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Annual European standardisation work programme 2012

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1. INTRODUCTION

In its Europe 2020 strategy¹ the Commission highlighted the need to leverage European standards and international standards – whose primacy is recognised by the European standardisation system – for long-term competitiveness and to contribute to a wide range of policy goals.

Standards are tools which help ensure the functioning of the single market, a high level of consumer and environmental protection, and more innovation and social inclusion. They open up the single market to small and medium sized enterprises (SME) whose participation in standardisation should be actively encouraged. In the digital society standards ensure interoperability of information and communication technology (ICT) devices, applications, data repositories, services and networks.

In its Communication ‘A strategic vision for European standards: Moving forward to enhance and accelerate the sustainable growth of the European economy by 2020’², the Commission undertook to adopt an annual work programme for standardisation. This first such programme concerns the European standards and other European standardisation deliverables to be developed by the three independent European standardisation organisations (ESO) – CEN, CENELEC and ETSI.

This work programme identifies priorities for Commission standardisation requests (mandates)³ in the year ahead however it also looks beyond 2012 and at some mandates already issued. The priorities concern firstly ‘harmonised standards’ which ensure that products meet the essential requirements set out in EU harmonisation legislation, where the ESO should also continue to improve existing standards to further consolidate the internal market.

The Commission also mandates other European standards to support EU policies and invites the ESO to develop standards in other ways. In particular, the rolling programme for ICT standardisation⁴, which lists topics where standards could support EU policies and competitiveness, will also be updated in 2012 with the advice of the multi-stakeholder platform for ICT standardisation on priorities in support of Union legislation and policies. The Commission’s Joint Research Centre will continue to provide technical support to the ESO by undertaking complementary pre- and co-normative research in support to the standardisation process in various technical fields related to its work.

The work programme is a key element in the Commission’s efforts to speed up the standardisation process. It will allow for more efficient anticipation and planning of standardisation and these efforts will be further reinforced by shorter deadlines for the acceptance of proposed mandates. In future, the work programme will be established with a longer lead time before implementation and after a full consultation of all interested stakeholders. This will allow even better

¹ COM(2010) 2020

² COM(2011) 311

³ http://ec.europa.eu/enterprise/policies/european-standards/standardisation-requests/database-mandates/index_en.htm.

⁴ http://ec.europa.eu/enterprise/sectors/ict/files/ict-policies/2010-2013_ict_standardisation_work_programme_1st_update_en.pdf

synchronisation with preparatory work in the ESO and provide a platform to gather the full range of input on priorities for mandates.

The ESO also develop non-mandated European standards at the initiative of undertakings, national standardisation organisations or other stakeholders. These standards are not covered in this work programme.

This work programme does not replace the biennial report to the Parliament, Council and Economic and Social Committee on the application of Directive 98/34/EC nor does it substitute the annual published list of standardisation work entrusted to the ESO pursuant to that Directive.

This work programme provides an orientation but is not binding on the Commission. It has no budgetary impact beyond that already foreseen for the year 2012. Work items depend on the availability of funding within the budget foreseen, the submission of quality proposals and agreement with the relevant ESO for each topic. In exceptional cases, e.g. after formal objections to harmonised standards, the Commission may issue mandates not foreseen in this work programme.

2. EUROPE 2020 FLAGSHIP – INNOVATION UNION⁵

By codifying information on the state of the art of a particular technology, standards enable dissemination of knowledge, interoperability between new products, services and digital content and provide a platform for further innovation. For example, the GSM standard laid a foundation for Europe's success in mobile phones and TCP/IP and HTTP/HTML create the Internet ecosystem.

Standards play this useful role only if they keep pace with the development of new technologies, shorter innovation cycles and technological convergence. A dynamic standardisation system is also a pre-condition for the EU to reinforce its impact in global standard-setting, where other countries are increasingly active.

In high technology areas standards development can assist growth through internationally agreed terminology, measurement and characterisation methods. Protocols for health and safety evaluation will also remove a barrier to innovation in areas such as nanotechnology and these may be the subject of future mandates.

Scientific activities make a key contribution to the standardisation process. The methodologies, processes and materials that lead to standards are defined, partly or wholly, by available scientific knowledge. For example, the Commission's Joint Research Centre can help identify future technology developments where early standardisation could help European industry.

2.1. Innovation Partnerships

European Innovation Partnerships (EIP) will provide a platform for assessing standardisation needs allowing the Commission to issue early, market-relevant mandates. For example, the pilot EIP on active and healthy ageing aims to ensure interoperability and tackle possible market access obstacles through standards and

⁵ COM(2010)546

reference specifications for new equipment and services for integrated care and independent living.

The future Raw Materials EIP may also encourage the development of European standards for a common understanding on resources and reserves for primary and secondary raw materials. Carbon footprint measures are another area where standardisation could speed the development of green industries.

3. EUROPE 2020 FLAGSHIP – AN INDUSTRIAL POLICY FOR THE GLOBALISATION ERA⁶

3.1. Strengthening the internal market and improving product safety

The internal market has been a motor of growth in Europe over the last 20 years. Within the internal market, European standards reassure consumers, reduce production costs and allow goods with innovative technologies to come to market.

Harmonised standards go further: compliance guarantees the required safety level of products. For goods covered by the New Legislative Framework⁷, the standards listed in the OJ provide a presumption of conformity to some or all the essential requirements of the related directive.

In the area of construction products⁸, a large set of harmonised standards provide a common way to assess and express performance, thus allowing a common technical language to be used by all stakeholders.

3.1.1. Child safety

Child safety is a priority in the internal market for consumer products. Directive 2009/48/EC on toy safety⁹, introduces new requirements to reduce toy-related accidents to a minimum. Accordingly, several mandates were issued in 2010/11 in addition to the general mandate of 2009 (M/445), to revise existing standards or draw up new standards to meet the essential requirements of the directive.

These concern in particular the hazards of flammability and strangulation in the sleep environment of newborn infants and babies (M/497), certain aquatic toys (M/484) and items that are propelled into free flight by releasing an elastic band (M/482). A global, step by step alignment of toy safety standards was also proposed.

Mandates concerning bath rings, bath aids, bath tubs and stands (M/464) and the safety of consumer-fitted child-resistant locking devices for windows and balcony doors (M/465) were also given.

The priority attached to child safety will be reflected in the standardisation work for 2012 when the Commission will ask the ESO to draw up new harmonised or other European standards on the following subjects:

⁶ COM(2010)614

⁷ <http://ec.europa.eu/enterprise/policies/single-market-goods/regulatory-policies-common-rules-for-products/new-legislative-framework/>

⁸ Harmonised standards for construction products have a particular purpose. See <http://ec.europa.eu/enterprise/policies/european-standards/documents/harmonised-standards-legislation/list-references/>

⁹ OJ L170, 30.06.2009, p.1

- (1) A European standard to increase the safety of **internal blinds, corded window coverings and similar devices**;
- (2) Certain **child-care articles used by children while they are sitting and bouncing** – for example high chairs, booster seats, chair-mounted seats, children’s chairs and baby-bouncers – are not always sufficiently safe and ongoing standardisation work should take account of relevant studies;
- (3) Compliance of standard EN 14862:2007 on **cords and drawstrings on children’s clothes** with the general safety requirement laid down in Directive 2001/95/EC.

Standardisation work could also be necessary in areas such as textile safety, chemical safety and flammability for 11 other types of child-care products, playground equipment and products for older children such as furniture.

3.1.2. *Safety of other consumer products*

The safety of other consumer products is also vitally important. The 2010 report on the rapid alert system for dangerous non-food products – RAPEX – shows that dangerous products are now more readily identified and removed from the EU market. Safety at source has become a key focus – with attention now moving to design and manufacturing. The following are likely to be requested in 2012:

- (4) A European standard on **alcohol-powered flueless fireplaces**;
- (5) A programming mandate on **smart protective clothing** and equipment.

as well as a review of the safety level of the existing standards on:

- (6) **Gymnastic equipment** (EN 913:2008, EN 916:2003, EN 12196:2003, EN 12197:1997, EN 12346:1998, EN 12432:1998 and EN 12655:1998);
- (7) **Stationary training equipment** (EN 957-1:2005, EN 957-2:2003, EN 957-4:2006+A1:2010, EN 957-5:2009, EN 957-6:2010, EN 957-7:1998, EN 957-8:1998, EN 957-9:2003 and EN 957-10:2005);
- (8) **Bicycles** including bicycles for young children, and luggage carriers for bicycles (EN 14764:2005, EN 14766:2005, EN 14781:2005 and EN 14872:2006);
- (9) **Indoor candles** (EN 15426:2007, EN 15493:2007, EN 15494:2007); and
- (10) Adapting the existing standards on **laser pointers for consumers** to address the risks of exposure of the eye to laser pointers and of disturbing aircraft;
- (11) Revising certain parts of the **pyrotechnic articles** standard EN 15947 to include different types of batteries and combinations and take account of the distinctions between them.

3.1.3. *Design for all*

The Commission expects further progress on the ‘Design for All’ mandate (M/473) issued in 2010 following the UN Convention on the Rights of Persons with Disabilities. The main objective is to update standards in priority areas and to develop a new standard addressing how to consider accessibility in the development processes of manufacturing and services.

3.1.4. *Sustainable mobility*

Important transport standardisation is ongoing; e.g. mandate M/468 – issued in 2010 – which focuses on the interoperability of plugs, chargers and electric vehicles will allow one charger to be used for a range of electric vehicles and facilitate the roll-out of charging infrastructures and charging at public access points. A general programming and standardisation mandate (M/483) was also addressed to the ESO in 2011 in the field of railway interoperability under Directive 2008/57/EC¹⁰.

In professional road transport, respecting maximum driving times and minimum rest periods is crucial for drivers and other road users.

The ability to initiate an emergency communication to request help when needed should be independent of the network and access technologies deployed or the physical abilities of the citizen.

In a longer term perspective, Intelligent Transport Systems (ITS), which means applying ICT to transport to make it safer and more efficient, will reduce the number of road victims, energy consumption and CO2 emissions. In addition, the costs of traffic congestion – estimated at 1% of European GDP – could be cut by up to 10% through the deployment of ITS.

In order for innovations in this domain to fully benefit from a sufficient market penetration, standardisation of ITS applications is needed¹¹. Therefore, the Commission intends to request the ESO to work on:

- (12) **Seals for tachographs** which allow the detection of tampering with the mechanical interface between the different parts of the tachograph.
- (13) The **Emergency call (eCall)** to help victims of traffic accidents by triggering a call to the 112 emergency number when a serious accident occurs, sending information such as time, location, driving direction and vehicle description, as well as establishing a voice connection;
- (14) National ICT systems to collect road tolls exist, but are not interoperable. The **European Electronic Toll Service (EETS)** will avoid the necessity for different paying devices to access public transport infrastructures in different fare management territories. The ESO are invited to submit proposals responding to mandate M/338 (Electronic Fee Collection) that are still missing in order to contribute to the EETS;

¹⁰ OJ L191, 18.07.2008, p.1

¹¹ Many of these activities are presented in greater detail in the 2010-2013 rolling programme for ICT standardisation – see section 1 above

- (15) In a **co-operative system** the vehicles and the infrastructure help each other by exchanging information. For instance, the infrastructure warns the traffic that a light is about to become red or vehicles in a traffic jam advise the vehicles behind to take another road. The ESO are invited to develop standards under mandate M/453 (Co-operative Systems for Intelligent Transport).

3.1.5. *Safety of infrastructure*

Following the ‘Deepwater Horizon’ accident, the Commission adopted the Communication “Facing the challenge of the safety of offshore oil and gas activities”¹² which included initiatives to reinforce existing EU legislation applying to most of the equipment used in offshore oil and gas facilities. A new mandate in 2012 should address the scarcity of harmonised standards in this area:

- (16) The development of harmonised standards would enable manufacturers of **offshore oil and gas industry equipment** to benefit from a presumption of conformity with the requirements of the Directives concerned and ensure that the equipment is designed according to the principles of safety integration defined therein.

3.1.6. *Wireless communications*

Reconfigurable and cognitive radio are promising technologies that will allow flexible use of radio equipment and more efficient use of spectrum. These technologies are not only important for the future of commercial radio equipment and associated services, but also for public safety users (police forces, fire brigades, etc.) and military users. At the moment no European standards cover reconfigurable and cognitive radio technologies.

- (17) The development of European and harmonised standards addressing commercial radio equipment (under the RTTE Directive), public safety and military equipment and applications, would enable the development and early adoption of **reconfigurable and cognitive radio** equipment supporting competitiveness and growth in a promising new market.
- (18) The further development and regular maintenance of **mobile communications standards** (UMTS, LTE, LTE advanced ...) in the framework of the 3rd Generation Partnership Project (3GPP) could be managed through a direct mandate which would have the benefit of aligning standardisation work with relevant EU policy¹¹.
- (19) The ongoing work under the mandate on the **resistance of broadcasting receivers (terrestrial and cable television) to interference** should be continued in 2012¹¹.

3.2. **Strengthening the internal market for services**

Services are among the main drivers of EU economy, accounting for over two-thirds of EU GDP and being a major source of net job creation in recent years. However, the Internal Market for services has yet to reach its full potential.

¹² COM(2010)560

Standards have a great potential to contribute to a more thriving services sector and therefore to a more innovative and competitive economy. Given that European services standards still represent only a small portion of all standards adopted at EU level, they have played a less prominent role in supporting the completion of the Internal Market and contributing to the competitiveness of the European services sector. This is why the Commission Communication on the Single Market Act¹³ envisages among its twelve key priority actions the extension of the European standardisation system to services.

In order to facilitate completion of the Internal Market for services, in 2012, the Commission intends to give the ESO a combined mandate for programming and subsequent development of horizontal services standards. These types of standards cover issues common to many service sectors and typically focus on how a service is provided. The work on the horizontal services standards at EU level would set out the basis for future work in services standardisation.

3.3. Space: a driver for innovation and competitiveness at the service of citizens

Society is increasingly dependent on space infrastructure and applications for both civilian and military use. The European space industry – manufacture, launch and operation, applications and services – is a driving force for growth and innovation, generating highly qualified jobs and market opportunities for innovative products and services far beyond the space sector.

The priorities of EU space strategy¹⁴ are to ensure the success of the two flagship projects, Galileo (the first global satellite navigation system designed for civilian use) and GMES (to guarantee continuous access to information services on environment and security issues which are based on permanent space-based observation and in-situ infrastructures).

The Commission addressed in September 2011 a mandate to develop standardisation regarding space industry (M/496 – 3rd phase) to the ESO. In 2012 it is expected that further mandated standardisation related to Galileo will focus on the following:

(20) Galileo-related standardisation of:

- different classes of user equipment for mass market applications;
- new generation of Satellite Based Augmentation System (SBAS) receivers for mass market applications;
- pseudolites compatible with Galileo navigation;
- user receiver for Galileo Commercial Service, and
- application specific standardisation (Aviation, Maritime, Rail, Road, Mobile telecoms) taking account of related standardisation activities being carried out in other areas, such as ICT.

¹³ COM(2011) 206

¹⁴ COM(2011)152

3.4 Security

In 2011 the Commission gave an extensive programming mandate (M/487) covering the field of security (i.e. the fight against crime and terrorism, border security, etc.) to the ESO. The ongoing work under that mandate should continue in 2012 to deliver concrete results and anticipate future specific standardisation needs in this area.

3.5 Nuclear Safety and Security

The EU has particular interest in ensuring that the peaceful uses of nuclear energy take place with the highest standards of nuclear safety, security and non proliferation.

The international initiative on a holistic Safety, Security and Safeguards (“3S”) concept for nuclear energy was launched with the Nuclear Safety and Security Group (NSSG) at the G8 summit in 2008, and is converging more and more towards the idea of internationally binding security and safety standards.

Through its Joint research Centre, the Commission contributes to the major nuclear standardisation processes such as European and international documentary standards, international expert documents on harmonisation or target performance criteria, material standards and European or international guidelines as well as membership of relevant working groups and technical committees and participation in other workshops and meetings on standardisation and harmonisation.

(21) Nuclear Safety and Security standardisation activities:

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| <ul style="list-style-type: none">– Instrumentation and Control standards IEC/SC45A - CLC/TC45AX for nuclear installations;– Documentary standards CWA/CEN 15627 for Small Punch Test Method for Metallic Materials;– CEN/WS 064: Design and Construction Code for mechanical equipments of nuclear installation;– Interoperability of Engineering Materials Data (ELSSI-EMD);– Illicit Trafficking Radiation Assessment Programme for an evaluation and comparison of the performance of available radiation detection equipment relevant to nuclear security;– Standardisation of data formats, reference materials for nuclear safeguards, forensics;– Radiological / Nuclear Information Exchange in Europe. |
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4. EUROPE 2020 FLAGSHIP – A DIGITAL AGENDA FOR EUROPE¹⁵

The ICT sector is directly responsible for 5% of European GDP, with a market value of € 660 billion annually, but it contributes much more to overall productivity

¹⁵ COM(2010) 245

growth. Standards are indispensable for interoperability between ICT products, services, applications and digital content which is crucial for building an effective digital society. Given the global nature of the ICT market, cooperation between the ESO and relevant fora and consortia is needed to cope with the ever-growing demand for standards to support interoperability in this fast evolving domain.

The rolling programme for ICT standardisation supports the objectives of the Digital Agenda and other flagship initiatives. The programme is subject to wide stakeholder consultation and covers important areas where the referencing of standards could help implement policy objectives.

Identified priority domains include eHealth, regulated medical products, eInclusion, Intelligent Transport Systems (ITS), Radio Frequency Identification (RFID), electronic signatures, eProcurement, eCatalogue, eInvoicing, eSkills and eLearning, ICT for Energy Efficiency and Smart Grids, the Internet of Things, ePublishing, ID management and privacy, industrial control security, eBusiness, eGovernment, emergency communications and digital content. Complementary interoperability testing and awareness actions are also included to ensure the effective uptake and implementation of standards. While further details will be provided in the next update of the rolling programme for ICT standardisation⁴, the following areas will be among those focused on in 2012.

4.1. eHealth

eHealth is one of the fastest developing areas for ICT applications. Interoperability, in particular cross-border, is crucial for the widespread use of ICT in the health sector. At the same time data protection issues must be addressed if new products and services are to be fully exploited. The objective is to make better use of available standards and develop new ones if necessary.

The development of standardised ontologies, terminologies, data, clinical information or artefact models will be targeted in order to improve semantic interoperability, as well as the development of interoperability guidelines, profiles, design guidelines and specifications. SMEs play an important role in eHealth, hence their involvement and engagement in the standardisation process is essential¹¹.

4.2. eAccessibility and independent living

Accessible ICT products and services offer new possibilities for elderly people and people with special needs to participate actively in society and enjoy independent living. The Commission has already issued a mandate on functional requirements for the public procurement of accessible ICT products and services. As part of the European Innovation Partnership on Active and Healthy Ageing, further standardisation work is needed to ensure the rapid emergence of open and interoperable ICT solutions for independent living and care¹¹.

(22) eAccessibility and independent living standardisation:

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| <ul style="list-style-type: none">– For the current mandate (M376) for accessibility functional specifications, a rapid, comprehensive delivery regarding specifications for websites (including content and rich internet applications) and related authoring, management and checking tools, and the corresponding assessment methodologies; |
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- For **total conversation telecommunication**, in particular accessibility of 112 emergency services, support to the Emergency Telecommunications (EMTEL) task and more general analysis of the related standardisation needs for next generation 112 infrastructures;
- For **user profile management**, mapping and complementing at EU level the current efforts of ISO (ISO WG 7 SC 36, SC 35 and JTC1 for ISO 24751) in relation with results from VUMS cluster and Cloud4All projects under the 7th Research Framework Programme;
- **Reference models for open ICT platforms** delivering flexible and personalised solutions for **independent living**;
- Specifications for open and operating system-independent **Application Programming Interfaces** for independent living and integrated care ICT solutions
- **Interoperability guidelines** and specifications for ICT-based independent living and integrated care solutions.

4.3. eSkills and eLearning

As noted in the Commission Communication on "e-Skills for the 21st Century"¹⁶, pan-European competences frameworks, tools, and efficient and interoperable e-learning solutions are indispensable to foster the development of ICT related skills and the promotion of lifelong learning.

The Commission will continue to support the CEN ICT Skills Workshop and the CEN Learning Technologies Workshop and Technical Committee in 2012 in order to further develop European standards.

(23) eSkills related standardisation on:

- Methods and tools for implementing **European e-Competences Framework Job Profiles, Qualifications and Certifications** (including international cooperation) to promote ICT professionalism and e-skills for competitiveness and innovation (e.g. in cloud computing, cyber-security and green IT);
- Development, promotion and implementation of European e-competences **curriculum guidelines** and quality labels to facilitate mutual recognition and transfers between different types of education and training;
- Frameworks for **e-learning and lifelong learning standards** to ensure harmonised usage and implementation focusing on e-learning opportunities, competence descriptions, outcomes, credits, assessment and e-portfolios;
- **E-learning courses, content repositories and exchange mechanisms** focusing on metadata, learning design and structure, technical and semantic interoperability including context-aware and adaptable e-learning systems;

¹⁶ COM(2007)496

- **Guidelines** on integrating e-learning into organisational infrastructure (school frameworks, enterprise architectures, business and learning processes) including descriptions of process patterns in key domains.

4.4. Energy Efficiency and Smart Grids

The standardisation covers two fronts: On the one side, the management of transport and distribution of energy as well as the stability of the new grids. On the other hand, seen from the energy consumer side, managing the individual or industrial consumption (including renewable installations where applicable).

(24) Smart Grid ICT standardisation related to:

- **smart meters** as the central interface between the grid and the summer providing consumption data to adapt individual energy management strategies (consumption, production of energy);
- **efficient consumption of energy** management concepts of buildings (presently responsible for 40% of the energy consumption) or industrial processes addressing the whole lifecycle (design, optimising energy consumption at operational level);
- **availability of energy management appliances** (sensors, switches) designed as 'plug and play' devices; compatibility with home automation networks.

In the energy efficiency area, to form a homogenous environment, standardisation needs to address the high level data models. On the Smart Grid front, standards to cover the communication needs of the grid management, balancing and interfacing with the millions of new renewable sources, as well as standards for the complex interactions of the new distributed energy market and a transparent Demand Response scheme. Of paramount importance is the agreement around data protection and data security related standards.

With respect to energy efficiency of ICT, the effort to develop standards for the methodologies to measure the environmental impact of ICT remains a priority, building on standards and recommendations that were agreed at European and international level in the course of 2011. Further development could cover:

- (a) the definition of harmonised energy efficiency performance indicators at system level, in particular for advanced ICT services such as fixed and mobile broadband networks, data centres and cloud computing;
- (b) the expansion of methodologies to address other environmental impact than carbon and energy, such as water or raw materials depletion;
- (c) the development of product category rules enabling comparability of the environmental performance of specific ICT goods and services, for the purpose of providing reliable and transparent information to governments, enterprises and consumers.

4.5. eProcurement/eCatalogues

Electronic procurement offers considerable scope to achieve efficiency savings and faster procurement procedures. The Commission aims to make online and cross-border eProcurement straightforward by facilitating the emergence of an interoperable European framework, building where possible on common European standards. Standardisation work already under way may need to be reinforced or completed through specific actions.

eCatalogues are used by suppliers to offer for sale goods or services and by contracting authorities to obtain product or pricing details, to source and purchase them. They are a component of both the tendering (pre-award) and the purchasing (post-award) eProcurement processes.

The lack of a standard definition of eCatalogues across the EU is one of the obstacles that enterprises – especially SMEs – face when trying to carry out cross-border public eProcurement transactions. Standards should help, and make eProcurement more efficient by taking account of ongoing EU projects such as PEPPOL¹⁷.

4.6. eInvoicing

Electronic invoicing, the process by which invoices are sent and stored by electronic means, brings multiple benefits to enterprises. The Commission aims to make online and cross border transactions straightforward, by ensuring the completion of the Single Euro Payments Area (SEPA) and by facilitating the emergence of an interoperable European e-invoicing framework.

To achieve this, the Commission wants to encourage all market actors, private and public, to converge on solutions that are compliant with the UN/CEFACT Cross-Industry Invoice (CII) v.2 semantic data model. Moreover, at the Commission's request, CEN is supporting the development of a Code of Practice, to analyse addressing and routing needs, and to design implementation guidelines.

4.7. Sensors, actuators and the Internet of Things

This technology permits the attachment of a unique identifier and other information – using a microchip – to any object, animal or even person, which can be read through a wireless device. RFID has the potential to become a new motor of growth and jobs. The Commission has already issued a mandate (M/436) to address data protection, privacy and information security aspects of RFID. The first phase of the mandate ended in May 2011 and the second phase is scheduled for starting at the beginning of 2012. In particular, the ESO have been invited to develop sector-specific implementation guidelines complementing the Privacy Impact Assessment Framework (PIAF) as well as a standard for RFID signage.

The Internet of Things (IoT) refers to the invisible connection of billions of objects to the Internet to retrieve or send information to a distant system, often without direct human intervention. The IoT relies on RFID, but is not restricted to a specific technology and covers several technical solutions (RFID, TCP/IP, sensors, actuators, interfaces, etc.) related to object identification and data capture, storage, processing, and transfer within physical environments and between physical and virtual contexts.

¹⁷ <http://www.peppol.eu/>

- (25) In 2012 the Commission plans to address a mandate to the ESO to identify the potential role of standardisation in support of the realisation of the **Internet of Things** policy objectives.

4.8. eSignatures

Directive 1999/93/EC¹⁸ establishes a legal framework for electronic signatures and certification of service providers. Several internal market instruments in areas such as services, public procurement and VAT, rely on this framework. Interoperable e-signature is also needed to implement much of the Multiannual European e-Justice Action Plan 2009/13 via the European e-Justice Portal. The Commission issued a mandate (M/460) in late 2009 to update the existing European e-signatures standardisation deliverables in order to create a rationalised framework.

4.9. Cloud Computing

The Commission is working towards an EU-wide strategy on Cloud Computing. It may be necessary, in order to guarantee that future standards do not hinder the development of a digital single market, to issue a mandate to develop standards on specific aspects of Cloud Computing, e.g. interoperability or data portability. These areas could be managed either through a direct mandate or through the participation of INFISO research projects to the works of the Cloud Computing ETSI committee¹¹.

4.10. The establishment of a multi stakeholder platform for ICT standards

The high levels of dynamism and innovation in the ICT sector result in a fast and fluid standardisation process. Therefore, a permanent dialogue between public authorities, stakeholders and standards development organisations, including global fora and consortia, must be established.

This dialogue will take place in the dedicated multi-stakeholder platform created by the Commission¹⁹. The platform will advise the Commission on matters relating to the implementation of standardisation policy in the ICT field, such the priority setting in the rolling programme of ICT standardisation in support of European legislation and policies.

A particular task of the Platform will be to advise the Commission on the referencing of ICT standards in EU policy initiatives, legislation and public procurement, provided a number of attributes, such as the principles of openness, consensus, balance and transparency are respected in the development process. The first meeting of the platform should take place in early 2012.

5. EUROPE 2020 FLAGSHIP – A RESOURCE EFFICIENT EUROPE²⁰

Increasing resource efficiency will bring major economic opportunities, improve productivity, drive down costs and boost competitiveness. New products and services and new ways to reduce inputs, minimise waste, improve management of resource

¹⁸ OJ L13, 19.01.2000, p.12

¹⁹ C(2011)8600

²⁰ COM(2011)21

stocks, change consumption patterns, optimise production and recycling processes, management and business methods, and improve logistics must be developed.

European standards occupy a prominent place in the Ecodesign area. The Ecodesign Directive 2009/125/EC²¹, provides for a presumption of conformity when energy related products comply with a harmonised European standard whose references have been published in the OJ.

In 2012, ESO will continue work on standards following mandates issued in the previous years, e.g. M/477 (televisions), M/470 (electric motors), M/469 (circulators), M/458 (household washing machines), M/459 (household refrigerating appliances) and M/353 (water cleaners).

Furthermore, in 2012 the Commission intends to amend the horizontal mandate on Ecodesign standards (M/495) to request the ESO to work on new Ecodesign standards on a variety of boilers, combi-boilers, micro-combined heat and power units, water heaters and household tumble driers.

Moreover, further to a mandate issued in 2011, the reference architecture and a first set of standards (including newly delivered technical specifications) for European 'Smart Grid' deployment should be available by the end of 2012.

The Commission's proposed recast of the Restriction of Hazardous Substances (RoHS) Directive foresees the use of harmonised standards to provide a presumption of conformity and a corresponding mandate (M/499) has been issued. The ESO are also invited to continue with the execution of mandate M/462 on efficient energy use in ICT networks. Further, the ESO should focus on the link between standardisation and research into novel ICT-based solutions to increase energy efficiency.

European standards should continue to help the transition to a low-carbon, resource and energy-efficient economy. Further steps will include the following European standards which the Commission intends to request from the ESO:

- (26) A standard for an automatic method to **measure Hydrogen Chloride (HCl)** emissions from industrial installations, in particular waste incineration plants, permitting a more specific determination of such emissions compared to the existing manual method;
- (27) Directive 2008/50/EC on **air quality** sets limit values for the particulate matter (PM) in ambient air and reference methods for manual/semi-automated monitoring have already been standardised (EN12341, EN14907). A European standard for automated PM measurements is required as most of the measurements performed today are automated and the new measurement method must not introduce biased results when compared to the current reference method;
- (28) The **emissions of volatile organic compounds (VOC)** from fugitive and diffuse industrial sources, such as in chemical plants and refineries are regulated under the Industrial Emissions Directive (2010/75/EU). Methods for monitoring and quantifying these emissions will be standardised;

²¹ OJ L285, 31.10.2009, p.10

- (29) **Recovered paper:** According to the new Waste Framework Directive (2008/98/EC) certain specified waste ceases to be waste when it has undergone a recovery operation and complies with specific criteria such as lawful use, market demand and the overall environmental and health impacts. The future ‘end-of-waste’ criteria will require recovered paper to be graded according to specification EN-643. These European standards are being revised to address current shortcomings and keep up with market demands.
- (30) Directive 2000/14/EC aims at **limiting noise emissions from specific outdoor equipment and machines**. A mandate will be issued to check the existing methods of measuring noise and, where necessary, to draw up new or revised standards to ensure that they satisfy the requirements of the Directive. This mandate will also include the assessment of whether the methods described in the Directive could be replaced by other existing methods.
- (31) The Commission issued on 15 December 2011²² a Green Paper on **Solid State Lighting (SSL)**. This is a type of energy-efficient lighting that uses semiconductor light-emitting diodes (LEDs), organic light-emitting diodes (OLED), or polymer light-emitting diodes (PLED) as sources of illumination rather than electrical filaments, plasma or gas.

Incomplete standardisation is a major barrier to faster uptake of SSL in Europe. A standard will address interconnections between components, SSL devices and arrays at the SSL systems level, interconnections between SSL systems and energy management systems and the interconnection between SSL systems and other lighting systems in indoor and outdoor environments.

6. RELATIONS WITH THE EUROPEAN STANDARDISATION ORGANISATIONS

2012 will be a transitional year before the likely entry into force of the new Regulation of the European Parliament and of the Council on European Standardisation²³. It will also be the year in which the amended Financial Regulation should begin to apply²⁴. Commission funding of the ESO will be made conditional on the fulfilment of performance criteria contributing to the objective of reducing the average time needed to develop European standards or standardisation deliverables by 50% by 2020.

The current Framework Partnership Agreements with the ESO will also expire in 2012. These agreements, amended in 2011, fix the administrative and financial rules concerning the financing of standardisation activities and set out the general context and terms under which financial support can be awarded.

Therefore, the Commission will launch negotiations to conclude new Framework Partnership Agreements with the ESO which will implement the new regulation on European standardisation, the amended Financial Regulation and the Commission Communication on “A strategic vision for European standards: Moving forward to enhance and accelerate the sustainable growth of the European economy by 2020”.

²² COM(2011)889

²³ COM(2011)315

²⁴ COM(2010)815