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# ECOS

## The green line to standards

Nearly  
**20 years** of  
experience

**Defends**  
environmental interests  
in standardisation

ECOS is the only environmental organisation worldwide specialised in standardisation.

We are an international network of members sharing a vision of a clean and healthy environment where people live in respect of the planet and its natural resources, preserving them for future generations. ECOS aims to influence the development of ambitious standardisation, legislation and political strategies to promote the transition to a clean and circular economy that respects planetary boundaries, as well as to combat climate change.

ECOS promotes and defends environmental interests in the development of standards at European and international level, as well as in the development of technical environmental product policies. Thanks to nearly 20 years of experience and a strong network of members and experts, our role in these processes is highly valued and widely recognised.

ECOS covers a wide range of areas, from climate change, clean energy systems and transport, Ecodesign and material efficiency, to circular economy, bio-economy, waste management and environmental health.

ECOS is officially recognised in the EU as one of the four organisations whose work must be supported to ensure standards better serve society and that the European Standardisation System is more legitimate. We closely cooperate with the European standardisation organisations (CEN, CENELEC and ETSI), as well as their international counterparts (ISO and IEC).

# Foreword

A new year starts with new plans and energy. And 2019 will be an important year not only for ECOS.

In 2019 ECOS will keep the environmental voice strong in the standardisation system in Europe and globally. It will also continue its efforts to develop capacity within its member organisations to make the environmental voice stronger at a national level.

The upcoming European elections will be crucial for all. Will the next European Commission and the new European Parliament rise to the challenge and tackle such issues as circular economy, plastic pollution and climate change, as initiated by their predecessors? Will they give EU environmental and health policies a pivotal role in the EU agenda?

Whichever their future political decisions, they will only be successful if particular attention is paid to how well political targets and legal requirements are defined and how they will be achieved in practice. For many years, standards have been considered a key tool to support legislation and policies, including to provide definitions, test methods, or guidelines for the market to meet the legal requirements in place. This political approach has been effective in many cases; however, it has also shown its dark side: policy-makers too often rely on the standards organisations resulting in an inappropriate delegation of political power to the market. Albeit being able to provide a common language or useful guidance, standards cannot and should not replace legislation, certainly not in the areas of public interest. The voluntary nature of standards and the lack of democratic oversight over their development process are inter alia two elements which should appropriately limit their use in policy.

The new institutions will need to think about the ways they will be using standards in legislation and policies to ensure that the long-favoured regulatory approach remains credible. The European standardisation system will need to be further scrutinised to ensure that it is sufficiently open and transparent to deliver quality standards for all stakeholders which can support legislation in very specific situations.

2019 will also be an exciting year for ECOS as an organisation. During my 7 years of leadership the organisation has greatly developed, growing from four to 15 members of staff and almost doubling the number of members. The organisation has never been so influential and respected. My departure at the end of February to take up a new professional challenge offers a golden opportunity to my successor and the team to refine the next 5-year goals and priorities before the new strategic plan is launched in 2020. I wish ECOS every success for the new year and beyond!

Our vision is a standardisation system in a global economy that can serve the needs of society, and I trust 2019 will be yet another step towards making this vision happen.



Laura Degallaix  
ECOS Director

# Strategic summary

For 2019 ECOS has identified a number of environmental policy priorities, and on-going or expected key policy and standardisation developments in the environmental area.

In particular, we will focus on:

- A stronger, inclusive and sustainable standardisation system
- Climate change and clean energy
- Circular economy

The effects of climate change continue to become increasingly visible. The political determination to prevent a detrimental global temperature increase has reached new peaks, as the impacts of climate change become increasingly irreversible. In 2019, ECOS will continue its activities to help combat climate change and facilitate the deployment of clean energies.

ECOS will work to ensure that standards ensure that planetary boundaries are respected by helping to achieve the Paris Climate deal, the Montreal Protocol, and the EU 2030 Energy and Climate goals. We will work towards a reduction in greenhouse gas emissions, in particular from industry (cement) and from refrigerants. In addition, ECOS will strive to make clean tech solutions (such as clean transport systems, smart grids and smart ICT infrastructure) easily accessible to the market and consumers. Finally, ECOS will be active within the standardisation system on environmental investments and adaptation to climate change.

As another priority area, ECOS will strive to make the circular economy a reality, not just a political goal. Standards can provide definitions for the new circular economy terminology such as repairability, upgradeability, recyclability and reusability, as well as test and measurement methods for their monitoring, control and comparability. Standards can also set out

design requirements for products in a circular economy for example on durability, repair, reuse or recycling, and avoiding toxic substances. At the end of a product's long useful life, standards can again come in to ensure waste becomes quality recyclate that can be safely used as a raw material for a new product. All these efforts are supported by global environmental management standards. Throughout 2019, ECOS will be involved in the development of these standards, and many more, to make the circular economy a reality.

Finally, ECOS will also focus on communication and outreach activities, and, particularly, on improving our public image via a new website and a series of harmonised printed materials. ECOS will also dedicate more time than ever to working with members to help them engage in standardisation, as well as to developing our network in Europe and beyond.

Though many challenges lie ahead, ECOS is very much looking forward to another year of working for a clean and healthy environment for all.



**IMPROVING  
THE STANDARDISATION SYSTEM**

**1**

# Towards a Fully Transparent and Inclusive Standardisation System

Our goal is to ensure that the participation of the environmental voice in the standardisation system results in environmentally ambitious standards, which are developed in a transparent and inclusive manner and help deliver on EU policy objectives and environmental challenges.

The use of standardisation in EU policy is becoming widespread and this raises some concerns. The private nature of the European standardisation organisations combined with the voluntary nature of standards make the monitoring and control by legislators over the development of standards challenging. Moreover, the standard development process lacks transparency and the participation of civil society organisations remains sporadic, uncoordinated and insufficient at national level.



## ECOS WORKS TO

Ensure the proper implementation of Regulation (EU) 1025/2012

Promote a coherent regulatory approach to standardisation, and ensure a close monitoring and control of European legislators over standardisation developments

Promote and encourage effective participation of civil society organisations in standardisation at national, European and international level

Improve the rules and procedures governing the European and international standardisation systems to ensure transparency and make the participation of environmental NGOs easier and more effective

Encourage similar improvements within the national standardisation organisations to encourage and facilitate ECOS members' engagement in standardisation

## ECOS CONTRIBUTES TO

- ▶ Committee on Standards established under Regulation (EU) 1025/2012
- ▶ Joint Initiative on Standardisation (JIS)
- ▶ Annex III Organisations Coordination Group
- ▶ High-Level Interinstitutional Dialogue on Standardisation
- ▶ CEN and CENELEC General Assemblies, Technical Boards and Policy Working Groups
- ▶ CEN-CENELEC Societal Stakeholder Group (SSG)
- ▶ CEN-CENELEC REFIT Mirror Group
- ▶ ETSI General Assembly, 3SI Programme, and ESSREV Board Group

# Environmental Mainstreaming in Standardisation

**Our goal is to promote environmental mainstreaming into standardisation, including the systematic and consistent consideration of environmental aspects in standards and other standardisation deliverables.**

Standardisation can contribute towards advancing the protection of the environment, e.g. through improving the energy and resource efficiency of products, enabling the recyclability and reusability of products and minimising their environmental impacts. Moreover, standardisation can foster 'green' innovation and enhance the competitiveness of the European single market.



## ECOS WORKS TO

Promote the integration of environmental protection and sustainability aspects into all strategies and activities of the standardisation organisations, following a systematic approach

Ensure environmental mainstreaming is promoted at governance and technical level within the European Standardisation System, and at the international level

## ECOS CONTRIBUTES TO

- ▶ CEN Strategic Advisory Body on Environment (CEN/SABE)
- ▶ CENELEC Technical Committee 111X "Environment" (CLC/TC 111X)
- ▶ CEN-CENELEC Adaptation to Climate Change Coordination Group (ACC-CG)

**CLIMATE CHANGE  
& CLEAN ENERGY**

2

## GHG emissions from industrial processes (cement)

Our goal is to create opportunities for innovative, low carbon cements and contribute to the development of more performance-based standards for cement and cementitious materials.

The cement industry as one of the most energy-intensive sectors is responsible for approximately 8% of CO<sub>2</sub> emissions. Existing cement and concrete standards have been identified as one of the main barriers to the uptake of low-carbon cements as they require minimum amounts of Portland cement to be traded on the European market.

ECOS will continue participating in the revision of the EN 15804 standard on Environmental Product Declarations for construction products. As this is a highly popular standard amongst industry, we will assess the quality of this standard once finalised and its suitability for certification schemes or public procurement.



### ECOS WORKS TO

Drive a performance-based approach to standards for cement and cementitious materials

Create room for innovation in product standards for cement applications to accommodate for new, low carbon alternatives to traditional Portland cement-based products

Improve requirements of Environmental Product Declarations for construction products to better reflect their real environmental impacts throughout the entire lifecycle and enable users to make informed choices

### ECOS CONTRIBUTES TO

- ▶ CEN/TC 51 "Cement and building limes"
- ▶ CEN/TC 104 "Concrete and related products"
- ▶ CEN/TC 350 "Sustainability of construction works"
- ▶ CEN/TC 250 "Structural Eurocodes"

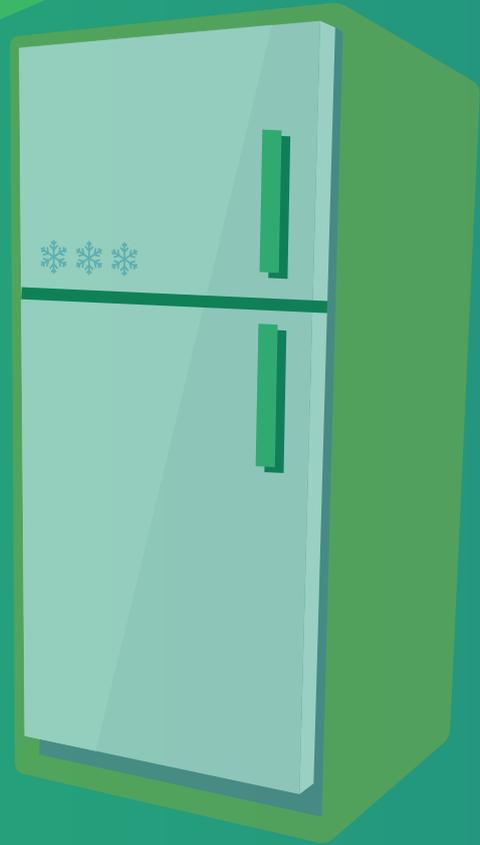
### STANDARDISATION REQUESTS FROM THE EUROPEAN COMMISSION AND EFTA

- ▶ M/114: Cement, building limes and other hydraulic binders (amended)

# Refrigerants

**Our goal is to improve the climatic impact of refrigerating, air-conditioning and heat pump (RACHP) systems, by creating the appropriate market conditions for the widespread utilisation of natural refrigerants.**

A set of interrelated standards have historically been used to support the implementation of the F-gas Regulation 842/2006 and compliance with the UN Montreal Protocol on Substances that Deplete the Ozone Layer. These standards specify how refrigerants are used for the design, construction, operation, maintenance and recovery of refrigerating, air conditioning and heat pump (RACHP) systems in Europe and internationally. In this regard, the scope of these standards necessarily covers the hazards associated with the physical and chemical characteristics of refrigerants, with a view to limit their concentration level and related risks.



## ECOS WORKS TO

Improve requirements for natural refrigerants in European and international standards

Ensure consistency between political developments and related standardisation activities, to safeguard hard-won political achievements

## ECOS CONTRIBUTES TO

- ▶ CEN/TC 182 and ISO/TC 86 “Refrigerating systems, safety and environmental requirements”
- ▶ CLC/TC 61 “Safety of household and similar electrical appliances”
- ▶ LIFE FRONT project, focusing on standardisation requirements for natural flammable refrigerants, [www.lifefront.eu](http://www.lifefront.eu)

## STANDARDISATION REQUESTS FROM THE EUROPEAN COMMISSION AND EFTA

- ▶ M/555: Flammable refrigerants in refrigeration, air conditioning and heat pump equipment

# Environmental Finance

**Our goal is to ensure that public and private investments serve environmental, climate-friendly and climate-resilient goals.**

In March 2018, the EU launched its Action Plan on Sustainable Finance aiming to channel investments towards greener and climate-proof investments. Key elements of this strategy are the establishment of a classification system of the investments with a focus on mitigation and adaptation to climate change; and the development of standards and labels to characterise and identify green financial products. In parallel, ISO is developing international standards on green finance, green bonds, climate finance, and sustainable finance. ECOS' involvement in the technical committees working groups drafting these standards will ensure that the EU ambition to green the European financial sector is echoed within ISO.



## ECOS WORKS TO

Develop methodologies that enable to quantify or at least characterize a positive financial contribution to environmental goals

Ensure that these methodologies are not misused to justify investments that would have been made anyways

Make current infrastructures standards in the field of energy, transport, buildings and ICTs, more climate resilient and promote nature-based solutions to reduce the vulnerability of physical infrastructure

Promote potential synergies in the activities undertaken by ISO and the European Commission

## ECOS CONTRIBUTES TO

- ▶ ISO/TC 207/SC 4/WG 7 "Green bonds"
- ▶ ISO/TC 207/SC 7/WG 10 "Climate finance"
- ▶ ISO/TC 207/WG 11 "Green Finance"
- ▶ ISO/TC 322 "Sustainable Finance" upon approval of our liaison request

## Smart Homes and Buildings

**Our goal is to ensure a clean, smart and secure power system.**

The European power sector is undergoing a period of rapid transformation. Power generation has become progressively more decarbonised, distributed and renewable. Wind power and solar photovoltaics have formed part of this trend and will continue to dominate in the future. As these sources increase in market share, so too will the volatility of the power system supply-side. In parallel, power systems are increasingly digitalised and interconnected with other sectors and infrastructure. Information Communication Technologies (ICT) have opened new possibilities in the active management of power systems and strengthened the ability of the demand-side to react to changes to the price of electricity.

Standards offer the technical foundation for this transition. How different technologies function and interoperate within homes and buildings will guide favourability among consumers, environmental performance of the power grid and the evolution of the market.



### ECOS WORKS TO

Successfully create the “Customer Energy Manager” standard to support demand-side flexibility

### ECOS CONTRIBUTES TO

- ▶ CLC/TC 205 “Home and Building Electronic Systems”
- ▶ CEN-CLC-ETSI Smart Energy Grid Coordination Group (SEG-CG)
- ▶ CEN-CLC-ETSI Smart Meter Coordination Group (SM-CG)
- ▶ EC Smart Grid Task Force Steering Committee
- ▶ European Multi-Stakeholder Platform on ICT Standardisation

### STANDARDISATION REQUESTS FROM THE EUROPEAN COMMISSION AND EFTA

- ▶ M/490: Smart Grids

## Smart Appliances

**Our goal is to promote smart solutions to allow for the full use of demand-side flexibility provided by secure and cost-effective appliances to facilitate the decarbonisation of the energy supply.**

Smart Appliances have the potential to enable the greater participation of consumers in energy markets, allowing them to value flexibility, and balance the European energy system for the greater cost-effective integration of vRES and improve the efficiency of the power system as a whole.



### ECOS WORKS TO

Improved interoperability, cyber-security and functionality of requirements within relevant standards

Maintain and strengthen strategic outreach activities, with EC officials and key stakeholders

### ECOS CONTRIBUTES TO

- ▶ CLC/TC 59X "Performance of household and similar electrical appliances"
- ▶ IEC/TC 59 "Performance of household and similar electrical appliances"

# Hydrogen

**Our goal is to ensure that hydrogen will be a clean and renewable-sourced energy carrier.**

As decarbonisation of EU power systems has risen on political agendas over recent years, so too has the potential of hydrogen and its role in energy systems. Will hydrogen become a versatile energy carrier beyond its role of chemical storage of electricity, capable of decarbonising those hard-to-electrify sectors – such as heating and cooling, heavy-duty vehicles and industrial processes? Hydrogen as an energy carrier is seen as a way to facilitate decarbonisation in the gas sector while enabling the continued use of the existing network. Pushed by an increasing interest from the European Union and gas companies, CEN and CENELEC are currently developing standards and definitions supporting the injection of hydrogen and its derivatives into the natural gas grid.



## ECOS WORKS TO

Support the development of hydrogen technologies allowing the phase out CO<sub>2</sub> emissions from industrial sources and the natural gas sector

## ECOS CONTRIBUTES TO

- ▶ CEN-CLC/TC 6 “Hydrogen in Energy Systems”

# Electric Vehicles

**Our goal is to reduce GHG emissions from the transport sector through increased market-share of electric vehicles (EVs), and ensure electromobility infrastructure is interoperable, secure and cost-effective.**

Transport is responsible for a quarter of all greenhouse gas emissions in Europe and stands as the largest source of emissions ahead of the power sector. The reduction of emissions in the transport sector will require technological innovation, implemented in a coherent and coordinated manner. Electric Vehicles (EVs) are a key tool in the transition to a low-carbon transport system and provide several advantages over conventional transport, such as lower emissions, reduced dependence on fossil fuel imports, improved local air quality and strengthened security of European power systems. In addition, EVs represent an opportunity to securely integrate growing shares of variable Renewable Energy Sources (vRES) through smart charging.



## ECOS WORKS TO

Ensure electromobility standardisation supports the implementation of EU policy for sustainable transport

Ensure that smart charging of electric vehicles allows for the provision of demand side management services and facilitates the greater penetration of variable renewable energy generation sources (RES)

## ECOS CONTRIBUTES TO

- ▶ CEN-CLC-ETSI eMobility Coordination Group (eM-CG)
- ▶ CEN-CLC-ETSI Smart Meter Coordination Group (SM-CG)
- ▶ IEC/TC 69 "Electric road vehicles and electric industrial trucks"
- ▶ CLC/TC 69X "Electrical systems for electric road vehicles"

## STANDARDISATION REQUESTS FROM THE EUROPEAN COMMISSION AND EFTA

- ▶ M/533: Alternative Fuels Infrastructure
- ▶ M/541: Certain Measuring Instruments

# CIRCULAR ECONOMY

3

# Ecodesign & Energy Labelling: Policy

**Our goal is to work towards a policy framework which allows for ambitious product specific requirements, both from an energy efficiency and resource efficiency perspective, and covers as broad a product type as possible.**

Building on their success in the area of energy efficiency, Ecodesign and Energy Labelling are being transformed to fully integrate resource efficiency.

The ambitious implementation of the Ecodesign and Energy Labelling policies at product level is vital for the success of the circular and clean economy agendas.

In 2019, the European Commission is expected to adopt measures on several iconic products and publish them in a single package by the end of President Juncker's mandate. New rules are expected for washing machines, dishwashers, fridges, displays and lighting products, and many more.



## ECOS WORKS TO

Ensure the Ecodesign and Energy Labelling policy frameworks deliver the circular economy agenda and support the development of a new generation of measures

Contribute to improving the policy framework thanks to 10 years of experience working all along the Ecodesign process

Provide expertise and intelligence in all horizontal studies that will look at improving the policy framework

Deliver advocacy and communications campaigns in favour of products which are more durable and repairable thanks to Ecodesign and the Label

Ensure a balanced representation of stakeholders in the preparatory studies' work and the Ecodesign Consultation Forum

## ECOS CONTRIBUTES TO

- ▶ European Commission's Ecodesign and Energy Labelling Consultation Forum
- ▶ Preparatory studies in anticipation of the development of product-specific legislations
- ▶ The Coolproducts campaign - a coalition of NGOs working to fully explore the potential of Ecodesign and Energy Labelling policies, co-led by ECOS, [www.coolproducts.eu](http://www.coolproducts.eu)

# Ecodesign & Energy Labelling: Material Efficiency Standardisation

Our goal is to establish a standardised framework for the incorporation of material efficiency aspects in Ecodesign, with the view to facilitate regulatory discussions on future provisions and provide the basis for robust product-specific standards.

Incorporating material efficiency considerations in product design has the potential to foster significant environmental benefits. Horizontal assessment methodologies for material efficiency can provide the foundation to determine material efficiency provisions in future Ecodesign regulations. A three-year standardisation project is currently under way, following the standardisation request M/543 from the European Commission as part of their Circular Economy Action Plan. The project aims to develop generic assessment methodologies on material efficiency aspects such as durability, reparability and recyclability of products.



## ECOS WORKS TO

Ensure that robust and reliable methodologies for material efficiency aspects for Ecodesign are developed in a timely manner under M/543 to allow for a strong consideration of such aspects in Ecodesign regulatory fora

Ensure that material efficiency aspects are introduced and systematically considered in Standardisation Requests, and in the development of the horizontal standards associated with M/543

## ECOS CONTRIBUTES TO

- ▶ CEN-CLC/TC 10 “Energy-related products - Material Efficiency Aspects for Ecodesign” and all of its Working Groups:
  - ▶ CEN-CLC/TC10/WG1 “Terminology”
  - ▶ CEN-CLC/TC10/WG2 “Durability”
  - ▶ CEN-CLC/TC10/WG3 “Upgradability, Ability to repair, Facilitate Re-Use, Use or re-used components”
  - ▶ CEN-CLC/TC10/WG4 “Ability to re-manufacture”
  - ▶ CEN-CLC/TC10/WG5 “Recyclability, recoverability, RRR index, Recycling, Use of recycled materials”
  - ▶ CEN-CLC/TC10/WG6 “Documentation and/or marking regarding information relating to material efficiency of the product”
  - ▶ CEN-CLC/TC10/WG7 “Chairman’s Advisory Group”

## STANDARDISATION REQUESTS FROM THE EUROPEAN COMMISSION AND EFTA

- ▶ M/543: Material efficiency aspects for Ecodesign

# Ecodesign & Energy Labelling: Product Standards

Our goal is to ensure robust and consumer-relevant standards which would be appropriate for the implementation of Ecodesign and Energy Labelling regulations. We also aspire to pave the way for product standards which are more representative of real-life conditions and less vulnerable to circumvention attempts.

Standardisation activities to support Ecodesign regulations remain as relevant as ever, with reviews and revisions of regulations taking place, technological developments pushing for new state-of-the-art standards, and new regulations and concepts gaining prominence within the energy-related product policy field (e.g. material efficiency, "internet of things", system approach). Apart from the activities currently taking place to respond to existing standardisation requests issued by the European Commission, new actions are anticipated.

ECOS has long argued for the improvement of test methodologies to better reflect real-life use of products and address circumvention attempts. Following relevant provisions established in the Energy Labelling Regulation 2017/1369 and in other product-specific regulations, such discussions are now gaining prominence within the standardisation world with the view to establish a more systematic investigation and improvement of current test methods.



## ECOS WORKS TO

Contribute to the development of product standards related to Ecodesign, with the view to ensure that tests consider the environmental perspective, sufficiently represent the real-life use of these products, discourage circumvention attempts, and are appropriate for the implementation of the regulations

Ensure the proper and effective implementation of Ecodesign standardisation requests, avoiding inconsistencies between regulations, Standardisation Requests and, ultimately, the standards under development

## ECOS CONTRIBUTES TO

- ▶ CLC/TC34 "Lamps and related equipment"
- ▶ CLC/TC59X "Performance of household and similar electrical appliances"
- ▶ CLC/TC100X "Audio, video and multimedia systems and equipment and related sub-systems"
- ▶ CEN/TC57 "Central heating boilers"
- ▶ CEN/TC113 "Heat pumps and air conditioning units"
- ▶ CEN/TC109 "Central heating boilers using gaseous fuels"
- ▶ CEN/TC295 "Residential solid fuel burning appliances"
- ▶ CLC/TC 59X "Assessment of consumer-relevance in standards"
- ▶ CEN-CENELEC Ecodesign Coordination Group

# Ecodesign & Energy Labelling: Market Surveillance

Our goal is to ensure the EU's market surveillance regime is sufficiently robust to ensure that environmental benefits of Ecodesign and Energy Labelling are not lost.

Verification of compliance is a major condition for the success of every European policy, including the Ecodesign and Energy Labelling policies. The current level of market surveillance by Member States is clearly insufficient (<1% of products tested). The European Commission published new market surveillance proposals in December 2017 and ECOS will follow these proposals during 2019 and finalise the DIGILABEL and INTAS projects and continue its work as part of the ANTICSS project.



## ECOS WORKS TO

Ensure the effectiveness of the EPREL database for market surveillance purposes and consumer information

Maintain high level quality deliverables for on-going EU projects, and to design, prepare and submit new projects based on the policy priorities of ECOS

Ensure in-house expertise on testing and product policy is utilised, as well as making full use of expert reports from other ecodesign and labelling contracts

## ECOS CONTRIBUTES TO

- ▶ **INTAS:** Addresses the need to support European Market Surveillance Authorities (MSA) to deliver compliance with Ecodesign requirements for large industrial products, specifically transformers and fans. This Horizon 2020 project is carried out with 16 partners across Europe, including 11 national MSAs and cooperating organisations.  
[www.intas-testing.eu](http://www.intas-testing.eu)
- ▶ **Digi-Label:** Provides consumers with information complementing the current energy label. This will positively influence buying choices and help deliver greater energy savings and secure the increased market share of the best performing appliances. Through 'PocketWatt', the software it has developed, consumers have more and better data on the energy consumption and associated costs of household appliances, both online and in stores. It also makes it possible to compare the energy consumption between products. This is a three-year project in collaboration with 11 European organisations funded by Horizon 2020.  
[www.digi-label.com](http://www.digi-label.com)
- ▶ **ANTICCS:** Assesses if and how Ecodesign and Energy labelling legislations and harmonised standards can be circumvented in order to achieve a better product performance. By investigating the circumvention issue together with several Market Surveillance Authorities, the project will enable the identification of non-compliant products and support a more effective enforcement of EU legislation. This Horizon 2020 project will run for three years in collaboration with 18 European organisations.  
[www.anti-circumvention.eu](http://www.anti-circumvention.eu)

# Circular Economy Initiatives & Environmental Footprinting

Our goal is to encourage the development of an ambitious circular economy, and international standards which contribute to ensure consistent, transparent and reliable environmental performance evaluation such as environmentally-robust Life Cycle Methods.

The development and implementation of the EC Circular Economy strategy and action plan has given rise to a new cluster of bodies and activities within different standardisation organisations. These include the creation of a new technical committee in ISO – ISO/TC 323.

ECOS will influence these circular economy discussions to ensure standardisation is ambitiously implementing the principle. ECOS will also continue its work on international standards for measuring the environmental footprint of products under ISO/TC 207.



## ECOS WORKS TO

Contribute to the development of international standards that contribute to ensure consistent, transparent and reliable environmental management systems and robust environmental performance evaluation such as Life Cycle Methods taking all possible environmental aspects into account

Drive the development of an ambitious circular economy

Ensure compatibility between international standards and European policy objectives

## ECOS CONTRIBUTES TO

- ▶ ISO/TC 207 “Environmental management”
- ▶ ISO/TC 323 “Circular economy”
- ▶ CEN Strategic Advisory Body on Environment (CEN/SABE)

# Chemicals & the Environment

**Our goal is to eliminate or minimise the use of problematic substances in (consumer) products with a view to protect human health and the environment. We wish to promote the development of ambitious requirements on problematic substances in product standards, and including to support the safe and sustainable use of nanomaterials.**

Chemicals in products are on the EU policy agenda, particularly as the EU's Circular Economy package seeks to ensure easier reintroduction of secondary raw materials into the economy without spreading problematic substances more widely amongst the public and the environment. ECOS has been calling for more stringent application of the existing chemicals legislation, and continuing to push for long-awaited nanomaterials-specific legislation.

In addition, REACH regulation amendments to specifically address nanomaterials have still not been proposed by the Commission, despite years of work and policy focus. Regulation of nanomaterials continues to remain incomplete. Regulatory risk assessment requires provision by producers/importers of quality information on safe use of nanomaterials, yet information provision remains of low level and poor quality.



## ECOS WORKS TO

Assist standardisers to address toxic chemicals in products and contribute to phasing out harmful chemical substances such as flame retardants and endocrine disruptors

Continue to monitor relevant developments to prevent the introduction of external ignition requirements in European and international standards related to the safety of relevant products that would represent an incentive for the use of flame retardants

Ensure the development of clear, harmonised definitions for nanomaterials and nanotechnologies at global level

Promote the adoption of adequate safety and risk assessment methodologies which consider all significant characteristics of nanomaterials

Monitor consistency between the technical work and political developments concerning nanotoxicology, risk assessment and regulatory approaches

## ECOS CONTRIBUTES TO

- ▶ H2020 projects RiskGONE and NANORIGO. The projects will focus on risk governance of nanomaterials with an outlook to create a risk governance framework for nanomaterials and an independent Risk Governance Council.
- ▶ CEN Working Group "Sustainable chemicals"
- ▶ CLC/TC 108X "Safety of electronic equipment within the fields of audio/video, information technology and communication technology"
- ▶ IEC/TC 100 "Audio, video and multimedia systems and equipment"
- ▶ CLC/TC 111X "Environment"
- ▶ CEN/SABE ENIS Team: Environmental aspects in products
- ▶ CEN/TC 352 "Nanotechnologies"
- ▶ ISO/TC 229 "Nanotechnologies"

## STANDARDISATION REQUESTS FROM THE EUROPEAN COMMISSION AND EFTA

- ▶ M/461: Nanotechnologies and nanomaterials

## Bio-economy

Our goal is to promote the development of a bioeconomy keeping the carrying and regenerative capacity of the Earth within planetary boundaries.

Adopted in 2012 and currently under revision, the Bioeconomy Strategy is the European policy tool binding together all economic activities related to the use of biomass, ranging from food production to bioenergy and to bio-based products. ECOS actively participates in the development of standards applying to bio-based products, bioenergy, and biomass, and sustainability criteria.



### ECOS WORKS TO

Under the project STAR-ProBio, promote sustainability schemes for bio-based products proving high environmental performance and taking into consideration biomass production, conversion, use, and end-of-life and including a broad range of criteria such as GHG emissions, direct and indirect land-use change, energy use, biodiversity loss, water use, soil quality, etc.

Upon adoption of the revised RED, ensure European standards revised within CEN/TC 383 do not undermine the objectives of the RED and promote biofuels that can be proven to be sustainable or with so-called “low-ILUC” risks

Develop a transparent, comprehensive and consistent framework applying to the entire supply chain that connects raw materials to final products and provide a strong basis for potential environmental claims on such final products

### ECOS CONTRIBUTES TO

- ▶ CEN/TC 411 “Bio-based products”
- ▶ CEN/TC 383 “Sustainably produced biomass for energy applications”
- ▶ The STAR-ProBio project, focusing on sustainability standards applying to bio-based products and on environmental aspects: [www.star-probio.eu](http://www.star-probio.eu)

### STANDARDISATION REQUESTS FROM THE EUROPEAN COMMISSION AND EFTA

- ▶ M/429: Standardisation programme for bio-based products
- ▶ M/492: Development of horizontal European standards for bio-based products

## Traceability and credible claims

Our goal is to ensure that the developed chain of custody standards set up a system where claims are verifiable and can be trusted by consumers.

A growing consumer awareness of the environmental impacts linked to products they consume has resulted in a proliferation of advertisement or product labelling as “green”. With at least 460 ecolabels covering 25 sectors currently in use today, the risk of misleading consumers is real. A chain of custody system is an important part of any product labelling as it enables tracking of materials from different sources to final products. Critical points include the identification and characterisation of input material, output information, rules on mixing of various input, verification aspects and information transfer.



### ECOS WORKS TO

Develop a horizontal standard on chain of custody clearly identifying and tackling hotspots, and in particular recognizing the importance of third-party verification and minimum requirements for all input materials

Closely monitor the creation and work item proposals under a potential ISO/TC 287 “Sustainability of wood and wood processes’, successor of ISO/PC 287 “Chain of Custody for wood and wood-based products”

Engage with any new work item proposals under ISO/TC 207/SC 3 “Environmental labelling”

Cooperate with existing credible sustainability schemes to ensure that ISO standards do not undermine already well-established certification systems

### ECOS CONTRIBUTES TO

- ▶ ISO/TC 207/SC 3 “Environmental Labelling”
- ▶ ISO/PC 308 “Chain of custody”
- ▶ ISO/TC 287 “Chain of custody of wood and wood-based products”

# Air Quality

**Our goal is to improve the monitoring of air quality in the EU to safeguard people's health and protect the environment.**

More than 400,000 premature deaths in the EU every year are caused by air pollution. The estimated associated health costs are between €330 billion and €940 billion. Robust air quality standards help classify and measure pollutants, including fine and coarse particles and mercury, and can help achieve EU air quality objectives.



## ECOS WORKS TO

Provide environmental expertise in the development of mercury measurement methods

Contribute to reducing the uncertainty of the existing standard measurement methods for PM10 and PM 2.5 with a focus on filter clogging and between sampler variation

Ensure high quality for the measurement of PM and gases while promoting the use of low-cost sensors by NGOs and citizen groups

## ECOS CONTRIBUTES TO

- ▶ CEN/TC 264 "Air quality"

## STANDARDISATION REQUESTS FROM THE EUROPEAN COMMISSION AND EFTA

- ▶ M/036: Measurement systems for total mercury emissions into the air
- ▶ M/503: Ambient air quality

# Plastics: towards a circular plastic economy

**Our goal is to ensure clean material loops in a circular plastics economy.**

Plastics are one of the fastest growing pollutants in the world. It is estimated that over 80% of all plastics ever produced have accumulated in landfills or the natural environment. The ubiquitous presence of plastics in our modern economies also leads to losses of microplastics into the environment amounting to 3.2 Mton per year. However, plastics are not only a waste issue: more than 4000 different types of potentially harmful chemicals have been associated with plastic packaging, and the growth in plastics demand will account for a 30% increase of global fossil resources demand by 2030, and 50% by 2050.

As standards shape the essential part of the European and global markets for plastics, ECOS' strategy relies on contributing to standardisation work related to plastics in order to foster net environmental benefits. The more robust and ambitious the standards in the plastics field, the better the overall environmental performance of plastics and the lower the overall pollution level of the sector.

For standards to make sure political objectives are met in practice, they need to be consistent with political development. This is why ECOS participates in political discussions around plastics, especially the EU Plastics Strategy, the Single Use Plastics Directive, and the Packaging and Packaging Waste Directive.



## ECOS WORKS TO

Advocate for an environmentally sound design of plastics and the overall reduction of the environmental pollution of the plastics sector throughout the supply chain, with a focus on microplastics

Promote an environmentally-conscious design of plastic products to achieve absolute cuts in virgin plastic consumption and use

Curb plastics pollution throughout the supply chain to minimise negative impacts on citizens and the environment

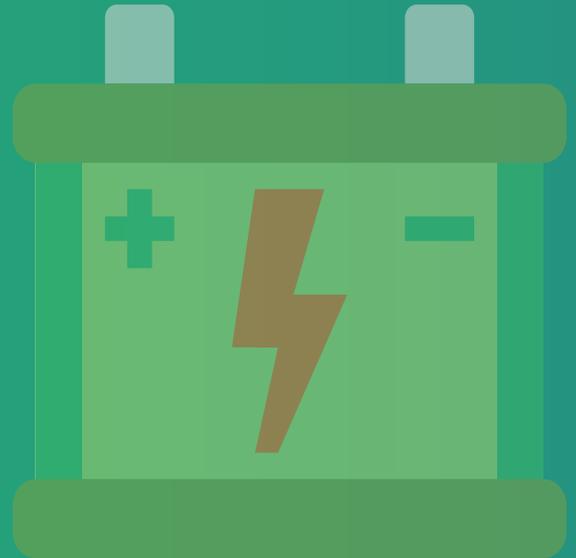
## ECOS CONTRIBUTES TO

- ▶ CEN/TC 261 on "Packaging"
- ▶ CEN/TC 249 on "Plastics"
- ▶ ISO/TC 61 "Plastics"
- ▶ Rethink Plastic Alliance: The European branch of the global "Break Free from Plastics" movement fighting against plastic use and pollution: [www.rethinkplasticalliance.eu](http://www.rethinkplasticalliance.eu)
- ▶ The development of the Standardisation Request currently under preparation by the European Commission

# Batteries: reducing their environmental footprint

Our goal is to improve the environmental footprint of batteries, from extraction and processing of (critical) raw materials, through design and manufacturing, to their use, remanufacturing and reuse, all the way through to their collection, recycling and safe disposal at end-of-life stage.

In 2019, ECOS will pay specific attention to the sustainability of batteries because of the major role they will play in the increasing electrification of our economy (particularly Li-ion batteries for e-vehicles, e-bikes, electricity storage etc.). While the EU, as part of its Strategic Action Plan, wants to drive innovation and strengthen the position of the European battery industry on the global market, many environmental and social issues linked with the production, use and disposal of batteries still need to be solved.



## ECOS WORKS TO

Promote the integration of circular principles throughout the value chain

Monitor the End-of-Life Vehicles (ELV) Directive (2000/53/EC) and influence revision of the Batteries Directive (2006/66/EC)

Help develop requirements for the sustainable sourcing of (critical) raw materials, promoting the use of secondary (recycled) sources

Provide input for minimum energy performance requirements and minimum sustainability requirements

## ECOS CONTRIBUTES TO

- ▶ Stakeholder feedback to the European Commission Roadmap on Sustainable Batteries
- ▶ Study on "Circular Economy Perspectives for the Management of Batteries used in Electric Vehicles" commissioned by the Joint Research Centre
- ▶ Ecodesign preparatory study and impact assessment
- ▶ CEWASTE, an H2020 project which aims to develop a voluntary certification scheme for improved recycling of Critical Raw Materials in WEEE and batteries: [www.cewaste.eu](http://www.cewaste.eu)
- ▶ Preparatory work for a possible Standardisation Request on batteries

## STANDARDISATION REQUESTS FROM THE EUROPEAN COMMISSION AND EFTA

- ▶ Draft standardisation request on recycling of CRM in WEEE and batteries

# Re-use and Recycling of Waste Electronics

**Our goal is to stimulate (preparation for) reuse of electrical and electronic equipment and, secondly, the recovery of secondary raw materials from WEEE.**

Waste Electrical and Electronic Equipment (WEEE) is one of the fastest growing waste streams in the world, and if not treated properly, has significant environmental impacts. In line with EU policies on waste and circular economy, our primary objective is to support the improvement of CEN/IEC standards regarding the treatment of WEEE. In particular, ECOS wishes to stimulate stricter, harmonised requirements for the environmentally safe handling, disposing and end-of-life treatment of appliances that can be particularly dangerous to the environment if left untreated, such as temperature exchange equipment (refrigerators), limiting the release of hazardous chemicals into the environment and mitigating climate change are paramount.



## ECOS WORKS TO

Ensure that European harmonised standards lay down conditions for the optimal, ambitious and safe collection, handling and preparing for re-use and recycling of WEEE

Push for a study (by the European Commission) on the obstacles in practice and economic impacts of standards on independent re-use operators, before making them mandatory in the future by referencing them in legislation

Become accepted as liaison organisation of TC 111 and explore opportunities to influence standardisation at IEC level

Push for timely revision of the standards where possible and needed

## ECOS CONTRIBUTES TO

- ▶ CLC/TC 111X "Environment"
- ▶ Study performed by the Commission on the implementation of the standards across Member States
- ▶ CEWASTE, an H2020 project which aims to develop a voluntary certification scheme for improved recycling of Critical Raw Materials in WEEE and batteries: [www.cewaste.eu](http://www.cewaste.eu)
- ▶ The development of a Standardisation Request on recycling of CRM in WEEE and batteries

## STANDARDISATION REQUESTS FROM THE EUROPEAN COMMISSION AND EFTA

- ▶ M/518: Waste electrical and electronic equipment

## Fertilising products

Our goal is to ensure optimal soil quality by fostering the use of organic matter such as composts and digestate on land.

The EC proposal for a revised Fertilisers Regulation from early 2016 aims to level the playing field between organic and inorganic fertilising products. The proposal stipulates that waste-based fertilising products are entitled to the CE marking and can therefore be transported and traded across Europe. Upon adoption of the revised Regulation, the European Commission plans to issue a standardisation request to CEN to develop test methods for any fertiliser (including organic ones) to measure a number of substances such as heavy metals.



### ECOS WORKS TO

Promote resource efficiency and safe and sustainable use of organic materials such as fertilizing products

Work towards standards that promote safe, high quality and organic fertilisers, in line with the revised regulation

### ECOS CONTRIBUTES TO

- ▶ CEN/TC 260/WG 8 “Organic and organo-mineral fertilisers”
- ▶ The European Commission Expert Group on Fertilisers

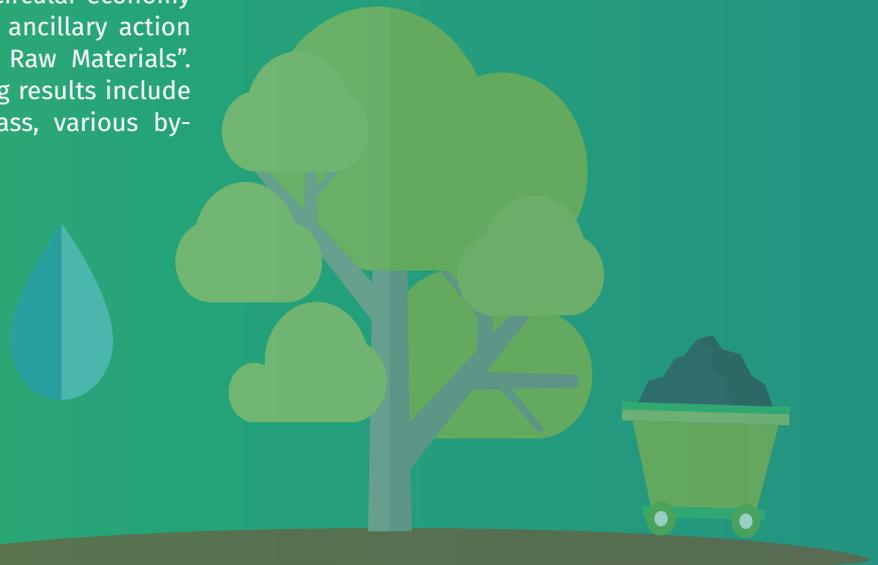
### STANDARDISATION REQUESTS FROM THE EUROPEAN COMMISSION AND EFTA

- ▶ Draft standardisation request on fertilisers

## Raw materials & circularity

**Our goal is to contribute to the full recovery of critical raw materials and foster the re-use of secondary raw materials by means of ambitious harmonised standards.**

As part of the Circular Economy Package, the EC has requested CEN to explore opportunities for the development of European performance and descriptive standards as intermediary outputs for sustainable chemicals, including quality and type of secondary raw materials used, their processing, quality and technical performance of the sustainable chemicals produced from these secondary raw materials, as well as pre-and co-normative research in the context of the EU Circular economy action plan. In March 2016, CEN initiated an ancillary action on “Sustainable Chemicals from Secondary Raw Materials”. The work is ongoing, but preliminary mapping results include standards on the use and re-use of biomass, various by-products, but also plastics recycling.



### ECOS WORKS TO

Ensure that the scope of the future standardisation request is clearly defined, and that concrete and coherent deliverables are requested with corresponding timelines included

Promote the inclusion of relevant environmental criteria to enable the sustainable use of raw materials, and foster integration with ecodesign aspects

Monitor the development of standards underpinning quality recycling, likely to be mandated under a revised European Waste Framework Directive

### ECOS CONTRIBUTES TO

- CEN/BT WG 11 “Sustainable chemicals”

# Waste Characterisation and Management

**Our goal is to contribute to the EU's Circular Economy Action Plan and revised waste directives to ensure proper environmental characterisation of wastes and improved framework conditions for re-use and recycling.**

Developing harmonised standards to characterise waste and its behaviour in the environment is of utmost importance in the context of the Commission's Circular Economy Package and the new and amended Directives on waste. The accurate definition of waste properties and leaching behaviours sets the basis for informed and sustainable waste management decisions and can help ensure the volumes and toxicity of waste are reduced.



## ECOS WORKS TO

Support the European Commission's Circular Economy Package and influence standardisation developments to minimise landfill as well as incineration and co-incineration of waste

Influence solid recovered fuels standards to ensure a high level of environmental protection and limit their wider use

## ECOS CONTRIBUTES TO

- ▶ CEN/TC 292 "Waste characterisation"
- ▶ CEN/TC 444 "Horizontal tests methods for environmental characterisation of solid matrices"
- ▶ ISO/TC 300 "Solid recovered fuels"
- ▶ CEN/TC 343 "Solid recovered fuels"

Brussels, February 2019

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ECOS is co-funded by the European Commission and the European Free Trade Association (EFTA).



This publication only reflects the author's views and not the donors.



**ECOS**  
**The European Environmental Citizens'**  
**Organisation for Standardisation**

Founded in 2001, ECOS is the only organisation worldwide working to defend the environmental interests in standardisation.

Supported by nearly 50 environmental NGOs across Europe and beyond, and with a strong pool of independent experts, ECOS contributes to the development of standards at European and international level, and to related laws and policies. We advocate for greater transparency and inclusiveness in the standardisation system. ECOS also represents the environmental interests in the development and implementation of product-specific environmental policies through Ecodesign and Energy Labelling.

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