

CEN-CENELEC reply to the European Commission's consultation on the Circular Economy

August 2015

Executive Summary

CEN and CENELEC consider the evolution towards a circular economy a very important building block of the broader Resource Efficiency framework that helps mitigate global competition for resources by maintaining the materials used in products in the value chain for the optimal duration, while minimizing waste and 'virgin' resources use.

A large number of CEN and CENELEC sector experts provided input to the EC public consultation. All consider the circular economy a positive approach and the key to maintain competitiveness of the EU. However, the view of the priorities of actions to be taken vary sector by sector, therefore is difficult to provide a well specified consolidated vision of the future standardization needs.

CEN and CENELEC would like to recall that voluntary, market-based standards can support regulatory and policy initiatives and help deliver the circular economy.

Standards bring benefits to industry as well as society as they can enable common understanding through agreed terminology and vocabulary, promote interoperability, can contribute to reduce costs, eliminate waste and improve efficiency. The development process, based on the consensus of a broad range of interested parties and open consultation, ensures wide market acceptance of standards. The standards could support regulation or may reduce the need for direct European regulatory intervention for the achievement of the future objectives.

The European businesses are the main actors that may ensure the success in the implementation of future EU policies on circular economy. They increasingly operate in global markets, for instance, procuring materials and components from third countries, or selling products and services in third markets. In this context, the cooperation of CEN with ISO and of CENELEC with IEC, has to be fully considered as a way to facilitate the widest geographical implementation of circular economy principles.

There is a challenge that, if circular economy principles are implemented in Europe only, there might be a loss of competitiveness of European industry. This is specially the case if such policies are not accompanied with enforcement measures, such as a sound market surveillance in order to avoid unfair competition from non-compliant products.

Main messages

CEN and CENELEC welcome the initiative of the EC to go beyond the pure waste management approach and address the "other half" of the circular economy cycle (product, design, consumption, raw materials, new business models, etc). Circular economy is not only waste prevention, but it should incorporate considerations for features such as emissions, renewable energy and whole life costing. In other words, every optimization initiative should apply a full life-cycle view.

Standards already play an important role in stimulating and achieving (regulatory and policy) objectives. They contribute to the circular economy by setting the minimum quality criteria of secondary materials, stimulate innovation in design and manufacturing, define and harmonize testing methods, and give as such consumers and producers confidence in the use of secondary products, including reliable and comparable information.

CEN and CENELEC consider important to have a clear picture of the numerous European initiatives on circular economy and identify lessons to learn from, and adapting to national circumstances on a European scale. Therefore, it is crucial to collect information on success of measures related to circular economy at national level across Europe. The identification and refinement of the core common elements of these initiatives, including standards would help to form a robust Europe-wide holistic approach, including the need for new/adapted standards.

There is no European legislation that focuses purely on the circular economy concept and the research carried out by some of the CEN and CENELEC members revealed that there is a need for 'smart' policy targets around circularity. Until now the existence of elaborate policies and legislation around waste management and waste prevention have been one of the key drivers for the development and use of waste prevention standards, particularly those covering waste electrical and electronic equipment and recycling. Legislation may however not always be the most feasible approach.

The research on the priorities and needs for standards to deliver the circular economy resulted in identifying some barriers and enablers for the circular economy, such as:

- Barriers include some existing legislative frameworks and concerns about material security, cost and performance, and also the attitude of the today's consumer society.
- Enablers include legislation and tax regimes tailored to support the circular economy. Other enablers include raising awareness of the business benefits, both in terms of resource security and the opportunities that new products and services present, and the reputational benefits from demonstrating a circular economy-friendly, resource-savvy approach to business.

As part of the national initiatives, the UK has taken for instance a high level framework approach for implementing the circular economy in organizations, which is intended to help organizations determine their role in, and the relevance of, the circular economy; helping them determine the risks and opportunities, and providing guidance on what circular economy business models look like. Organizations are encouraged to explore opportunities to standardize, embrace and promote the circular economy concept. This could be a framework for the models, techniques, tools and methodologies that can be used to support decisions surrounding the sustainable use of materials. The framework can be applied to all parts of the

supply chain and is intended to support decision making about the sustainable use of any type of material.

In France the research revealed that circular economy is understood in very different ways from one sector to another. Mapping the existing standards landscape is therefore critical to identifying gaps and drafting terminology (definitions and vocabulary) in order to establish an agreed and consistent approach. Standards could support this more coherent approach, reflecting interactions and interdependence along the whole value chain.

The Netherlands found out that it is important to include systematically sufficiently detailed specifications / requirements in standards as these are an important factor for the applicability of recycled / secondary materials. Standards describe the state of the art, as agreed by the parties based on consensus. Stakeholders emphasize that standards must keep pace with new (innovative) applications and social trade-offs between safety, health and environmental pressures. In this manner, standards for many organizations, are a basis for further innovation.

Existing standards could be reviewed to stimulate circular thinking through better design, with particular emphasis on measures to ease their dismantling (e.g. direct access to battery) and phasing out, whenever technically feasible, substances classified as hazardous. This aspect has to be included more and more in the product standards, and should be addressed at the design stage. Product standards may also need to consider the necessary life span of products when thinking about material efficiency, durability, design for disassembling and end of life processing (such as in case of the buildings in comparison to consumer goods) and to prevent the shifting of the burden from one life cycle stage to another. It will be important to assess each and every improvement measure regarding their impact over the full life-cycle, applying the ISO LCA and labeling standards or the PEF methodology still under development. In this context, the work already done by ISO and CEN in respect of LCA and EPD, as well as the upcoming PEF, play an important role. It will be essential to ensure compatibility of both concepts during the completion phase of the EF initiative.

Another relevant issue may be the impact of the products on the environment (such as their energy consumption, emissions and waste they generate) when considering priorities of type of products to address the policies. In addition, there will be a number of products, and product components that cannot be recycled due to safety issues, environmental impact, too much energy consumption or lack of market demand. In such cases the impact of disposal of these products (and components) needs to be considered as part of the circular economy concept. Standards for addressing non-recyclable products and components could be considered as part of the circular economy initiative. To foster the application of a life-cycle approach in every stage of a product's life, environmental management standards, like the new ISO 14001:2015 and the EU EMAS scheme, are well-suited.

Standards are an important precondition to achieve greater use of recycled materials. Product standards that restrict the choice of the producer to the use of primary raw materials, and thus discourage the use of secondary raw materials (metal scrap, recycled materials etc.) should be looked at with the new focus of promoting and enhancing recyclability.

Quality requirements included in the standards are also crucial in the course of trade between suppliers of recycled material and producers who use these secondary materials in their products. By offering products for re-use that have been subjected to a quality assured process, build customer confidence in purchasing from the re-use sector and aiding its development.

A better monitoring for hazardous substances in the product to waste and waste to product transitions is also needed to increase confidence in recycled materials. Standards can set out the voluntary, consensus based and market driven requirements that help organizations to put

the right quality assurance systems in place, while complying with environmental health, and health and safety regulations. Giving practical advice, it helps to reduce costs and ensure that these recycled parts and products are of the highest quality.

The standardization community is committed to promote the closed-loop thinking and practice across industries and stakeholder groups to help address the ever growing concern of resource scarcity and supply chain instability, deliver better environmental performance, and encourage more socially responsible business models. Several guides for standard developers are already existing, aiming at improving the environmental compatibility of product standards, and ultimately, products.

CEN and CENELEC consider that a good starting point could be mapping the existing standards landscape and identify gaps and priority areas to address either by revising existing standards or developing new standards to embed the circular economy (closed-loop) thinking in collaboration with interested stakeholders, and where there is a proven need/benefit.

The EC has an important role creating conditions to increase the demand for more sustainable products, and recycled materials and to support new business models. When the policies contributing towards the circular economy agenda are in place a better monitoring of the implementation and impact of these policies is important for the future planning.

The EC has to consider that Europe is not isolated in the world, and that European businesses increasingly operate in third markets:

- procuring materials and components from third countries, or
- selling products and services in third markets.

Another factor to be taken into account in the global context is the cross-border trade of second-hand goods and the production outside Europe need to be addressed with the view of minimize the environmental impact in the lifecycle.

In this global context, CEN and CENELEC are happy to offer as an asset our collaboration with ISO and IEC, as it can support the development of globally relevant standards related to the circular economy policies.

There is a challenge that, if circular economy principles are implemented in Europe only, there might be a loss of competitiveness of European industry. This is specially the case if such policies are not accompanied with enforcement measures, such as a sound market surveillance in order to avoid unfair competition from non-compliant products.

Conclusion

CEN and CENELEC consider that the key to the success of the measures to be applied for the development of a circular economy is to enable market-driven environmental sustainability and economic growth. This can be ensured by better communication between the recycling sector and the production sector on the design and use of materials in a transparent, reproducible and reliable way, as well as the availability of sufficient and reliable data on products.

The European businesses are the main actors that may ensure the success in the implementation of future EU policies on circular economy. Standards should be one of the pillars of the EC Roadmap on circular economy as they are crucial for the success of the transition from a linear to a (more) circular economy.

In addition, Businesses increasingly operate in global markets. In this context, the cooperation of CEN with ISO and of CENELEC with IEC, has to be fully considered as a way to facilitate the widest geographical implementation of circular economy principles.

The **Annex** to this paper is including the outline of the specific responses, comments given by members and stakeholders to the questionnaire.

About CEN and CENELEC

CEN (European Committee for Standardization) and **CENELEC (European Committee for Electrotechnical Standardization)** are recognized by the European Union (EU) and by the European Free Trade Association (EFTA) as European Standardization Organizations responsible for developing and defining standards at European level. These standards set out specifications and procedures in relation to a wide range of products and services.

The members of CEN and CENELEC are the National Standards Bodies and National Electrotechnical Committees of 33 European countries including all of the EU member states plus Iceland, Norway, Switzerland, Turkey and the former Yugoslav Republic of Macedonia.

European Standards (ENs) are developed through a process of collaboration among technical experts nominated by business and industry, research institutes, consumer and environmental organizations and other societal stakeholders. Once adopted, these standards are implemented and published in all of the 33 countries covered by CEN and CENELEC.

CEN and CENELEC also work to promote the international harmonization of standards in the framework of technical cooperation agreements with ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission).

For more information, please see: www.cencenelec.eu

Annex

to the CEN-CENELEC reply to the EC consultation on Circular Economy

Specific input related the Questionnaire

As it was mentioned earlier, is difficult to provide a clear list of priorities and actions to be taken as regards standardization needs at EU level due to the different approaches existing in the different member organisations and in the different sectors.

By compiling the responses and the input received from stakeholders across Europe we are providing a question by question feedback (if got any) but the comments provided do not necessarily reflect the view of the whole CEN and CENELEC community.

Q 3.2. In order to facilitate the transition to a more circular economy, how would you assess the importance of the following product features

Neither of the product features listed in 3.2 that could facilitate the transition to a circular economy were considered as unimportant by CEN and CENELEC.

Q 3.3 How would you assess the importance of the following additional considerations when applying circular economy principles to products at EU level?

As for 3.3, the additional considerations applying circular economy principles to products at EU level, the replies vary, no clear trend can be seen. It depends on sector/country/awareness what is considered more or less important.

Q 3.4 From a circular economy perspective, in your view which product categories should be given priority in the next few years and why?

As regards the product categories listed in 3.4 the replies vary depending on the respondents. The following justifications were added for the product groups suggested:

Small domestic appliances :

SDA have potential for better recyclability and reparability. There are many SDA and if covered by horizontal measures the improvement is big.

Better design of small domestic appliances and electronics with particular emphasis on measures to ease their dismantling (eg direct access to battery) and phasing out, whenever technically feasible, substances classified as hazardous.

Office equipment:

Office equipment has potential for better recyclability / reparability. It's covered by Ecodesign, an established tool to set requirements that can bring big improvements on plastics with BFR and CRM.

Construction products

But not necessarily windows. The main question is that the insulation materials installed now on large scale (e.g. insulation of existing cavity walls), what will be the impact in 60-100 years? Will they maintain their function? At demolition, what will be their environmental impact?

it is considered necessary to assess the embodied impacts of a building: the potential environmental effects linked due to resource extraction, transport, processing, use phase, EOL, ...

Besides this embodied impact of the building (which could be seen as a product itself) also the design for disassembling and adaptable building is of major importance.

....

Construction is an activity that uses many products with different lifecycles, by improving and promoting the durability, reuse and recyclability there could be important savings in reducing contamination of different materials.

Packaging materials:

It will impact a wider scope of business and sectors and drive up costs of recycled materials.

The material recycling is an operation of circular economy the value chain for packaging products. Beyond the environmental interests the economical balance is still not affected. Find economical solutions for not recyclable packaging.

Heating equipment:

Significant use in industry, greater impact can be made in product design where use is likely to remain constant.

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Heating is a major source of air pollution, and via NOx and SOx, also on water. Heating can also be a source of fine-particle pollution. A careful study on the carbon footprint must be conducted and positive discrimination for the most environment-friendly sources need to be put in place.

Motors and pumps:

It will affect a wide scope of industrial users

General measures:

For economic competitiveness reasons, the measures should apply to European products but also to imported products.

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It is important to have general rules showing the advantages and disadvantages of the different materials for different application, probably standardization could be an important tool to promote good practical knowledge.

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Design to enhance product repairability, re-usability (including prepare for re-use), recyclability and use of content is a key dimension of a CE. Improving recyclability enables to

extract more materials at lower costs, reduce residual waste, improve recycling rates and render recycling economically more attractive than other waste treatment types lower in the waste hierarchy; Hence, general measures to improve product's recyclability are relevant for all type of products from packaging materials to construction products even if some categories deserve more attention due to specific issues arising from their recycling.

Cars

Cars are a major source of air pollution, and via NOx and SOx, also on water. Cars can also be a source of fine-particle pollution. A careful study on the carbon footprint must be conducted and positive discrimination for the most environment-friendly sources need to be put in place.

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Car should be built lighter to reduce contamination, increase durability and safety, this apply to other transportation products as trucks and trains. Facilitate the "Recyclability" of the parts is quite important

White goods:

Better design to ease recycling on white goods, with particular emphasis on phasing out, whenever technically feasible, substances classified as hazardous

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White goods are relatively expensive and big energy users.

Q 3.5 Which of the actions listed below should be given priority at EU level to promote circular economy solutions in production processes?

Actions selected by respondents to promote circular economy solutions in production processes are very different.:

- Absence of requirements at design stage to improve product's repairability, re-usability, recyclability, recycled content. A correlation must be drawn between how products are manufactured and the waste hierarchy to mutually re-inforce each other.
- Enhanced co-operation between producers and manufacturers is needed
- Ensure, promote availability of adequate statistical and mathematical models describing systems and analyzing data
- To ensure the quality of recycled materials is the same as virgin materials, or at least stable enough to be used continuously in production processes.
- End-of-Waste criteria could be used for more different waste streams. These criteria should be ambitious.
- Currently the EU legislations are in silos. A uniform policy on subjects such as alternative energy sources shall be put in place.
- Not adapted regulatory framework, absent innovative products.
- Transversal management of new economic models belonging to circular economy are not provided in public policy: necessary adaptation or creation of a new model of governance.

Q 3.6 How effective do you think each of the actions at EU level listed below would be in promoting sustainable production and sourcing of raw materials?

As regards the Efficiency of EU actions at EU level responses are too variable.

Some of the opinions of the respondents:

- -Externalities linked to primary raw materials' sourcing should be reflected in their price, by eliminating for example indirect subsidies, which undermine secondary raw materials' use and resource efficiency

- Low VAT for repair/recycle economy: Amendment 2006/112/EC Art98/106 +Annexes III(18) & IV(1) Shift taxes from labour to environmental impact.
- For buildings and construction products the main focus for the consumer is most of the time the visible luxury and comfort. A lower (hidden) environmental impact does not have any advantage for the consumer, mainly because it is linked often with a higher price tag or a smaller house. Therefore it is considered that a legally binding framework could be the only effective policy. Of course this could be done in more than one way: mandatory requirements for all buildings, or a mandatory labeling of buildings linked to a fiscal or financial stick'n'carrot policy.

Q4. Consumption Phase

As regards the consumption phase the following measures were suggested

- General measures are needed for the promotion of sustainable consumption patterns.
- Reward via incentives the sustainable consumption patterns.
- Consumers have a key role because they buy products and services. Hence, it is important to help them to take informed decisions by using proper labelling and reward sustainable consumption by reflecting it in product prices, via an adequate taxation (such as lower VAT rates).
- A general requirement for EPD/PEF-like communication to only use PEF and PEFCR from DG ENV projects, if any harmonized methodology for Ecological profiles avoids double work and market confusion.
- In the construction sector the added value of product labels could be questioned. The best way to prevent burden shifting is to provide user-friendly tools at building level to design buildings(or building parts) in an environmental friendly way (under development in Belgium, Germany, NL and FR already have LCA based tools) based on LCA. It is acknowledged however that this is not an answer to all issues of sustainability.

Q5. Markets for secondary raw materials

Concerning the secondary raw materials the majority of respondents considered the lack of EU-wide quality standards as one of the main obstacles of the development of the secondary raw materials in the EU.

- Lack of regulatory enforcement and the clear compatibility among EU legislations (waste and chemicals) is in favor of primary raw materials or treatment operations lower in the waste hierarchy.
- Lack of end-of waste criteria for a number of materials.
- Anticipate product's recycling at the design stage.
- The CE is based on the presumption that waste is a resource but this shift is not reflected in the EU waste legislation.
- Data about the flows and stocks conceptually belong to a linear economy where resources are finite but not a circular one. Electronic procedure instead of the paper-based ones would provide more information on products to ease their dismantling and recycling, results in more enhanced traceability. A EU database with product passports/public repositories and open data could help. Standards could help in addressing information on the quality of recycled materials.

- Producers don't always know if they can trust the recycled materials, or if the quality will be consistent and compatible with their production process. Also, if there can be a difference in quality that is not easy to monitor, this means an unequal level playing field for recycling companies exists.
- Better EoW criteria, and criteria for more waste streams, standards defined for recycled materials to ensure consistency across EU could help to solve this process. Setting standards can be a solution.
- Better communication between the recycling sector and the production sector does not only make sense in the design of products to be recycled, but also on the use of materials.
- Collecting information on the quality of recycled plastics is difficult because the sources are very diverse. Mandatory plastics marking, design for disassembly and a product recyclability requirement could improve this
- As long as some producers see recycled materials as unreliable, demand will be low. And as long as demand is low, prices will be too low to increase investments and get better quality. Legal action (recycling targets + standards / EoW criteria) could break this circle.
- To verify recycled content a chain of custody throughout the recycling sector is needed to the example of the FSC scheme for wood. A standard and 3rd party certification of waste treatment facilities providing recycled resources would have to be rolled out to allow declaration of secondary material sourcing. This would allow product verification and material flows accounting.
- The availability of clean plastics, without additives, is not assured (problems with REACH).
- Also the availability could pose problems, since some plastics are not recycled or not collected.

Q6. Sectoral measures

Construction

- Construction products should not be seen independent from their application in the building.
- The keyword in the construction sector would be “design for disassembly” and “design for adaptable buildings”. These targets at building level should trickle down to the requirements at product level.
Another key issue is the high risk for burden shifting from one life cycle stage to another, and therefore the overall environmental impact is of high importance, instead of merely enhancing the quantity of recycled content.
- The long life span of buildings also has to be taken into account, definitely in comparison to consumer goods. This implies that the determination of the service life of a construction product is key: an insulation material which loses its insulating performances after 20 years

or after 60 years is a significant difference. This has not only environmental impacts but also the energy performance perspectives are put in danger. If you need to replace the existing insulation because it does not fulfill its function then walls have to be torn down with a whole other level of environmental impacts. Conclusion: a good knowledge and guarantee of the service life of construction products is of major importance in the discussion on circular economy.

- As regards the recycled and reused products and materials the questions are whether the quality criteria should be the same as for new products and how this has to be verified. How do they relate to the construction products regulation? How do they relate to environmental and health criteria? E.g. You could reuse insulation slabs after 60 years, but how to determine the performance? Who is responsible for the product? How to determine the content/ingredients in 60 years?
- The environmental and health related impacts of recycled materials should be more standardized and/or regulated (be it at EU or at MS level). Reducing the environmental impact is not just by reducing the use of new materials, but also to assess these new “reused” or “recycled” products in the same way as new products to see if the same health standards and the same environmental impact standards could be applied or not (in the whole life cycle). This might need additional research.
- A specific example of how standards are already helping with the circular economy comes from CEN/TC350 Sustainability of construction works. CEN was given a mandate by the European Commission some years ago to develop voluntary horizontal standardized methods for the assessment of the sustainability aspects of new and existing construction works and for standards for the environmental product declaration of construction products. CEN/TC350 welcomed the Commission’s Communication ‘Resource efficiency opportunities in building sector’ and its commitment to take into account the life cycle approach when describing and evaluating environmental performance. We believe that the standards developed by CEN/TC350 will support the Commission in its goal of “reducing resource use in buildings and their overall environmental impacts”. We recognize the Commission’s intentions to develop a framework of core indicators, and underlying methods, to be used to assess the environmental performance of buildings throughout their life-cycle.

EEE and WEEE

Production phase

The Eco Design Directive and other EU legislation have had a big impact on EEE, reducing the use of components and material that have a negative impact on the environment.

- CE design: in the context where consumables (e.g. batteries) for consumer EEE, can be changed by the consumer to increase the life span of the product, including re-use of used EEE, as well as easily be removed in WEEE, during the de-pollution phase.
- Recyclability (e.g. dismantling, separation of components, information on chemical content): Products shall be designed in order to ease de-pollution in the treatment phase.

- Increase the content of recycled materials, originated from WEEE fractions, in order to create a CE-market.

Consumption phase

The consumption phase is the most important phase, where Member States (MS) have different levels of implementation of the current legislation as well as different levels of public awareness. Therefore actions have to be taken such as:

- Encourage the consumption of green products: Make consumers aware of the best CE-products.
- Encourage waste prevention: Use and re-use products until “end-of-life”. Prevention is today supported by several Internet services for selling used EEE, until there is no remaining value of the product. The Waste Directive 2008/98 defines prevention as the first option in the waste hierarchy. The WEEE Directive does not mention prevention other than with reference to 2008/98. Instead the WEEE Directive focuses on the second option in the waste hierarchy, preparing for re-use. This is causing some problems:
 1. Re-use is related to EEE but not to WEEE. Preparing for re-use is related to WEEE. The terminology in legislation and official communication is not always consistent. (ex. the term “re-use targets” would be targets on re-use of used EEE, but is sometimes used in a different context).
 2. Prevention is reducing the market for preparing for re-use, as intended with the waste legislation.
 3. Preparing for re-use targets, as mentioned in COMMISSION STAFF WORKING DOCUMENT - Impact assessment Annex 4, would not promote the CE. The reason for this is that the potential market is very limited [eg in Sweden estimated to a few of total collected WEEE] and it could possibly have a negative impact on prevention.

Markets for secondary raw materials

- EE are complex products with significant mass and high risk of losing valuable resources during waste treatment. They contain hazardous (BFRs) and valuable substances (REE).
- There is a low demand for recycled material. This can be changed by EU targets. Production of EEE is however to a large extent done outside Europe and in order to recirculate material the material has to be shipped back to countries for circular economy. This may not always minimise the environmental impact in the lifecycle.
- Down-cycling : (ref to Scoping study to identify potential circular economy actions, priority sectors, material flows and value chains, page 31) Fraction originated from EEE can be used for replacement of sand, stones, etc. instead of being recycled into EEE. This is not acceptable in a CE context.
- Quick actions could be possible on repair (Availability repair manuals + spare parts).

Sectorial measures

- The EEE and WEEE sector have significant problem with illegal activities that have a negative impact on the CE. This has to be addressed.
- The implementation of the EN50625-series in the MS is crucial in order to comply with the WEEE directive and also to provide essential information on how targets are met.
- Statistics related to CE have to be provided and assessments have to be done in order to guarantee high quality.
- Reducing energy costs in EU is crucial for its competitiveness. But more sustainable and cheaper energy should not result in more incineration of recyclables.

Q7. Enabling factors to support the development of the circular economy

The most powerful enabling factor of a circular economy is to achieve a market-driven circular economy, making sense from environmental, economic and public finances point of view. Pull measures (market-based tools , price incentives, labelling) must be used to correct negative externalities and support the uptake of sustainable behaviours and incentivize recycling. Data collection and access is needed, and a better traceability of the origin and the process along the value chain of the secondary raw material is important in the relation customer/supplier of secondary raw material. Imposing the use of recycled content in a product would not always be environmentally beneficial, economically viable and technically feasible, and due account also needs to be taken of products safety and consumer health. The possibility to use recycled material varies greatly from one application to another, therefore it should be left up to each industry to decide. Designing a product with the sole aim of improving its waste phase may negatively affect the resource efficiency benefits which it provides during the use phase and the restriction of the use of a certain hazardous substance in order to improve recyclability should also be considered with caution.