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SUBJECT

Report on the CEN and CENELEC Environment Communication campaign 2015-2016

BACKGROUND

See Annex 1

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Report to the CEN and CENELEC BT on the

CEN and CENELEC Environment Communication campaign 2015-2016

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1. Background of the campaign

The first one-year long CEN-CENELEC communication campaign focused on 'Environment'. This took place in 2015 and part of 2016.

The campaign was possible thanks to the advice and inputs from the CEN and CENELEC Members, the CEN and CENELEC advisory bodies on environment (SABE and CLC/TC 111X), relevant Technical Committees and other stakeholders (e.g. ECOS).

The main objectives of the campaign were to

- think out of the box to trigger the interest regarding environmental issues in EU standardization;
- emphasise economic benefits of including environmental considerations in standards.

Standardization and the environment

European Standards showing the way to combine competitiveness and sustainability



CEN and CENELEC are determined to ensure that standardization contributes to making Europe's economy smart, sustainable and inclusive – in line with the goals of the European Union's 'Europe 2020' Strategy. We recognize that Europe's long-term prosperity will depend on having a green, climate resilient, resource-efficient, and competitive economy, which gives priority to protecting the environment and providing a good quality of life for all.

Various initiatives have been put in place over the past years to make European Standards greener by addressing the environmental impacts of products, services and processes. This work has recently been broadened to take the consequences of climate change into account during the development (and/or revision) of standards for products, services and infrastructure.

CEN and CENELEC have decided to launch a communication campaign to present what has been done so far in terms of integrating environmental provisions into European Standards, as well as the resulting benefits for the environment, for standard users, for consumers and for society as a whole. This campaign will highlight the various ways in which standardization can contribute to creating a cleaner, greener economy that protects the environment whilst meeting the needs of companies, consumers and other stakeholders.

As well as providing and sharing information, CEN and CENELEC will also collect feedback from their members, partners, experts and other stakeholders regarding the progress achieved until now, as well as needs and priorities that could be addressed by standardization activities in the future.

We hope that our campaign will trigger fruitful discussions - among standard users, standard developers, policy makers and regulators, environmental and societal stakeholders - regarding the role that standards can play. Not just in terms of protecting the environment, but also more widely in supporting a sustainable economy and boosting the competitiveness and performance of Europe's industries in the global marketplace. How can standards help companies to satisfy their customers' needs and expectations in relation to energy and resource efficiency, resilience to climate change, etc.?

We encourage you to follow our communication campaign on the CEN-CENELEC website and via social media ([Facebook](#), [LinkedIn](#), [Twitter](#)). You are welcome to join in the discussion and share our content with your contacts! use the hashtag #Standards4Env

Do you have any questions, ideas, remarks or requests? If so, please let us know by sending a message to environment@cencenelec.eu

Image 1- The opening text of the Environment campaign 2015-16

2. The main aspects of the campaign

The milestones of the campaign were the following:

- Identification of the main Subjects/topics to be communicated – the focus was on the benefits
- Determination of the Motto of the campaign – ‘Going green with European Standards’
- Designing a Virtual character to pass the messages - a ladybird
- Identification of the media to be used - printed material, website, social media, videos – limited to interviews, mailing lists (TC, BT and CCMC)
- Creation of a Functional mailbox for the campaign - environnement@cenelec.eu
- Invitation of members and stakeholders to provide success stories and testimonials – interviews /articles 11 video interviews & 1 teaser
- Top 10 standards to be promoted during the campaign-
- Review of the Environmental Helpdesk – the first stage was to identify gaps and needs via an online questionnaire

Main Subjects/topics communicated on special days:

- 20 March 2015- Announcement of the campaign
- [22 \(23\) March 2015 - World water day](#) - Series of standards recently published to support the objective of the EU policy in achieving the good quality status of the European Waters
- March 2015 - [information on Seminar](#) – ‘Benefits of integrating the environment in standards’ –
- March 2015 - [Questionnaire for the EHD review](#) – *re-launched in August*
- April 2015 – training and e-learning platform – publicising on website
- 21 April 2015 - [Earth day - CEN develops standards that could contribute to the reduction of Green-House Gases](#)
- 5 June 2015 - [World environment day - we contribute to the non-toxic environment and address risks associated with the use of chemicals: Substances in articles – proposal for an EU standardization roadmap – published in July](#)
- June 2015 - CEN-CENELEC work on adapting European infrastructure to climate change – *published in August*
- *September 2015* – [report on the ‘Benefits of integrating the environment in standards’ seminar](#)
- June 2015 - Environmental training in October - publicising
- October 2015 - [Green data centres](#)
- May 2016 - [Eco-design and material efficiency](#)

Main events and deliverables:

- Interactive Seminar - Benefits of integrating the environment in standards – 19 May 2015
- [Connect](#) special edition on environment – articles, interviews, testimonials – February 2016 and June 2016
- New CEN and CENELEC brochure on Environment – *expected to be published in July 2016*
- March 2016 - publication of the CEN-CENELEC Guide 32 'Guide for addressing climate change adaptation in standards' and CEN-CENELEC Guide 33 'Guide for addressing environmental issues in testing standards'
- Review of the EHD and the environmental framework - the assessment of the inputs received is ongoing
- January 2016 - publication of a series of [video interviews](#) with industry, policy representatives and societal stakeholders (ECOS).

3. The Interactive seminar - 'Benefits of integrating the environment in standards'

Background

The CEN and CENELEC Interactive Seminar 'Benefits of integrating the environment in standards' took place on Tuesday, 19 May 2015.

The seminar was the core event of the campaign. It was organised to see how successful were the measures taken by CEN and CENELEC in incorporating the environmental provisions in European Standards and how this could bring economic benefits to businesses.

Main objectives

- ❖ to explore the environmental and economic benefits environmental provisions included in European standards can bring to standards users
- ❖ what can be done in the future to achieve an even greater benefits.

The information on the event was disseminated broadly by email, in events but also *via Facebook, Twitter, EurActive news*.

Participants from industry coming from various CEN and CENELEC sectors, representatives of societal and environmental stakeholder, as well as policy makers came together to share their experiences, express their views and contribute to the identification of future steps.

Bringing together experts from various backgrounds gave the standardization community the opportunity to address from different perspectives a horizontal theme that proved to be equally important for everybody: the protection of the environment (See the speakers of the seminar and follow-up page in image 2 available on http://www.cencenelec.eu/News/Brief_News/Pages/TN-2015-013.aspx)

Benefits of integrating the environment in standards

The seminar explored the benefits environmental protection aspects integrated in European standards bring for the environment and economy. It also discussed the challenges encountered during the development and use of the standards incorporating environmental protection provisions and identified necessary future actions.

CEN and CENELEC brought together the policy makers, industry, environmental and societal stakeholders to discuss how environmental challenges could be transformed into economic opportunities in European standardization.

Participants shared best practices, heard about the challenges encountered in both the development and use phase of standards containing environmental protection provisions. They explored the economic & environmental benefits linked to these standards, and identified what would be the next milestone for standardization on the way towards a resource-efficient, green, and competitive low-carbon economy.

[Download the presentations while 'hover' the pointer over the title in the seminar programme.](#)



Image 2- Speakers of the seminar

The **main suggestions** of the seminar participants

- Consideration for a horizontal approach (key principles) across sectors to help the adoption of environmental aspects - the extent of the horizontal approach would need to be well defined.
- Additional training/guidance for standard writers on environmental aspects is needed
- Case studies of best practice in incorporating environmental aspects need to be identified and used to support training and knowledge sharing.
- The economic benefits of incorporating environmental aspects should be more highlighted
- Awareness raising on environmental aspects needs to be strengthened

SABE decided to assess the outcome of the seminar and make more concrete recommendations to BT.

(Report on the seminar in Annex 2)

4. The new Environmental Brochure

Background

The CEN Environmental brochure originated in 2001. It was entitled 'Standardization and the Environment - going green'. The current version, produced in 2009, is the second edition.

The current brochure is factual but not engaging. It provides an adequate overview of the CEN approach to including environmental aspects within the standardization process. However, it does not deliver a compelling case as to why it is of value to consider environmental issues, neither does it deliver its content in an engaging way which inspires the reader to act.

The development of the new brochure

The concept of the new Brochure was drafted by CEN/SABE chair and secretary. The objective was to review and update the CEN 'Standardization and the Environment' brochure and elaborate a common brochure for CEN and CENELEC in order to:

- increase its appeal and readability;
- emphasise the link between environmental improvements and economic benefits;
- outlining the CEN and CENELEC approach to environmental engagement in standardization;
- signposting other, relevant tools and services provided by CEN and CENELEC.

The final text and layout of the Brochure was completed in May 2016 and will be published in the summer of 2016.

(Final draft of the Environmental Brochure - Annex 3)

5. Review of the Environmental Helpdesk

Background

The concept of the CEN Environmental Helpdesk (EHD) was conceived in 1998 as a response to the Decision No 2179/98/EC of the European Parliament and of the Council that highlighted that strengthening the integration of environmental aspects in the industrial standards was one of the priority objectives of the EU. The EHD began its operation in October 1999. In the beginning it was located in the DIN offices in Berlin then moved to the CEN/CENELEC Management Centre in Brussels.

Since March 2010 the inclusion of environmental provision within the CEN standardization process became mandatory. The role of the CEN EHD is to deliver essential support to all CEN committee members in this aspect. It provides tools, guidance, training, expertise and direction to enable chairpersons, secretaries and committee members to meet this obligation. This vital role requires ongoing support and commitment to maintain and enhance the value which EHD adds to the standardization process.

The EHD review

The CEN-CENELEC Management Centre intends to make the EHD service better tailored to the needs, therefore developed a questionnaire to get concrete feedback from members and stakeholders for the review of the CEN Environmental Helpdesk.

The EHD call for feedback was published on the CEN website in March 2015 and for the second time in July 2015 (see Image 3) but CEN and CLC TCs, members and stakeholders were also invited by email to reply the online questionnaire.

Your feedback for the review of the CEN Environment Helpdesk (EHD)

Meeting your work's needs is a priority for us, hence the review for a better tailored CEN Environment Helpdesk (EHD) service. We are therefore seeking [your feedback through an online questionnaire](#) asking among others your opinion on how to strengthen or re-structure the current activities and suggestions for new activities to be introduced.



Role of EHD

The role of the CEN EHD is to deliver essential support to all CEN committee members in the inclusion of environmental provision within the standardization process. It provides tools, guidance, training, expertise and direction to enable chairpersons, secretaries and committee members to meet this requirement, mandatory since 2010. This vital role requires ongoing support and commitment to maintain and enhance the value which EHD adds to the standardization process.

EHD background

The CEN Environmental Helpdesk (EHD) was conceived in 1998 as a response to the Decision No 2179/98/EC of the European Parliament and of the Council that highlighted that strengthening the integration of environmental aspects in the industrial standards was one of the priority objectives of the EU. The EHD began its operation in October 1999. In the beginning it was located in the DIN offices in Berlin then moved to the CEN-CENELEC Management Centre in Brussels. Thanks to the recognised success of the CEN EHD activities, its services were asked to be extended to CENELEC.

Image 3 - EHD call for feedback

The brief overview of the Questionnaire responses

- Most respondent were
 - TC chairs, secretaries or experts in a committee
 - most of whom have been working over 6 years in standardization and
 - consider environment important
- Most of them consider the environment relatively relevant to the work of their TC or WG;
- Many of them think that CEN does not sufficiently raise the environmental awareness, there is room for improvement;
- Only half of the respondents were aware of the EHD services, they learned about it mainly from the website, newsletter or colleagues;
- Only a minority responded to the question related to the service of the EHD they used. This may mean that the majority has not used it. The same applies to the usefulness of the services.

- In the most cases the use of EHD services did not result in any specific action the committee of the respondent, however only 16 responses were received;
- Only 13 respondents had suggestions for improvement of the existing tools mentioned;
- New services suggested: long list of suggestions available in the compilation of the responses but not all of them is relevant;
- Only 1/3 of the respondents need additional guidance documents/tools (suggestions in the compilation of the responses) or training;
- The additional training needs vary. There is none that shows stronger need than the others (list of suggestions in the compilation of the responses);
- Half of the respondents think that EHD could organise events (list of suggestions in the compilation of the responses);
- Half of the respondents have read the Environmental Bulletin;
- The Environmental Bulletin is considered relatively useful, some were looking for good practice, others for general information. Very few suggestions for improvement received: to add outcome of workshops and relevance of environmental legislation.

The way how to best address the needs identified by the respondents are still being assessed by SABE. The assessment will be completed as part of the evaluation of the 'CEN approach on addressing environmental issues in product and service standards' and there will be new suggestions proposed on how to revise the EHD services (DECISION BT 50/2015).

6. Statistical overview of the campaign communication results

Based on the information collected by CCMC the global outreach of the campaign is considered good. The number of searches tracked that are linked to the campaign are following:

Websites: 9 256

Social media global impressions: 164 493

YouTube views for [video interviews](#): 608

7. Overall Conclusions

Taking into consideration the protection of the environment is becoming more and more a condition of market access and it also brings benefit to businesses. European businesses are only able to stay competitive on the global markets if besides the high quality products and services they also address the environmental aspects.

Standards are one of the keys to market access, therefore European standardization bodies need do the maximum to raise the awareness on the importance of addressing the protection of the environment to standard writers.

The campaign confirmed that there was a broad agreement across the CEN and CENELEC sectors that environmental challenges could be transformed into economic opportunities and using standards incorporating environmental aspects can bring positive impact on the environment and financial benefit to their users, the businesses.

The environmental priorities are different in each sector but there are many common aspects that could be identified and should be explored. Consequently, the co-operation among sectors is important and needs to get more emphasis in the future.

More actions need to be taken to better engage industry in the protection of the environment and more resources need to be allocated for this purpose.

Concerning the running of a campaign, it is crucial to receive good and timely input from members. The use of unusual or funny images or graphics makes the communications look more catchy and helps the raising of the interest and as such the dissemination of the message. In addition to these, the messages can reach a wider audience if the social media is also used besides the available mailing lists and the CEN and CENELEC websites.

The recommendations collected during the campaign, through the seminar and other interactions, need further assessment for more concrete recommendations. SABE is engaged in carrying out this assessment.



Report on the Interactive Seminar 'Benefits of integrating the environment in standards' of 19 May 2015

CEN and CENELEC organized an interactive seminar in Brussels on 19 May 2015, in the framework of their ongoing communication campaign about standardization and the environment. The main purpose of this event was to explore how successful were their efforts in incorporating the environmental provisions in European Standards and what benefits did this bring to them.

The seminar brought together representatives from various industry sectors, including large multinational companies as well as small and medium-sized enterprises (SMEs), policy makers and societal and environmental stakeholders. The event was well attended with 72 registered delegates and over 50 of the delegates attending on the day. The participants shared experiences and exchanged views on how standardization can contribute to the development of a resource-efficient, green, and competitive low-carbon economy.

In the opening plenary session, Richard Allan, the chair of CEN's Strategic Advisory Body on Environment (SABE), spoke about the benefits of taking environmental aspects into account in standardization activities. He said that by integrating environmental aspects in a more systematic way, standards can contribute to the achievement of public policy objectives in terms of protecting the environment and promoting sustainability. CEN and CENELEC have an important role to play in terms of promoting and facilitating the integration of environmental protection in standards, e.g. by providing guidance and tools for Technical Bodies, as well as training for technical experts. CEN and CENELEC

standards have a wide application and, in addition to supporting public policy, can also assist industry to express the environmental characteristics of their products or services to prospective clients, both businesses and consumers.

The Programme Manager responsible for standardization activities related to the environment within CEN and CENELEC, Andrea Nam, highlighted that the protection of the environment is becoming more and more a condition of market access and gave an overview of the benefits this can bring to businesses. She pointed out that European businesses are only able to stay competitive on the global markets if besides the high quality products and services they also address the environmental aspects and European Standards are a good tool in achieving these objectives. The seminar participants were also informed about what CEN and CENELEC are doing to include the integration of environmental aspects in European Standards. Technical Committee experts have various tools that supports their work such as guides, checklists, practical examples, e-learning and training sessions as well as an environmental helpdesk.

The European Commission was represented by Karolina D’Cunha (DG Environment) and Manfred Fuchs (DG GROWTH). Ms D’Cunha highlighted the Commission’s close cooperation with CEN and CENELEC regarding the development of standards in relation to air quality, water quality, CO₂ emissions, eco-design and waste management. She predicted that the role of standardization would increase in the coming years, notably in relation to eco-innovation, resource efficiency and creating a 'circular economy'.

Mr Fuchs spoke about the importance of standards in the context of the industrial policies and Construction Products Regulation (CPR). He spoke about the need to provide training for regulators at national and European levels, so that they may better understand how standards can support the implementation of public policies and legislation. He emphasized that there must be clear communication and continuous sharing of information between regulators and standardizers, in order to promote a better mutual understanding.

There were a series of interesting case studies presented by the various industry sectors covering electrotechnical (Serge Théoleyre, Schneider Electric) gas (François Dupin, CEN Sector Forum Gas - Marcogaz), healthcare (Maurizio Andreano, Siemens AG) and services (Peter Whittall, Tripod Consulting Limited). The focus was on the benefits and challenges of the elaboration/application of standards including environmental aspects. The presentations are available on the CEN-CENELEC website:

http://website.cencenelec.eu/news/brief_news/Pages/TN-2015-013.aspx).

The seminar also included contributions from societal stakeholders. Tomi Engel from ECOS (European Environmental Citizens’ Organisation for Standardisation)

said that non-governmental organizations (NGOs) have positive and valuable contributions to make towards the development of standards. These play an important role in relation to the implementation of public policies and legislation to protect the environment. ECOS considers that financial and structural barriers should be removed in order that NGOs may participate in a more efficient way in standardization processes at national, European and international levels.

Franz Fiala from ANEC (the European consumer voice in standardisation) reported on the experience of environmental and societal stakeholders in standardisation. In particular, he pointed out the challenges faced when promoting the incorporation of environmental aspects in standards and success stories, e.g. transferring existing requirements of the toy safety to child use and care article sector.

In the morning session there was general consensus that environmental factors may, where possible, be considered across sectors when developing standards. This could benefit and support sustainable activity, resource efficiency and the circular economy principles. It was agreed that good environmental practice will support economic growth and safeguarding natural capital which is critical for securing Europe's long term future. Some sectors have already done much work to integrate environmental aspects (for example the work done by the construction sector in TC 350 and 351 is outstanding).

During the afternoon, three parallel breakout sessions addressed 3 different questions: 'Why take environmental aspects into account during the standard development process?' lead by Richard Allan (CEN); 'Could it be useful to adopt horizontal environmental approaches in several or all sectors?' lead by Richard Hughes (CENELEC); and 'How could environmental provisions in standards lead to greater economic benefits?' lead by Piet Vitse (CEN). The discussions were productive with each group identifying a number of potential positive recommendations for action.

'Why take environmental aspects into account during the standard development process?' was the question addressed by the first group. This group identified that standardization is a means to improve products and services, and to promote positive change in terms of less waste, greater efficiency and a healthier environment. The group called for more support for standard writers in terms of training and advice, as well as sharing examples of good practice to facilitate learning and improvement. Note that many requirements in standards have the potential to impact on the environment, even though the standard is not itself an 'environmental' standard (e.g. writers of safety standards need to be aware of the environmental consequences of specifying flame retardants in plastics).

The second group addressed the question: 'Could it be useful to adopt horizontal environmental approaches in several or all sectors?'. The group agreed that it could be useful to define certain key principles that could be applied across different sectors. It was noted that there would be limitations to this and some standards will have specific technical challenges meaning they would be excluded from the horizontal approach. In these case it may be necessary to develop standards for specific products (or groups of products).

Identified benefits of integrating environmental aspects into cross sector standards included:

- The process would support the single market principles by developing standards that set a benchmark in good practise for member states.
- The process creates a common language and opportunities for sharing best practise.
- Standardization supports continuous improvement of products and services.
- The process helps identify "best in class".
- The process helps promote positive change.
- Incorporating environmental aspects will support application of innovation and eco-innovation.

The third group looked at 'Economic benefits and costs - How could environmental provisions in standards lead to greater economic benefits?' This group recommended that CEN and CENELEC should develop 'model clauses', namely standard clauses with similar content. These could be included in different standards, as well as guidance documents to facilitate the market acceptance of standards containing environmental provisions. Environmental aspects, as well as the economic benefits and costs, should be addressed in a systematic way each time a standard is being drafted and/or revised.

The overall suggestions for recommendations were:

- To define certain key principles that could be applied across different sectors to facilitate the market acceptance of standards containing environmental provisions. The extent of such horizontal approaches would need to be well defined.
- Additional training and guidance for all standard writers on the topic of environmental aspects should be considered.
- To identify case studies of best practise of applying environmental aspects in standards to support training and knowledge sharing.
- The economic benefits of incorporating environmental aspects should be highlighted.

In the closing session, Cinzia Missiroli from the CEN-CENELEC Management Centre (Standards Department) said that the seminar had enabled CEN and CENELEC to gather valuable feedback from stakeholders on how to improve the processes for taking environmental aspects into consideration during the development of standards, and how to make the link between environmental and economic benefits. She said that the recommendations developed during the seminar would be discussed by CEN's Strategic Advisory Body on Environment (SABE) and by CENELEC's Technical Committee 'Environment' (CLC/TC 111X). These bodies would develop concrete proposals that could be submitted to the Technical Boards of CEN and CENELEC, with the aim of ensuring that CEN and CENELEC will follow a common approach towards environmental aspects.

The feedback from the participants suggested that the event successfully met the objectives. It allowed good debate, conversation and awareness raising of the need to consider the environment when developing any standards within any sectors. The event proved that experts with many different backgrounds can reach consensus when it comes to the protection of the environment. The environmental priorities are different in each sector but there are many common aspects that could be identified. Participants recognized the importance of co-operation among sectors as there are many interlinkages and benefits that could be explored.

European Standards respecting the environment



Maintaining a healthy environment and taking care of natural resources is essential to our world. Standards play a key role in enabling more efficient use of energy and natural resources, as well as preventing unfavourable environmental impacts.

CEN and CENELEC with their members and stakeholders to develop standards that help companies and organizations improve their environmental performance. Many of the European Standards developed by CEN and CENELEC aim at supporting the implementation of EU Directives and Policies, for example those in relation to construction products, drinking water, ecodesign, and energy efficiency.

CEN and CENELEC also promote a horizontal approach by encouraging their Technical Committees and Working Groups to consider environmental aspects when developing standards for diverse products, services, processes and systems. A range of tools, guidance and support is available to help standard writers understand and integrate objectives such as environmental sustainability, resource efficiency, and climate resilience.

- By making use of environmentally respectful standards, businesses and organizations can benefit from higher levels of public trust and customer satisfaction.
- By using less energy and resources, they can also gain in terms of less waste and lower costs.

Thanks to standards, sustainability and competitiveness can go hand-in-hand!

**“CEN and CENELEC
developing standards
that helps companies and
organizations improve
their environmental
performance.”**

USE OF RAW MATERIALS AND RESOURCES

Our raw materials, from the environment surrounding us, are limited resources making ecodesign a future core component of a sustainable, circular global economy.

Standardization is a key tool, ensuring the performance specifications of materials and products are compliant while allowing the flexibility of innovative organizations to develop materials and products which meet those specifications.

Economies of the future will need to become increasingly eco-efficient, delivering products and services while utilising fewer virgin materials. Industries of the future will need to work within a circular economy where re-use and recycling of materials and products as well as efficient use of resources is common practice.

Economies of the future will need to become increasingly eco-efficient.

As virgin materials become increasingly scarce and expensive, alternatives will be innovated and developed. Using less natural resources in production increases profitability and improves our long term prospects to remain sustainable.



Examples include:

The EU construction sector is a major user of natural resources. **EN 15804:2012** sets out horizontal rules, requirements and guidelines (Product Category Rules) for developing environmental product declarations (EPDs) of construction products which meet the requirements of ISO 14025:2006 and ISO 21930:2007.

By applying **EN 15804:2012** within EPDs, all those involved in the construction supply chain can make decisions on environmental impacts of buildings and other construction works as the same rules and a set of environmental indicators are also employed at the level of the end product, i.e. for buildings **EN 15978:2012**.

EN 50242:2008 (as amended 2012) provides methods for measuring performance characteristics of electric dishwashers and **EN 50440:2015** specifies methods for measuring the performance of electric storage water heaters for the production of sanitary hot water for household use. Both were developed in support of the Eco-design directive. These standards includes consideration of the consumption of water and energy.



“Standardization has a vital role to play in ensuring that environmental aspects are taken into account when considering processes, technical and product specifications.”

Richard Allan, Chair of CEN Strategic Advisory Body on Environment

WASTES AND THE CIRCULAR ECONOMY

Waste can be economically harmful as it represents a product or raw material that we have paid for and are paying to discard. Producing waste reduces profitability and, in a global market where resources are increasingly scarce, it risks our ability to sustain our economic activity.

We usually think of the cost of waste in terms of the cost of disposal. We forget that the true cost of waste also includes the cost of purchasing the materials which we are now discarding or processing, treating, converting and handling as waste using costly energy, water and other resources which might be better reserved for producing products and delivering services.

Similarly, waste is environmentally harmful. We deposit waste on land or discharge emissions to water or air, often relying on natural processes to clean it up for us. This puts pressure on already burdened natural systems. In a more circular economy waste needs to be prevented and what used to be regarded as ‘waste’ can be turned into a resource by re-using, repairing, refurbishing and recycling.

Waste can be turned into a resource.



Examples include:

In order to properly handle different types of waste at the end of life as a product, it is important to correctly identify, collect and treat it. **EN 50574** and **EN 50625** series provide details on how to collect, transport, sort and treat waste electrical and electronic equipment (WEEE) so that it can be routed to the best end of life option for recovery, recycling or re-use.

Reduction of the overall impact of waste is possible by using it as secondary or alternative material in other processes. The technical specification **CEN/TS 14243** highlights categories for materials produced from end of life tyres. This categorization enables potential users of these materials to rely on the consistent specification of these secondary materials.

The plastics industry is a cornerstone in today’s fast changing world and a variety of standards address the characterization of plastic recyclates. These standards enable end of life plastics to re-enter the production cycle as alternative materials and work towards a circular economy.



“The standards of CEN/TC350 allows freedom of design and supports for innovation and protection of the environment while the construction works is fulfilling the desired functional and technical performance requirements.”

Ari Ilomaki, Chair of CEN/TC350



ENERGY AND CARBON MANAGEMENT

Energy enables food production, manufacturing, heating and cooling, water and wastewater treatment, however, it significantly impacts the economy and the environment. Emissions of greenhouse gases from energy production and energy use in industry result in climate change, affecting the environmental conditions in which we live and work. Changes in temperature and water availability impact our ability to produce food and goods while weather extremes interrupt the transport of goods and resources. Buildings and infrastructure must be modified to adapt to changing conditions. Finding ways to reduce our energy demand and to produce energy with a lower environmental impact results in lower economic costs, in both the short and long terms.

Standardization helps reducing environmental impact, resulting in lower economic cost.

Standardization helps us control emissions arising from fuel consumption and manufacturing while strengthening the development of efficient distribution infrastructures and enabling us to consistently measure energy data. Standards support renewable energy production such as systems for photovoltaic conversion of solar energy and wind turbine systems.

In the future standardization have an even greater impact in areas such as smart metering, interoperability across systems, more efficient generation, and the development of energy efficient products and services.



Examples include:

Over the past year CEN, CENELEC and ETSI have collaborated to develop an open architecture that would support the implementation of 'intelligent metering systems' to assist the active participation of consumers in the energy market, and produced a technical report (CEN-CLC-ETSI TR 50572) to address some of the technical issues that technical / data communications standards should focus on. EN 13757-1:2014 addresses the communication systems for meters.

In 2015 CEN and CENELEC published a series of European Standards that set out requirements and provide guidance on how to carry out energy audits. The EN 16247 series of standards are intended to help companies throughout Europe to comply with the requirements of the European Union's Energy Efficiency Directive (2012/27/EU).

In 2012 CEN published EN 16258, a 'Methodology for calculation and declaration of energy consumption and GHG emissions of transport services (freight and passengers)'. This standard sets a harmonised methodology and requirements for calculating and reporting energy consumption and GHG emissions in transport services.



"In CEN and CENELEC, we cooperate within Europe and internationally to develop and adopt state-of-the-art-standards, supporting the shift to a greener and more energy efficient economy."

Bernard Gindroz, Chair of the CEN-CENELEC Sector Forum 'Energy Management' (SFEM)



"Europe's gas industry does not consider environmental commitment as a constraint but rather as an opportunity. Environmental provisions included in European Standards is a way to enable compliance with EU Directives, and also helps to promote a positive image of natural gas."

François Dupin, CEN Sector Forum Gas-Marcogaz



Watch the success stories on greening standards

Standards Environment

YouTube

<http://www.cencenelec.eu>





WATER QUALITY AND USE

Freshwater consumption worldwide has more than doubled since the 1950s and is expected to rise another 25% by 2030 (UNEP 2012).

The total renewable freshwater resource in Europe is approximately 3500 km³/yr. Although this may appear sufficient, the quantity, quality and distribution of water available to us is changing as climatic conditions respond to global warming. Increasing demand from domestic, agricultural and industrial activities, including energy production, requires users to become more efficient in preventing the emission of pollutants. This growing demand also impacts natural water sources by limiting their ability to deliver valuable ecosystem services.

Standards help us define water use and reuse as well as deliver a range of standard approaches to treatment. They also help us define ways of measuring water chemistry and biology, allowing us to monitor improvements or deterioration of water quality. Furthermore, standards help control discharge of waste into water bodies so healthy ecosystems are maintained.

Standards define ways of measuring water chemistry and biology.



Examples include:

EN 246:2003 (confirmed in 2013) specifies performance criteria to regulate the flow of water through sanitary taps and their related accessories. This helps us to manage the use of water.


EN 16698:2015 provides guidance on the qualitative and quantitative sampling of phytoplankton from inland waters. This is used to help investigate water quality.

A range of technical reports (TRs) deal with the characterisation and handling of sludges arising from water treatment. For example **CEN/TR 13097** provides guidance on good practice for the utilisation of sludges in agriculture.



“Standards for the eco-design of electrical products and for their proper treatment when they reach the end of their useful lives are especially important, resulting minimized waste and recycling of valuable materials.”

Dr. Herbert Mrotzerk, Chair of CENELEC/TC111X



AIR QUALITY

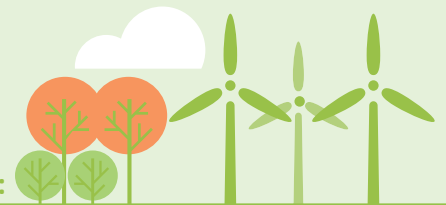
Despite the critical role air plays in supporting our life and that of the earth’s biological resources, we emit pollutants into our atmosphere by burning fossil fuels, through industrial activities, and through transportation. At the same time we damage the planet’s ability to replenish our air by reducing trees and other plants.

Standards provide tools for measuring air quality.

Poor air quality also impacts economic activity. Respiratory and cardiovascular diseases and cancers reduce the available workforce while increasing demands on healthcare services and products.

Furthermore, airborne pollutants such as NO_x and SO_x can cause acid damage to buildings, metalwork and other elements of our infrastructure.

Standards help specify safe levels of pollutants in our air and provide tools for measuring air quality.



Examples include:

Certain test standards measure concentrations of nitrogen oxides (**EN 14211:2012**) and oxides of sulphur (**EN 14212:2012**) to help meet the requirements of the Air Quality Framework Directive (96/62/EC) and its subsequent ‘daughter directives’ and regulations.

Emissions to air from the burning of solid fuel by residential appliances can be tested using methods described in the Technical Specification **CEN/TS 15883:2009**.

The **EN 16321** series are supporting the petrol vapour recovery during refuelling of motor vehicles at service stations by efficiency assessment and verification methods.



“Standards have the ability to assist in truly protecting the environment for instance by improving the performance of products throughout their life cycle and providing measurements methods for energy consumption or pollutants.”

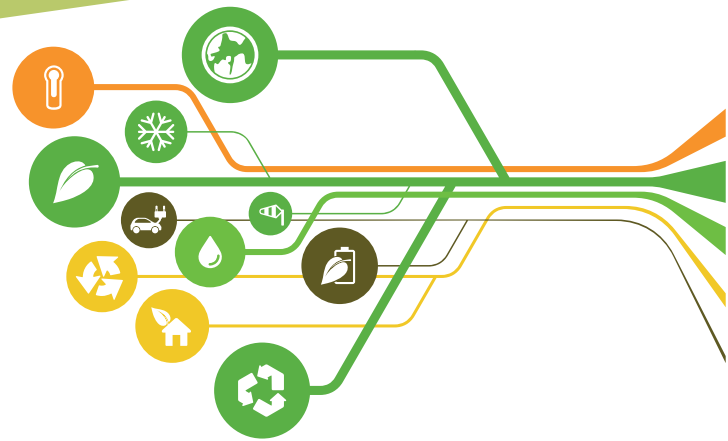
Laura Degallaix, Director of ECOS, The European Environmental Citizens’ Organization for Standardization

Support for standard writers

5

ways of considering environmental aspects within the CEN Technical Committee management process

- 1 Standing item on the meeting agenda**
Environmental aspects must be included as a standing item on meeting agendas and used to review environmental strategy and actions (in CEN).
- 2 Environment cannot be excluded from a committee's scope**
You cannot exclude environmental issues from the scope of your TC. It is important that every committee makes the effort to consider how its work might impact the environment.
- 3 New Work Item Proposal**
The proposal for every new work item must estimate which environmental aspects are likely to be relevant and how the committee plans to address them.



- 4 Formatted decision on the adoption of new work items**
Environmental aspects must be identified in all new work item decisions of a committee (in CEN).
- 5 Including environmental considerations within the TC Business Plan**
Identify how your work programme might impact on the environment and how you plan to investigate and address this.

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How to include environmental aspects in your standardization work

A number of strategies are currently being used by TCs within CEN and CENELEC. Some of these might work well for your own committee, or you might develop a technique which better suits your specific needs. Examples of strategies used by committees include:

Including the Environmental Checklist as an Annex

CEN Guide 4 "Guide for addressing environmental issues in product standards" includes a helpful environmental checklist that you can use to start identifying environmental aspects within your standards and how you might begin to address them.

IEC Guide 109 "Environmental aspects – Inclusion in electrotechnical product standards" provides a similar guidance and a checklist to help include environmental aspects in electro technical standards.

Developing a specific Environmental standard

It might be helpful to develop a guidance standard which puts a committee's scope of work into an environmental context. For example CEN/TC 121 produced EN14717. This standard outlines the likely environmental aspects associated with each stage of the process for welding and allied processes.

Incorporating specific environmental clauses within your standards

Including specific, environmentally relevant content within a standard is one of the most effective ways to clearly address its environmental aspects. This might include:

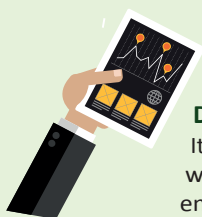
- the insertion of a specific clause which puts an environmental issue into the context of the standard.
- the insertions of environmentally relevant content throughout the clauses of the standard.
- a mixture of both.

Transpose or reference environmental requirements from EU legislation

Where environmental requirements are drawn directly from an EU legislation, it might be practical to transpose these directly into a related standard. Alternatively you can reference these requirements from within the standard.

Reference other environmental standards

Sometimes it proves necessary to reference content within a related environmental standard, for example when linking to a specific test methodology or a standard which outlines agreed principles and framework.





About CEN and CENELEC

The European Committee for Standardization (CEN) and the European Committee for Electrotechnical Standardization (CENELEC) are officially recognized by the European Union (EU Regulation 1025/2012) as European Standardization Organizations (ESOs) responsible for developing and defining standards at European level.

The Members of CEN and CENELEC are, respectively, the National Standardization Organizations and National Committees of 33 European countries including all of the EU member states, three EFTA countries (Iceland, Norway and Switzerland), Turkey and the former Yugoslav Republic of Macedonia.

CEN and CENELEC and their respective Members work with various stakeholders – including industry, SMEs, consumers and other societal stakeholders, public sector bodies, academics and researchers – to develop voluntary European Standards (ENs) and other standardization deliverables.

CEN works in partnership with the International Organization for Standardization (ISO) and CENELEC collaborates with the International Electrotechnical Commission (IEC), in order to coordinate their respective standardization activities and enable the alignment of European and international standards.

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