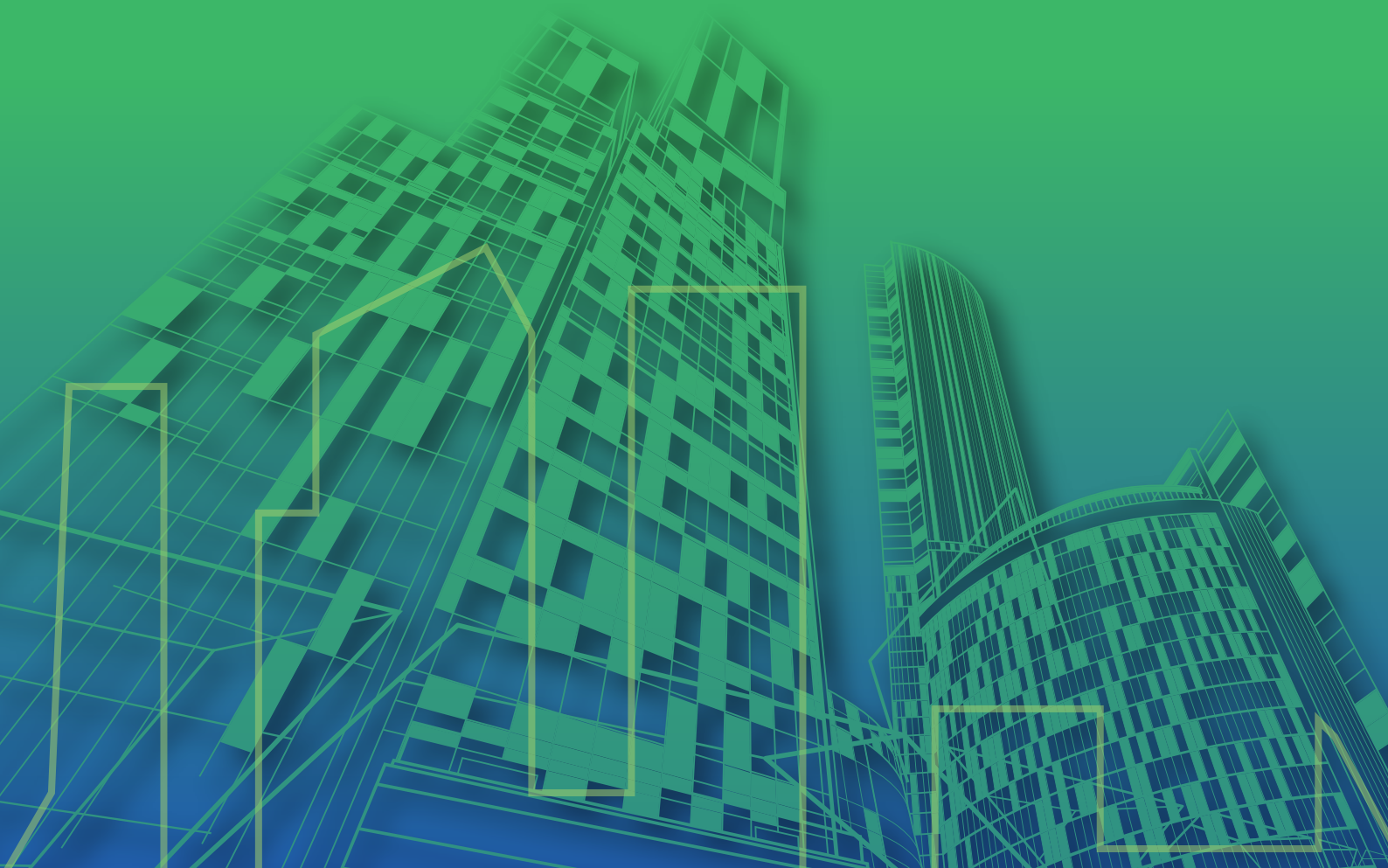
ECOS

# Work Programme 2016

the green line to standards



Brussels, March 2016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This publication only reflects the authors's views and not the donors.

# Contents

# About ECOS

ECOS' vision is a clean and healthy environment where people live in respect of the planet and its natural resources, preserving them for future generations. Our mission is to influence the development of ambitious strategies to reduce and control sources of environmental pollution, and to promote resource and energy efficiency, environmental health and sustainable development.

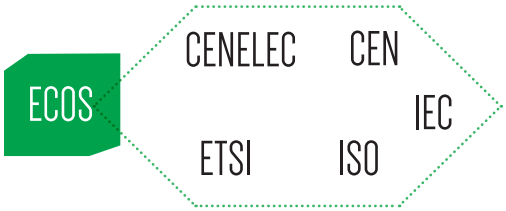
To this end, ECOS defends the environmental interests in the European Standardisation System, especially through contributing with legal and technical expertise, to the evaluation of standardisation needs and the standards' development or revision process. ECOS particularly focuses on standards developed to support EU environmental legislation and policies.

With the support of nearly 40 environmental NGOs across Europe as members, ECOS is the only environmental organisation worldwide specialised in standardisation and technical product policies.

## Our partnerships

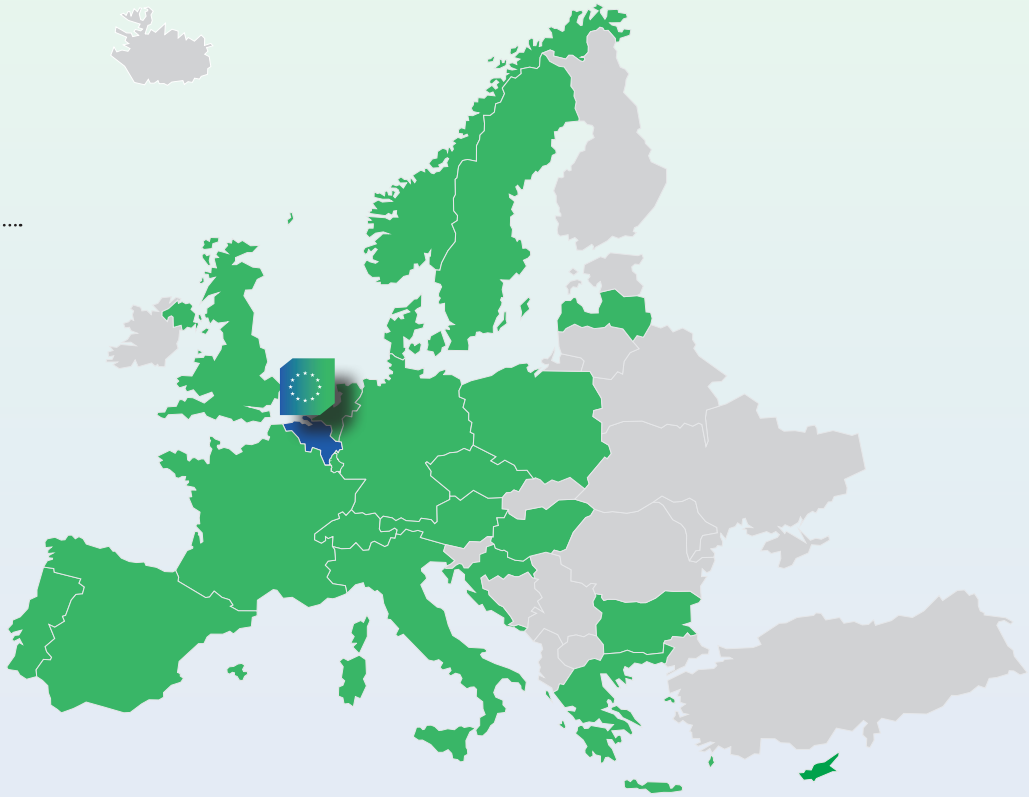
ECOS is a Partner Organisation of the European Committee for Standardisation (CEN) and the European Committee for Electrotechnical Standardisation (CENELEC), and a member of the European Telecommunications Standards Institute (ETSI). ECOS is also a liaison organisation to several technical committees of the international standardisation organisations, ISO and IEC.

ECOS is officially recognised as one of the so-called 'Annex III' organisations representing the weakest stakeholders in the European Standardisation System according to Regulation (EU) 1025/2012, and has partnership agreements with the European Commission and the European Free Trade Alliance (EFTA).




**32**
**National organisations**

**7**
**Pan-European organisations**



# Introduction

This year is ECOS' 15th anniversary of defending and promoting the environment in the development of standards. ECOS is the only environmental NGO of its kind worldwide, working on standards and also on environmental product policies of a technical nature (e.g. Ecodesign policy). With the support of nearly 40 members across Europe and an extensive network of independent experts, ECOS strives to make the greenest possible impact in standardisation.

We now cover over 15 different areas of work, providing an unprecedented level of technical expertise in the development of standards, balancing out the views of industry in the standardisation system, and helping to bridge the gaps between political developments and standardisation.

With the signature of a four-year partnership agreement with the European Commission in 2014, ECOS is officially recognised as one of the three societal stakeholders' organisations whose participation in the system ought to be supported and facilitated by the Union as well as the standards bodies at both European and national level (Regulation (EU) 1025/2012 for Standardisation). Supporting the societal stakeholders is meant to help compensate for the absence or weaknesses of environmental NGOs in standardisation at national level, thereby ensuring that environmental interests are represented in the process through their umbrella organisation.

The extensive Independent Review of the European Standardisation System carried out all along 2014 for the European Commission shed light on the strengths and weaknesses of the system. As a response, the Joint Initiative was announced as part of the Single Market Strategy and is expected to be signed in May this year. Hopefully as a result, cooperative, concrete actions will be undertaken by all those involved in the system, with the aim to improve the system by 2019. ECOS will argue that the Joint Initiative should clearly recognise the impacts of standards on the environment and society as a whole, and to propose ambitious solutions to ensure effective participation of societal stakeholders in the standards development process.

Over these years, ECOS has worked closely with experts, dealing with technical details, and ensuring that standards effectively contribute to protect and promote the environment and sustainable development, and to deliver on EU policy goals.

The ECOS 2016 Work Programme gives an overview of our commitments for the year to come, in particular with regards to:

- Discussions related to the link between standardisation and policy, the effectiveness, transparency and inclusiveness of the European Standardisation System, and international cooperation,
- Relevant standardisation developments at both European and international level in key environmental areas (climate change, energy and resource efficiency, circular economy and environmental health),
- EU policy developments aimed to establish and improve the ecological performance of products during the full life-cycle under the Ecodesign policy framework and related labelling schemes, and projects to support their proper implementation and enforcement.

We hope this work programme will inspire others to support and join the ECOS' network, making the only voice of the environment in the development of standards and technical environmental policies even stronger.

**Laura Degallaix**
**Director of ECOS**

# A Stronger, Inclusive & Sustainable Standardisation System

With standardisation being increasingly used in support of EU laws and policies in areas of public interest, it is crucial that the principles of effectiveness, transparency, and inclusiveness are ensured in the European Standardisation System. It is also of utmost importance to encourage and assist the effective participation of societal stakeholders, in particular environmental, in the development process of standards, in order to enhance the quality, credibility, and reliability of the system and its deliverables.

ECOS however, strongly believes that legislative actions are generally more appropriate than standardisation for addressing environmental challenges, due to the greater level of transparency and democracy of the EU decision-making process and the greater power of law over voluntary standards.

ECOS will advocate for a sound and effective EU policy approach to standardisation where standards are used with caution, and to provide technical requirements, rules or guidance for products, services and processes, taking into account environmental and societal interests most appropriately. ECOS will contribute to ensure a transparent European Standardisation System, with a balanced representation of interests and effective participation of societal stakeholders. ECOS will ensure that the same principles are followed in the international standardisation process, where more and more European standards are originally drafted, including in response to European Commission mandates. ECOS will also actively promote the environmental mainstreaming in standardisation.

# 1. Transparency, Effectiveness and Inclusiveness of the standardisation system

With standardisation being increasingly used in support of EU laws and policies, the principles of effectiveness, transparency and inclusiveness ought to be ensured in the European Standardisation System. In particular, it is crucial to encourage and assist the effective participation of societal stakeholders in the standards' development process, as a way to add to the quality, credibility and reliability of the system and its deliverables. Specifically, the role of Annex III organisations should be promoted and financially supported in order to balance out the weak participation – or absence – of NGOs at national level and effectively complement the national delegation principle that prevails in CEN and CENELEC.

The growing international cooperation, including the TTIP negotiations also pose risks to the transparency, effectiveness and inclusiveness principles in the standards development process.

ECOS will work to ensure that standards help deliver on the EU environmental policy objectives and main societal challenges, and that the system in which they are developed is transparent, effective, and reflects all the needs and expectations of the stakeholders. ECOS will also monitor the impact of international cooperation on the transparency, effectiveness, and inclusiveness of the standards development process, particularly for standards mandated by the European Commission.

## Activities

- Contribute to the proper implementation of Regulation (EU) 1025/2012 for European standardisation
- Contribute to the planning and development of European Commission' standardisation requests in support of key environmental policy areas, and contribute to ensure that standards adequately fulfil the EC mandates in ECOS' priority areas
- Closely monitor the implementation of the Union Work Programme for Standardisation 2016
- Closely collaborate with the European Commission, EFTA, the standardisation organisations, and others to improve the standardisation system
- Contribute to horizontal discussions on international cooperation in standardisation and strengthen relationship with the international standardisation organisations (ISO and IEC)
- Contribute to the development of the 'Joint Initiative on Standardisation' announced as part of the Single Market Strategy, expected to be signed under the Dutch Presidency
- Strengthen collaboration with the other 'Annex III' organisations, representing the consumers (ANEC), the workers (ETUC) and the SMEs (SBS)

## ECOS contributes to:

- ✓ Committee on Standards (Comitology committee, linked to Regulation (EU) 1025/2012)
- ✓ CEN General Assembly, Technical Board and Policy Working Group
- ✓ CENELEC General Assembly, Technical Board and Policy Working Group
- ✓ ETSI General Assembly and ESSREV Group
- ✓ CEN-CENELEC Societal Stakeholders' Group (SSG) Editorial Committee of the Joint Initiative for Standardisation
- ✓ 'Annex III' organisations and European Societal Stakeholders Organisations informal groups

# 2. Environmental Mainstreaming in Standardisation

ECOS believes it is important to promote and defend the environmental and sustainability interests in standardisation and policies related to, or implemented through standardisation. We aim at fostering environmental mainstreaming in the European and international standardisation systems, where environmental protection and sustainability would be horizontal, strategic goals for all actors involved, alongside growth and competitiveness.

ECOS will continue to stress the impacts of standards on citizens' welfare and the environment, and will work to promote the consideration of environmental aspects in standardisation at technical and strategic levels.

## Activities

- Actively contribute to the work of the ESOs' strategic groups in charge of environmental aspects in standards
- Raise awareness about the need and added value of addressing environmental aspects in standards and standardisation deliverables
- Encourage participation of environmental experts in standardisation

## ECOS contributes to:

- ✓ CEN Strategic Body on Environment
- ✓ CENELEC Technical Committee 111X 'Environment'
- ✓ CEN-CENELEC Sector Forum on Energy Management
- ✓ ETSI Technical Committee Environmental Engineering (TBC)

# Climate Change & Sustainable Energy

With the effects of climate change becoming increasingly visible and the stronger determination to prevent a detrimental global temperature increase of 2 degrees, it is imperative for ECOS to carry out activities which help to both combat climate change and promote sustainable energy.

ECOS will work to ensure that European and international standards contribute to achieving the 2030 Climate and Energy goals, and to provide low global warming potential solutions which are easily accessible to consumers and the market in Europe and globally. In particular, ECOS will advocate for the development of accurate and reproducible energy efficiency measurement methods and greenhouse gas emissions calculations methodologies, and the provision of transparent information to consumers.

Finally, in order to encourage the development of renewable energy sources, ECOS will take part in standardisation work related to sustainable transport systems, smart grids, and smart ICT infrastructures.

# 1. Climate Change Adaptation

Standards can contribute towards making key infrastructures, products, and services more resilient to the impacts of climate change. With the 2013 'Strategy on Adaptation to Climate Change', the European Commission has requested European Standardisation Organisations to identify standards that should be revised in order to improve the resilience of key infrastructures to the existing and potential impacts of climate change. These include transport, energy, and buildings/construction.

The 'CEN-CENELEC Coordination Group on Adaptation to Climate Change' (ACC-CG) ensures efficient and timely communication and coordination of standardisation activities in this area.

ECOS will monitor standardisation developments related to climate change adaptation and support the development of a climate resilient infrastructure in the EU, which can protect citizens and the environment from the adverse effects of climate change.

## Activities

- Contribute to the promotion of new CEN-CENELEC Guide 32 'Guide for addressing climate change adaptation in standards' (to be voted on)
- Take part in the standardisation work in the climate change adaptation area in relation to the implementation of the EU Strategy

## ECOS contributes to:

- ✓ CEN Strategic Body on Environment
- ✓ CENELEC Technical Committee 111X 'Environment'
- ✓ CEN-CENELEC Sector Forum on Energy Management
- ✓ ETSI Technical Committee Environmental Engineering (TBC)

## Standardisation requests from the European Commission and EFTA

- ✓ EC M/526 in support of implementation of the EU Strategy on Adaptation to Climate Change

# 2. Sustainable Bioenergy and Chain of Custody

Bioenergy is the conversion of biomass resources, such as agricultural and forest residues, organic municipal waste and energy crops, into useful energy carriers including heat, electricity and transport fuels. Using transport fuels derived from biomass can help reach the EU 10% renewable energy target for transport fuels by 2020, reduce the EU dependency on imported oil and potentially contribute to the reduction of $CO_2$ emissions.

The EU Fuel Quality Directive also establishes sustainability criteria for biofuels to reflect their potential to reduce greenhouse gas emission intensity. Standardisation can provide a comprehensive framework for considering environmental, social and economic aspects within the bioenergy supply chain.

Linked to sustainable bioenergy, policy and standardisation work is taking place in the field of sustainable forest management. Unsustainable management in many tropical countries has led to forest degradation and deforestation, contributing to 17.5% of all greenhouse gas emissions. Regulating the chain of custody of wood and wood-based products is paramount to ensure transparency and the accountability of all actors involved throughout the supply chain.

ECOS will work to ensure that relevant standards include ambitious sustainability criteria for bioenergy, and take account of the entire supply chain.

## Activities

- Participate in the finalisation of the bioenergy standards (especially ISO 13065)
- Monitor EU developments related to indirect land use change (ILUC) and new associated legal definitions (e.g. highly bio-diverse grassland) including the possible revision of RED
- Promote widening the scope of standard EN 16214 'Sustainability criteria for the production of biofuels and bioliquids for energy applications' with a view to include indirect effects and more ambitious sustainability criteria
- Contribute to the development of standard ISO 38001 on criteria for forestry product certification to effectively support the sustainable forestry sector, and do not jeopardise existing standards set by the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification schemes (PEFC)

## ECOS contributes to:

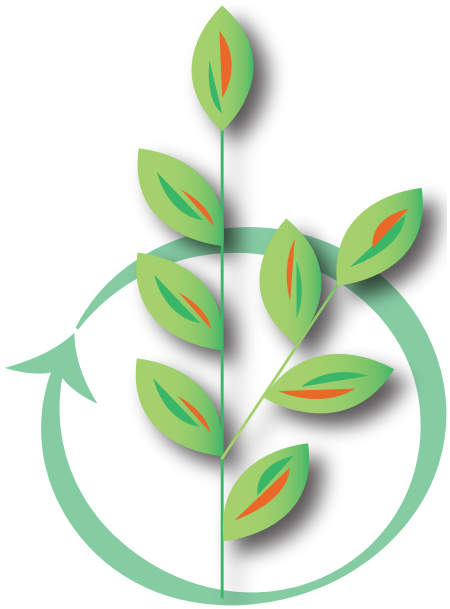
- ✓ ISO/PC 248: Sustainability criteria for bioenergy
- ✓ ISO/PC 287: Chain of custody of wood and wood-based products
- ✓ CEN/TC 383: Sustainably produced biomass for energy applications
- ✓ ISO/TC 207: Environmental Management Systems

# 3. Bio-based Products

Bio-based products are wholly or partly derived from biomass, i.e. from materials of biological origin such as plants or trees, excluding materials embedded in geological formations and/or fossilised. The bio-based share of chemical sales is expected to rise to 22% by 2020.

In this context, the bio-based products sector has been identified as a priority area by the European Commission in several policy initiatives, including the flagship initiative for a resource-efficient Europe under the Europe 2020 strategy and the EU Circular Economy Package. Among others, bio-based products are expected to provide additional product functionalities, less resource-intensive production and a more efficient use of natural resources.

ECOS will work to foster the further development of a transparent and reliable market for sustainable bio-based products. In particular, ECOS will contribute to the setting of rules and methods to ensure that bio-based products have a verifiable physical bio-based content, and are labelled accordingly. We will also monitor that they contribute to the recyclability of biomass feedstock in order to truly promote the sustainable use of renewable sources in a circular economy.



## Activities

- Participate in standardisation work related to bio-based products, in particular standards EN 16751 'Sustainability criteria', EN 16760 'Life Cycle Assessment' and standards for the determination of bio-based content
- Follow the work related to reporting and communication of bio-based characteristics (EN 16848) to ensure clear and reliable schemes and consumer confidence
- Monitor progress of standardisation activities in relation to bio-plastics, bio-solvents and bio-lubricants, following EC Mandate M/491

## ECOS contributes to:

✓ CEN/TC 411: Bio-based Products
✓ CEN/TC 249: Plastics

## 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
✓ M/430: Bio-polymers and bio-lubricants

# 4. Refrigerants

In 2014, a new EU Fluorinated Greenhouse Gases Regulation No 517/2014 was adopted to strengthen existing measures brought into force by the initial 'Certain Fluorinated Greenhouse Gases Regulation' No 842/2006. It intends to reduce fluorinated gas emissions by two-thirds by 2030, as compared with 2014 levels.
Fluorinated gases have historically been used as substitutes for ozone depleting substances in refrigeration, air-conditioning and heat pump (RACHP) systems, but have a high global warming impact (up to 23 000 times greater than carbon dioxide).
A significant component of this phase-down are the standards that govern the design, construction, operation, maintenance and recovery of RACHP systems.

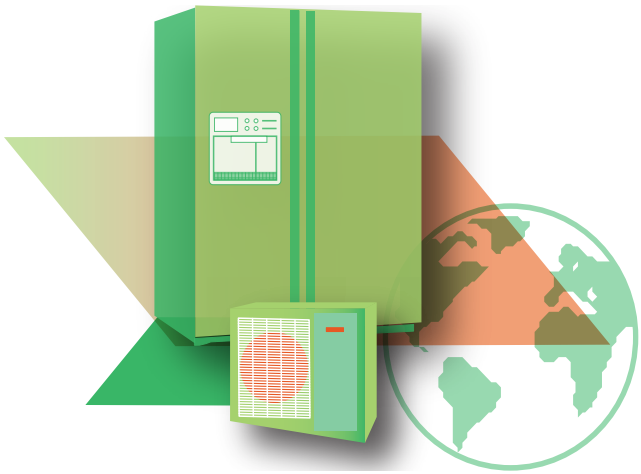
ECOS will work to secure conditions for the widespread uptake of low global warming potential refrigerants and improve safety requirements for all RACHP systems, guiding manufacturers away from high global warming potential alternatives.

## Activities

- Contribute to the revision or development of the standards setting safety and environmental requirements of refrigerating systems and heat pumps (EN 378 and ISO 5149)
- Take part in the development of standard ISO 817 for the designation and safety classification of refrigerants
- Follow standardisation developments related to the safety of household and similar electrical appliances (including EN 60335)
- Follow the outcome of EU Fluorinated Greenhouse Gases Regulation No 517/2014 Art. 11(6), and ensure consistency between regulatory and standardisation developments

## ECOS contributes to:

- ✓ CEN/TC 182: Refrigerating systems, safety and environmental requirements
- ✓ ISO/TC 86: Refrigeration and air-conditioning
- ✓ CLC/TC 61: Safety of household and similar electrical appliances
- ✓ IEC/TC 61: Safety of household and similar electrical appliances

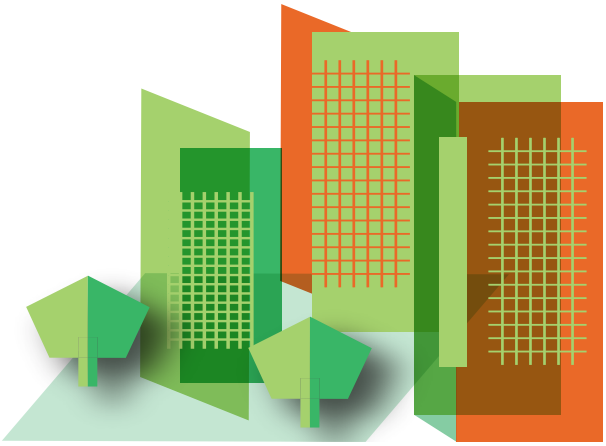


# 5. Energy Performance of Buildings

With buildings consuming roughly 40% of all global energy, energy savings and improved performance comparability of Euro¬pean buildings is crucial. The work of the European standardisation bodies concerning the Energy Performance of Buildings (EPBD) revolves around the elaboration and adoption of standards for a methodology that calculates the integrated energy performance of buildings and estimating the related environmental impact.

Since 2004, 40 standards, relating to various aspects such as thermal performance, ventilation, lighting, and heating, have been adopted. The main being the overarching EPBD standard (EN 15603). Following the recast of the EPBD in 2010, the overarching standard, together with other standards in all areas related to the EPBD are currently being revised.

ECOS will work to ensure the development of accurate, realistic standards to implement the current EPBD recast, help reach EU energy efficiency targets, and achieve the highest level of harmonisation possible.



## Activities

- Contribute to the developments of relevant EPBD-related standards ensuring they provide realistic and pragmatic calculation methods for buildings, systems, components, and materials for all relevant aspects (e.g. thermal performance, ventilation)
- Ensure standards consider and make clear reference to concepts which can foster energy savings and are mentioned in the recast of the EPBD, such as the use of natural ventilation and daylight
- Promote an increased level of harmonisation, where appropriate, with the use of common indicators and design for Energy Performance Certificates, default values and options for national choice in the various standards, reflecting best practices and available technologies

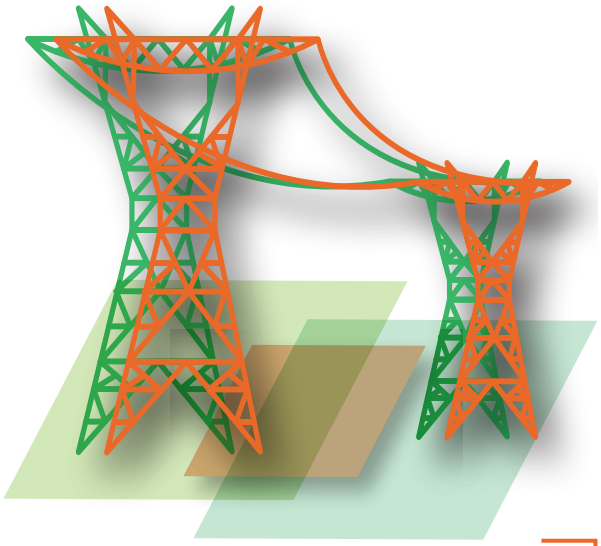
## ECOS contributes to:

- ✓ CEN/TC 371: Energy Performance Working Group
- ✓ CEN/TC 89: Thermal performance of buildings and building components
- ✓ CEN/TC 156: Ventilation for buildings
- ✓ CEN/TC 169: Light and Lighting
- ✓ CEN/TC 228: Heating and cooling systems in buildings
- ✓ CEN/TC 247: Building Automation, Controls and Building Management

## Standardisation requests from the European Commission and EFTA

- ✓ M/480: Energy Performance of Buildings

# 6. Smart Grids and Smart Meters



Despite hard-won political successes for ambitious European renewable energy and decarbonisation targets, the establishment of variable, non-dispatchable Renewable Energy Sources (RES) in European energy systems remains a challenging technical issue.
The establishment of demand response programs depends on the effective transmission of price signals throughout European energy systems to influence demand-side behaviour, in reaction to volatile supply-side conditions.

To achieve such functionality, EU grids must undergo a vast transformation, integrating a number of auxiliary smart devices that can communicate and, crucially, interoperate. Unfortunately, standards determining the transfer of information between smart devices across a number of key interfaces have yet to be fully elaborated, not even being interoperable with each other.

ECOS will work to improve requirements of standards envisioned to integrate the smart home and reflect difficulties at the political level, with a view to ensure low carbon, secure, and cost-effective European energy systems and a European electricity grid composed of RES and managed with decentralised supply and demand-side solutions.

## Activities

- Contribute to improve system and component interoperability within the smart home, and reflect shortcomings at the political level
- Take part in standardisation developments related to Smart Energy Grid and Smart Meter, including on electrical energy measurement, control and supply, home and building electronic systems, and communication systems for meters and remote reading of meters
- Support coherence between smart grid standardisation activities and EU policies

## ECOS contributes to:

- ✓ CEN-CENELEC-ETSI Smart Energy Grid Coordination Group (SEG-CG)
- ✓ CEN-CENELEC-ETSI Smart Meter Coordination Group (SM-CG)
- ✓ CLC/TC 13 'Electrical energy measurement and control'
- ✓ CLC/TC 205 'Home and building electronics'
- ✓ European Commission Smart Grids Task Force
- ✓ European Commission's Multi Stakeholder Platform (MSP) on ICT Standardisation

# 7. Electric Vehicles

Transport is responsible for a quarter of all greenhouse gas emissions in Europe, and is projected to overtake the energy sector as the largest source of emissions in the near future. Reducing such emissions in a large and complex system will require a number of technological innovations and services, implemented in a coherent and coordinated manner.
Electric vehicles are an important tool in transitioning to a low-carbon transport system. They provide a number of advantages over conventional transport, such as lower emissions, reduced dependence on foreign fossil fuel imports, improved air quality, reduced noise pollution and strengthened security of European energy systems.

For electric vehicles and related infrastructure, standardisation provides the means to arrive at common solutions that avoid market fragmentation, resulting from competing proprietary solutions. These proprietary solutions create issues of interoperability, higher costs for end-users and inconsistent infrastructure functionalities across member states; ultimately hampering the widespread adoption of electric vehicles in Europe.

ECOS will work to address technical issues for the rapid rollout of electric vehicles (EVs), and an e-mobility infrastructure which is interoperable, secure and cost-effective, reducing GHG emissions from the transport sector.

## Activities

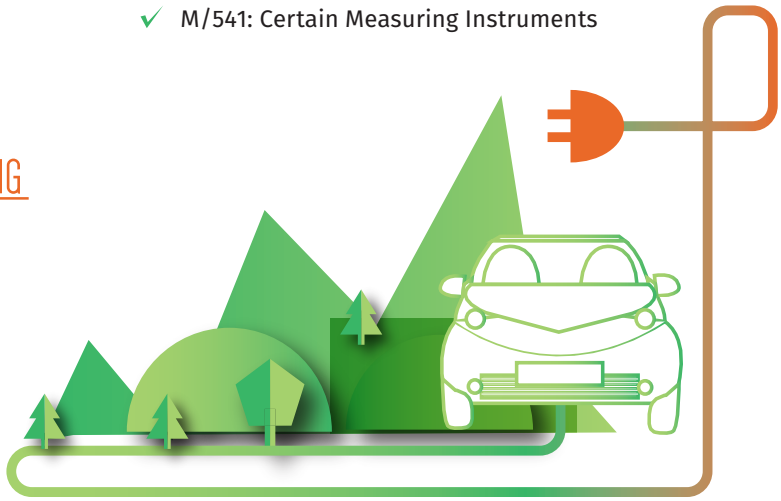
- Contribute to standardisation work related to EVs and electrical systems for electric vehicles
- In particular, take part in the development of standards series IEC 61851, establishing the foundation for connecting an EV to its charging station, and standard ISO 15118 which will enable EVs to communicate with European electricity grids
- Promote standardisation developments supporting on-board metering in electric vehicles, in response to EC mandate on Certain Measuring Instruments
- Support the coherence of eMobility standardisation activities and EU policy on sustainable transport

## ECOS contributes to:

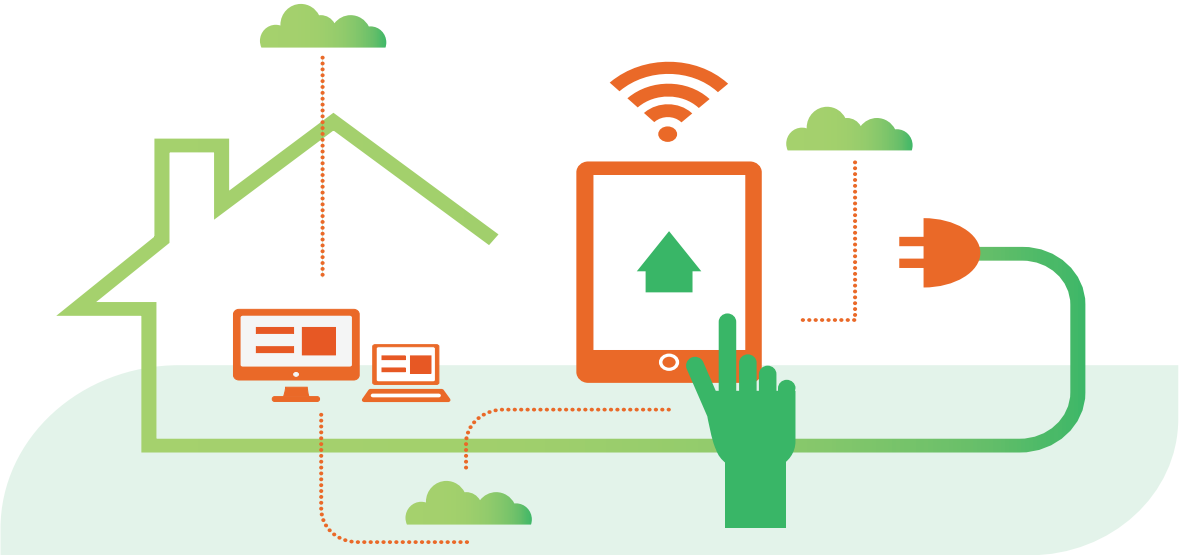
- ✓ CEN-CLC-ETSI eMobility Coordination Group
- ✓ CEN/TC 301: Road Vehicles
- ✓ ISO/TC 22: Road Vehicles
- ✓ IEC/TC 69: Electric road vehicles and electric industrial trucks
- ✓ CLC/TC 69X: Electrical systems for electric road vehicles
- ✓ NGO-industry 'eMobility Platform'

## Standardisation requests from the European Commission and EFTA

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



# 8. Smart Appliances



Smart appliances have the potential to enable consumers to participate in energy markets, allowing them to value flexibility. This assists the balancing of European energy system for the greater cost-effective integration of variable renewable energy sources. Studies suggest that smart appliances can provide a platform providing innovative information services to customers, allowing them to improve system efficiency on a macroeconomic level. However, certain challenges exist, creating obstacles to this vision, such as interoperability, functionality, and cybersecurity.

ECOS will work to secure greater shares of Renewable Energy Sources in the European energy mix, enabling consumers to participate more actively in energy markets and providing balancing services to European energy systems.

## Activities

- Assess standardisation activities for potential standardisation gaps, interoperability issues, and lacking functionality
- Contribute to the development of European and international standards on the performance of smart appliances and machine-to-machine communications (e.g. EN 50631 for household appliances network and grid connectivity, IEC/TS 62950 specifying and testing smart capabilities of smart appliances, and IEC 62325 setting a framework for energy market communications)

## ECOS contributes to:

- ✓ CLC/TC 59X: Performance of household and similar electrical appliances
- ✓ CLC/TC 205: Home and building electronics
- ✓ IEC/TC 57: Power systems management
- ✓ IEC/TC 59: Performance of household and similar electrical appliances
- ✓ ETSI TC Smart M2M: Smart Machine to Machine Communications

# Ecodesign & Energy Labelling

The EU Ecodesign and Energy Labelling Directives have the potential to be the most powerful and effective tools for achieving major energy and $CO_2$ reductions in the EU, providing they are ambitious and properly implemented. Following a life-cycle approach, and ensuring clear labelling of the energy efficiency performance, the energy label allows consumers to make more sustainable choices.

ECOS will contribute to the improvement and proper implementation of the Ecodesign and Energy Labelling policy frameworks with a view to maximise the energy efficiency of energy-related products, limit their environmental impacts, and to provide clear and reliable information to consumers. In this context, and together with the EEB, ECOS will continue leading the Coolproducts campaign, which aims to capture the highest possible energy savings through these policy frameworks.
In particular, ECOS will argue to return to a clear, closed A to G label and the introduction of a product database and improved market surveillance, during the revision of the Energy Labelling Directive.

ECOS will also contribute to the development of product-specific implementing measures for Ecodesign and Energy Labelling, their appropriate implementation through standards, and their correct enforcement through market surveillance. ECOS is the only NGO working on all aspects of the Ecodesign and Energy Labelling policy frameworks, closing the loop between policy goals and energy efficiency targets, and the implementation and enforcement of related legislation and policies.

The energy savings brought by these policies are estimated to deliver almost half of the EU energy efficiency target (20% energy reduction by 2020), 314 Mt CO2 equivalent less GHG emissions (7% of 2010 EU-total); and generate €55 billion extra revenue for businesses and 800,000 jobs by 2020.

They help cement single market principles by preventing a mushrooming of national regulations. On track towards reducing home and office energy bills by a staggering €111 billion per year by 2020, or roughly €450 per household annually, these benefits are expected to increase by over 50% by 2030.

# 1. More Ambitious Product Regulations

Since 2007, ECOS has been participating in the development of the Ecodesign and Energy Labelling policies, providing expertise during the development of product-specific measures. In 2016, numerous important product categories will be discussed. The preparatory studies on smart appliances and lighting system will move forward, together with the advancement of work on taps & showers, TVs, commercial appliances, and special motors.

In addition, the Commission will proceed with the revision of several lighting regulations as well as the existing domestic appliances regulations (fridges, dishwashers, washing machines). Review studies on air conditioners and computers are also announced, together with a number of other developments. The Ecodesign Working Plan 2015-2017 should also be released in the course of the year, and other studies launched.

Through its work on Ecodesign and Energy Labelling policies, ECOS will continue to contribute to all stages of product-specific regulations, from the preparatory study stage to the Ecodesign Consultation Forum discussion, Commission interservice consultations (ISC), Member State voting, and final scrutiny by the European Parliament.

ECOS will work to promote substantial efficiency improvements of products put on the EU market, in order to deliver tangible greenhouse gas reductions by 2030, and other environmental and social benefits.

## Activities

- Ensure that product-specific Ecodesign and Energy Labelling measures are ambitious, taking into account all environmental impacts of products throughout their life-cycle
- Monitor and promote consistency between the various measures, ensuring a coherent approach is used by the European Commission
- Warrant a balanced representation of stakeholders in the preparatory studies' work and the Ecodesign Consultation Forum

## ECOS contributes to:

- ✓ European Commission's Ecodesign Consultation Forum
- ✓ Development of product-specific regulations

# 2. Energy Efficiency Standards of Space and Water Heaters

Space and water heaters constitutes a product category with high energy demand and related $CO_2$ emissions. It is crucial to ensure a high level of energy efficiency for these products, while maintaining a high level of safety for consumers. A set of regulations have already been adopted covering central boilers, water heaters and local heaters of different types of fuel (gas, liquid, electric, solid fuel).

The European Commission issued a mandate requesting the development of harmonised measurement methods to ensure conformity with the regulations, but due to the lack of harmonised standards to support current regulations, a transitional methods document has also been developed.

ECOS will work to foster the energy efficiency of space and water heaters, and through the development of realistic and robust measurement methods consider environmental aspects such as NOx emissions, especially with regards to appliances using solid fuel.

## Activities

- Contribute to the finalisation of standards EN 26 and EN 89, providing specifications and test methods for the construction, safety, rational use of energy and fitness-for-purpose, and the classification and marking of gas-fired water heaters
- Defend the consideration of the different operating modes of water heaters, the clarification of what loads are the appliances tested in, and the robust measurement of NOx emissions of central space heaters and particulate matter emissions of solid fuel burners
- Monitor standardisation developments in the field of local space heaters and solid fuel heaters, following the future related regulations

## ECOS contributes to:

- ✓ CEN/TC 48: Domestic gas-fired water heaters
- ✓ CEN/TC 57: Central heating boilers
- ✓ CEN/TC 109: Central heating boilers using gaseous fuels
- ✓ CEN/TC 113: Heat pumps and air-conditioning units
- ✓ CEN/TC 295: Residential solid fuel burning appliances
- ✓ CEN/TC 299: Gas-fired sorption appliances, and gas-fired endothermic engine heat pumps
- ✓ CLC/TC 59X: Performance of household and similar electrical appliances

## Standardisation requests from the European Commission and EFTA

- ✓ M/495: Harmonised Standards in the field of Ecodesign
- ✓ M/534: Water heaters and hot water storage tanks
- ✓ M/535: Space heaters and combination heaters

# 3. Energy Efficiency Standards of Lamps

Lighting constitutes another product category with significant energy demand in Europe, consuming as much as much as 340 TWh of electricity per year in Europe. Defining realistic and accurate measurement methodologies is necessary to deliver the expected beneficial effects of the Ecodesign regulations for lighting, and also support the transition to a more energy-efficient, LED-technology future.

The European Commission has issued two mandates requesting the standardisation organisations to develop necessary methodologies allowing the proper implementation of these regulations.

ECOS will work to ensure that lighting measurement methodologies will enable the proper implementation of EU regulations, and foster energy efficiency and reduce other environmental aspects.

## Activities

- Actively participate in standardisation work for lamps and luminaires, including on measurement methods, with a view to support the implementation of the Ecodesign and Energy Labelling regulations

## ECOS contributes to:

- ✓ CEN-CENELEC Coordination Group 'Light'
- ✓ CLC/TC 34A: Lamps
- ✓ CLC/TC 34Z: Luminaires and associated equipment
- ✓ IEC/TC 34: Lamps and related equipment
- ✓ CLC/TC 23BX: Switches and related accessories for homes and electric vehicles

## Standardisation requests from the European Commission and EFTA

- ✓ M/495: Electrical lamps related equipment under Commission Regulations 244/2009, 874/2012 and 1194/2012
- ✓ M/485: Fluorescent lamps, high-intensity discharge lamps, ballasts and related luminaires
- ✓ M/519: Light Emitting Diodes (LEDs)

# 4. Energy Efficiency Standards of Motor-driven Systems

A motor-driven system could consist of, or be part of, a number of products, such as electric motors, power drive systems, pumps, or fans. Such systems cover a wide scope of applications in products that are used in households or in the industry sector, from electricity generation to water treatment facilities. Considering that about 45% of all electricity is used to power electrical motors and about 17% of all primary energy is used to generate electricity for electrical motors, motor driven system contribute significantly to increasing GHG emissions.

The European Commission has issued several mandates for the development of test and measurement methods, as well as parameters for resource efficiency, reuse and recycling, which should enable the proper implementation of these regulations.

ECOS will work to foster energy and resource efficiency of motor-driven systems, through contributing to the development of robust harmonised standards which take into consideration environmental aspects.

## Activities

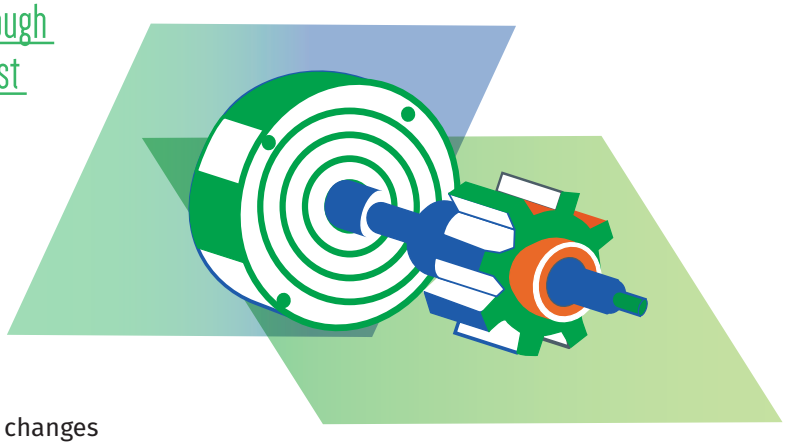
- Participate in standardisation work related to motor driven systems, including on measurement methods
- Encourage the anticipation of potential changes in standards stimulated from developments in the Ecodesign policy area (e.g. on Lot 30)
- Flag up any potential inconsistencies with the regulations

## ECOS contributes to:

- ✓ CEN/TC 156: Ventilation for buildings
- ✓ CEN/TC 197: Pumps
- ✓ CLC/TC 2: Rotating Machinery
- ✓ CLC/TC 22X: Power electronics

## Standardisation requests from the European Commission and EFTA

- ✓ M/469: Circulators
- ✓ M/470: Electric motors
- ✓ M/476: Variable speed drives and/or Power Drive System products
- ✓ M/498: Pumps
- ✓ M/500: Fans driven by motors with an electric input power between 125 W and 500 KW



# 5. Energy Efficiency Standards of Refrigerating Equipment

The area of refrigeration covers a wide variety of applications, ranging from domestic appliances (e.g. household fridges) to commercial and professional equipment (e.g. supermarket cabinets and beverage coolers). Due to their distinct characteristics and operational considerations, the European Commission is developing both new and revised regulations for the different categories of refrigerating equipment.

With current and forthcoming standardisation requests, the Commission seeks to underpin the Ecodesign regulation for household refrigeration with harmonised methodologies.

ECOS will represent the environmental interests in standardisation work related to refrigerating equipment, ensuring the development of robust and realistic measurement methods which will contribute to grasp the real and full energy savings expected from the Ecodesign regulations.

## Activities

- Participate in standardisation work related to energy efficiency of refrigerating equipment, including on measurement methods
- Contribute to ensure consistency between regulations and related standards

## ECOS contributes to:

- ✓ CEN/TC 44: Commercial and Professional Refrigerating
- ✓ Appliances and Systems, Performance and Energy Consumption
- ✓ CLC/TC 59X: Performance of household and similar electrical appliances

## Standardisation requests from the European Commission and EFTA

- ✓ M/459: household refrigerating appliances

# 6. Material Efficiency and other Horizontal Aspects of Ecodesign

CEN-CENELEC Ecodesign Coordination Group (Eco-CG) is responsible for the coordination and supervision of standardisation work related to Ecodesign, bringing together experts and representatives of the European Commission.

The group serves as a focal point concerning standardisation issues related to existing individual Ecodesign mandates as well as the Ecodesign horizontal mandate M/495. Under the Eco-CG, a number of task forces have been created with a view to develop guidelines and provide coordination on horizontal issues.

ECOS will contribute to a smooth implementation of various Ecodesign standardisation mandates, promoting a consistent and systematic consideration of horizontal issues, including environmental and material efficiency aspects in Ecodesign, across all relevant product groups and technical committees.

## Activities

- Actively participate in the EcoCG and related Task Forces
- Advocate for a better treatment of verification tolerances
- Contribute to an ambitious and swift development of horizontal material efficiency standards for Ecodesign products
- Provide input to Ecodesign draft mandates issued by the European Commission
- Promote consistency between regulations in place or under development, and standardisation

## ECOS contributes to:

- ✓ CEN-CENELEC Ecodesign Coordination Group (Eco-CG)
- ✓ Task Force 1: Terminology
- ✓ Task Force 2: Tolerances and Uncertainties
- ✓ Task Force 3: Coordination/Harmonisation of EPBD/ErP
- ✓ Task Force 4: Resource Efficiency

## Standardisation requests from the European Commission and EFTA

- ✓ M/537: Ventilation units
- ✓ M/539: Non-household washing machines, dryers and dishwashers
- ✓ M/540: Vacuum Cleaners
- ✓ M/543: Material efficiency aspects for Ecodesign
- ✓ M/544: Networked standby
- ✓ M/545: Computers and computer servers

# 7. Compliance Testing for Ecodesign

ECOS' extensive experience in the standardisation and legislative processes related to Ecodesign helped us shed light on a number of issues regarding the current state of the standardisation system, declaration and compliance testing of energy-related products, and market surveillance.

These activities are pursued within the context of recent media revelations about the procedures followed for product compliance, as well as legislative initiatives to clarify these procedures, such as the expected omnibus amendment to Ecodesign regulations.

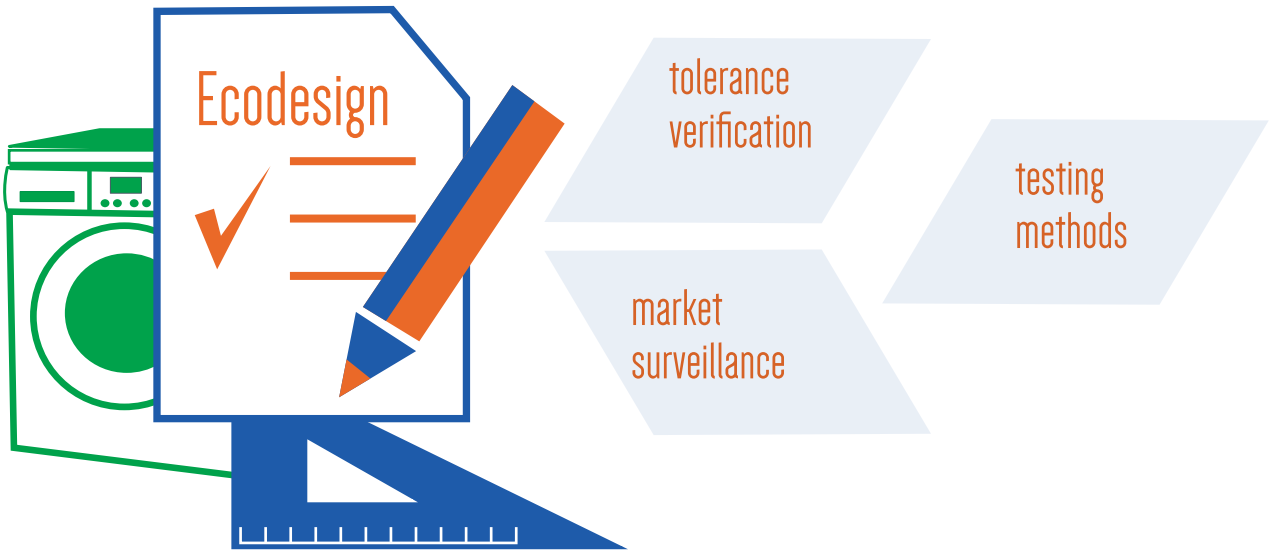
ECOS will advocate for verification tolerances to only be used by market surveillance authorities and not manufacturers.

## Activities

- Launch a position paper on European testing for compliance with Ecodesign, covering testing methods, verification tolerances and market surveillance
- Examine the use of loopholes by industry to mislabel products and mislead consumers, in the context of the STEP project (Smart Testing of Energy Products, in collaboration with ECF, TOPTEN, EEB, and CLASP
- Advocate and engage with stakeholders (legislators, industry, NGOs) towards the improvement of the verification procedure as defined in Ecodesign regulations, including the use of tolerances, within the context of a currently proposed omnibus amendment by the European Commission

## ECOS contributes to:

- ✓ STEP Project Team
- ✓ European Commission's Ecodesign Consultation Forum



# 8. Market Surveillance

It is estimated that between 10-20% of the expected energy savings are currently lost due to non-compliance with product regulation. The lack of required information given to consumers to operate their products in the most efficient way leads to further indirect losses. Market surveillance is crucial in order to complement work carried out on individual products and on horizontal matters.

ECOS has been involved in a number of projects related to market surveillance since 2013, notably; ATLETE2, ComplianTV, MarketWatch, EEpliant, and Ecopliant. ECOS will continue to play a key role in MarketWatch, a campaign run by 16 civil society organisations across Europe. Finishing in March 2016, this campaign aimed to test everyday consumer products in shops and online, ensuring that they are as efficient as they state.

Conceived and developed by ECOS, the INTAS project will soon kick-off. The project aims to provide the much needed data required to update and improve legislation on industrial products. It will also propose assessment and verification methodologies for products where Ecodesign Directive requirements are difficult to monitor.

Finally, ECOS will be involved in the Digi-labels project, aimed to develop the idea of using digital and ICT solutions, providing manufacturers and retailers with new options to meet the requirements of Energy Labelling regulations.

## Activities

- Hold a final conference for Marketwatch and contribute to the publication of the final report
- Kick-off the INTAS project, collecting data to improve legislation on industrial products, and gather ideas for the development of assessment and verification methodology
- Contribute to the first phase of the Digi-labels project, developing ways in which digital platforms can better inform consumers of energy and resource consumption

## ECOS contributes to:

- ✓ MarketWatch Project Team
- ✓ INTAS Project Team
- ✓ Digi-labels Project Team

# Resource Efficiency & Waste

Supporting the implementation of the EU 'Roadmap to a resource-efficient Europe' is a driver of ECOS' efforts to preserve, protect and enhance the natural capital of the EU.

ECOS will contribute to the development and revision of standards and guidance for resource recovery, waste characterisation and waste management in order to encourage sustainable production and consumption patterns, in line with the review of the EU's waste legal framework, as well as waste reduction, proper waste management, recovery, recyclability, and reusability.

# 1. Environmental Characterisation and Waste

In December 2015, the European Commission published a new EU action plan for a circular economy alongside a revised legislative proposal to review recycling and other waste-related targets. In this context, setting harmonised standards to characterise waste and determine waste criteria is needed to allow for the implementation of provisions under the EU's revised Waste Framework legislation.

ECOS will contribute to the development of harmonised waste and environmental characterisation methods and to improved framework conditions for reuse and recycling, to transition towards a zero-landfilling strategy in the EU by 2020 and to implement the Circular Economy Package.

## Activities

- Participate in the development of standards related to waste analysis, leaching tests, eco-toxicity and hazardous waste characterisation
- Identify standardisation needs related to the Circular Economy Package
- Ensure consistency between standardisation developments in the waste sector, through participating in the definition of the scope, content and deliverables of the newly set-up CEN Technical Committee on 'Environmental Characterisation'

## ECOS contributes to:

- ✓ CEN/TC 292: Characterisation of waste
- ✓ CEN/TC 444: Environmental characterisation
- ✓ CEN/TC 345: Characterisation of soils
- ✓ CEN/TC 400: Horizontal standards in the fields of sludge, biowaste and soil

## Standardisation requests from the European Commission and EFTA

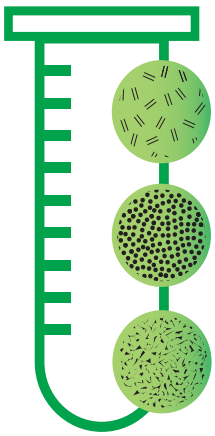
- ✓ M/395: Characterisation of wastes from the extractive industries

# 2. Sludge Management, Biowaste and Fertiliser

Harmonised standards for the characterisation and measurement of pollutants in waste samples for optimised resource use, and waste management are crucial to ensure the correct implementation of European environmental p¬olicies. Standards can help assess the environmental performance of production and waste management processes, allowing for the comparison of data or practices across Europe. They also play an important role in the promotion and competitiveness of the waste prevention and recycling industry in Europe.

ECOS wants to ensure that sludge recycled to land is enabled only if it is of good quality, while decreasing contamination of sludge at the source, in the context of the review of the Fertilisers regulation.

ECOS will contribute to the development of harmonised standards allowing for the proper implementation of EU waste policies with a view to optimise resource use of organic waste and minimise incineration and co-incineration of sludge.



## Activities

- Ensure reliable characterisation analysis to allow evaluating the suitability of the sludge for application to land versus incineration and co-incineration
- Contribute to the development of guidelines for good practice in the production, utilisation and disposal of sludges
- Promote the development of bio-waste standards, ensuring that sludge incineration is not used for bio-waste
- Advocate for the development of a standard on phosphorous recycling and recovery from wastewater treatment processes
- Promote convergence between standardisation and policy developments, especially in relation to recycling targets and quality of fertilisers in the European Commission's Fertilisers Working Group
- Follow standardisation work supporting the European Commission's raw materials and resource efficiency initiatives

## ECOS contributes to:

- ✓ CEN/TC 308: Characterisation and management of sludge
- ✓ CEN/TC 400: Horizontal standards in the fields of sludge, biowaste and soil
- ✓ European Commission's Fertilisers Working Group

## Standardisation requests from the European Commission and EFTA

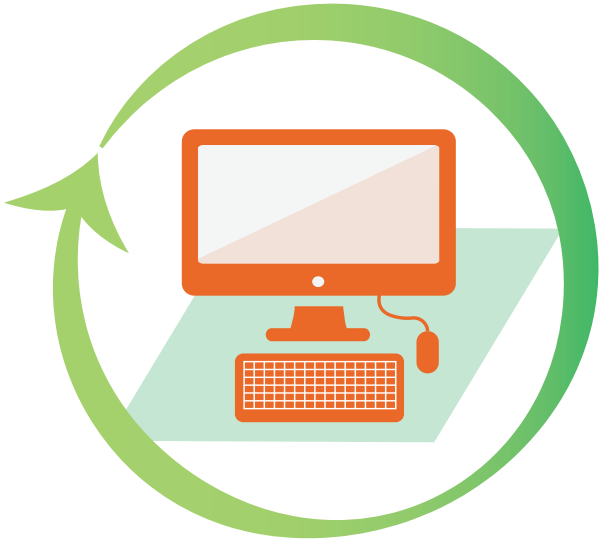
- ✓ M/330: Sludge, bio waste and soil

# 3. Recycling, Treatment, Reuse and End-of-Life (WEEE)

The Waste Framework Directive prioritises reuse over recycling, and the recovery instead of disposal of waste materials. In addition, the Waste Electrical and Electronic Equipment (WEEE) Directive requires 85% of the waste electrical and electronic equipment generated to be separately collected from 2019 onwards. This a significant improvement compared to the existing binding EU collection target of 4 kg of WEEE per capita, equivalent to about two million tons per year.

The amended WEEE Directive also sets conditions for the maximum reuse of WEEE. It is important to differentiate between WEEE, which is not prepared for re-use, and Redundant Electrical and Electronic Equipment (REEE) with the development of a framework informing consumers of their quality and safety.

ECOS will work to ensure harmonised, environmentally-sound practices for the reuse and recycling of WEEE, which can contribute to a true circular economy in Europe, through enhancing material reuse and recycling while limiting the release of hazardous chemicals into the environment and mitigating climate change.



## Activities

- Contribute to the development of standard setting requirements and guidelines for the collection and logistics, preparation for reuse, treatment of WEEE and recovery of dangerous substances from household appliances, including EN 50625 under M/518
- Contribute to the finalisation of the standard series on requirements for the preparation for reuse and the collection and treatment of WEEE (EN 50614 series)

## ECOS contributes to:

✓ CENELEC/TC 111X: Environment

## Standardisation requests from the European Commission and EFTA

✓ M/518: Waste electrical and electronic equipment

# 4. Packaging and Plastics

As part of the new EU action plan for a circular economy published in December 2015, the EU's Waste Framework legislation will be revised, with special attention given to roots of environmental pollution and hazardous waste, such as packaging and plastics.

Setting ambitious standards is of utmost importance to improve product and product packaging sustainability requirements, especially for home and industrial composting, and ultimately for recycling. Enabling the biodegradability of plastics is also essential considering its substantial proportion in the total amount of waste generated (approximately 10%), its low recovery rate (approximately 5%) and the disproportionate amount of time needed for plastics to degrade into the environment.

ECOS will work to set clear and ambitious sustainability requirements for product and product packaging, good waste composting and recycling practices, and to improve conditions for plastics biodegradability.

## Activities

- Participate in the drafting of ambitious conditions for the biodegradation and composting of plastics and packaging (EN 14995 and EN 13432)
- Contribute to the development of standards enabling conditions for home composting, as well as industrial composting
- Promote convergence between standardisation work and EU policy developments linked to biodegradability, composting and recycling conditions for packaging and packaging products, in the context of the Circular Economy Package

## ECOS contributes to:

- ✓ CEN/TC 249: Plastics
- ✓ CEN/TC 261: Packaging

# Environmental Health

The negative effects of human activity – including pollution, climate change, natural resource depletion and biodiversity loss – not only cause environmental degradation, but also have negative effects on human health.

The EU's 7th Environmental Action Programme lists a number of environmental health issues, notably air quality, chemicals and waste generation and management related to resource use. One of its key objectives is to safeguard the Union's citizens from environment-related pressures and risks to health and well-being.

ECOS will contribute to the preparation of automatic measurement methods for relevant pollutants. These methods should contribute to reaching the new air quality objectives for the period up to 2030, set out in the Clean Air Policy package.

Finally, ECOS will participate in standardisation work on dangerous chemicals and nanotechnologies with a view to ensure that standards effectively support the EU chemicals policy framework and potential future legal developments, and ultimately, a toxic-free environment.

# 1. Dangerous Substances in Televisions

Studies have found associations between exposure to certain flame retardants and adverse health effects, including cancer, reproductive toxicity, immunotoxicity, neurotoxicity, reduced IQ, birth defects, and hormonal changes. Infants and young children are the most vulnerable group, as they are acutely susceptible to neurodevelopmental toxicants and endocrine disruptors. In addition, the use of flame retardants makes recycling the casings of electronics more difficult, expensive, and in some cases, impossible. This will reduce the economic viability or recycling in developed countries and harm the health of recycling workers in developing countries.

Following the successful opposition of flame retardants in standards for televisions, work will now focus on areas that may require the indirect reintroduction of such requirements through alterations to standards that establish related safety criteria.

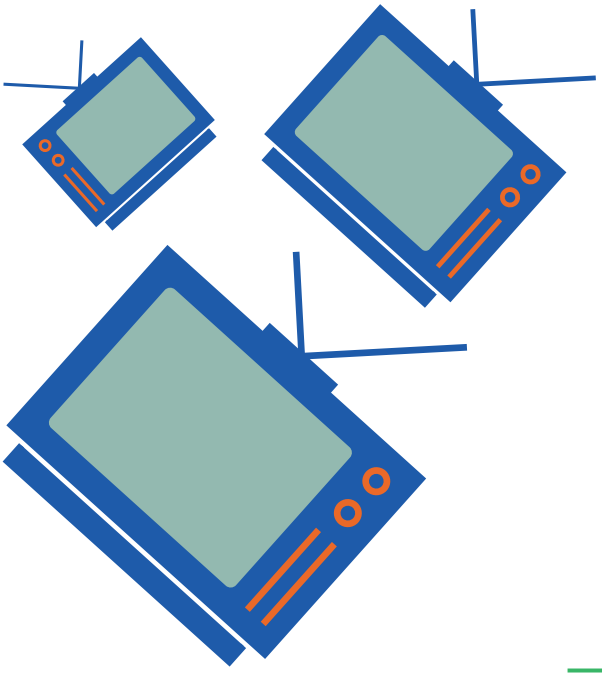
ECOS will continue making efforts to prevent the use of flame retardants in televisions and other consumer products, so as to ensure that the use of potentially dangerous substances in products is minimised, limiting citizen and environmental exposure during the whole product life-cycle.

## Activities

- Further demonstrate the lack of scientific rationale for ignition requirements in televisions
- Follow standardisation work on the safety of electronic equipment and information and communication technology (EN 60065 and EN 62368)

## ECOS contributes to:

✓ IEC/TC 108: Safety of electronic equipment within the field of audio/video, information technology CLC/TC 108X: Information and communication technology



# 2. Nanotechnologies

Nanotechnologies are the design, characterisation, production and application of structures, devices and systems by controlling shape and size on a nanometre scale. This includes the manufacture, use, and manipulation of materials at nano-scale. These innovative technologies promise technical and economic advantages in diverse fields, including electronics, and energy production and storage. Despite its promises, the use of nanomaterials comes with risks and potentially harmful impacts on human health and the environment. As voluntary options have repeatedly failed in the past, nanomaterials must be legally required to go through specific risk assessment and evaluation, and risk management measures must be developed before the nanomaterials are placed on the market.

With the definition of nanomaterials in the EU still under revision, and with the REACH Annexes revision still anticipated, the importance of clear, harmonised definitions for nanomaterials and nanotechnologies is crucial. ECOS' work on this topic aims to provide legal certainty and allow for the development of specific legal requirements at both EU, and international level.

ECOS will work to support the safe and sustainable development and use of nanomaterials through ambitious sampling, characterisation, and exposure methods for nanomaterials, also in the complex matrix supporting the development of a comprehensive regulatory EU framework.

## Activities

- Contribute to international fora working on nanomaterials standards, within CEN, ISO and OECD
- Contribute to developments related to the characterisation of nanomaterials, scratch testing, waste containing nanomaterials and nanomaterials in construction products
- Work at OECD level on characterisation, nanotoxicology, risk assessment and management in regulations, especially to follow the testing guidelines on inhalation
- Promote the development of legal requirements to ensure the safety of nanomaterials for health and the environment, in line with standardisation developments

## ECOS contributes to:

- ✓ CEN/TC 352: Nanotechnologies
- ✓ ISO/TC 229: Nanotechnologies
- ✓ OECD Working Party on Manufactured Materials (WPMN)

## Standardisation requests from the European Commission and EFTA

- ✓ M/461: Nanotechnologies and nanomaterials

# 3. Chemicals in Standardisation

Standards are increasingly used as policy tools to ensure a proper and coherent implementation of European environmental law and policies. Existing approaches within the ESOs such as the CEN 4 to address environmental aspects in standards, are too general and a number of technical committees are in need of tailor-made tools that would provide more detailed guidance on specific issues.

One of the most relevant issues identified is how to address hazardous chemicals in standards. So far, hardly any standards include specific provisions related to hazardous chemicals. Technical committees are not always aware of the use patterns of hazardous chemicals in the products they are developing standards on, and the need and way to address them. They also often lack the expertise needed in order to draft specific provisions themselves.

As part of a three-year project lasting until mid-2017, ECOS will work to ensure that product standards in the market comply with the chemicals regulation in place and contribute towards minimising the health and environmental impacts of chemicals in products. tandards that establish related safety criteria.

ECOS will work together with the standards bodies of Denmark (DS), Spain (AENOR) and Austria (ASI), to develop a horizontal guidance document on how to address hazardous chemicals in product standards.

## Activities

- Co-lead the drafting of the CEN Guidance document on why and how to address hazardous chemicals in product standards together with ASI
- Participate in the project' Stakeholder Panel
- Contribute to the preparation of recommendations for the adoption, promotion and use of the Guide by standardisers

## ECOS contributes to:

✓ CEN Chemicals Project Team
✓ CEN/SABE

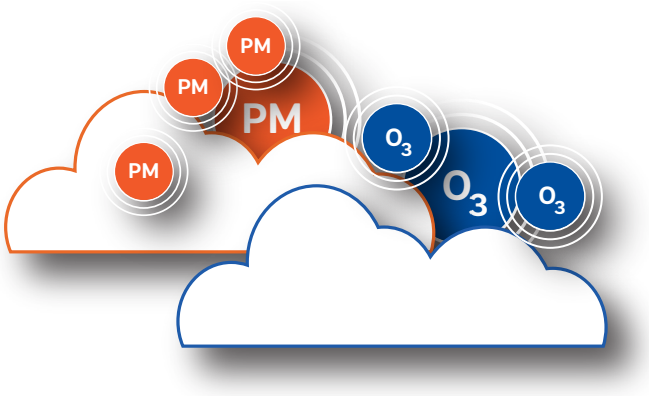
# 4. Air Quality and Industrial Emissions

Without air quality standards that are in line with the World Health Organisation's recommendations, the EU sees over 400,000 premature deaths every year caused by air pollution. It is estimated that the health costs associated to this are between €330 billion and €940 billion. Furthermore, mercury emissions from incinerated solid recovered fuels are a major source of environmental concerns.

ECOS will work to limit the negative impacts of poor air quality through the development of robust automated measurement methods and monitoring standards to safeguard citizens' health and protect the environment.

## Activities

- Contribute to the development of harmonised measurement methods to monitor Particulate Matter 10 and 2.5 (PM10 and PM2.5), in support of the Ambient Air Quality Directive (e.g. EN 16450)
- Participate in the development of methods for the determination of the concentration of total mercury and automated measuring systems (EN 14884)
- Follow European standardisation organisations' efforts to define standards for monitoring requirements of emissions from large combustion and waste incineration plants
- Promote the alignment of standardisation work with relevant monitoring requirements defined for the Large Combustion Plants (LCP) Best Available Technique Reference Documents (BREF), Wood panels BREFs & Waste Incineration (WI) BREFs




## ECOS contributes to:

- ✓ CEN/TC 264: Air quality
- ✓ CEN/TC 343: Solid Recovered Fuels

## Standardisation requests from the European Commission and EFTA

- ✓ M/503: Implementation of the Ambient Air Quality legislation

# ECOS Membership

## National Associations

**Austria**
Umweltdachverband

**Belgium**
Bond Beter Leefmilieu Vlaanderen (BBLV)
Inter-Environnement Wallonie asbl (IEW)

**Bulgaria**
Institute for Ecological Modernisation (IEM)

**Croatia**
Croatian Society for Sustainable Design (DOOR)

**Cyprus**
Terra Cypria – the Cyprus Conservation Foundation

**Czech Republic**
Zelený Kruh (Green Circle)

**Denmark**
Denmarks Naturfredningsforening (DN)
Danish Ecological Council (DOR)

**France**
France Nature Environnement (FNE)
Zero Waste France
Women in Europe for a Common Future France (WECF)

**Germany**
Friends of the Earth Germany (BUND)
Bundesverband Bürgerinitiativen Umweltschutz (BBU)
Deutscher Naturschutzring (DNR)
Nature Friends Germany (NFD)

**Greece**
Ecocity National Governmental Organization (ECOCITY)

**Hungary**
Clean Air Action Group (CAAG)

**Italy**
Legambiente Onlus

**Latvia**
Friends of the Earth Latvia

**Luxembourg**
Oekozenter Pafendall

**Netherlands**
Stichting Natuur en Milieu (SNM)
Leefmilieu

**Norway**
BELLONA Europa

**Poland**
ClientEarth Poland
Polish Foundation for Energy Efficiency (FEWE)

**Portugal**
QUERCUS

**Spain**
ECODES

**Sweden**
Swedish Society for Nature Conservation (SNF)

**Switzerland**
WWF Switzerland

**United Kingdom**
Energy Saving Trust
Sustainability Network for Standardisation (SNS)

## Pan-European organisations

European Environmental Bureau (EEB)

Friends of the Earth Europe (FoEE)

Health Care Without Harm Europe (HCWH-Europe)

Health & Environment Alliance (HEAL)

European umbrella for social enterprises with activities in reuse, repair and recycling (RREUSE)

European Federation for Transport and Environment (T&E)

WWF-European Policy Office

## About ECOS

ECOS' vision is a clean and healthy environment where people live in respect of the planet and its natural resources, preserving them for future generations. Our mission is to influence the development of ambitious strategies to reduce and control sources of environmental pollution, and to promote resource and energy efficiency, environmental health and sustainable development.

To this end, ECOS defends the environmental interests in the European Standardisation System, especially through contributing with legal and technical expertise, to the evaluation of standardisation needs and the standards' development or revision process. ECOS particularly focuses on standards developed to support EU environmental legislation and policies.

With the support of nearly 40 environmental NGOs across Europe as members, ECOS is the only environmental organisation worldwide specialised in standardisation and technical product policies.

European Environmental Citizens Organisation for Standardisation

ECOS

Organisation Européenne Environnementale Citoyenne pour la normalisation

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