Proposed outline for the

Rolling plan for ICT standardisation

Note: This is an intermediate draft only. This draft is presented for Discussion to the ICT Multi-Stakeholder Platform. There is no consensus yet, nor is this an official document.

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Contents

1. A STRATEGIC VISION FOR ICT STANDARDS IN EUROPE

1.1. Introduction

Innovation and technology adoption are of high importance for Europe. They drive technology progress and make sure that state-of-the-art technologies get implemented and optimally used. Also, innovation and technology adoption provide critical support for Europe to face the challenges of a global market place, of society and economies. Information and Communication Technologies (ICT) play a focal role in supporting and facilitating innovation not only in ICT specific areas but also as horizontal technologies.

Policy making in Europe makes use of standards in order to reap the benefits of broader, more interoperable markets and systems, and greater network effects for technology that they can bring. Such standards may be formal standards approved by a formally recognised standards organisation after a public enquiry procedure. On the European level, it is the three European Standards Organisations (ESO) CEN, CENELEC and ETSI who are entitled to produce such formal standards. Relevant ICT specifications, however, are also developed by global industry-driven ICT fora and consortia with development processes that meet public sector requirements as laid down in Annex II of the Regulation on European standardisation (1025/2012)[1]. **The term "standards" is used in this document in a generic way** for all such deliverables from both formally recognised standards organisations and fora and consortia. Where required in this document the term is specified in a more detailed way.

This Rolling Plan for ICT Standardisation identifies EU policy priorities where ICT standardisation and ICT standards should be considered as part of policy making. The Rolling Plan is a strategic document focussing on the support that standards, technical specifications, and standardisation in general can provide in the context of EU policy priorities.

The Rolling Plan looks at the standardisation landscape in relation to the EU policy priorities. It identifies possible areas for action and may go into suggesting a plan or roadmap regarding effective standardisation support. The detailed recommendations are addressed in relation to each policy priority individually in chapter 3 of this Rolling Plan.

The Rolling Plan complements the Annual Union Work Programme in the field of ICT. The Rolling Plan identifies in greater detail the areas where ICT standards could help achieve policy objectives including through complementary interoperability testing and awareness actions to ensure the effective uptake and implementation of those standards. Recommendations for

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[1] The exact definition and scope of the terms 'standard' and 'ICT technical specification' is detailed in article 2 of Regulation 1025/2012 (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:316:0012:0033:EN:PDF). Additional information can be found in public procurement legislation (Directives 2004/17/EC, 2004/18/EC and 2009/81/EC, and Regulation 2342/2002, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:134:0001:0113:en:PDF)

action may not only refer to the use of standards or the initiation of standardisation activities, but may also include the development of guidelines and reports and supporting activities.

The Rolling Plan is developed in collaboration with the European multi-stakeholder platform on ICT standardisation (MSP)[2], an advisory body to the European Commission which includes members from industry associations, societal stakeholders, ESOs, industry consortia, and European and member state public administrations. The Rolling Plan is a living document, regularly reviewed in a collaborative process with the MSP and, on an annual or by-need basis, updated by the Commission.

The Rolling Plan is addressed to public authorities but also to those involved in standardisation activities and interested parties in general. It provides transparency on the policy actions in the area of standardisation and, therefore, also serves as a source of information for all stakeholders who may take up work items to contribute to the objectives outlined in the Rolling Plan. It is a guiding document without legal status. It is not binding and applying the Rolling Plan and implementing the recommendations is voluntary.

1.2. Instruments of EU Policy Making

The Rolling Plan covers the broad spectrum of policy instruments where policy makers, mostly the European Commission, may use ICT standardisation in support of EU policy priorities, i.e. it covers any technical or organizational activity related to ICT standardisation that can support policy and legislation.

The European Commission has different options for making use of standards and specifications or triggering activities around standardisation. These options also depend on the level of policy making:

Standards may be referenced in <u>support of legislation</u>, i.e. in the context of EU Regulations or Directives. For example, Harmonised European Standards (HEN) are used for regulatory compliance with so called essential requirements, e.g. health and safety of the user. The Rolling Plan does not address the production of harmonised standards (HEN). This is covered in the Annual Union Work Programme. The Rolling Plan may complement such regulatory actions with other recommendations, however, the Rolling Plan is not the instrument to suggest producing standards for New Approach Directives. Mandates are the adequate instruments to produce harmonised standards. The focus of the Rolling Plan is on the role of ICT standards in supporting policies outside of the New Approach and New Legislative Framework.

Standards may be used in <u>support of industrial or innovation policy</u>, e.g. for driving interoperability and the uptake of new technologies. The Rolling

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[2] Decision of 28 November 2011 setting up the European multi-stakeholder platform on ICT standardisation (2011/C 349/04) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2011:349:0004:0006:EN:PDF

Plan addresses specific technology areas which have been identified as policy priorities and explores the role which standards can play in achieving the policy objectives.

Standards also come to play in EU funded <u>Research</u> and Development (R&D) projects, most notably in the context of the EU Framework Programmes for R&D. The impact of standards on R&D may be on different levels: R&D projects may contribute to standardisation work; standardisation may be a tool for adopting and exploiting new technologies; and standardisation may contribute input to R&D work or R&D activities may build on standardisation work that is available or in progress. Thus some topic areas addressed in Rolling Plan may be identified by Commission as areas with relevance for R&D and taken up in the context of the EU Framework Programme.

Finally, standards take an important role for <u>government internal policies</u>, i.e. such areas, where governments identify procedures for internal information exchange, infrastructure and systems design. These policies may also have address on A2A (administration to administration), A2B (administration to business) and A2C (administration to citizen) issues.

Closely linked and often a consequence resulting from government internal policies is <u>public procurement</u>. Where standards have been identified as important in government internal policies, public procurement will –and should– reference these standards in the respective calls when acquiring technologies that are needed to implement the respective policies. In other words: policy making often precedes public procurement, and thus the selection of standards in policy contexts precedes the referencing of the respective standards in public procurement.

1.3. The relation between the Annual Union Work Programme on European standardisation and the Rolling Plan for ICT standardisation

The European Commission formally adopts an Annual Union Work Programme (AUWP) which covers planned actions on standardisation across all sectors. The AUWP primarily addresses the work where EU mandates are issued for developing standards. It is drafted in consultation with the Member States, ESO and stakeholder organisations. The AUWP is addressed to the other Institutions, the ESO and the public at large. While the AUWP does include topic areas from the ICT sector, it contains limited detail and focuses on those actions where EU mandates are involved.

The Rolling Plan complements the AUWP. The Rolling Plan is exclusively addressed to ICT standardisation. It covers a broad spectrum of topic areas where ICT standards and specifications can be used in support of EU policies in order to meet policy objectives.

The Rolling Plan goes well beyond the items listed in the AUWP. The Rolling Plan sets out in detail the policy framework with relevance to ICT standardisation for the benefit of all interested parties in the ICT area. Topic areas that are addressed in the AUWP are also listed in the Rolling Plan if the policy relevance and the suggestions for actions go beyond the work referenced in the AUWP.

1.4. EU Policy Priorities

The Rolling Plan is a tool for the European Commission to collect all standardisation needs to support EU policies. To this end, all the Commission services contribute to the Rolling Plan indicating the policy areas where they need primary support from ICT standardisation.

Since policy making is a process, the policy requirements reflected in the Rolling Plan address at a given time different stages of this process. Therefore, a full spectrum of ICT standardisation needs can be considered from preliminary guidance useful for initial policy conception to development of specific standards to support policies fully in place.

1.5. Pan-European consistency

1.5.1. EU Member States and EFTA Countries

The EU Member States as well as the EFTA countries associated with European standardisation participate in the development of the Rolling Plan. They are members of the MSP. For the Rolling Plan they bring in their respective national interests, e.g. in the form of national strategy papers, standards lists, standardisation work programmes or interoperability frameworks.

The objective of the Rolling Plan in this respect is to integrate the different approaches, interests and policy objectives and to bridge between the various approaches and interests. The Rolling Plan is informative and not prescriptive in any way. The Rolling Plan may identify overlaps with policy objectives on the side of some of the Members States and EFTA countries. It also contains suggestions for new or further activities or policy needs as seen by Member States and EFTA countries. Over all, the Rolling Plan aims at facilitating pan-European consistency on ICT standardisation by providing the necessary information and linkage.

1.5.2. Broad Stakeholder input

The Rolling Plan is based and integrates broad stakeholder input on ICT standardisation topics and strategies. All stakeholders represented in the MSP provide regular input and feedback and thus contribute to the development of a concise picture on ongoing standardisation activities as well as on standardisation needs and market and policy needs in general.

On this basis, the Rolling Plan gives a concise picture on the standardisation landscape as well as on policy and stakeholder interests and positions on the respective policy priorities.

1.6. Process for developing the Rolling Plan

The Rolling Plan is developed in a collaborative process by the European Commission and the MSP.

The Commission identifies EU policy objectives and priorities as well as ways where standardisation can support the implementation of the respective policies.

The MSP receives this input from the European Commission and provides comments and derives recommendations, compiling its advice in a consolidated draft.

The Rolling Plan is a living document. It is updated at least annually or, if appropriate, on by-need basis.

1.7.   Instruments for implementation of the Rolling Plan

1.7.1.   General aspects

The Rolling Plan aims to provide a concise picture of the plans and needs in ICT standardisation in the context of EU policy making.

This information is intended for all stakeholders involved in ICT standardisation. This way, the ESOs and any other global standards development organisation get an overview on needs and the possibilities to contribute.

This high level of transparency is an opportunity to encourage collaborative work among all these standards development organizations, which can coordinate in the MSP.

1.7.2.   Financial instruments

The Commission supports the voluntary work by stakeholders concerning standardisation with the following tools:

(1)   Research budget. Standardisation organizations and other bodies can apply to EU-financed research in accordance to the rules of the different available calls for proposals. The Commission encourages research projects to feed their results into the standardisation process. Therefore, activities in support of standardisation can be funded via research budget. Coordination and support actions may also provide support to standardisation activities.

(2)   Standardisation budget. The ESOs have a privileged link with the Commission mainly to develop standards in support to mandated work and standards needed for New Approach legislation, but also to develop standards in support of EU policies. For ICT, ESOs can act as coordinator involving different global standards development organisations and including their work.

2. PROMOTING THE IMPLEMENTATION OF STANDARDS

The text of this chapter is still in progress and under review.

2.1. The link between standardisation and policy

Standardisation and policy making are very different activities which are sometimes closely linked.

In many cases the existence of standards is a precondition to implement a policy or a piece of legislation. The availability of a standard facilitates legislation enforcement and allows the target users to actually implement the policy. On the other hand, the existence of legislation giving presumption of conformity when applying a given standard or a policy encouraging the use of a given standard can boost market acceptance of these standards.

When it is decided that a specific standard is needed in support of a policy or legislation, the next step is to get the standard actually used. Different instruments are available to get the standard implemented and used. Some of these instruments are general, i.e. independent of the standard concerned. Examples are guidance of procurement people on how to ask for standards in general or conferences to raise awareness on the importance of ICT standards. To be effective, instruments should however be geared towards the specific context of a standard. Different standards need different adoption approaches depending on the stakeholders involved, maturity of the standard, legacy of the systems etc.

In general, adoption instruments can be classified in the nature of the instruments (communication/education or mandating/comply or explain/procurement) or on the development phase of the standard (creation, setting, adoption).

Not all instruments are available for all stakeholders and not relevant in all phases of a standard. Mandating standards by law is for example only possible for public authorities and only when it concerns a mature standard. Providing free and easy insight in the specifications documents is up to the SDO concerned and is relevant in all phases of a standard.

In the next sections, instruments that are general in nature are mentioned. Gearing the instruments to the standard involved is up to the specific stake holder(s) who want to have a standard adopted and out of scope of this rolling plan

2.2. Public procurement

Governments can promote the uptake and implementation of standards and specifications via public procurement.

Until the Regulation on European standardisation 1025/2012, the standards to be referenced for public procurement required coordination nearly exclusively via the ESOs, the respective formally recognised international standards organisations, or required transposition into a European standard under the coordination of an ESO. The new regulation offers the possibility to ref-

erence also other relevant specifications, under conditions defined in articles 13 and 14. This may allow official identification of various consortia standards and internationals standards in practical use at present by various member states.

This may allow formal identification of various consortia standards that are in practical use at present by various Member States. Several Member States use lists with standards that can be used by public authorities in their public procurement. Some Member States use instruments to help procurement specialists asking for standards. E.g. the Netherlands have made procurements text (general and per standard) to help procurement specialists to ask for standards in a way that is in line with Dutch policy.

The European Commission will soon launch a Communication called: "Against lock-in: Building open ICT systems using standards" which will be accompanied by a "Guide for the procurement of standards-based ICT – Elements of Good Practice". Furthermore, the European Commission will promote the sharing of best practices among public authorities in order to diminish lock-in.

2.3. Research and innovation

Research is a rich potential source of new standards. The new knowledge resulting from publicly funded research and innovation programmes can be included in new or improved standards, contributing both to the implementation of the outcomes research and the usage of standards. Similarly, historically, many European ICT research projects under Framework Programme 7 and similar authorities utilise standards in their design and execution.

Initiatives to link ICT standardisation and ICT R&D appear to be most effective when carried out already at the research planning stage. Standardisation awareness thus needs to be considered early in the research life cycle.

Another sector that has to be involved in standardisation are innovative SMEs. Failing to support innovative SMEs in the ICT industry in their efforts to influence standards could seriously restrict the market impact of these SMEs, and their long-term growth prospects.

2.4. Testing and quality improvement in standards

If standards are to be successful in terms of widespread deployment, it is necessary to ensure that there are products implementing them and that they are truly interoperable.

Therefore, one of the main aims of European and global standardisation is to enable interoperability in a multi-vendor, multi-network, multi-service environment. Interoperability gives users a much greater choice of products, and enables manufacturers to benefit from the economies of scale of a wider market. There is a broad stakeholder demand in the marketplace to ensure interoperability.

Validation of standards and products through open interoperability events is an example of how to achieve this in a pragmatic and efficient manner. Organizing such events in the earlier phases of the development of standards

gives an assurance of a level of quality and facilitates the development of commonly agreed standardized solutions.

Interoperability testing leads not only to better products but to better standards, suited to users' needs and gives stakeholders confidence to implement standards and to release products in a timely manner.

Ongoing relevant activities are:

– ETSI interoperability events ("plugtests events"). ETSI organizes regularly interoperability events which gather different vendors (often competitors) in order to check whether their products implement properly standards and are interoperable between them. This approach has proven to be a practical way to boost interoperability further to the development of standards, and has been applied with some success to standards issued by other organisations, including formal standards bodies as well as industry consortia.

– Some consortia have their own internal interoperability and conformance testing requirements applied to specifications as a quality control matter prior to their finalisation as standards.

2.5. New actions

New standardisation related initiatives to further support the effective take up and implementation of standards in the priority domains identified by the Rolling Plan could cover:

– awareness, promotion, conferences, information and education, paying particular attention to the cooperation with R&D and SMEs involvement

– implementation of pilot projects and interoperability testing

– exchange of good practice between Member States and between Standardisation Organizations

– guidelines for procurers on how to mention standards

– monitoring the use of standards in IT systems and in IT procurement. Monitoring is an effective way to get insight in the adoption of a standard and makes it possible for standards users to learn from each other (higher ranking countries/organisations could teach others how to get a standard adopted)

– hotline for helping procurers to respect standardisation policy and to report bad practice

– Suppliers manifest. Encouraging major IT suppliers to issue a voluntary manifest promising to implement selected standards in their products.

3. KEY POLICY AREAS SUPPORTED BY ICT STANDARDISATION

The policy topics listed in this chapter are the areas where the Commission currently requires ICT standardisation actions, and were the advice of the MSP is particularly needed.

These policy areas are grouped in four **clusters**:

(1)   Societal Challenges

   – eHealth

   – Web Accessibility

   – Accessibility of ICT products and services

   – e-Skills and e-Learning

   – Emergency communications

   – eCall

   – Digital Cinema

(2)   Innovation for the digital single market

   – e-Procurement, Pre and Post award

   – e-Invoicing

   – Mobile Payments

   – XBRL

   – Online Dispute Resolution (ODR)

(3)   Sustainable growth

   – Smart Grids and Smart Metering

   – Technologies and Services for a Smart and Efficient Energy Use

   – ICT Environmental Impact

   – EETS (European Electronic Toll Service)

   – Intelligent Transport Systems

(4)   Key enablers and security

   – Cloud computing

   – Open Data

   – DCAT Application profile for data portals in Europe

- Metadata on re-usable interoperability assets among national and international repositories

- Core Concepts to facilitate the development of interoperable IT solutions

- Electronic identification and trust services including e-signatures

- RFID

- Internet of Things

- Network and Information Security

- ePrivacy

- Wireless Communications

The Task force Rolling Plan has prepared the following **template for comments** to help the MSP to provide advice on all these policy topics:

Topic area title

1 Legislation and policy documents

    1.1 Additional information on legal documents in Member States if available

2 Member States and Stakeholder input on policy context and policy objectives

    2.1 Input from Members States

    2.2 Input from other Stakeholders

3 Standardisation needs to implement the legislation and policy

    3.1 Commission perspective

    3.2 Member States and Stakeholder perspective

4 Related ongoing standardisation and research activities

    4.1 At EU level

    4.2 In other regions

    4.3 At global level

5 Proposed new standardisation activities

    5.1 Proposed other activities around standardisation

This template has been applied on a preliminary basis to **two sample areas** in this document: Intelligent transport and Smart grids.

3.1. Societal challenges

3.1.1. eHealth

Policy area

Information and Communication Technologies (ICT) applied to health and healthcare systems can increase their efficiency, improve quality of life and unlock innovation in health markets. However, this promise remains largely unfulfilled. The European Commission has been developing targeted policy initiatives aimed at fostering widespread adoption of eHealth throughout the EU. Member States have dynamically responded by demonstrating a high level of commitment to the eHealth policy agenda, notably through their participation in major large scale pilot projects such as epSOS. The adoption in 2011 of the Directive on the Application of Patients' Rights in Cross Border Healthcare and its Article 14 establishing the eHealth Network, marked a further step towards formal cooperation on eHealth, with the aim to maximise social and economic benefits through interoperability and the implementation of eHealth systems.

Notwithstanding this substantial progress, barriers continue to exist that need to be addressed in order to reap all the benefits from a fully mature and interoperable eHealth system in Europe. One of them is the lack of interoperability between eHealth solutions and the rather poor adoption standards in eHealth systems.

Legislation and policy documents

– Directive 2011/24 on patients' rights in cross border care

– Digital Agenda for Europe, actions 76, 77 and 78.

– SWD(2012) 413 final - eHealth Action Plan 2012-2020 - Innovative healthcare for the 21st century.

Standardisation needs to implement the legislation and policy

Interoperability of ICT-enabled solutions and of data exchange is the precondition for better coordination and integration across the entire chain of healthcare delivery and health data exchange, while unlocking the EU eHealth single market.

The use of European and international standards is a way to ensuring the interoperability of ICT solutions in general. In eHealth however, such standards are often not specific enough. With the advice of the eHealth Network, more detailed specifications, which could be used for example for public procurement, will be identified in the framework of the new EU standardization regulation, contributing to the technical and semantic levels of the eHealth Interoperability Framework

In addition to European and international standards and specifications, interoperability testing, labelling and certification processes are also essential. Several projects are successfully testing and implementing standards, open and secure architecture, clinical workflows and subsets of terminologies as well as making policy recommendations, to prepare the deployment of eHealth services on a large scale.

It is proposed to boost interoperability by further developing and validating specifications and components, also through the launch of standardization mandates, if deemed necessary.

Related ongoing standardisation and research activities

– epSOS – European Patient Smart Open Services[3]

– SemantichHealthNet – Network of excellence in semantic interoperability[4]

– Antilope project - Adoption and take up of standards and profiles for eHealth Interoperability

– Salus project - Scalable, Standard based Interoperability Framework for Sustainable Pro-active Post Market Safety Studies.

– Transform project – Translational Research and Patient Safety in Europe.

– eHealth Governance Initiative – SEHGOVIA - Supporting the European eHealth Governance Initiative and Action

– Eureca - Enabling information re-Use by linking clinical REsearch and Care.

– Linked2Safety - A next-generation, secure linked data medical information space for semantically-interconnecting electronic health records and clinical trials systems advancing patients safety in clinical research.

– CEN Technical Committee 251 – Health Informatics Standards

– JIC - Joint Initiative on SDO Global Health Informatics Standardization

– PONTE project - Efficient Patient Recruitment for Innovative Clinical Trials of Existing Drugs to other Indications

– eHR4CR project – IMI project with a focus on the use of electronic Health Records for Clinical Research

New standardisation actions

– Use case based approach to develop patient summaries and subsets of ontology's in a specific clinical context.

– Use case based approach to develop standardized processes in a specific clinical context.

– Use case based approach to develop technical and semantic specifications for eHealth Systems, especially cross border.

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[3] www.epsos.eu

[4] www.semantichealthnet.eu

3.1.2. Web Accessibility

Policy area

The policy area is web-accessibility. It is related to Action 64 of the Digital Agenda for ensuring the full accessibility of public sector websites by 2015. The recent proposal for a Directive on the Accessibility of public sector bodies' websites addresses this Action, and it foresees some standardisation activities.

Legislation and policy documents

– Proposal for a Directive on the accessibility of public sector bodies' websites – COM (2012) 721

Standardisation needs to implement the legislation and policy

The Proposal for a Directive on the accessibility of public sector bodies' websites includes a presumption of conformity for the websites concerned which meet the relevant harmonised standards. It also states that a harmonised standard to provide presumption of conformity should be built upon the outcome of Mandate 376.

The WCAG 2.0 became recently an International Standard –ISO/IEC 40500:2012-.

The standardisation needs consist of a standard that would provide presumption of conformity with the web-accessibility requirements laid down in the proposal for a Directive.

Related ongoing standardisation and research activities

The world-widely recognised web-accessibility specifications are the "Web-Content Accessibility Guidelines" (WCAG) 2.0 developed by the World Wide Web Consortium. The WCAG became recently an International Standard: ISO/IEC 40500:2012.

Mandate 376 of the Commission to the ESOs asks to deliver a European standard setting accessibility requirements for the public procurement of ICT products and services, including web-content. The resulting standard EN 301549 is expected to be published by February 2014. In its parts related to web-content, it points to specific parts of the ISO/IEC 40500:2012, thus to specific parts of the WCAG 2.0.

New standardisation actions

Those actions needed to have a standard to provide presumption of conformity with the web-accessibility requirements laid down in the proposal for a Directive, e.g. to build a harmonised standard on web-accessibility upon the outcome of Mandate 376.

3.1.3. Accessibility of ICT products and services

Policy area

The policy area is accessibility of ICT products and services, it includes telecommunications, TV and Broadcasting, web accessibility and new emerging technologies both form the mainstream side and the assistive technology side.

The policy area is related to the EU implementation of the UN Convention on the Rights of persons with Disabilities to which the EU and 24 Member States are a party and the remaining have signed it and express their intention to ratify.

The Commission adopted the European Disability strategy 2010-2020 with the aim of supporting the implementation of the Convention in the EU.

Legislation and policy documents

The Commission has announced in the Work programme for 2012 under item 99 the preparation of the European Accessibility Act to improve the functioning of the internal market of accessible goods and services. One of the areas under examination to be covered is the area of ICT goods and services

Standardisation needs to implement the legislation and policy

Standardisation needs are twofold: First, the UN Convention requires in article 9 the development of accessibility standard and in the general obligations the promotion of universal design in the development of standards. Work on this area needs to advance at EU level to increase market coherence. Second, accessibility standards would be needed to provide presumption of conformity with possible requirements in the European Accessibility Accessibility Act.

Related ongoing standardisation and research activities

The use of standards in that context is being examined as one key pillar. In the area of ICT the work will built on the results of Mandate M/376. Mandate M/376 takes into consideration relevant international standard o accessibility, like those adopted by the US Access Board, W3C WAI and some related ISO work. The resulting standard EN 301549 is expected to be published by February 2014.

New standardisation actions

New standardisation actions will build on the M/376 outcome to make based on the European standards a harmonised standard where needed. Furthermore more detailed standards might be needed for particular good or services, for example for interoperability purposes or to address particular new emerging ICT technologies that need to be made accessible, for example in the area of eIdentity, smart cities, epayments, ehealth and others. In those areas the approach to follow for standardisation could be to mainstream accessibility using Design for all as indicated in the work being undertaken under Mandate M/473.

3.1.4. e-Skills and e-Learning

Policy area

The development and the promotion of ICT professionalism, ICT skills and e-learning require a strong consensus and cooperation among Member States and stakeholders.

Legislation and policy documents

The relevance and the importance of these activities are reflected in several policy documents and strategic initiatives of the European Commission:

– IP/13/182 "Grand Coalition for Digital Jobs" of 4 March 2013

– SWD(2012) 446: "Digital Agenda for Europe - a good start and stakeholder feedback" of 18 December 2012

– COM(2012) 173: "Toward a Job-rich Recovery" and SWD(2012) 96: "Exploiting the employment potential of ICTs" of 18 April 2012

– COM(2010) 682: "An Agenda for New Skills and Jobs" of 23 November 2010

– COM(2010) 546: "Innovation Union" of 6 October 2010

– COM(2010) 245: "A Digital Agenda for Europe" of 26 August 2010

– COM(2007) 496:"e-Skills in the 21st Century" and Competitiveness Council Conclusions of 23 November 2007 on a long-term e-skills strategy

Standardisation needs to implement the legislation and policy

Pan-European e-competences frameworks and tools as well as efficient and interoperable e-learning solutions are indispensable.

Related ongoing standardisation and research activities

The CEN ICT Skills Workshop is contributing to the implementation of the long-term EU e-skills agenda. Several Consortium Workshop Agreements have been approved, in particular, on a European e-Competence Framework (e-CF). Activities concentrate on e-CF, ICT job profiles and ICT training and certification.

The Learning Technologies Workshop is contributing to the development of standards for e-learning in Europe. Its goal is also to ensure that European requirements are properly addressed by global initiatives. It is liaising with the CEN Technical Committee 353.

New standardisation actions

– E-competences frameworks, job profiles, qualifications and certifications, methods and tools for the development, promotion, implementation and maintenance of the e-Competence Framework with a view in particular to promote ICT professionalism (including international cooperation);

– Curriculum development guidelines and ICT industry training and certifications: development, promotion and implementation of e-competences curriculum guidelines and quality labels to facilitate transparency and the recognition of learning outcomes between formal, non-formal and industry education and training.

– European e-learning standards to ensure European harmonisation, usage and implementation. Focus should be on specifications and guidelines for e-learning opportunities, learning outcomes, credit points, assessment and e-portfolios.

– E-learning courses, content repositories and exchange mechanisms with a focus on metadata, learning design and structure, technical and semantic interoperability supported by agreed protocols, exchange formats and vocabularies. Interoperability should include context-aware, adaptable and mobile/ambient e-learning systems and also cross-domain aspects.

3.1.5. Emergency communications

Policy area

The ability to initiate an emergency communication to request help when needed is a right of all citizens, and this ability should be independent of the network and access technologies deployed or the physical abilities of the citizen. The successful outcome of an emergency call could make the difference between life and death.

Legislation and policy documents

– Directive 2009/136/EC of the European Parliament and the Council of 25 November 2009 amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services, Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector and Regulation (EC) No 2006/2004 on cooperation between national authorities responsible for the enforcement of consumer protection laws

– Directive 2009/140/EC of the European Parliament and the Council of 25 November 2009 amending Directives 2002/21/EC on a common regulatory framework for electronic communications networks and services, 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities, and 2002/20/EC on the authorisation of electronic communications networks and services

– Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive)

– Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications)

– Directive 2002/22/EC of the European Parliament and the Council of 7 March 2002 on universal service and user's rights relating to electronic communications networks and services (Universal Service Directive)

– Recommendation 2003/558/EC of the Commission of the European Communities of 25 July 2003 on the processing of caller location information in electronic communication networks for the purpose of location-enhanced emergency call services

Standardisation needs to implement the legislation and policy

The lack of commonly agreed standards in support of electronic communications networks for the emergency call service in Europe is a barrier for implementing future proof solutions which fulfil the requirements of amended Universal Service Directive 2002/22/EC.

Related ongoing standardisation and research activities

Mandate M/493 – Standardisation Mandate in support of the Location Enhanced Emergency Call Service.

New standardisation actions

It is necessary to identify the standardisation needs for the deployment of 112 Smartphone applications enhanced with caller location and multimedia features

3.1.6. eCall

Policy area

Intelligent Transport Systems. Emergency Communications. Road Safety. The pan-European in-vehicle emergency call, 'eCall', is an interoperable service to be available in all vehicles in order to reduce fatalities.

Legislation and policy documents

– COM(2009) 434 final: eCall: Time for Deployment

– Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport

– Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive)

– Commission delegated regulation (EU) of 26.11.2012 305/2013 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the harmonised provision for an interoperable EU-wide eCall.

Standardisation needs to implement the legislation and policy

In the event of an accident, in-vehicle sensors will automatically trigger an eCall. A voice connection is established with the European emergency number 112 and routed to the Public Safety Answering Point (PSAP). At the same time, an emergency message is sent, providing information such as the time, location and driving direction (Minimum Set of Data). The emergency call can also be triggered manually.

It is required to develop standards for the future generation of eCall service, taking into account the future evolution of the mobile communication networks and the IP environment, in particular IPv6 networks.

It is also required to analyse the need and develop standards if needed for the extension to other vehicles types and services, such as Heavy Duty Vehicles, Power Two Wheelers or Hazardous Goods tracking.

Related ongoing standardisation and research activities

– CEN and ETSI have developed several TS and standards to define the MSD structure and the transfer from the vehicles to the PSAP

– Under Mandate M/453 (Co-operative systems for Intelligent Transport), CEN and ETSI have developed standards for communications between vehicles and infrastructure, and defined on-board unit functionalities.

– HeERO pilots are testing the standards in real conditions.

– The European eCall Implementation Platform is proposing recommendations to ensure the best operation of the service and to take full advantage of all its possibilities.

New standardisation actions

– Develop technical specification/standards for the implementation of eCall in vehicles of categories other than M1 and N1.

– Propose guidelines on certification of eCall systems (in particular for aftermarket in-vehicle devices)

– To carry out Plugtest interoperability events.

3.1.7. Digital Cinema

Policy area

The digitalisation of film projection means that all cinemas in Europe will have to install digital equipment within a few years. This equipment has to follow the US-developed DCI standard and is very expensive. One possible consequence is that a number of small European cinemas will have to close. This standardisation initiative will explore alternative standards which will allow for more affordable projectors, to secure the diversity of European film and cinema.

Legislation and policy documents

Communication from the Commission on opportunities and challenges for European Cinema in the Digital Era[5] - the Digital Cinema Communication

Standardisation needs to implement the legislation and policy

As stated in the Digital Cinema Communication, less expensive projectors are presently available to cinema owners providing a high degree of security and a highly transportable device. While they present some disadvantages they could represent an economic solution for smaller arthouse or local European operators with smaller screens both in large multiplexes and single screen theatres. These operators might not afford the projector and equipment following the DCI specifications. The possibility of an alternative specification should be explored.

Related ongoing standardisation and research activities

The US-led Digital Cinema initiative (DCI) launched in 2002 has resulted in a specification for digital cinema and also the publication of ISO (International Standard Organisation) standard ISO 26428-1:2008 (2048X1080 or 2k) for the digital master. This standard is the one required by Eurimages and some Member States (France, UK, The Netherlands), in the context of their support mechanism to digitisation of cinemas. The DCI specifications were last updated Aug 30th 2012.

3D Digital projection has now been successfully initiated in digitised cinemas and has become very popular, and an important source of revenue for the cinema sector. As indicated in the Digital Cinema Communication, there is no standard for 3D projection yet, but the DCI released a so-called recommended practice on Sept 28th 2012. European Cinemas will need to follow this development closely.

New standardisation actions

The feasibility of a standard other than the DCI previously referred to should be explored for smaller screens. The Commission will engage in a stakeholder dialogue concerning these matters – also taking into account 3D cinema.

Based on these consultations the Commission will consider the best ways to engage in standardisation activities within this field.

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[5] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0487:EN:NOT

3.2. Innovation for the Digital Single Market

3.2.1. e-Procurement – Pre and Post award

Policy area

Public Procurement, modernization of public procurement in the European Union covering pre-award and post award – e-Procurement: Procurement of goods, services and works using electronic means.

Legislation and policy documents

– COM(2011) 896 final - COM legislative proposals of 20.12.2011 for the revision of Directive 2004/18/EC (public works, supply and service contracts)

– COM(2012) 179 of 20 April 2012 - Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a strategy for e-Procurement

Standardisation needs to implement the legislation and policy

The Commission's legislative proposals aims to make e-Procurement the mainstream method for carrying out public procurement to achieve broader competition (even across borders), increased transparency, value for money on procurement expenditure and savings on procedural costs. The proposals set out a phased transition to mandatory e-procurement within deadlines that are currently under negotiation by Council and EP (likely to be set between 2015 and 2017). The transition will generalise the use of electronic means of communication to pre-award procurement phases including e-notification (of procurement notices submitted to TED), e-access (to tender documents) and e-submission (of tenders), for all contracting authorities and entities.

The 2012 Communication recognises that the Commission and the MS need to undertake coherent actions at all levels in order to meet the goals underpinning this obligation. Indeed e-Procurement is bound to become, one way or another, the mainstream procurement method at some point in the future, but, without EU action, scattered developments across the EU would lead to islands of e-procurement operations fragmenting the Internal Market.

The EU e-Procurement internal market is facing two types of barriers: cross-border interoperability and interfaces complexity.

e-Procurement platforms are often built on top of national or regional infrastructures for high performance and security as well as for integration with other public services. But the services that these solutions leverage on may not be easily accessible to foreign users, unless they get hold of tools only available in the country concerned.

SMEs experience another hindering factor. The proliferation of platforms for e-Tendering (and consequently of user interfaces) makes it difficult for a company to respond to calls for tenders run on multiple platforms, as the company has to learn concepts, mechanisms and rules used on the different systems concerned. In fact, platforms are far from reaching a common "look-and-feel" unlike other e-commerce domains (e.g. travel).

e-Procurement technology standardisation of is one of the key enabler to ensure that suppliers encounter no technical barriers or extra costs when bidding on a plurality of systems especially across borders.

This is recognised by the legislative proposal itself, which empowers the Commission to adopt delegated acts in a number of specific areas to render mandatory the use of specific technical standards.

The need for standardisation in the e-Procurement domain is strongly reaffirmed by the e-Tendering Expert group, set up by the Commission as part the flanking actions planned in the 2012 Communication to advise on lines to be taken to achieve interoperable, accessible and SME-inclusive systems. The e-TEG report, to be issued on 31 March 2013, lists a number of indispensable and/or desirable standardisation actions to be undertaken as soon as possible.

Related ongoing standardisation and research activities

There is a great deal of existing mandates, standardisation projects, research projects which are developing/have developed standards or pre-standards at European and global level, within formal and non-formal organisations. Standardisation work already under way needs to be reinforced or completed through specific actions.

PEPPOL (Pan European Public Procurement On-Line project) Large Scale Pilot project, co-funded by the EU's Competitiveness and Innovation Framework Programme, involved over ten European countries. PEPPOL developed e-procurement specifications for cross-border transactions. The work involved also activities for standardisation. The new Large Scale Pilot project e-Sens[6] will also include activities in development of technical specifications that can lead to standardisation.

New standardisation actions

The Expert Group on e-Tendering, set up by the Commission in 2012 to come up with a blueprint for e-procurement operations, has identified the following scope for standardisation:

– e-notification (publication of notices on procurement opportunities, contracts awarded and other legal notifications);

– qualification of suppliers (eAttestations/certificates/Virtual Company Dossier);

– process model for procurement procedures as specified in the Directives such as negotiated procedures and competitive dialogue;

– tender structures for de-materialisation of tenders. The next-generation e-Procurement platforms will enforce a model in which the platform used by the contracting authority to run a tendering process collaborates with independent "tender response preparation" platforms used by the EO, by sharing a unique view of the process and document structures being exchanged as part of the e-Tendering transactions;

– product/services catalogues and classifications;

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[6] Currently under negotiation

– code lists, identification schemes and the responsible agencies;

– accessibility standards for user interfaces;

– registration / authentication standards for e-Procurement platforms. Standards in this area would enable to set up federations of e-Tendering platforms sharing company information or even single sign-on services, simplifying the task of economic operators which currently have to go through complex procedures on each platform on which they have to work;

– digital signature and use of public key infrastructure: progressing current ETSI work on trusted lists and signature formats;

– data models and processes for e-Tendering performance measurement.

3.2.2. e-Invoicing

Policy area

Electronic invoicing, or the exchange of invoices in the form of structured electronic data which allows for their automatic processing, brings numerous benefits to all users (senders and recipients). By automating the relevant business processes, e-invoicing leads to cost savings, increased efficiency, faster payments, and a reduced environmental impact. Its deployment is a strong tool in support of enterprise and financial policies as it renders enterprises more efficient and generates potentially significant savings for Member States' governments. Additionally, it contributes significantly to the EU's Digital Agenda by promoting the development of e-government.

Legislation and policy documents

– Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax.

– Council Directive 2010/45/EU of 13 July 2010 amending Directive 2006/112/EC on the common system of value added tax as regards the rules on invoicing.

– DG TAXUD Explanatory Notes on e-invoicing.

– The Digital Agenda for Europe [COM(2010)245] gives a prominent role to achieving a single digital market and calls for removing the regulatory and technical barriers which prevent mass adoption of e-invoicing.

– Communication COM(2010)712 "Reaping the benefits of electronic invoicing for Europe" defines a number of actions in different areas, including standardisation, needed to facilitate the deployment of e-invoicing in Europe.

– Member States called for measures to promote e-invoicing at the Informal competitiveness Council of February 2012 and in the European Council Conclusions of June 2012.

– The European Parliament called for making e-invoicing compulsory in public procurement by 2016 in a resolution adopted in April 2012.

– Communication COM(2012)179 "A strategy for e-procurement" states that the ultimate goal is "straight through e-procurement" with all phases of the procedure from notification (e-notification) to payment (e-payment) being conducted electronically.

Standardisation needs to implement the legislation and policy

In the current environment, a vast number of e-invoicing standards, data formats, and usage requirements exist across the EU and globally. However, none of the existing formats has so far achieved dominance, and there is no globally used standard for e-invoicing. The diversity of data and usage requirements, and very different approaches to their implementation, lead to increased complexity and higher costs, and results in market fragmentation.

Electronic invoicing has been used by business for some time already. The earliest form of e-invoicing was based on Electronic Data Interchange (EDI) which is still used by many multinational companies. In the last decade or so, many newer e-invoicing standards/formats have been developed, based for the most part on different versions of XML. Many of these are proprietary formats and are only used by one multinational company and its suppliers. Recently, Member States have also started to develop their own national standards, which in many cases differ from anything else already on the market. In the vast majority of cases, these standards are not interoperable. Additionally, EDI is often impractical for SMEs. As a consequence, market players, such as enterprises or financial and IT service providers need to support multiple formats, necessitating substantial mapping and conversion exercises to cope with data expressed in different syntaxes.

Related ongoing standardisation and research activities

The situation in terms of e-invoicing standardisation is currently very fragmented, with several European and international standardisation organisations working in this area.

At European level, efforts at standardisation have been on-going since the middle of the last decade. In November 2009, the Expert Group on e-Invoicing recommended in its Final Report that "the UN/CEFACT Cross-Industry Invoice (CII) v.2 should be adopted as the common reference semantic data model upon which future e-invoice content standard solutions are based". Along these lines, the Communication COM(2010) 712 encouraged all market actors within both the private and public sectors to develop and to implement, or to converge on, solutions that are compliant with the UN/CEFACT CII v.2 data model. Moreover, it contained a set of actions in the domain of standardisation, two of which remain open:

– CEN will work with international standards organisations, such as UN/CEFACT and ISO, and communicate specific requirements for further development of the CII data model.

– UN/CEFACT is invited to pursue the fast development of e-business messages that are complementary to the e-invoice, and will improve the ability of businesses, trade and administrative organisations to exchange products and relevant services effectively."

At the end of 2010, a European Multi-stakeholder Forum on e-Invoicing was set up to address standardisation issues and advice the Commission on specific policy needs. The group came to the conclusion that the convergence towards the UN/CEFACT CII v.2 data model should be considered a long term objective. Work is currently being undertaken to endorse by mid-2013 a set of recommendations in support of a simpler semantic interoperability model for businesses and public authorities. The final document will need to take into account recent developments in the field of e-invoicing, such as the growing trend across the EU for the use of the Universal Business Language (UBL) and CEN WS/BII2 as the preferred syntax and implementation guidelines, respectively.

These already serve as the basis of several Member States' e-invoicing systems and a number of well-advanced Commission co-funded Large Scale Pilot projects (e.g.

PEPPOL[7], e-SENS[8], etc.) and interoperability actions (e.g. e-PRIOR). They have also been endorsed by at least one e-invoicing association. It is likely that the recommendations will have to be followed up by standardisation work for the adoption of an EN on the core invoice data elements.

Presently, CEN is running the BII3 and eBES Workshops that will address specific e-invoicing implementation issues. Complementary standardisation work will be needed to address the outstanding standardisation issues described in the DG ENTR paper "e-Invoicing standardisation - Overview, issues and conclusions for future actions" published in September 2012[9].

At international level, UN/CEFACT has developed and is maintaining the CII v.2, and is cooperating with the Organisation for the Advancement of Structured Information Standards (OASIS) for the convergence between the UBL invoice and the CII data model. Moreover, UN/CEFACT is cooperating with ISO for the integration of the CII data model in the Financial Invoice based on the ISO 20022 methodology.

New standardisation actions

UN/CEFACT and CEN should carry out specific work in response to the actions described in the Communication COM(2010)712, or to specific needs that are endorsed by the Commission further to their identification by the European Multi-stakeholder Forum on e-Invoicing.

Overall, the actions should be part of an agreed standardisation strategy shared by the Commission, the ESOs and the various stakeholders. The work may result in the publication of ENs, CWAs, Technical Reports, and Guidelines, or other standardisation deliverables as appropriate.

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[7] PEPPOL (Pan European Public Procurement On-Line project) Large Scale Pilot project, co-funded by the EU's Competitiveness and Innovation Framework Programme, involved over ten European countries. PEPPOL developed e-invoicing specifications with a multi-lateral inter-operability model for cross-border transactions based on the work carried out in the CEN BII workshops

[8] Currently under negotiation

[9] http://ec.europa.eu/enterprise/sectors/ict/files/invoicing/e-invoicing-standardisation-overview-issues-and-conclusions-for-future-actions_en.pdf

3.2.3. Mobile Payments

Policy area

While there is no globally accepted definition of mobile payments, payments involving the mobile phone seem to gain importance. Mobile payments can be based on card payments, credit transfers, direct debits, or through pre-funded cards and accounts.

In general, the Commission strives to promote an integrated European market for card, internet and mobile payments for the benefits of consumers and merchants.

Legislation and policy documents

– Directive 2007/64/EC on payment services

– Regulation (EC) 924/2009 on cross-border payments

– Regulation (EC) 260/2012 on the SEPA migration end-date

– Green Paper "Towards an integrated European market for card, internet and mobile payments" [COM(2011) 941 final]

Standardisation needs to implement the legislation and policy

The market for mobile payments at European level is fragmented. The current landscape is characterised by applications for niche users and by a myriad of pilot projects, mostly at domestic or local level.

The absence of shared standards, standardisation gaps and the lack of interoperability between the various market players are delaying the mass market adoption of this innovative payment method. While certain solutions, such as Near Field Communication (NFC), seem to emerge as possible lead technology for proximity mobile payments, common standards for mobile payments at the Point of Sale (POS) do not exist or are in a very early stage of development.

Filling the standardisation gaps will make it easier for payment services providers and merchants alike to reach critical mass by making use of the digital single market and commit to making the necessary investments.

Related ongoing standardisation and research activities

So far, the development of technical specifications has been undertaken mainly by industry organizations, such as the European Payment Council or the Global Platform (in case of specific solutions such as NFC).

ETSI and CEN are also carrying out standardisations activities relevant for this area, respectively in the TC Smart Card Platform and TC 204.

New standardisation actions

Taking as starting point the requirements of businesses and consumers, there is a need to assess the existing standards, to identify interoperability gaps, and to devel-

op a work programme that will serve to develop missing standards and to fix the existing problems.

In particular the following issues should be addressed: security, access, management and portability of customer data, transparency.

3.2.4. XBRL

Policy area

eBusiness, defined as doing business over the internet, needs unified definitions, identification and codification of business-related information, processes, actors and their roles, and relationships. That includes names, legal form and status, financial information and reports, transactional information, deeds and claims in legal and administrative proceedings used in a variety of commercial, societal and administrative contexts in commerce, taxation, statistics, public procurement, supervision of regulated activities, judicial etc. eBusiness standards and frameworks link directly to other policy areas like geo-spacial information, e-procurement, information on individuals acting on behalf of, or interacting with, businesses etc. Once unified, information can then be automatically processed by ICT, published, searched and retrieved from the internet, automatically analysed and used by governments, businesses, consumers and civil society.

eXtensible Business Reporting Language (XBRL) is a set of XML predefined vocabularies and rules, developed and used by financial industries to report financial position, performance and economic viability of businesses. XBRL financial reports, prepared according to accounting and financial reporting standards and marked-up according to sets of XBRL tags (called taxonomies) can be processed automatically, stored and retrieved from the internet and reused by all interested parties and market participants, including analysts, supervisors, tax offices, clients and suppliers, creditors, investors etc.

Legislation and policy documents

– The European Parliament resolution of 10 March 2009 on the Small Business Act (2008/2237(INI))
  (http://www.europarl.europa.eu/sides/getDoc.do?type=TA&language=EN&reference=P6-TA-2009-0100)

– The European Parliament, Committee of Legal Affairs - Report of 25 September 2012 on the proposal for a directive of the European Parliament and of the Council on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings (COM(2011)0684 – C7-0393/2011 – 2011/0308(COD)) (http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A7-2012-0278+0+DOC+PDF+V0//EN)

– The European Parliament, Committee of Legal Affairs - Report of 27 September 2012 on the proposal for a directive of the European Parliament and of the Council amending Directive 2004/109/EC on the harmonisation of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market and Commission Directive 2007/14/EC (COM(2011)0683 – C7-0380/2011 – 2011/0307(COD)) (http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A7-2012-0292+0+DOC+PDF+V0//EN)

Standardisation needs to implement the legislation and policy

XBRL introduction may enhance the quality of business information, its cross-border availability and use for the sake of the EU internal market integration and ef-

ficiency. It can also create synergies between standard setters, as well as between governments, businesses, consumers and civil society.

Related ongoing standardisation and research activities

– XBRL specifications and related resources (http://www.xbrl.org/)

– International Financial Reporting Standards XBRL taxonomies and related resources (http://www.ifrs.org/XBRL/Resources/Pages/Resources.aspx)

– Business Registers Reference XBRL taxonomy (http://www.xbrleurope.org/working-groups/xebr-wg/xebr-taxonomy)

– XBRL resources for EU banking and insurance supervision (http://www.eurofiling.info/)

New standardisation actions

A basic survey to determine EU member states' initiatives, resources and position on XBRL is one of the considered options. As a result a public summary and conclusions can be considered. In consequence a coordinated EU input to the global XBRL standardisation processes, notably in XBRL and in International Financial Reporting Standards taxonomy, could leverage the multilateral efforts leading to transparent financial industries and sound governance in the post-crisis global economy.

3.2.5. Online Dispute Resolution (ODR)

Policy area

This action is related to the EU policy on consumer redress and alternative dispute resolution. The European Commission will set up a web-based European Online Dispute Resolution ('ODR') Platform, making it possible for consumers, traders and alternative dispute resolution ('ADR') entities in the EU Member States to communicate with each other online, in all EU official languages, for the purpose of resolving e-commerce disputes out of court.

Legislation and policy documents

– Directive 2013/…/EU of the European Parliament and of the Council of… on alternative dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC (Directive on consumer ADR)*;

– Regulation (EU) No …/2013 of the European Parliament and of the Council of …on online dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC (Regulation on consumer ODR)*

* the exact OJEU references for both legislative instruments will be available after their formal adoption in May-June 2013.

Standardisation needs to implement the legislation and policy

The ODR platform will enable the online submission of complaints to a competent ADR entity. To this end, all ADR entities established in the EU Member States in accordance with the Directive on consumer ADR will be connected electronically to the ODR platform.

The Regulation on consumer ODR sets out the requirement for the ODR platform to ensure the secure interchange of data with ADR entities and to comply with the principles of the European Interoperability Framework adopted pursuant to Decision 2004/387/EC on interoperable delivery of pan-European eGovernment services to public administrations, businesses and citizens (IDABC).

In order for the ODR platform to meet the abovementioned objectives and requirements, it is necessary to allow for a certain degree of standardisation of data exchange and interoperability between the ODR platform and the ODR systems operated by ADR entities at national level.

Related ongoing standardisation and research activities

– At European level, a CEN Workshop Agreement (CWA) was adopted in November 2009 by the CEN Workshop on Standardization of Online Dispute Resolution tools. The CWA defines guidelines for users to access ADR resources using electronic tools, focusing on online dispute resolution.

– At the international level, pre-standardisation activities have been undertaken within the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT).

New standardisation actions

The Commission aims to encourage the development of an interoperable framework for data exchange between ODR systems, building in particular on UN/CEFACT international standards and practices, in order to determine the content and format of electronic document exchange and to re-use global business processes for the definition and expression of standard data object types.

Further involvement of European standardisation bodies, including for the establishment of standards at European level, could be considered, without however conferring an exclusive mandate on such bodies to pursue standardisation activities related to ODR.

3.3. Sustainable growth

3.3.1. *Smart Grids and Smart Metering*

This is one of the two sample areas where the template for comments prepared by the Task force Rolling plan has been tentatively applied

Policy area

One of the EU's key ambitions is to develop a low-carbon economy. To make this happen, the EU has given policy direction through the comprehensive policy framework proposed in the energy and climate package, including among others the climate and energy targets for 2020:
   – A reduction of at least 20% in greenhouse gases (GHG)
   – A 20% share of renewable energies in EU energy consumption
   – Increase of 20% energy saving compared to 1990 levels

As Smart Grids could be described as an upgraded electricity network to which two-way digital communication between supplier and consumer, intelligent metering and monitoring systems have been added, the growing participation and integration of ICT in the smart electricity grid is evident.

The European Smart Grid Task Force defines smart grids as electricity networks that can efficiently integrate the behaviour and actions of all users connected to it — generators, consumers and those that do both — in order to ensure an economically efficient, sustainable power system with low losses and high quality and security of supply and safety.

Smart grids will be the backbone of the future decarbonised power system. They will enable improved energy efficiency and the integration of vast amounts of RES and electric vehicles; provide an opportunity to boost the future competitiveness and worldwide technological leadership of EU technology providers, and a platform for traditional energy companies or new market entrants such as ICT companies, including SMEs, to develop new, innovative energy services. That dynamic should enhance competition in the retail market, incentivise reductions in greenhouse gas emissions and provide an opportunity for economic growth.

The use of Smart Grids for future high-tech infrastructures in Europe, such as integration of renewables and energy infrastructure for electric cars, needs to be addressed at EU level from a very beginning to create synergies, assure interoperability and establish a real internal market.

331.1. Legislation and policy documents

– Directives 2009/72/EC and 2009/73/EC: Internal market in electricity and gas

– Directive 2006/32/EC: Energy end-use efficiency and energy services

– C(2012)663: Communication Making the internal energy market work

– C(2012)1342: Recommendation (09.03.2012) on preparations for the roll-out of smart metering systems

– C(2011) 202 Smart Grids: from innovation to deployment

- Digital Agenda for Europe (COM/2010/0245 final): Two actions (71 & 73) address respectively minimum functionalities to promote smart grid interoperability and a common set of functionalities for smart meters and are directly related to the standardisation activities at CEN/CENELEC/ETSI.

- C(2009) 111: Mobilising Information and Communication Technologies to facilitate the transition to an energy-efficient, low-carbon economy

- C(2009) 519 final: Investing in the Development of Low Carbon Technologies (SET-Plan)

- C(2008) 30 final: 20 20 by 2020, Europe's climate change opportunity

- C(2008) 241: Addressing the challenge of energy efficiency through Information and Communication Technologies

- C(2009) 7604: Recommendation (9.10.2009) on mobilising Information

331.1.1 Additional information on legal documents in Member States if available

Input that either comes from MS formalised strategy or planning documents or out of dynamic discussions in MSP content of other contents, but with policy interest and need on the side of MS.

331.2. Member States and Stakeholder input on policy context and policy objectives

331.2.1 Input from Members States

Are there similar or diverging policy objectives in Member States?

Have Member States put a policy in place on this topic area?

Do Member States see any critical issues with this topic area?

331.2.2 Input from other Stakeholders

Do other Stakeholders have comments on policy objectives?

331.3. Standardisation needs to implement the legislation and policy

331.3.1 Commission perspective

The deployment of Smart Grids will by crucial to achieve the 20-20-20 targets. The implementation of appropriate ICT solutions will also enhance network efficiency and improve overall system operation through better demand response mechanisms and cost savings (remote operation of meters, lower reading costs, avoiding investment in peak generation, etc.), which will also contribute to the implementation of the internal energy market.

Standards are needed 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 in special a transparent Demand Response scheme.

As systems need to be integrated to ensure their coherent operation in response to user's requirements, interoperability is a first and fundamental requirement to be considered. This can be ensured only through an appropriate standardisation activity by reviewing existing standards or, where needed, developing new ones. The majority (estimated at 70%) of the standards needed for the smart grid are ICT related. Of paramount importance is the agreement around data protection and data security related standards.

Communication standards will also be crucial for the deployment of electric cars and the building-up of smart cities. Harmonised communication protocols would provide standard components and interfaces giving 'plug-and-play' capability for any new entrant to the network, such as renewables or electric cars, or the use of open architectures based on global communication standards.

A major difficulty is the choice of stakeholders which need to be brought together to conduct the standardisation work taking into account that between smart grid management (of relevance to utility producers, the utility network operators) and smart consumption (involving the end consumer) a seamless environment should be established where interests are not identical and potentially conflicting.

The main coordination reference – for smart grids – at European level is the Smart Grids Task Force, which was given the mission to advice the European Commission on policy and regulatory directions at European level and to coordinate the first steps towards the implementation of Smart Grids under the provision of the Third Energy Package. Nine DGs are participating: ENER (chair), CLIMA, ENTR, ENV, CONECT (co-chairing two of the four expert groups, EG3 and EG4), JUSTICE, JRC, RTD and SANCO.

Activities under mandate M/490 are dealt with under the Expert Group 1 (EG1) of the Smart Grids Task Force. EG1 is chaired by DG ENER and CONECT is actively participating to this group. EG1 is also monitoring related activities under mandate M/441 (Smart Meters) and M/468 (electric vehicles chargers) to ESOs.

331.3.2 Member States and Stakeholder perspective

Do Member States and Stakeholders support the Commission perspective?

Are there questions or concerns regarding the standardisation needs?

331.4 Related ongoing standardisation and research activities

331.4.1 At EU level

On 1 March 2011 the European Commission issued Mandate 490 - Standardization Mandate to European Standardisation Organisations (ESOs) to support European Smart Grid deployment. With this mandate CEN, CENELEC, and ETSI were requested to develop a framework to enable European Standardisation Organisations to perform continuous standard enhancement and development in the field of Smart Grids, while maintaining transverse consistency and promote continuous innovation. The mandate is available at

http://ec.europa.eu/energy/gas_electricity/smartgrids/doc/2011_03_01_mandate_m490_en.pdf

In order to ensure effective collaboration, the ESOs combined their strategic approach and established in July 2011, together with the relevant stakeholders, the CEN-CENELEC-ETSI Smart Grid Coordination Group (SG-CG), being responsible for coordinating the ESOs reply to M/490.

The SG-CG works closely with other smart grid standards initiatives in other regions, including with NIST in the US and activities in China and Japan.

Concerning smart meters, a separate Co-ordination Group of the three ESOs is managing the standards programme under mandate M/441.

331.4.2 In other regions

– NIST. The US government sponsored a Smart Grid Interoperability Panel from 2009-2012 to spur cooperative industry and public agency development of open data standards for smartgrid functionality: http://www.nist.gov/smartgrid/priority-actions.cfm. In 2013, the management of this project was turned over to industry stakeholders as a continuing standards cooperation project: http://sgip.org/

– Japanese Industrial Standards Committee (JISC) roadmap to international standardization for smart grid

– The State Grid Corporation of China – SGCC Framework. A lot of further national activities and roadmaps could be mentioned as well, such as those of Austria, Spain, the United Kingdom, the Netherlands, France, Korea and others.

331.4.3 At global level

– IEC- Strategic Group 3 and multiple activities in numbers of specific TCs, with over 100 relevant standards. A copy of the IEC Smart Grids System Roadmap is available at http://www.iec.ch/smartgrid/downloads/sg3_roadmap.pdf

– IEEE, through the IEEE Standards Association (IEEE-SA), has many standards and standards projects in development from the diverse fields of digital information and controls technology, networking, security, reliability, assessment, interconnection of distributed resources including renewable energy sources to the grid, sensors, electric metering, broadband over power line, and systems engineering. IEEE has developed a guide for smart grid interoperability standardization, *IEEE 2030-2011 IEEE Guide for Smart Grid Interoperability of Energy Technology and Information Technology Operation with the Electric Power System (EPS), End-Use Applications, and Loads*. IEEE 2030® spans the three distinct perspectives of power and energy, communications and information technology. Information is at http://smartgrid.ieee.org/.

– ITU-T - Smart Grid Focus Group, which completed its work in December 2012, with adopted deliverables at http://www.itu.int/en/ITU-T/focusgroups/smart/Pages/Default.aspx

– OASIS developed a series of transactive energy standards for smartgrid information, energy supply transactions and monitoring, starting in 2009which have been adopted by some regulators as model specifications for open energy markets. (See https://www.oasis-open.org/committees/tc_cat.php?cat=smartgrid and https://www.oasis-open.org/news/pr/oasis-members-form-committee-to-define-transaction-standards-for-smart-grid

331.5 Proposed new standardisation activities

At the end of 2012, the reference architecture and a first set of standards (including newly delivered technical specifications) were issued by M/490 and are available at the   web   at http://www.cencenelec.eu/standards/HotTopics/SmartGrids/Pages/default.aspx.

Clause 3.4 of M/490 states that if needed, the reference architecture, sustainable processes and the set of standards will be subject to further iterations, e.g. yearly period. An iteration of Mandate M/490 for 2013-2014 was agreed by the EC in October 2012.

The work to be carried out during the next two years will address two main standardisation topics:

I.   System interoperability testing methods and a conformance testing map by 2013
II.   Implementation of the methodologies developed and second set of standards by the end of 2014.

Other relevant international initiatives have to be taken into account.

331.5.1 Proposed other activities around standardisation

Recommendations for other actions such as studies, consultations, etc.

3.3.2. Technologies and Services for a Smart and Efficient Energy Use

Policy area

At the level of Smart Cities, the interoperability need is stronger than at the level of Buildings, - which is in the end a controlled environment -, due to the many players, actors and system owners. This is specially so when it comes to public services. Open data comes along with standardised open data.

It has to link with the public services energy management (i.e. lighting), and buildings energy management (public buildings, offices and businesses and homes).

Legislation and policy documents

The construction sector is the highest energy consumer in EU (about 40%) and main contributor to GHG emissions (about 36% of the EU's total CO_2 emissions and for about half of the CO_2 emissions which are not covered by the Emission Trading System). In this framework, the building industry will be one of the key enablers of the 2050 decarbonisation goal for the European economy. This goal links two European policies:

The energy policy: scenarios by 2050 show that a 40% to 50% reduction of the building "sector" energy consumption is mandatory by 2050, where fossil fuel heating represents a major share (60%);

The climate policy: scenarios by 2050 show that the building "sector" must target a reduction of about 90% of its CO_2 emissions, since accounting for about 1.4 Gtons of CO_2 per year.

Reference documents:

– Energy Taxation D 2003/96/EC

– EU Trading Scheme D 2003/87/EC

– Cogeneration D 2004/8/EC

– Use of Energy from renewable sources D 2009/28/EC

– Labelling and Information D 1992/75/EC D 2010/30/EU

– Eco Design of products D 2005/32/EC D 2009/125/EC

– Energy end-use efficiency and energy services D 2006/32/EC

– Energy Performance of Buildings D 2010/31/EU

– Mobilising Information and Communications Technologies to facilitate the transition to an energy-efficient, low-carbon economy R 2013/105/EC

– "Smart Cities and Communities - European Innovation Partnership" [COM(2012)4701]

Standardisation needs to implement the legislation and policy

From a physical point of view, we can think of the urban environment as a hierarchical system in which, for example, buildings are grouped in neighbourhoods, neighbourhoods in cities, cities in regions, and so on. From this point of view, an urban area is a complex system made of smaller systems each consisting of a set of elements which work with each other in a certain way. However, there are many more relationships occurring which cannot be represented as a simple hierarchical structure like a tree but with the more subtle and complex structure of a semi lattice. In practical terms, that means that the energy sector has a) to keep control of the elements comprising it (e.g. to assure coordinated operation between energy transformation plants, transport and distribution systems), and b) to prioritise across socio-economic sectors for the resources needed to perform its tasks.

The core brick in the complex system is the systems controlling the efficient consumption of energy at buildings (BIM , BEMS). It should address the whole lifecycle (design of buildings, optimising energy consumption at operational level) to ensure seamless transfer of information; availability of energy management appliances (sensors, switches) designed as 'plug and play' devices; compatibility with home automation networks.

Related ongoing standardisation and research activities

–   In Smart Cities, nowadays, ISO standards are all in terms of the building scale, and there are no specific International Standards for energy modelling at the urban scale. However, starting from analysis at the building scale, the ISO standards also can be indirectly applied to urban energy modelling.

– Specifically, energy model terminology is specified in ISO/IEC CD 13273 (Energy efficiency and renewable energy sources), ISO/DTR 16344 (Common terms, definitions and symbols for the overall energy performance rating and certification of buildings), ISO/CD 16346 (Assessment of overall energy performance of buildings), ISO/DIS 12655 (Presentation of real energy use of buildings), ISO/CD 16343 (Methods for expressing energy performance and for energy certification of buildings), and ISO 50001:2011 (Energy management systems – Requirements with guidance for use).

– A STREP, SEMANCO, is for the first time developing a Semantic Energy Information Framework (SEIF) to model the energy-related knowledge planners and decision makers need.

– For the area of Building Energy Management Systems, a stakeholders group named eeSemantics on Energy Efficient Buildings Data Models has been launched by DGINFSO, building up from our FP7 and CIP project participants, with a remarkable engagement of the construction industry, together with ICT industry. Activities build on the already universally accepted construction industry standard promoted by the buildingSmart Alliance, IFC. It consists mainly of extensions of IFC towards the Facility Management phase and the adding of Energy Efficiency components. Activities are supported by:

– A STREP, Adapt4EE, is in charge of running a series of Vocabulary Camps along 2013 and 2014, to agree with the stakeholders vocabularies addressing specific subareas.

– DG Enterprise and Industry has made a tender for a project "Stimulating industrial innovation in the construction sector through smart use of ICT: connecting SMEs in digital value chains". This project will, from 2013 to 2015, provide a market analysis of the construction industry in terms of the current and foresight integration of ICT and eBusiness solutions and systems and develop a framework for digital value networks in the construction sector. This framework will set the principles for interoperability among different business processes and data exchange models in order to allow for seamless digital communication and data flows among business partners along the construction value chain.

New standardisation actions

DG Connect Objective ICT-2013.6.4 Optimising Energy Systems in Smart Cities includes a CSA that should identify ICT/Energy vocabularies and ontologies to foster interoperability of Energy Management Systems related to the building and construction domain, and beyond the building into public spaces, neighbourhoods and districts, and analyse their relevance and possible evolution towards formal standards; analyse their potential extension to energy management in industry and commerce.

In the area of smart appliances (white goods, HVAC systems, lighting, etc.) a working group has been established bringing together energy consuming and producing products (EupP) manufacturers and stakeholders with the objective of creating a roadmap towards agreed solutions for interoperability. Focus is communication with smart appliances at information level in smart homes. Long term perspective is M2M solutions in the context of IoT.

3.3.3. ICT Environmental Impact

Policy area

ICT is currently one of the fastest growing GHG emission and energy consumption sector.

At the level of ICT multiple methodologies were present to assess the environmental impact of ICT itself but they didn't provide a consistent methodological framework for this assessment. A solution to this is the work developed in various European and International Standardization bodies like ETSI (European Telecommunication Standard Institute), the ITU (International Telecommunications Unit), IEC (International Electrotechnical Commission), ISO (International Standardization Organization) and others around methodologies to asses this environmental impact, currently focused on energy consumption and GHG emissions, in a widely consented way. This work is done together with industry, standardizations bodies and public authorities and it is expected to be extended to water, raw materials and other environmental criteria.

A key challenge is in achieving transparency around claims relating to the environmental performance of ICT products and services, and setting an effective basis to drive competition

In parallel the ESOs are working on defining energy efficient KPIs in the framework of mandate M/462 from the EC.

Legislation and policy documents

These efforts are a direct reaction to Digital Agenda Key Action 12:

1. Assess whether the ICT sector has developed common measurement methodologies

2. Propose legal measures if appropriate

Standardisation needs to implement the legislation and policy

Starting at the level of "Good, networks and Services" both ITU and ETSI have approved methodologies for the assessment of the environmental impact.. These will allow to assess in a transparent, qualitative, accurate and consistent the footprint among others of various products and services that are part of our daily digital live like email, telephone services, laptops, broadband access… As well, companies, public bodies and other organizations will be able to assess and report their own ICT footprint based among others on ITU's "ICT in Organization"

Building on top of the above mentioned two other methodologies are being developed:

– "L.ICT projects" where the enabling effect of ICT projects in reducing the GHG emissions in the ICT and more importantly, non ICT sectors like transport, buildings or smart grid can be assessed.

– "L.Cities methodology": where the footprint of ICT in cities and the city dimension of ICT projects & services are being considered. The European Commission through DG CNECT H5 has been appointed in the important role of Chief editor.

Related ongoing standardisation and research activities

On top of developing the methodologies the European Commission has concluded, with the support of ICT companies, the piloting of various methodologies for Goods, networks, services & Organizations. Elements like compatibility and workability of different standards have been assessed with a positive outcome regarding these two elements. As an example, ITU & ETSI are going to work together to further align their methodologies around "Goods, networks and services"

Impact and measure of progress: The impact will strongly depend on the uptake of these methodologies and associated regulation if defined. Once this point is clarified the progress could be measured in for instance number of companies reporting their footprint calculated using these methodologies.

Moreover, mandate M/462 on efficient energy use in large ICT networks was accepted by the ESOs to provide standards for measurement. This mandate is not only limited to networks but extends as well to Data Centers and others.

New standardisation actions

Both the L.ICT Projects and L.Cities methodology are foreseen to be final in 2013.

An impact assessment on how better use the methodologies to contribute to the 20/20/20 objectives will take place in 2013.

Not excluding other, following standardization activities might be needed:

– Guidelines for the environmental footprinting of ICT networks, products or services.

– Guidelines for Organizations ICT footprint reporting.

On Data Centers the on-going standardization activities by CEN/CENELEC/ETSI will as well be considered for possible legislation. These activities are among others discussed in:

– CENELEC: CLC TC215 WG3

– CENELEC: CLC BT WG132-3

– ETSI: STF 439 working on the definition of Global KPIs for Energy Efficiency of Data Centers.

Not excluding others, following standardization activities might be needed:

– Guidelines for the use of Global KPIs for Data Centers.

– Guidelines for the definition of Green Data Centers.

– Definition of Global KPIs for Data Services.

– Guidelines for the definition of Green Data Services.

– Definition and guidelines of KPIs for ICT networks.

3.3.4. European Electronic Toll Service

Policy area

Intelligent Transport Systems, Continuity of traffic and freight management, and Implementation of the interoperability of electronic road.

Legislation and policy documents

– Directive 2004/52/EC of the European Parliament and of the Council of 29 April 2004 on the interoperability of electronic road toll systems in the Community;
– Commission Decision 2009/750/EC of 6 October 2009 on the definition of the European Electronic Toll Service and its technical elements;
– Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport;
– COM(2008)886: Action Plan for the Deployment of Intelligent Transport Systems in Europe;
– COM(2012)474: Implementation of the European Electronic Toll Service.

Standardisation needs to implement the legislation and policy

European Electronic Toll Service (EETS), as required by Directive 2004/52/EC, will achieve interoperability of the electronic road toll systems in the European Union1. EETS involve two main stakeholders:

– Toll chargers, which operate either on behalf of the Member State or in the framework of a concession contract with the Member State, manage the infrastructure and levy the tolls for the circulation of vehicles on the network they manage.
– EETS Providers, supplying motorists or road hauliers with the necessary equipment and services to access all EU tolled infrastructures and ensuring the payment to the toll chargers of the fees due for the use of their network.

Directive 2004/52/EC provides that Member States having electronic road toll systems would ensure that operators offer the European Electronic Toll Service to heavy goods vehicles at the latest three years after the entry into force of the decision defining EETS[10] and to all other categories of vehicle at the latest five years after.

It is required to further develop standards allowing • to monitor and enforce EETS, in particular for autonomous GNSS-based toll systems (Trusted Recorders); , to exchange information between Service Provision and Toll Charging activities (Interoperable Application Profiles).

Related ongoing standardisation and research activities

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[10] Decision 2009/750/EC defining EETS entered into force the 8 October 2009.

Under Mandate M/338, CEN and ETSI have developed standards for DSRC- and GNSS-based electronic fee collection systems.

New standardisation actions

– Develop technical specification and test standards for the secure monitoring of toll systems (Compliance Checking and Trusted Recorders) and for profiles of information exchange between Service Provision and Toll Charging activities.

– Revision of test standards for EN 17575-1/2/3/4, EN 12813 and EN 13141, which form the basis of satellite-based electronic tolling systems.

3.3.5. Intelligent Transport Systems

This is one of the two sample areas where the template for comments prepared by the Task force Rolling plan has been tentatively applied

Policy area

"Intelligent Transport Systems" (ITS) means applying Information and Communication Technologies (ICT) to the transport sector. ITS services and applications can create clear benefits in terms of transport efficiency, sustainability, safety and security, whilst contributing to the EU Internal Market and competitiveness objectives.

335.1. Legislation and policy documents

– Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport

– Commission Decision C(2008) 8455 final of 19/12/2008 on the conclusion of an Implementing Arrangement between the European Commission and the Department of Transportation of the United States of America in the field of research on Intelligent Transport Systems and Information and Communication Technologies applications to road transport

– COM(2008)886 final: Communication from the Commission "Action Plan for the Deployment of Intelligent Transport Systems in Europe

– Directive 2004/52/EC of the European Parliament and of the Council of 29 April 2004 on the interoperability of electronic road toll systems in the Community (OJ L166, 30.4.2004. Corrected version in OJ L200, 7.6.2004)

– Commission Decision 2009/750/EC of 6 October 2009 on the definition of the European Electronic Toll Service and its technical elements (notified under document C(2009) 7547)

– Commission Decision 2008/671/EC of 5 August 2008 on the harmonised use of radio spectrum in the 5875-5905 MHz frequency band for safety-related applications of Intelligent Transport Systems (ITS)

– Recommendation C/2006/7125: Safe and efficient in-vehicle information and communication systems: update of the European statement of principles on human machine interface (ESoP).

335.1.1 Additional information on legal documents in Member States if available

Input that either comes from MS formalised strategy or planning documents or out of dynamic discussions in MSP content of other contents, but with policy interest and need on the side of MS.

Extract from 'ICT Strategy of the German Federal Government: Digital Germany 2015' (TFRP011_DE_ict-strategy-digital-germany-2015.pdf). Measure listed on page 35 'Implementation of Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent

Transport Systems in the field of road transport and for interfaces with other modes of transport.'.

Extract from 'ICT for Everyone – A Digital Agenda for Sweden' (TFRP037_SV_ICT_for_Everyone-ADigitalAgendaForSweden.pdf). 'The Government established a Council for Intelligent Transport Systems (ITS Council) in June 2010. The aim is to make better use of the opportunities to use information and communication technology in the transport system to attain transport and business policy objectives. The Council is to develop forms of cooperation between authorities and the business community, provide advice to and speed up the work of the Swedish Transport Administration and other parties on implementing the action plan for intelligent transport systems and promote greater Swedish action in the EU. A • nal report is due to be presented by 31 December 2012.'.

335.2 Member States and Stakeholder input on policy context and policy objectives

335.2.1 Input from Members States

Pursuant Directive 2010/40/EU, Member States have submitted to the Commission information on their national activities and projects on national ITS actions. In addition, several Member States gave their agreement to the publication of their initial contributions:
http://ec.europa.eu/transport/themes/its/road/action_plan/its_national_reports_en.htm

335.2.2 Input from other Stakeholders

Do other Stakeholders have comments on policy objectives?

335.3 Standardisation needs to implement the legislation and policy

335.3.1 Commission perspective

To take full advantage of the benefits that ICT based systems and applications can bring to the transport sector it is necessary to ensure interoperability and continuity of the services among the different systems throughout Europe. The existence of common European standards and technical specifications is paramount to ensure the interoperability of ITS services and applications as well as to accelerate their introduction and impact. International cooperation aiming at global harmonisation is relevant in this area.

335.3.2 Member States and Stakeholder perspective

Do Member States and Stakeholders support the Commission perspective?

Are there questions or concerns regarding the standardisation needs?

335.4 Related ongoing standardisation and research activities

335.4.1 At EU level

Mandate M/453: Co-operative systems for Intelligent Transport in the field of information and communication technologies to support interoperability of co-operative systems for intelligent transport in the European Community (C-ITS)

Regarding C-ITS standardisation, in Europe there are mainly two major standardisation bodies: ETSI, namely through its technical Committee on ITS (ETSI TC ITS), and CEN, through its Technical Committee on ITS (CEN TC 278 WG16). ETSI and CEN have announced the Release 1 for C-ITS standards within short term.

The standardisation activities are supported by RTD projects, pilots and field operational tests in the area of C-ITS, in particular contributing to fine-tuning the standards, such as DriveC2X, FOTSIS, PRESERVE, ITSSv6, ComeSafety2, COMPASS4D.

335.4.2 In other regions

335.4.3 At global level

Internationally, standardisation activities are taken up by ISO TC 204, with strong cooperation with CEN TC 278, but also by TC 22. ITU has also established a group on ITS.

In addition standardisation relevant to ITS is done by other standardisation bodies like SAE, IEEE or ARIB.

International cooperation for the development of harmonised global standards is particularly important in these areas. Agreements with the US Department of Transport and with the Japanese Ministry for Land Transport and Industry have been concluded regarding ICT applications to road transport. Cross-regional harmonisation task groups (HTGs) have been established in this area.

The IEEE 1609 Family of Standards for Wireless Access in Vehicular Environments (WAVE) define an architecture and a complementary, standardized set of services and interfaces that collectively enable secure vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) wireless communications. Together these standards are designed to provide the foundation for a broad range of applications in the transportation environment, including vehicle safety, automated tolling, enhanced navigation, traffic management and many others. For more information about IEEE activities please see *<URL TO BE PROVIDED>*.

335.5 Proposed new standardisation activities

– Co-operative systems. There is a need to complete the minimum set of standards required to deploy C-ITS systems and application, completing the activities foreseen in the M/453, and achieving the Release 1 and 2 for C-ITS, including inter-vehicle communications (V2V), vehicle to infrastructure and infrastructure to vehicle communications (V2I/I2V) and infrastructure to infrastructure communications (I2I). Plugtest activities for interoperability testing, and guidelines with methods for assessing the conformity of the identified minimum set of standards are also needed.

– Open in-vehicle platform architecture: the development, operation and user acceptance of vehicle-based intelligent transport systems and services will benefit from an agreed open in-vehicle platform architecture enabling a 'single platform

– multiple services' approach and ensuring interoperability/interconnection with legacy in-vehicle communication networks (CAN-bus) and (generic) infrastructure systems and facilities. The issue so far has been addressed in fragmented way, providing building blocks (e.g., the research projects CVIS, GST, OVERSEE, the eSafety Working Group on SOA and the recommendations of the EeIP Task Force OPEN and the study from the ITS) but an overall logical and cost-effective synthesis seems to be lacking. Prior to launching the Mandate it is necessary to define the precise standardisation requirements needed, taking into consideration latest results from a study launched under the ITS Action plan (action 4.1) focusing on synergies among legal provisions and obligations for HGV.

– Quality: the establishment of sound business or cost models in light of *provision of ITS services* depends on a generic and overarching definition/ description of the parameters, indicators and potentially also detailed processes that enable earmarking of data quality and/or the quality of resulting ITS services. A commonly agreed vision on quality also seems a prerequisite to discuss and (potentially) define liability-related aspects.

– Digital Maps: There is a need for standards / specifications to steer and manage the integration of accurate (public) road data in digital maps, and their timely updating. Work should be based on the results of the ROSATTE project (7FP) and subsequent activities carried out by the iMobility Forum 'Digital Maps Working Group', and consider a possible alignment with the INSPIRE technical Framework.

– Public Transport interoperability: It is needed to complement the existing IOPTA (Interoperable public transport architecture) standard EN 15320 to provide Europe with complete standardised data structures and interoperable fare management (IFM) schemes. Urban stakeholders should also actively participate.

– The development and use of novel ITS services and applications imply guidance and potentially technical specifications to ensure a correct and safe on-board 'Human-Machine-Interaction', enabling safe integration and operation of nomadic devices. Results of the research project AIDE ("Adaptive Integrated Driver vehicle InterfacE"), the conclusions of the Nomadic Device Forum and the European Statement of Principles (ESoP) on safe HMI shall be taken into consideration.

– International cooperation aiming at achieving the necessary global harmonisation of standards is paramount in the field of ITS, in particular with the USA and Japan, with which implementation agreements exist, but may also be extended to other regions.

335.5.1 Proposed other activities around standardisation

Recommendations for other actions such as studies, consultations, etc.

3.4. Key enablers and security

3.4.1. Cloud computing

Policy area

Establishing a coherent framework and conditions for Cloud Computing is one of the key priorities of the newly updated Digital Agenda for Europe. Cloud computing is driving a paradigm shift in the delivery of digital technologies thus enhancing innovation, digital single market and access to content.

Legislation and policy documents

– COM(2012)529 "Unleashing the Potential of Cloud Computing in Europe"

– COM(2012)784 "The Digital Agenda for Europe – Driving European growth digitally"

Standardisation needs to implement the legislation and policy

A wider use of standards, the certification of cloud services to show they meet these standards and the endorsement of such certificates by regulatory authorities as indicating compliance with legal obligations will help cloud take-off.

Related ongoing standardisation and research activities

The Commission has tasked ETSI to coordinate with stakeholders in a transparent and open way to identify by 2013 a detailed map of the necessary standards (inter alia for security, interoperability, data portability and reversibility).

New standardisation actions

The necessary actions will be determined after the coordination with stakeholders.

3.4.2. (Open) Data

Policy area

With the continuously growing amount of data (often referred to under the notion big data), interoperability ever more becomes a key issue to leveraging the value of data. Standardisation is essential to enable broad data integration, data exchange and interoperability with the overall goal to foster innovation on the basis of (openly available) data. This refers to all types of types of data as diverse as geospatial data, statistical data, weather data, unstructured (multilingual) data, Public Sector Information (PSI) and especially to the area of Open Data.

Legislation and policy documents

The policy area of Open Data relates to the revision of the Directive 2003/98/EC on reuse of public sector information (PSI Directive) that proposes to request Member states to provide their data preferably in machine-readable formats.

Standardisation needs to implement the legislation and policy

In light of the goal of increasing the interoperability in the domain of (Open) Data, it is currently not envisioned to impose distinct standards. Instead, the overall application of standards should be encouraged, for example in RDI projects and in the Open Data portals.

Related ongoing standardisation and research activities

There is an on-going call for proposals on objective 2.2.b: *Standards for Open Data* in the ICT PSP Work Programme 2013. It calls for a Thematic Network that brings together stakeholders in the reuse of public sector information to agree on standards enabling interoperability and integration of public sector information across Europe and beyond.

The Commission is starting a Data Catalogue Vocabulary project in the scope of the ISA programme (Interoperability solutions for European public administrations). The project aims at creating a semantic agreement on a thin layer of commonly agreed metadata, and supporting code-lists, to describe datasets.

The project MultilingualWeb-LT (funded by the CSA grant LT-WEB) is addressing standardisation and promotion of best practices in language processing, exchange and interoperability of multilingual data, and on multilingual Web content management. The standardisation work is coordinated and managed by W3C Working Group "MultilingualWeb-LT", part of the Internationalization (I18N) Activity of W3C. The standardisation in MultilingualWeb-LT is bottom-up, and based on practical and market- oriented reference implementations, built by companies and universities operating within and having expertise on the field.

http://www.w3.org/International/multilingualweb/lt/

http://www.multilingualweb.eu

In the multilingual open data track of the MultilingualWeb initiative, which is driven by the World Wide Web Consortium (W3C), there is an ongoing discussion about the standardisation of multilingual URIs and localisation of URIs,

in which a representative of the Commission is involved. Moreover, a W3C special interest group on this topic is expected to be created.

New standardisation actions

Currently, the development of new standards in the domain of (Open) Data is not envisioned. Instead, three main elements of a standardisation strategy are envisioned, i.e. 1) involvement of stakeholders in a dialogue about (Open) Data standards, 2) promotion of standardisation in/via Open Data Portals and 3) support of (Open) Data standardisation activities as part of H2020 RDI activities.

3.4.3. DCAT Application profile for data portals in Europe

Policy area

Interoperability between European Public Administrations and Public Sector Information Directive.

The ISA programme supports and facilitates cross-border and cross-sector collaboration of public administrations. It defines, promotes and supports the implementation of interoperability solutions and frameworks for European public administrations. It achieves synergies and promotes the reuse of infrastructure, digital services and software solutions. It translates public administrations' interoperability requirements into specifications and standards for digital services.

Studies conducted on behalf of the European Commission (see this link for an overview) show that businesses and citizens still face difficulties in finding and re-using public sector information. In its communication on Open Data of December 12 2011, the European Commission states that *the availability of the information in a machine-readable format as well as a **thin layer of commonly agreed metadata** could facilitate data cross-reference and interoperability and therefore considerably enhance its value for reuse*.

Legislation and policy documents

– DECISION No 922/2009/EC on interoperability solutions for public administrations (ISA)

– Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information (Public Service Information Directive[11])

– COM(2011) 882 on Open data[12]

Standardisation needs to implement the legislation and policy

The aim of the action is to create a common specification for describing public sector data catalogues and datasets and promoting this specification to be used by data portals across Europe. The established working group is led by the Publication Office (PO), as the owner of the EU Open Data Portal. PO already uses DCAT in this portal. By agreeing on a common application profile and promoting this to the MSs, the interoperability amongst data catalogues and the exchange of data between MSs will be substantially improved.

Related ongoing standardisation and research activities

Development of the DCAT13 vocabulary at WC3. The DCAT vocabulary has been discussed in the Linked Government Data W3C Working Group for almost two

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[11] http://ec.europa.eu/information_society/policy/psi/rules/eu/index_en.htm

[12] http://ec.europa.eu/information_society/policy/psi/docs/pdfs/directive_proposal/2012/open_data.pdf

[13] http://www.w3.org/TR/vocab-dcat/

years. Currently, the last call for comments has expired and the plan is for the specification to be shortly available as a W3C Recommendation.

New standardisation actions

The application profile will be based on the Data Catalogue vocabulary (DCAT). It contains the specifications for metadata records to meet the specific application needs of data portals in Europe while providing semantic interoperability with other applications on the basis of reuse of established controlled vocabularies (e.g. EuroVoc[14]) and mappings to existing metadata vocabularies (e.g. SDMX[15], INSPIRE metadata, Dublin Core, etc.).

The multi-sectoral expert group has already started its work[16]. Experts from international standardisation organisations are invited to participate in the group to ensure the interoperability of the resulting specification and to assist in its standardisation process.

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[14] http://eurovoc.europa.eu/drupal/

[15] http://www.iso.org/iso/catalogue_detail.htm?csnumber=52500

[16]   https://joinup.ec.europa.eu/asset/dcat_application_profile/asset_release/dcat-application-profile-data-portals-europe-draft-1

3.4.4. *Exchange of metadata on re-usable interoperability assets*

Policy area

Interoperability between European Public Administrations - Exchange of metadata on re-usable interoperability assets among national and international repositories

The ISA programme supports and facilitates cross-border and cross-sector collaboration of public administrations. It defines, promotes and supports the implementation of interoperability solutions and frameworks for European public administrations. It achieves synergies and promotes the reuse of infrastructure, digital services and software solutions. It translates public administrations' interoperability requirements into specifications and standards for digital services.

Semantics interoperability is a condition for cross-sector and cross-border interoperability and agreeing on and re-using common semantic interoperability assets across Europe is an important step in facilitating semantic interoperability.

The EU Digital Agenda identifies the lack of semantic interoperability between public administrations as a major obstacle to the Digital Single Market and the provision of cross-border digital public services.

In addition to the multilingual challenge, interoperability is compromised by the lack of commonly agreed and widely used data models, divergent interpretations of the same data and the absence of common reference data (e.g. code-lists, identifiers, taxonomies, references to organisations, geospatial references, license collections, etc.).

The European Commission, in the context of the ISA programme, is undertaking a number of initiatives to reduce semantic interoperability conflicts in Europe.

Legislation and policy documents

– Decision No 922/2009/EC on interoperability solutions for public administrations (ISA)

– COM(2010) 245 Digital Agenda

Standardisation needs to implement the legislation and policy

Public administrations, businesses, standardisation bodies and academia are already producing interoperability assets that, if (re)used, can facilitate interoperability among public administrations' services. However, these are not always easy to find. The Asset Description Metadata Schema (ADMS) is a common way to describe semantic interoperability assets making it possible for everyone to search and discover them once shared through the forthcoming federation of asset repositories.

With the intention to facilitate the visibility and re-usability of interoperability assets across borders and sectors, the Commission has made available a large set of semantic interoperability assets described using ADMS, through a federation of asset repositories of Member States, standardisation bodies and other relevant stakeholders. Through this federation – reachable through the Joinup platform), semantic interoperability assets became retrievable and available via a single point of access.

Currently, work is on-going[17] to extend the ADMS specification to also be able to describe technical, legal and organisational interoperability assets and thus to facilitate their re-usability.

Related ongoing standardisation and research activities

ADMS[18] specification at the WC3 Linked Government Data Working Group.

New standardisation actions

Assessment of the ADMS specifications and its extensions with regards to their possible implementation into standards

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[17] https://joinup.ec.europa.eu/asset/adms/event/efir-workshop-2013-take-part-extension-joinups-catalogue-interoperability-assets

[18] https://dvcs.w3.org/hg/gld/raw-file/default/adms/index.html

3.4.5. Core Concepts to facilitate the development of interoperable solutions

Policy area

Interoperability between European Public Administrations - Core Concepts to facilitate the development of interoperable IT solutions

The ISA programme supports and facilitates cross-border and cross-sector collaboration of public administrations. It defines, promotes and supports the implementation of interoperability solutions and frameworks for European public administrations. It achieves synergies and promotes the reuse of infrastructure, digital services and software solutions. It translates public administrations' interoperability requirements into specifications and standards for digital services.

Semantics interoperability is a condition for cross-sector and cross-border interoperability and agreeing on and re-using common semantic interoperability assets across Europe is an important step in facilitating semantic interoperability.

The EU Digital Agenda identifies the lack of semantic interoperability between public administrations as a major obstacle to the Digital Single Market and the provision of cross-border digital public services.

In addition to the multilingual challenge, interoperability is compromised by the lack of commonly agreed and widely used data models, divergent interpretations of the same data and the absence of common reference data (e.g. code-lists, identifiers, taxonomies, references to organisations, geospatial references, license collections, etc.).

The European Commission, in the context of the ISA programme, is undertaking a number of initiatives to reduce semantic interoperability conflicts in Europe.

Definitions should first be agreed on fundamental concepts, where divergent and/or conflicting views can be handled. These concepts are simplified data models that capture the minimal, global characteristics/attributes of an entity in a generic, country- and domain-neutral fashion.

Legislation and policy documents

– Decision No 922/2009/EC on interoperability solutions for public administrations (ISA)

– COM(2010) 245 Digital Agenda

Standardisation needs to implement the legislation and policy

With regards to fundamental core concepts, the Commission has made available three core vocabularies with high re-usability possibilities: the Core Person the Core Business and Core Location Vocabularies.

A fourth core vocabulary describing the Public Service concept is currently under development[19]

Related ongoing standardisation and research activities

The Registered Organization Vocabulary[20] which is based on the Business Core Vocabulary is discussed in the W3C Linked Government Data Working Group.

New standardisation actions

– Assessment of the Core Person, Core Location and Core Business Vocabularies with regards to their possible implementation into standards.

– The Core Location Vocabulary will be an important input to a new working group that is currently discussed in W3C with the participation of the JRC, IN-SPIRE team.

– Supporting the development of the Core Public Service Vocabulary and its implementation as standard.

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[19] https://joinup.ec.europa.eu/asset/core_public_service/description

[20] http://www.w3.org/TR/vocab-regorg/

3.4.6. Electronic identification and trust services including e-signatures

Policy area

Key actions 3 and 16 on electronic identification and trust services for electronic transactions, including electronic signatures within the "Digital Agenda for Europe" flagship initiative of "Europe 2020".

Legislation and policy documents

– Proposal for a Regulation of the European Parliament and of the Council on electronic identification and trust services for electronic transactions in the internal market, COM(2012)238 of 4.6.2012 (eIDAS Regulation).

– Directive 1999/93/EC of the European Parliament and of the Council of 13.12.1999 on a Community framework for electronic signatures (e-signature directive).

Standardisation needs to implement the legislation and policy

In the context of the e-signatures Directive, in January 2010, the Commission mandated the ESO to rationalise the standards related to e-signatures and related trust services into a coherent and up-to-date framework (mandate M/460). The bulk of the mandate results are expected in 2014 onwards.

However, in June 2012, the Commission proposed the eIDAS Regulation to replace the e-signatures Directive and to expand its scope to address in one comprehensive legislation, electronic identification, signatures, seals, timestamps, delivery, documents or website authentication certificates to secure and ease electronic transactions. To support the implementation of the forthcoming Regulation which is highly technical, further standardisation work will be needed in particular with regard to the planned secondary legislation which extensively refers to the availability of standards as possible means to meet the regulatory requirements.

Related ongoing standardisation and research activities

– Under the standardisation mandate M/460 on e-signatures, running till 2014, CEN and ETSI have undertaken to update and rationalise their standards on e-signatures and related trust services (see ETSI SR 001 604).

– Five on-going grants agreements running till end 2015, are supporting CEN and ETSI to carry out the above rationalisation work (grants SA/ETSI/ENTR/460/2012-09, -10 and -12, and SA/CEN/ENTR/460/2012-23 and -24).

New standardisation actions

The Commission intends to request the ESOs (via standardisation mandates) and other relevant bodies to update existing standards and to develop additional ones in order to address the new requirements and the novelties of the eIDAS Regulation when it will be adopted by the European Parliament and Council. Further domains of interest include eIdentification, eDelivery, eDocuments and Website Authentication certificates. In particular regarding eIdentification, the standardisation of STORK specifications may be considered, namely the QAA model (Quality Au-

thenticator Assurance model for eIDs) and the SAML scheme for the exchange of identity attributes, based on OASIS core specification.

Furthermore, in order to favour the mutual of recognition of trust services with third countries, the "internationalisation" and promotion of related European standards may be considered.

3.4.7.   RFID

Policy area

The RFID standardisation mandate M/436 has in the first place the objective to ensure that the deployment of RFID applications takes place in a way compliant to the data protection directive.

Legislation and policy documents

The legal origin is the data protection directive EC 95/46 and the RFID recommendation of May 15 2009 {SEC(2009)585}.

Standardisation needed to implement the legislation and policy

The RFID standard mandate will deliver a European norm that will uniquely identify the presence of RFID readers and Tags in compliance of the notification principle of the data protection directive.

In addition the RFID standardisation mandate will deliver technical standards (e.g. templates) for the largest RFID application domains (e.g. retail, ticketing, …) that will simplify the process of making the application compliant with the data protection legislation. These standards are also called Privacy Impact Assessment templates.

The RFID standard mandate is important because it does cover a domain for which not much knowledge is available [privacy and data protection issues of wireless technologies] and the need was formulated as an outcome of a large policy debate in the past.

Related ongoing standardisation and research activities

It is not a new mandate that is documented in this template. It is only a place holder to remember that CEN/CENELEC resources are needed in 2013 and 2014 to complete the on-going work on phase 2 of the mandate.

New standardisation actions

Completion of the RFID standardisation mandate.

3.4.8. Internet of Things

Policy area

Over the past few years, technical development has made it possible to connect "things" to data networks. As a consequence a large number of proprietary or semi-closed solutions to address specific problems have emerged, leading to non-interoperable concepts, based on different architectures and protocols. Consequently, the deployments of truly IoT applications, i.e. where information of connectable "things" can be flexibly aggregated and scaled have been limited in scale and in scope, actually limiting the IoT to a set of "intranets of things – or goods".

Legislation and policy documents

– COM(2013) 48: Industrial cyber security strategy and draft directive, that stresses the importance to secure health, energy, transport and banking sectors that rely more and more on the Internet and Internet of Things type of applications.

– COM(2009)278: "Internet of Things - An action plan for Europe": Cyber security Standardisation and European Norms are essential to ensure that the Internet of Things develops in an interoperable, trustworthy and secure way-

Standardisation needs to implement the legislation and policy

Recent ICT advances are bringing to reality a world where sensors, actuators and smart portable devices are interconnected into an Internet-of-Things (IoT) ecosystem reaching 50 Billion devices by 2015. The IoT major challenges are, from a systemic viewpoint, smart resource management and digital security; and from a user/service perspective, the pervasiveness (uniformity of performance anytime and anywhere) and interoperability to accomplish this.

The IoT mandate will cover the specific policy related areas of data protection and security. In addition it can contain elements linked to the DAE action line on interoperability.

The scope of the mandate can be a technical report (standard) and/or European Norm on several of the IoT facets that are closely linked to the legal framework.

Related ongoing standardisation and research activities

On-going standardisation activities in the domain of M2M and the IoT in international forums such as ITU need to be considered when drafting the mandate. On the Internet of Things the largest European standardisation activity is the M2M standards developed in ETSI. This M2M initiative however addresses the technical aspects and not the aspects linked to the European legal framework.

New standardisation actions

The decision when the Internet of Things mandate will start will depend on the concrete steps that will be taken to realize the cyber security strategy. At its earliest a start beginning of 2014 can be envisaged.

3.4.9.   Network and Information Security

Policy area

The European Cyber Security Strategy and the accompanying legislative proposal on Network and Information Security foresee actions on the promotion of the development and of the take-up of ICT security standards.

Legislation and policy documents

– Cybersecurity Strategy of the European Union: An Open, Safe and Secure Cyberspace - JOIN(2013) 1 final - 7/2/2013

– Proposal for a Directive of the European Parliament and of the Council concerning measures to ensure a high common level of network and information security across the Union - COM(2013) 48 final - 7/2/2013 – EN

Standardisation needs to implement the legislation and policy

The focus will be on establishing a number of reference standards and/or specifications relevant to network and information security, including, where relevant, harmonized standards, to serve as a basis for encouraging the coherent adoption of standardisation practises across the Union.

Related ongoing standardisation and research activities

Work in network and information security and cyber security standards is extensive and on-going:

– CEN, CENELEC and ETSI have set up a Cyber Security Coordination Group.

– A Network Security Task Force will be created in the context of the Multi Stakeholder Platform for ICT Standardisation.

New standardisation actions

New actions depending on the work of the Network Security Task Force.

3.4.10. ePrivacy

Policy area

The enforcement of the EU data protection and privacy legal framework is made easier if data processing products and processes are designed and built from the beginning with legal requirements in mind. This is referred to 'privacy by design'. Standards may set forth the basic requirements for privacy by design for products and processes, minimising the risk of (i) divergent national approaches, with their concomitant risks to freedom of movement of products and services, and (ii) the development of several, potentially conflicting, private de-facto standards.

This could be combined with the emergence of certification services: economic operators wishing to have their products and processes audited as being "privacy by design" compliant, would have to fulfil a set of requirements defined through appropriate EU standards and robust, independent third party certification mechanisms.

The approach of standards-based privacy protection and the possibility of certification is acknowledged in existing legislation and by the proposed Data Protection Regulation.

Legislation and policy documents

– The ePrivacy Directive. Article 14(3) provides that "*Where required, measures may be adopted to ensure that terminal equipment is constructed in a way that is compatible with the right of users to protect and control the use of their personal data, in accordance with Directive 1999/5/EC and Council Decision 87/95/EEC of 22 December 1986 on standardisation in the field of information technology and communications)*".

– The Data Protection Directive includes provisions which indirectly, in different situations, suggest the implementation of privacy by design. In particular, Article 17 requires that data controllers implement appropriate technical and organization measures to prevent unlawful data processing.

– Proposed Data Protection Regulation. Article 23 requires data protection by design and by default[21].

– The 1999/5 RTTE Directive, and as proposed amended in 2012. Article 3(3)(c) of the 1999 wording enables the Commission to decide (which it has not so far) that equipment is constructed to incorporate privacy safeguards. The 2012 proposed amended RTTE (COM (2012) 584) makes privacy safeguards an essential requirement on radio equipment.

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[21] Having regard to the state of the art and the cost of implementation, the controller shall, both at the time of the determination of the means for processing and at the time of the processing itself, implement appropriate technical and organisational measures and procedures in such a way that the processing will meet the requirements of this Regulation and ensure the protection of the rights of the data subject.

Standardisation needs to implement the legislation and policy

The focus will be on establishing a number of reference standards and/or specifications relevant to privacy in the electronic communications environment, including, where relevant, harmonized standards, to serve as a basis for encouraging the coherent adoption of standardisation practises across the Union.

Related ongoing standardisation and research activities

The W3C has an on-going standardisation initiative to help Internet users to express their agreement or disagreement to be tracked on the Internet.

At EU level there are two existing initiatives but none is specific to this topic: i) a standardization mandate to CEN, CENELEC and ETSI in the field of RFID and systems, and ii) a mandate to CEN, CENELEC and ETSI to create a European platform for data protection related standardisation.

New standardisation actions

Proposed areas to focus are:

– standardising browser functionalities and defaults and

– standardisation of Do Not Track. Current standardisation initiatives in the area of Do Not Track are not in line with the EU provisions. There is therefore scope for the elaboration of an entirely new European standard that would meet the requirements of the ePrivacy Directive in such field. Doing so would contribute to harmonising concepts and legal provisions.

– location data used by mobile applications

3.4.11. Wireless Communications

Policy area

Wireless communications, coexistence between the operations of mobile communications services in existing and potential future harmonised frequency bands and the operation of radio equipment and broadcast receivers in adjacent bands.

Legislation and policy documents

– Directive 1999/5/EC of the European parliament and of the council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (R&TTE Directive)

– Directive 2004/108/EC of the European Parliament and of the Council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC (EMC Directive)

– Directive 2006/95/EC of the European parliament and of the council of 12 December 2006 on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (Low Voltage Directive)

– Decision No 243/2012/EU of the European parliament and of the council of 14 March 2012 establishing a multiannual radio spectrum policy programme (RSPP)

Standardisation needs

The development and updating of harmonised standards under existing standardisation mandates is essential for the internal market for wireless communications.

Related ongoing standardisation and research activities

Under Mandates M/284 (Harmonised standards for the R&TTE Directive), M/313 (EMC harmonised standards for telecommunication networks), M/083 (to ensure full coherence of standards in relation with the Low Voltage and Machinery Directives) and M404 (EMC harmonised standards) CENELEC and ETSI have developed several EMC and radio standardisations.

By letter dated 13 February 2013 CENELEC and ETSI has been requested for additional EMC and radio standardisation work supporting implementation of the 800 MHz Decision (2010/267/EU of 6 May 2010).

New standardisation actions

Two areas where the Commission may prepare new standardisation requests are:
(1)   The further developments 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 standardisation request which would have the benefit of aligning standardisation work with relevant EU policy.

(2)   The efficient use of radio spectrum, which is a public resource that is increasingly in demand across many industry sectors, depends on both the performance of receivers in shared or in adjacent bands as well as on the minimisation of emissions into adjacent bands from transmitters. The capabilities to prevent and to mitigate interference are therefore increasingly important to facilitate the use of spectrum. Thus the Commission sees a need to ensure coexistence between the operation of mobile communication services in existing and potential future harmonised frequency bands and the operation of radio equipment and broadcast receivers in adjacent bands, by initiating the preparation of appropriate standardisation requests.

4. TECHNOLOGY LAYERS AND STANDARDISATION ACTIVITIES

This part is not yet available. It will be produced when input to the different topic areas is finalised. The intention is that a mapping of activities to technology layers will be provided so that the areas of work and activity become visible

5. CONCLUSIONS AND NEXT STEPS

This is the first version of the Rolling Plan. It has been produced in a consensual and open way, between the Commission and the MSP.

It will be necessary to gather further experience in the usage and implementation of the Rolling Plan to fine-tune the development process.

In any case, the Rolling Plan is not conceived to be a finalised document ever, but a snapshot reflecting the policy needs and stakeholders' advice reflecting at a given moment.

The fast evolution of needs in the ICT field requires an equally fast adaptation of the Rolling Plan, including new topics and updating or even removing the topics already mentioned in the document.

Until further experience is gathered, the following approach is suggested to update the future versions of the Rolling Plan:

– The MSP secretariat gathers requests from the different Commission services to update the actions in the Rolling Plan or to incorporate new actions.

– The Task Force Rolling Plan reviews the new requests in order to help the MSP secretariat to present them at the next MSP meeting.

– The MSP takes in these new requests and analyses them, also in cooperation with the Task Force Rolling Plan, in order to prepare its formal advice, to be presented in the following MSP meeting.

– The Commission publishes regularly new versions of the Rolling Plan including all the new requests for which a formal advice from the MSP has been produced. The proposed approach allows publishing a version every quarter, but in order to avoid confusion among stakeholders, the actual publication could be tuned to longer periods, for instance in yearly cycles. The optimal regularity will be decided according to the urgency of the modifications.