential to offer those services in a wide range of sectors, so long as the methods are appropriate, and delivered in a timely manner.

As the representative of environmental NGOs in the standardisation system, ECOS will continue to offer its expertise within the regulatory and standardisation systems to make the European Green Deal, and its Circular Economy Action Plan a success.

ECOS, the European Environmental Citizens' Organisation for Standardisation, defends environmental interests in the standards development process at national, European and international level. Find out more about ECOS on:

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