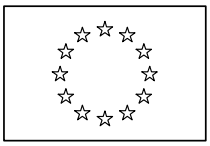

EUROPEAN COMMISSION
ENTERPRISE AND INDUSTRY DIRECTORATE-GENERAL

Industrial Innovation and Mobility Industries
ICT for Competitiveness and Industrial Innovation

2010-2013 ICT Standardisation Work Programme for industrial innovation

1st update - January 2011

Introduction to the 2010-2013 ICT standardisation work programme

ICT standardisation is part of the general standardisation activities and contributes to the policy objective of improving European competitiveness and industrial innovation while balancing industry expectations with societal needs.

Public authorities are interested in complementing European legislation and policies by references to standards. Standards established by the private sector can help create a level playing field for competition and their referencing can be a means of promoting an effective partnership between the private and public sectors. With its Communication on "The role of European standardisation in the framework of European policies and legislation" [COM (2004)647], the Commission aims to further broaden the use of such references.

The legal basis for the European standardisation policy, Directive 98/34, complemented by Council Decision 87/95 focusing on the specificities of the ICT domain, allows the European Commission to contribute financially to standard setting by the recognised European Standardisation Organisations, CEN, CENELEC and ETSI. Both the general standardisation policy and the ICT standardisation policy are currently undergoing a revision process.

The current European ICT standardisation policy is being reviewed. A White Paper: Modernising the ICT standardisation policy in the EU- The Way Forward-sets proposals for policy choices and specific measures that would help the European ICT standardisation to better respond to industry and societal needs. The proposals brought forward by the White Paper have been broadly accepted as demonstrated by the public consultation held in summer 2009. The report on the public consultation is available on http://ec.europa.eu/enterprise/sectors/ict/files/overview_report_results_consultation_en.pdf.

The main objective for the EU ICT standardisation policy is to promote the use of standards as a means to increase interoperability between services and applications. Given the global nature of the market, synergy and cooperation between the ESOs and relevant fora and consortia is encouraged to cope with the ever-growing demand for standards to support interoperability in this fast evolving and innovative technology domain.

With this 3-year, rolling ICT standardisation work programme, the Commission services are inviting the ESOs, where appropriate in cooperation with relevant fora and consortia, to initiate standardisation activities as well as activities supporting the implementation of standards such as interoperability testing, promotional activities, educational initiatives, etc. in the specified policy domains. The policy domains result from legislation or policy initiatives which need standards for effective implementation.

This ICT standardisation work programme is the result of intensive inter-service cooperation complemented by consultation with the ESOs. These processes led to the identification of areas of high political importance that could benefit from the referencing of standards to help achieve policy objectives. The work programme provides the potential to cover ICT standardisation needs over a 3 years period and each standardisation request clearly indicates which type of standardisation deliverable is needed and the corresponding time frame.

The work programme is intended to be a living document which can be adjusted or updated if deemed necessary.

Scope of the 2010-2013 ICT standardisation work programme

Further to the consultation of relevant Commission services, the 2010-2013 ICT standardisation work programme covers following priority domains:

1. EHEALTH

EU policy area: eHealth
eHealth is one of the fastest developing areas for ICT applications. At the same time a number of obstacles are impeding the exploitation of new products and services for the benefit of patients and for Europe's economy. Data protection issues and the lack of interoperability are two of the main obstacles. Interoperability and in particular cross-border interoperability is crucial to allow a widespread use of ICT in the health sector, enabling the creation of a single market in this area. The Commission published on 2 July 2008 a Recommendation on cross-border interoperability of electronic health record systems which recommended that Member States engage in active cooperation with each other and relevant stakeholders to ensure the adoption and implementation of standards that make the cross border interoperability of electronic health record systems feasible and secure. The use of existing standards and the development of new ones as well as standardised approaches to achieve interoperability should be supported by standards development organisations, with the active participation of industry. Coordinated action is necessary, and indeed has been explicitly called for in the draft Directive on patients' rights in cross-border healthcare. To achieve this in 2008 the Commission cofounded a European large scale pilot, European Patients Smart Open Services project (epSOS). epSOS aims at developing, testing and validating specifications for interoperability of patients summaries, ePrescriptions. It involves 23 Member States and associate countries and will end in December 2013. A thematic network on eHealth Interoperability, CALLIOPE was launched the same year to build consensus and awareness on the issue and develop a European Roadmap. A support action on Healthcare Interoperability Testing and Conformance Harmonisation, HITCH, was launched in January 2010 to propose an eHealth interoperability conformance and testing roadmap. The EPSCO Council adopted, on 1 December 2009[1], conclusions on safe and efficient health care through e-health. These conclusions recognise "the need for further political leadership and to integrate eHealth into health policy in order to develop eHealth services on the basis of public health needs". The Conclusions also called upon Member States and the Commission to work together in the European eHealth Governance Initiative, to bring interoperability forward.
Justification for the standardisation activities
The development and the use of standards and profiles (as defined in ETS 300 406) allowing interoperability of eHealth applications is crucial. The standardization of existing profiles might also have an interest in order to increase their reach. This must go hand in hand with appropriate interoperability testing and conformance activities. Since eHealth is a relatively new area there is a considerable need for new profiles, new base standards and

[1] http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/lsa/111613.pdf

interoperability tests.
Furthermore, market fragmentation and thus a non-functioning of the Internal Market in eHealth is aggravated by the lack of technical and semantic interoperability.

Reference documents

- COM(2004) 356**:** Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions -e-Health- making healthcare better for European citizens: an action plan for a European e-Health Area
- COM(2008) 689: Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on telemedicine for the benefit of patients, healthcare systems and society
- COM(2008) 414: Proposal for a Directive of the European Parliament and of the Council on the application of patients' rights in cross-border healthcare
- COM Recommendation C(2008) 3282 of 2 July 2008 on cross-border interoperability of electronic health record systems
- DG INFSO Semantic Health Report – January 2009
- Mandate 403 to CEN, CENELEC and ETSI on eHealth Interoperability
- Council Conclusions on Safe and efficient healthcare through eHealth, 1 December 2009.
- Common eHealth Interoperability RoadMap, CALLIOPE Thematic Network – December 2010[2]
- Semantic Interoperability for Better Health and Safer Healthcare[3]

Required standardisation actions

The execution of Phase II of the eHealth mandate M/ 403 is one of the key standardisation activities. The mandate cThe mandate should be complemented with the development of standards for interoperability testing and certification.

As Semantic Interoperability is a prerequisite for further standardisation activities special emphasis need to be put on semantic interoperability standardization.

The deliveries will be Workshop Agreements or other standardisation deliveries.

The time frame for the required standardisation deliverables

Once the work on Phase II of M/403 started the testing activities could start with a delay of one year. In general a period of three years for these activities should be envisaged.

[2] http://www.calliope-network.eu/

[3]http://ec.europa.eu/information_society/activities/health/docs/publications/2009/2009semantic-health-report.pdf

Involved Commission services
Lead Service: DG INFSO H1 **Contact Person:** DG ENTR D3 Martina Sindelar

2. REGULATED MEDICINAL PRODUCTS

EU policy area: Standardisation in the field of regulated medicinal products

European health policy seeks to protect people from health threats and disease, promote healthy lifestyles and support cooperation across the Community on health issues. In support of the first of these, availability and interoperability of good quality data and information is key.

Through submission of information to regulatory authorities, and consequent regulatory activity in connection with such information, it is planned to compile and make available to other stakeholders information that is of good quality and standardised. Standardisation in this connection concerns the structures in which such information is held, the types of information expected throughout such structures, and the standardised terminologies used in compiling such information.

The availability of internationally available, regulated information in a recognised standard format will serve as a sound platform for pharmacovigilance activities in the regulatory environment and for the development of extended databases of information in the healthcare domain as a whole. The standards will constrain the initial submission of information by applicants and sponsors to regulatory authorities, the treatment of information through the regulatory processes, and the subsequent dissemination of regulated information in such a way as to enhance interoperability, not only within the regulatory domain, but also across healthcare domains.

Justification for the standardisation activities

In the context of the regulation of medicinal products, standardisation for the exchange of information between stakeholders enables regulatory, pharmacovigilance and healthcare activities, *inter alia*, to be undertaken with increased efficiency and certainty, thereby contributing to improved protection of public health.

Reference documents

ISO/DIS 27953-1: Health informatics -- Pharmacovigilance - Individual case safety report -- Part 1: The framework for adverse event reporting

ISO/DIS 27953-2: Health informatics -- Pharmacovigilance - Individual case safety report -- Part 2: Human pharmaceutical reporting requirements for ICSR

See TC 215 at *http://www.iso.org/iso/iso_catalogue/catalogue_tc.htm*

Required standardisation actions

Work is required on the:

- Finalisation of the Identification of Medicinal Products (IDMP) International Standards, including possible further development of product information structures for the ICSR

- Support for Joint Initiative projects for the exchange of information in the domain of regulated medicinal products

    - Regulated Product Submissions (next major version of the electronic

Common Technical Document)

- Clinical Trial Registration and Results
- Support for other international standardisation activities that may be proposed in any of the Standard development Organisations that are involved in the Joint Initiative during the period of this work programme.

- Support for the standardisation of terminologies in the domain of regulated medicinal products; and

The time frame for the required standardisation deliverables

The timeframes are:

- Finalisation of IDMP with the ICSR: Phase 1 – December 2011
- Support for Joint Initiative projects for the exchange of information in the domain of regulated medicinal products
  - Regulated Product Submissions, Release 3 – March 2013
  - Clinical Trial Registration and Results: Phase 1 – December 2011
  - Support for other international standardisation activities that may be proposed in any of the Standard development Organisations that are involved in the Joint Initiative during the period of this work programme., including subsequent releases of the foregoing – December 2013

Support for the standardisation of terminologies in the domain of regulated medicinal products – December 2013.

Involved Commission services

Lead Service: SANCO C8

Contact Persons: European Medicines Agency Tim Buxton, DG ENTR D3 Martina Sindelar

3. EINCLUSION

EU policy area: e-Inclusion
1.) e-Inclusion for people with disabilities The European Union approach to disability demands the elimination of discrimination and the determination that people with disabilities should have the same rights in daily life than non-disabled people The EU perceives disability essentially as the result of the dynamic interaction between a person with impairment and his or her environment. Generally it is the environment that is disabling rather than the nature of the impairment itself. Equal rights in society and economy cannot be realised without equal access to goods and services. Many goods and services including ICT related ones fall under internal market regulations in Europe. The Internal Market comprises an area without internal frontiers in which free movement of goods, services, persons and capital is ensured. (art 14 of the EC Treaty). Declaration 22 annexed to the final Act of the Amsterdam Treaty provides that the Institutions of the Community shall take account of the needs of persons with a disability in drawing up measures under Article 95 of the Treaty. **2.) e-Inclusion for Ageing** The strong development towards an aging society all over Europe is a challenge offers also new opportunities for societal innovation, in particular through the use of appropriate ICT products and service which allows elderly people to actively participate in social life but includes also the aspect of independent living.
Justification for the standardisation activities
Accessibility is at the core of the European Disability Action plan and the UN Convention on the Rights of Persons with Disabilities that was signed by the European Community and all Member States. Accessibility is one of the general principles (article 3) to be taken into account in the overall implementing of the Convention. Furthermore, article 9 of the UN Convention provides that State Parties shall take appropriate measures to develop, promulgate and monitor the implementation of minimum standards and guidelines for the accessibility of facilities and services open or provided to the public. Among the areas to be covered are information and communications, including information and communications technologies and systems. Under the General obligations of the Convention in article 4 there is the obligation to promote universal design4 in the development of standards and guidelines. The Commission has also adopted a new European Disability Strategy for 2010-2020. The Commission Proposal for a Council Directive on implementing the principle of

4 The UN Convention in its article 2 states that Definitions "Universal design" means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. "Universal design" shall not exclude assistive devices for particular groups of persons with disabilities where this is needed. In fact Design for all should consider the interfaces with assistive devices.

equal treatment between persons irrespective of inter alia disability contains an article related to accessibility. Work on accessibility standards can complement this legislative proposal and help to facilitate its practical implementation.

Interoperability is a key objective to foster the take-up of accessible products and services by industry and end-users use. Standards are the key to ensure interoperability.

As part of Europe 2020, the Digital Agenda for Europe also explicitly indicates in its priorities the inclusive digital services (in its section 2.6.2., including a Memorandum of Understanding on Digital Access for persons with disabilities and provisions on disability in the Telecoms Framework and the Audiovisual Media Services Directive).

Reference documents

- UN Convention on the Rights of Persons with Disabilities.
- COM(2007) 738 and SEC(2007)1548 European Disability Action Plan 2003-2010 Communication on Situation of Disabled People in the European Union: the European Action Plan 2008-2009
- COM(2008) 426 final Draft Directive on implementing the principle of equal treatment between persons irrespective of religion or belief, disability, age or sexual orientation - EC COM (2007) Action Plan on Ageing Well in the Information Society
- COM(2008) 0804 final Communication Towards an accessible information society
- COM(2010) 636 European Disability Strategy 2010-2020: A Renewed Commitment to a Barrier-Free Europe
- COM(2010) 245 A Digital Agenda for Europe
- M 376 Standardisation Mandate to CEN, CENELEC and ETSI in support of European accessibility Requirements for Public Procurement of Products and Services in the ICT Domain
- M/420 Standardisation Mandate to CEN, CENELEC and ETSI in support of European Accessibility Requirements for Public Procurement in the Build Environment

Required standardisation actions

Support is needed for the implementation of Mandates:

- M/376 (Phase II EN)
- M/420 (Phase I work programme, Phase II EN)
- M/473 - Standardisation Mandate to CEN, CENELEC and ETSI to include "Design for All" in relevant standardisation initiatives (Phase I work programme, Phase II EN)

New areas for standardisation activities (deliveries: Workshop Agreements or Technical Reports)

- Safety regarding assisting/companion robots in unstructured/uncontrolled environments (e.g. home or outside);

  Interoperability of components for smart homes/independent living:

- At devices level
- At semantic level (ontologies)
- For exchange of contextual information between artefacts

- Accessibility ontologies for service oriented architectures (i.e. integrated accessibility solution rather than accessibility of separate components); User modelling of human functional limitations (motor, sensory, cognitive and mental); harmonised assessment of human functional limitations (motor, sensory, cognitive and mental) and of compensating assistance needed.

- Accessibility of and interoperability of related solutions for:
  - Self-service terminals and information display/ announcement
  - Total conversation (including text telephony); Emergency call systems and PA system.
  - Digital maps and LBS/GIS solutions, including navigation support and accessibility information; .
  - BNCI devices; Eye gaze assistive solutions (in relation to roadmap from now closed COGAIN Network of Excellence).

- Harmonised assessment of auditory profiles.

- Reduction of interaction complexity through harmonised symbols and terminology across manufacturers and service providers and minimum standards in user education

- Mainstreaming accessibility in the relevant standardisation work, for example in eHealth, eSkills and education, eProcurement, eSignatures and in other domains where interaction of persons with technology is addressed.

- Usability of the interaction of persons with technology.

- User experience of the ICT products and services.

- Standardized personalization utilizing user profiles is important for achieving usability for all people in a range of situations. Further work on personalization will be needed in a range of domains as well as for future services and devices.

The time frame for the required standardisation deliverables

The work will have to be done in the period covered with the new European Disability Strategy. However the execution of ongoing mandates M/376 and M/420 needs to be finished in the next two years and the new mandate M/473 on "Design for All" started ASAP. For the new activities a period of 2-4 years should be envisaged.

Involved Commission services

Lead Services: DG EMPL G3, DG INFSO H3
Contact Person: DG ENTR D3 Martina Sindelar

4. INTELLIGENT TRANSPORT

EU policy area: Intelligent Transport
Standardisation needs in the field of transport are particularly related to the i2010 Intelligent Car and eSafety and Green Car initiatives, Electronic Fee Collection and the Intelligent Transport System (ITS) Action Plan. The intelligent car initiative will accelerate the deployment of intelligent vehicle systems ensuring interoperability across countries and harmonising technical solutions. ICT based services and applications will bring down the number of road victims and reduce road traffic's energy consumption and CO_2 exhausts, contributing to low carbon mobility. The ITS Action Plan complements the work of the Intelligent Car initiative and of the eSafety forum by addressing the priority areas where actions are necessary to lift the barriers hampering a wider and more coordinated deployment and use of ITS. The costs of traffic congestion – estimated at 1% of the European GDP – could be reduced by up to 10% through the deployment of ITS, which could also prevent more than 5000 deaths in road accidents. International cooperation for the development of harmonised global standards is particularly important in these areas. An agreement with the US Department of Transport has been concluded regarding ICT applications to road transport.
Justification for the standardisation activities
The integration of various ITS applications within a coherent, open in-vehicle architecture could yield better efficiency and usability, reduced costs and enhanced extensibility. EU activities aim at making available a common application to Transport authorities and private service providers around Europe in order to develop interoperability and avoid the necessity for citizens to get a different media to access Public Transport when they move out of their domestic fare management territory. The field of cooperative systems is in a situation that prevents available technology from gaining critical market-share. In order to deploy all their possible benefits a sufficient market penetration of ITS applications is needed, and for that, the deployment of common standards is necessary
Reference 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 • 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)
- 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
- EU-US HL Joint Declaration of Intent on Research Cooperation in Cooperative Systems of 13 November 2009
- COM(2009) 434 final: eCall, Time for Deployment
- COM(2008)887 final: Proposal of a Directive of the European Parliament and of the Council laying down the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other transport modes
- COM(2008)886 final: Communication from the Commission "Action Plan for the Deployment of Intelligent Transport Systems in Europe"
- COM(2008) 800 final: A European Economic Recovery Plan (Green Cars initiative)
- COM(2007)541: "Towards Europe-wide Safer, Cleaner and Efficient Mobility: The First Intelligent Car Report"
- COM(2006)59: The Intelligent Car Initiative - "Raising awareness of ICT for smarter, safer and cleaner vehicles".
- Recommendation C/2006/7125: Safe and efficient in-vehicle information and communication systems: update of the European statement of principles on human machine interface.
- 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
- Mandate M/338: Electronic Fee Collection

Required standardisation actions

- Electronic Fee Collection: The ESOs are invited to keep on submitting proposals included in the work programme responding to mandate M/338 that are still missing in order to support Directive 2004/52 and Decision 2009/750/EC. Security, privacy and data protection aspects should be taken into account. The following work items are of particular interest:

  1. Electronic fee collection – Security framework of the European Electronic Toll Service (EETS). This work item should define a technical specification which is part of the standards family developed in CEN TC278 WG1. This specification provides the necessary security elements which are needed to implement an interoperable EETS

and to enable trust between all stakeholders. It should be based on the identification of the security assets to be protected, which also covers data privacy aspects. The security assets are information objects, interfaces, subsystems and other entities or events which need to be protected.

2. Electronic fee collection - Charging performance metrics and examination framework for EETS. A technical specification is needed to provide the necessary elements and framework to define metrics and examination methodologies for consistent determination of tolls due in EETS and other EFC systems. Should be considered: ① the definition of metrics for measuring charging performance in terms of the acceptable level of errors associated with charging computation (charging reliability); ② the definition of examination methods to compute the identified metrics.

3. Technical Specification on "Interoperable application profile for autonomous systems".

- Co-operative systems. The ESOs are invited to develop standards in order to ensure deployment and interoperability of co-operative systems and services as envisaged in the work programme responding to mandate M/453. This includes inter-vehicle communications (V2V), vehicle to infrastructure and infrastructure to vehicle communications (V2I/I2V) and infrastructure to infrastructure communications (I2I) and in particular those operating in the 5.9 GHz frequency band. Proposals should also include technical specifications and relevant technical reports on co-operative systems to meet the requirements specified in mandate M/453 including standards required for communication, information and security, as well as common data catalogues. Proposals for the development of test methods for assessing the conformity of the identified minimum set of standards in accordance with mandate M/453 should also be included in the proposals.

- Digital Maps: The ESOs are invited to consider the need of producing standards and specifications for to the definition of procedures for ensuring the availability of accurate public data for digital maps and their timely updating. The ESO's are invited to follow-up the progress in this area, including the necessary cooperation between the relevant public bodies and digital map providers, and to address any standardisation requirements stemming from this action, taking into account the results of previous activities (e.g., the research projects ACTMAP, FEEDMAP and ROSATTE)

- Public Transport interoperability: The ESOs are invited to complement the existing IOPTA (Interoperable public transport architecture) standard EN 15320 to provide Europe with complete standardised data structures.

- ITS Framework Architecture: The ESOs are invited to submit proposals for standards to complement and streamline the existing standardisation activities (especially those on Communication Architecture), within the context of the multi-modal European ITS Framework Architecture proposed by the ITS Action Plan.

- Travel and Traffic Information: The ESOs are invited to submit proposals for standards related to the definition of common specifications for data and procedures for the provision of EU-wide real-time traffic and travel information services, including those for the free provision of minimum universal traffic information services.

- Management Services for Traffic and Freight: The ESOs are invited to submit proposals for standards related to the definition of a set of common procedures and specifications to ensure the continuity of ITS services for passenger and freight in transport corridors and in urban/interurban regions.

- Open in-vehicle platform architecture: The ESOs are invited to consider the need of producing standards for the adoption of an open in-vehicle platform architecture for the provision of ITS services and applications, including standard interfaces guaranteeing interoperability/interconnection with infrastructure systems and facilities. The ESO's are invited to follow-up the progress in this area and to address any standardisation requirements stemming from this action, taking into account the results of previous activities (e.g., the research projects CVIS, GST, OVERSEE and the eSafety Working Group on SOA).

- Electric Vehicles (EV): Within the context of the Green Car initiative and the charging of electric vehicles mandate, the ESOs are invited to analyse the standardisation needs regarding the introduction of electronic vehicles in Europe. Standardization should cover the use of ICT to assure interoperability of EVs. This shall cover issues such as harmonization of technologies, data and communication protocols, billing and business models, architectures and take into account smart charging in the context of smart grids.

- The ESOs are invited to strengthen international cooperation in the field of ITS, in particular with the USA, with which an implementation agreement exists, but also with other regions.

- The ESOs are invited to analyse the standardisation needs for the development of a safe on-board Human-Machine-Interaction, allowing safe integration and operation of nomadic devices, taking into account the results of the research project AIDE ("Adaptive Integrated Driver vehicle InterfacE") and the conclusions of the Nomadic Device Forum.

The time frame for the required standardisation deliverables

Actions launched under this work programme are expected to be finalised by 2013

Involved Commission services

Lead Services: DG MOVE B4, DG INFSO G4
Contact Person : DG ENTR D3 Emilio Castrillejo

5. RFID

EU policy area: RFID
Radio frequency identification (RFID) is a technology that uses radio waves to do automatic identification and data capture. The salient features of this technology are that they permit the attachment of an unique identifier and other information – using a micro-chip – to any object, animal or even a person, and to read this information through a wireless device. RFID is of policy concern because of its potential to become a new motor of growth and jobs, and thus a powerful contributor to the Lisbon Strategy, if the barriers including a lack of interoperability to innovation can be overcome. The production price of RFID tags is now approaching a level that permits wide private and public sector deployment. With wider use, it becomes essential that the implementation of RFID takes place under a legal framework that affords citizens effective safeguards for fundamental values, health, environment, data protection, privacy and security. The "OECD Policy Guidance on Radio Frequency Identification" was published on the occasion of the OECD Ministerial Meeting on the Future of the Internet Economy that took place in Seoul on 17-18 June 2008. This report contains policy and practical guidance principles to enhance business and consumer benefits from the use of RFID while proactively taking into account information security and privacy issues. It is supported by a report on economic aspects of RFID that reviews major fields of applications, economic impacts and country initiatives, as well as a report that analyses information security and privacy challenges and possible measures and safeguards to address them.
Justification for the standardisation activities
Public consultations and debates carried out in previous years have demonstrated that data protection, privacy and information security aspects of RFID should be carefully assessed and monitored. The standardisation Mandate M/436 was issued on the 8 December 2008 with a view to addressing the above issues as a complement to the existing legal framework.
Reference documents
• Directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data. • Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications). • Communication COM(2007) 96 proposing follow-up steps that overcome barriers to wide take-up of RFID which will benefit society and the economy while incorporating appropriate privacy, health and environmental safeguards. • Communication COM(2007) 228 on Privacy Enhancing Technologies (PETs), which aims at promoting the development of PETs, supporting the use of available PETs by data controllers, and encouraging consumers to use PETs.

- Recommendation C(2009) 3200 on the implementation of privacy and data protection principles in applications supported by radio-frequency identification technologies.
- Standardisation Mandate M/436 of 8 December 2008 to the European Standardisation Organisations CEN, CENELEC and ETSI in the field of Information and Communication Technologies applied to Radio Frequency Identification (RFID) and systems.

Required standardisation actions

The Mandate M/436 addresses data protection, privacy and information security aspects of RFID. It shall be executed in two phases.

1) Phase 1.

The objective of the first phase is to prepare a Report describing a framework for the development of future RFID standards, which will include a detailed standardisation work programme in response to the identified gaps.

2) Phase 2.

The objective for the second phase is to implement the standardisation work programme agreed upon in the first phase. The deliverables will be defined in Phase 1, however CEN, CENELEC and ETSI are also invited to develop sector specific RFID implementation guidelines, as complementary documents of general nature.

The time frame for the required standardisation deliverables

2010 – 2013

Phase 1: January 2010 – March 2011

Phase 2: 4Q11 – 2Q13 (estimation)

Involved Commission services

Lead Service: DG INFSO D4

Contact Person: DG ENTR D3 Antonio Conte

6. eSIGNATURES

EU policy area: e-signatures
The Directive 1999/93/EC aims at establishing a legal framework for electronic signatures and for certification service providers in the internal market. Several internal market instruments [e.g. Services Directive 2006/123/EC, Public Procurement Directives 2004/17/EC and 2004/18/EC, TVA Directive 2006/112/EC (as far as e-invoicing is concerned)] rely in their functioning on the framework set by the Directive. Interoperable e-signature is also needed to implement a large part of the Multi-annual European e-Justice Action Plan 2009 -2013 (OJ C 75 of 31/3/2009), for example for e-applications for small claims procedures, European Payment Orders, etc., via the European e-Justice Portal implemented by the Commission.
Justification for the standardisation activities
Studies carried by the Commission showed that the current multiplicity of standardisation deliverables together with the lack of usage guidelines, the difficulty of access and lack of business orientation is detrimental to the interoperability of e-signatures, and formulated a number of recommendations to mitigate this. Furthermore, the fact that the European e-Signatures Standardisation Initiative (EESSI) ended its activities immediately after the publication of its work did not contribute to the take-up of the existing standardisation deliverables by the industry. Such take-up could possibly have resolved many interoperability issues before they occurred. Furthermore, the Commission evaluated the EESSI process, and recommendations to improve its openness were formulated. Moreover, the Commission adopted in 2008 an Action Plan on e-signatures and e-identification, which contained the following actions relevant for standardisation: • to update or possibly extend the Commission Decision 2003/511/EC; • to compile a "Trusted List" of qualified certification service providers; • to provide guidance helping to implement e-signature in an interoperable way. Bearing in mind the above elements, the Commission issued the standardisation Mandate M/460 on the 22 December 2009. The objective of this mandate is to update the existing European e-signatures standardisation deliverables in order to create a rationalised framework. Such a rationalisation will also support the realisation of the items of the Action Plan related to e-signature.
Reference documents ***(EU legislation and/or EU policy documents)***
• **Directive 1999/93/EC** of the European Parliament and the Council of 13.12.1999 on a Community framework for **electronic signatures** • **Commission Decision 2000/709/EC** of 6.11.2000 on the minimum criteria to be taken into account by MS when designating bodies in accordance with Article 3(4) of Directive 1999/93/EC of EP and Council on a Community framework for electronic signatures. • **Decision 2003/511/EC** of 14.7.2003 on the publication of reference numbers of generally recognised standards for electronic signature products in accordance with Directive 1999/93/EC of the European Parliament and of the Council • **Communication COM(2006) 120** of 15 March 2006 - Report from the

Commission to the European Parliament and the Council on the operation of Directive 1999/93/EC on a Community framework for electronic signatures.

- **Communication COM(2008) 798** of 28 November 2008 on an **Action Plan** on e-signatures and e-identification to facilitate the provision of cross-border public services in the Single Market.
- Multi-annual European e-Justice Action Plan 2009-2013 (OJ C 75 of 31/3/2009).
- **Mandate M/279**, 1998, to CEN, CENELEC and ETSI in support of a European legal framework for electronic signatures.
- **Mandate M/290,** 1999, to CEN, CENELEC and ETSI in support of the European legal framework for electronic signatures- Phase 2: Implementation of the work programme resulting from mandate M/279 and presented in Section 8.3 of the (draft) report prepared by EESSI.
- **Mandate M/460** of 22 December 2009 to CEN, CENELEC and ETSI in the field of Information and Communication Technologies applied to Electronic Signatures

Required standardisation actions

The required action is the execution of Mandate M/460. The resulting deliverables will be new/updated standards and Technical Reports covering:

- Inventory of e-signatures standards;
- Rationalised structure for the European e-signatures standardisation documents;
- Gap analysis – assessment of the existing e-signatures standardisation deliverables;
- Quick fixes – identification of actions that must be performed rapidly leading to a quick and easy improvement of the functionality of the existing e-signatures standardisation deliverables;
- Update of CWA 14169:2004, CWA 14167-1:2003, CWA 14167-2:2004 and CWA 14167-4:2004, with a view to quickly update and extension (if necessary) of Decision 2003/511/EC.

The time frame for the required standardisation deliverables

2010 – 2013.

The answer to Mandate M/460 is divided in two phases:

- Phase 1 will define primarily the rationalised framework with a gap analysis and a resulting final work programme. It will also address issues which urgently need an update ("Quick Fixes"). It will run in the period 2011-2012.
- Phase 2 will implement the final work programme as defined in Phase 1.

Involved Commission services

Lead Service: DG INFSO A3

Contact Person: DG ENTR D3 Antonio Conte

7. EINVOICING

EU policy area: eInvoicing
Article 232 of Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax allows the issue of electronic invoices instead of paper invoices. In order to enhance the use of the digital environment and to reap the full benefits of e-invoicing in the Community, the current practices should be simplified and the transition to new business models facilitated by a more integrated and uniform framework. This would specially serve the interests of European small and medium-sized enterprises (SMEs). The Commission set up at the end of 2007 an Expert Group on e-invoicing in order to address longer-term issues and propose solutions supporting the provision of e-invoicing services in an open and interoperable manner across Europe. The Expert Group delivered its Final Report in November 2009. On the basis of this final report and a public consultation, the Commission published in December 2010 the Communication COM(2010) 712 'Reaping the benefits of electronic invoicing for Europe'. This Communication defined a number of actions in different areas, such as standardisation.
Justification for the standardisation activities
The Communication COM(2010) 712 contains a set of actions in the domain of standardisation: 3.1 CEN should develop by end of 2011, a Code of Practice taking into account the work of the Expert Group on e-invoicing. This Code of Practice, to be adopted by trading parties, services providers and public authorities, should include a consistent terminology and a definition of roles and responsibilities of the distinct actors within the e-invoicing process. 3.2 CEN should analyse by end of 2011 the need and propose actions for the adoption of interoperable addressing and routing procedures by the e invoicing industry participants. 4.1 In 2011, CEN will design implementation guidelines for the CII v.2 data model. These guidelines should be based on the core invoice data set proposed by the Expert Group on e-invoicing and take into account the ISO 20022 Invoice message, the work of the CEN e-Invoicing, BII and EBES workshops, and other initiatives such as the PEPPOL project. Depending on market demand, the development of further guidelines covering other domains/business processes should be envisaged. 4.2 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. 4.3 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. CEN is expected to ensure the implementation of the above actions, in coordination with

other international organisations (UN/CEFACT, ISO, etc.) and relevant European projects like ePRIOR and PEPPOL.

Reference 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.
- COM(2009) 20 – The technological developments in the field of e-invoicing and measures aimed at further simplifying, modernising and harmonising the VAT invoicing rules.
- COM(2010) 712 – Reaping the benefits of electronic invoicing in Europe.
- Mandate M/339 of 31 October 2003 to CEN, CENELEC and ETSI in support of interoperability of electronic invoicing in the Community.

Required standardisation actions

The ESOs should carry out specific work in response to the actions described in the Communication COM(2010) 712. The work may result in the publication of CWAs, Technical Reports, and Guidelines, or other standardisation deliverables as appropriate.

The time frame for the required standardisation deliverables

CII v.2 Implementation Guidelines should be published by 4Q11.

The other deliverables are expected in the period 2011 – 2012.

Involved Commission Services

Lead Services: DG ENTR D3, DG MARKT H3

Contact Person: DG ENTR D3 Antonio Conte

8. eSKILLS AND eLEARNING

EU policy area: eSkills and eLearning
EU efforts to foster the development of ICT related skills and competences (e-skills) as well as the promotion of lifelong learning (including e-learning) require a strong consensus and cooperation among Member States and stakeholders. In this context, pan-European skills and competences frameworks and tools as well as efficient and interoperable e-learning solutions are indispensable. This was reflected in several strategic policy initiatives of the European Commission (e.g. i2010 and e-Skills for the 21st Century and more recently by several Europe 2020 flagships) and encouraged in the context of R&D framework programmes.
Justification for the standardisation activities
eSkills: the CEN ICT Skills Workshop was established in 2003. It is contributing to the long-term EU e-skills agenda. Consortium Workshop Agreements have been approved on (1) a European e-Competence Framework which is a reference framework of 36 ICT competences that can be used and understood by ICT user and supply companies, the public sector, educational and social partners across Europe; (2) end-user e-skills framework requirement; (3) practical tool to access e-career services and (4) ICT certification in Europe. Activities started in March 2010 concentrate on adapting the European e-Competence Framework to the needs of small enterprises, the development of ICT job profiles and further activities in the field of ICT certification. Future activities (2011-2013) will focus on ICT professionalism and innovation (in particular in the areas of cloud computing, cyber-security, e-health and green ICT) as well as the international dimension. eLearning: since its start in February 1999, the Learning Technologies Workshop has contributed to the development of standards for learning technologies (e-learning) for 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, which was established in 2007. The benefits of European standards will be an increase in quality of European e-learning products, services and processes and an increase of their interoperability. A number of these Consortium Workshop Agreements are providing good practice for e-learning quality approaches, case studies and implementation guidelines. As the judiciary and legal practitioners are required more and more to use ICT for their everyday work and judicial procedures (especially when e-signature and e-ID are implemented) pan-European e-skills and interoperable e-learning solutions are essential. A skilled health ICT workforce is also necessary to make the benefits of e-Health services available to patients. Promoting the use of e-health technologies, with a view to improving the quality of health care, reducing medical costs and fostering independent living, including in remote places, is a key objective of the Digital Agenda for Europe.
Reference documents
• 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) 477: "Youth on the Move" of 15 September 2010
- COM(2010) 245: "A Digital Agenda for Europe" of 26 August 2010
- COM(2007) 496: “e-Skills in the 21st Century” followed by Competitiveness Council Conclusions of 23 November 2007 on a long-term e-skills strategy
- SEC(2008) 2629: "The use of ICT to support innovation and lifelong learning for all - A report on progress" of 9 October 2008"
- COM(2008) 865: "An updated strategic framework for European cooperation in education and training"
- Stockholm Programme 2010-2014 – an open and secure Europe serving and protecting citizens - (Council doc: CO EUR-PREP3 JAI 896 POLGEN 229 of 2.12.2009) setting ambitious targets for training for the judiciary and legal practitioners as well as police, customs officers and border guards.

Required standardisation actions

eSkills: following the Communication on “e-Skills for the 21st Century” of 7 September 2007 which presented a long term e-skills strategy for the EU and the recent Europe 2020 flagships (in particular the Digital Agenda for Europe etc.), The ESOs are invited to further develop European standards in the field of e-skills with a focus on ICT practitioners, managers and ICT users and seek co-operation with EU funded projects.

Areas of interest include:

- European e-Competence Framework, Job Profiles, Qualifications and Certifications: methods and tools for the development, the promotion, the acceptance, the implementation and the maintenance and of a European e-Competence Framework (including international cooperation) and further development with a view to promote ICT professionalism and e-skills for competitiveness and innovation (in particular in the areas of cloud computing, cyber-security, e-health and green ICT);
- European e-Competence Curriculum Guidelines: development, the promotion and the implementation of European e-competences curriculum guidelines and quality labels to facilitate the mutual recognition of training, transparency of qualifications and credit transfer between formal, non formal and industry education and training.
- E-Skills mainstreaming in education: identification of the specific ICT skills and competences to be acquired for all levels of education; ways of recognition, guidelines and scenario's for integrating these in curricula, learning outcomes and teacher training; recommendations to assess them and to bridge informal and formal education.

eLearning: ICT support for education and training is crucial to the objectives of the European Digital Agenda. The framework programme for research is continuing the support for use of ICT in education, in particular for innovation. The ESOs are invited to further develop European standards in the field of e-learning in support of European policies to improve lifelong learning, employability, accessibility and mobility. The ESOs should liaise with relevant EU funded projects in eLearning in order to ensure applicability of standards and

help with their (pilot-) implementation.

Areas of interest include:

- European learner mobility: frameworks for e-learning, educational and lifelong learning standards to ensure European harmonisation, usage and implementation. This aims at enabling solutions for European policies and initiative such as EQF, ECTS. Focus should be on specifications and guidelines for e-learning opportunities, competence descriptions, learning outcomes, credit points, assessment and e-portfolios.

- E-Learning courses, content repositories and exchange mechanisms: focus on metadata (including social 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 (e.g. library sector, e-business, human resources management).

- E-Learning integration: guidelines on how e-learning infrastructures can be integrated into enterprise and academia systems landscape (educational institutions, enterprise architectures, business and learning processes alignment). This includes descriptions of e-learning process patterns in key domains (e.g. science and ICT education; learning transversal competences such as entrepreneurship, collaboration, critical thinking, problem solving; SME training and cross-border education).

The time frame for the required standardisation deliverables

2011-2013: The ESOs shall provide to the Commission in 2011 relevant proposals and a detailed work programme for the implementation of the objectives defined in the fields of e-skills and e-learning for the period 2011-2013.

Involved Commission services

Lead Services: DG ENTR D3, DG INFSO E6, DG INFSO H3, DG INFSO E3, DG EAC A1

Contact Person: DG ENTR D3 André Richier

9. ICT FOR SUSTAINABLE GROWTH

EU policy area: ICT for sustainable growth
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 Concerning Smart Grids, the main coordination reference is the Task Force Smart Grids, created to advice the 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. Seven DGs are participating: ENER (chair), CLIMA, ENTR, INFSO, JUSTICE, RTD and SANCO.
Justification for the standardisation activities
ICTs currently account for around 2% of the total carbon emissions and are expected to triple in the global calculation by 2020 compared to 2002 level. It is therefore urgent that energy efficiency measures are applied in order to counterbalance the expected growth in telecommunications networks. The deployment of Smart Grids will by crucial to achieve the 20-20-20 targets. It will also contribute to the increasing use of ICT in the energy sector. The integration of ICT into the present grid architecture transforms it into a fully interactive intelligent –"smart"– network. Standard protocols for exchange of information about power demand and supply will allow grid operators to flow power exactly where and when it is needed at the cheapest cost and the highest efficiency while guaranteeing security and quality of supply. Harmonised 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. 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.
Reference 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 • COM (2009) 111: Mobilising Information and Communication Technologies to facilitate the transition to an energy-efficient, low-carbon economy • COM(2009) 519 final: Investing in the Development of Low Carbon Technologies (SET-Plan) • COM(2008) 30 final: 20 20 by 2020, Europe's climate change opportunity

- COM(2008) 241: Addressing the challenge of energy efficiency through Information and Communication Technologies
- C(2009) 7604: Recommendation (9.10.2009) on mobilising Information and Communications Technologies to facilitate the transition to an energy-efficient, low-carbon economy
- Mandates
  - M/462: Efficient energy use in fixed and mobile information and communication networks.
  - M/455: Common Charging Capability for Mobile Telephones
  - M/451: Power consumption measurement of simple set-top boxes in active and stand-by modes
  - M/450: Standards for measurement of no-load condition electric power consumption and average active efficiency of external power supplies
  - M/441: Smart metering
  - M/439: Standby and off modes power consumption measurement for energy-using products (EuPs)

Required standardisation actions

The ESOs are invited to keep on contributing to the execution of mandate M/462 on efficient energy use ICT networks and to establish cooperation agreements with the relevant organizations such as the ICT4EE forum.

In addition, the ESOs are requested to keep on supporting the Task Force Smart Grids to produce a new mandate by the end of 2010 concerning the revision of standards issues on Smart Grids, including data protection, data handling and data security, and the development of new standards for Smart Grids.

The final deliverables under this mandate should be provided by the end of 2013, as the latest, and should take due account of other international initiatives.

Furthermore, the ESOs are invited to focus in their proposals to link standardisation and research into novel ICT-based solutions to increase energy efficiency and strengthen their take-up.

The time frame for the required standardisation deliverables

Actions launched under this work programme are expected to be finalised by 2013

Involved Commission services

Lead Services: DG ENER DDG1.B2, DG ENER DDG1.C3, DG INFSO H4

Contact Person: DG ENTR D3 Emilio Castrillejo

10. INTERNET OF THINGS

EU policy area: Internet of Things
The policy area addressed is the Internet of Things (IoT). The concept refers to billions of objects that connect transparently to the Internet to retrieve or send information to a distant database or information system, often without direct human intervention. From a pure technical point of view, the IoT partly relies on the availability of an extended Internet naming system and on naming systems developed in non-Internet contexts, such as retail, air transport, industrial automation, etc. . Moreover, the IoT is not restricted to a specific technology but covers several technical solutions (RFID, TCP/IP, sensors, actuators, interfaces, and more generally mobile technologies which are capable of object identification, data capture, storage, processing, transfer within physical environments as well as between physical contexts and virtual universes). Potential related applications include smart grids and e-Health.
Justification for the standardisation activities
The European Commission released in 2009 a Communication on the "Internet of Things" with a defined set of activities. This includes as Action Line 6 the setting up of an IoT Standardisation Mandate. Today's networks comprise complex ecosystems of vendors whose products are not always interoperable. In a longer-term perspective, smooth and effective functioning of the IoT will require development of and wide consensus about standards for physical interconnection, protocols, data structures, and distributed architectures. Special emphasis may need to be laid on the governance of the IoT, decentralised resolution mechanisms (i.e. the discovery of object information on the basis of its identifier), Discovery Services (i.e. searches within repositories that store information related to identifiers)) and on the "silence of the chips" (i.e. the faculty for individuals to disconnect, and later reconnect, on a voluntarily basis, from their networked environment).
Reference documents
• COM(2008) 313: Advancing the Internet: action plan for the deployment of IPv6 in Europe. • COM(2009) 149: Protecting Europe from large scale cyber-attacks and disruptions: Enhancing preparedness, security and resilience. • COM(2009) 278: Internet of Things – An action plan for Europe.
Required standardisation actions
The Commission will address a standardisation mandate to the ESOs inviting them, in a first phase, to identify the potential role of standardisation in support of the realisation of the Internet of Things policy objectives. The ESOs are invited to contribute to the establishment of a successful mandate. In collaboration with interested stakeholders, the ESOs are requested to provide a report concerning the standards issues relating to Internet of Things – which organizations are working on the issue at global and regional level, what are their timeframes, what mechanisms exist for collaboration between them, what gaps there may be. The report

should be prepared in consultation with the EPoSS European Technology Platform, the European Commission's Expert Group on the Internet of Things[5], and the Future Internet Assembly, and it should take due account of other relevant European and global initiatives. The final deliverables are not specified at this stage, but they might be a pre-standard (e.g., CEN WSA) or complete standards.

Furthermore, required liaisons will be with: (1) work done in the context of the standardisation mandate on RFID (M/436); (2) work done on machine-to-machine communications within ETSI/TC M2M; (3) work done within the standardisation Mandate on an "open architecture for utility meters involving communication protocols enabling interoperability" (M/441); (4) and related activities in ISO, ITU, IETF, IEEE, W3C, EPCglobal, WirelessHART Technology, IATA, Odette.

The time frame for the required standardisation deliverables

2010 - 2012

Involved Commission services

Lead Service: DG INFSO D4

Contact Person: DG ENTR D3 Antonio Conte

[5] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:217:0010:0011:EN:PDF.

11. EPUBLISHING

EU policy area: ePublishing
Justification for the standardisation activities
Book publishing is the largest cultural industry in Europe with a 23 billion annual turnover and a production of more than half a million new titles each year. Publishers are increasingly impacted by the electronic environment, not only in the production of their books but also by consumers' expectations to be able to access books on any device or any platform they may choose. Interoperability is key to allowing the consistent use of different devices and platforms and consumer choice. Standards are a critical means to achieve interoperability and are therefore an important potential tool for the publishing industry. There are a number of specific standards issues such as publishing workflow and production software, metadata standards, distribution and end-user requirements. But an accepted overview of these developments is lacking, and there are a number of serious pending problems concerning, for example, interoperability of e-book formats. In this context addressing accessibility in the standards from the outset is an important issue not only for persons with disabilities but also for the general population following Design for All approaches. The ESOs should seek to provide such an overview and identify specific difficulties to be resolved by the standards process, whether by formal bodies or involved consortia.
Reference documents
• Results of Commission/CEN/FEP Conference, 17 June 2009 • **Information and Communications Technologies (ICT) Policy Support Programme ("ICT PSP")**, one of three specific programmes implemented through Decision No. 1639/2006/EC of the European Parliament and of the Council of 24 October 2006 establishing a **Competitiveness and Innovation Framework Programme (2007-2013) ("CIP")**, OJ L310, 9.11.2006, p. 15.
Required standardisation actions
Report to be provided by an open stakeholder group. Co-operation to be ensured with ISO and relevant standards consortia.
The time frame for the required standardisation deliverables
Actions launched under this work programme are expected to be finalised by 2013
Involved Commission services
Lead Services: DG INFSO A1, E6 **Contact Person**: DG ENTR D3 Martina Sindelar

12. EIDM AND PRIVACY

EU policy area: eIDM, privacy
– Electronic Identity Management in the Information Society – Data protection and privacy in ambient intelligent environments
Justification for the standardisation activities
Electronic Identity Management in the Information Society The number and complexity of digital transactions in e-commerce, e-government, in the Cloud, across service domains, across countries and jurisdictions are in full expansion. The EU Member States and many other countries are in the process of developing electronic identity documents, such as e-Identity, e-Drivers Licence, eHealth etc cards and are facing issues related to security, interoperability, usability, identity theft, privacy protection, safer Internet use and many others. The rapid proliferation of the use of the Internet has lead to industry taking initiatives to facilitate secure access to services, leading to similar concerns as those governments are faced with. With the proliferation of digital interactions and transactions various forms of abuse are on their way up, and the need for secure applications and law enforcement is increasing. In recent years a variety of technologies that could support digital identity management and authentication or access control have reached maturity, and the wider concept of Identity in the digital age has been deeply explored and described. Applicable technologies range from specific enabling technologies such as cryptography, biometrics, and secure communication protocols to entire frameworks for electronic identity management. Considering these developments, - in many different areas and by many different actors - efforts to establish standards cannot stay behind. As several initiatives in identity standardisation are already on-going and others are being prepared or discussed, a wider systemic approach is urgently needed. There is a need to establish an overall frame for electronic identity management within the context of the evolving Information Society and digital economy. Any eIdM frame has to comply with relevant European legislation (ref. data protection, ePrivacy, electronic signature and others). To ensure wide applicability and effectiveness, standards should support interoperability across different platforms, networks and service domains, across application and device categories, and should serve government, public authorities, business and citizens alike. With a view of the evolving Information Society, standards should be applicable to future developments to the widest possible extent, and should cover natural and legal persons, and entities. Privacy protection and user centricity, in the sense of giving the user decisive control over the release and use of her/his identity attributes, are central concepts. Important boundary conditions for standardisation work in eIdM are minimal data disclosure, data proportionality and multilateral security for the stakeholders involved in eIDs. Standards should address the full spectrum of identity attributes in the digital age, ranging from anonymity to full identification, as well as indirect identification, such as through profiling.

eIdM standards should cater for security, for robustness against identity theft and revocability when identity credentials are compromised, and allow efficient re-establishment of compromised identity credentials. Furthermore they should allow the use of eID credentials for secure authentication and authorisation, for accountability and audit purposes, enabling remedial action and provide elements for assigning responsibilities in the context of liabilities.

Finally, any new standardisation initiative should take stock of on-going activities, as follows:

Secure Identity Across Borders Linked - STORK (https://www.eid-stork.eu)

Future of Identity in the Information Society - FIDIS (http://www.fidis.net)

Privacy and Identity Management for Europe - PRIME (https://www.prime-project.eu)

Data protection and privacy in ambient intelligent environments

Privacy will be a crucial determining factor in the acceptance of ambient intelligent systems by the users.

Applications of new technologies open up a range of data protection and privacy issues:

- privacy issues do arise when user data and user behaviour are disclosed in an unwanted way;
- the usage of content of personal data picked up by ubiquitous sensors around us opens privacy issues;
- mobility also can introduce privacy concerns since it allows tracking of location and activities of the users on a global scale;
- others…

The need for data protection and privacy standards and guidelines further relates to several of the priority domains of this work plan addressed elsewhere.

Reference documents

General

- COM(2008) 798 – "Action Plan for e-signature and e-identification."
- COM(2009) 116 – "A Strategy for ICT R&D and Innovation in Europe: Raising the Game."
- ETSI Security Standards Roadmap.

Electronic Identity Management in the Information Society

- Directives on Data protection (95/46/EC) and Privacy (2002/58/EC).
- Directive 1999/93/EC on a Community framework for electronic signatures.
- EU Telecoms Reform Package (adopted on 24 November 2009).
- Biometric passport agreements under ICAO.
- Documents of ISO/IEC JTC 1/SC 27/WG5 Identity Management & Privacy Technologies

Required standardisation actions

Electronic Identity Management in the Information Society

Common specifications for interoperable electronic identity management will have to be addressed as follow-up of the STORK project (most probably in 2011) and in coordination with policy actions to be set by the Commission in 2010 in support of a digital society.

Precise definition need to be worked out in the standardisation groups. The definition of a standardisation mandate would probably be part of the work.

Data protection and privacy in ambient intelligent environments

The ESOs should investigate the need for standardisation activities, paying due attention to existing activities at the international level (e.g. JTC1/SC27). Standardisation could possibly address privacy risk analysis methodology, data track systems and obligation management systems, anonymised services through internet, criteria indicating privacy safeness of products, systems and services, data breach management of organizations, etc.

The time frame for the required standardisation deliverables

Electronic Identity Management in the Information Society

Given the work being done currently in DG INFSO to come to a European Large Scale Action for developing a framework for interoperable and privacy protecting e-Id management in the EU, clear planning in line with the development of this action is required.

The standardisation based on the STORK project should be taken up as from early 2011.

Data protection and privacy in ambient intelligent environments

2011-2012

Involved Commission services

Lead Services: DG INFSO A3, DG INFSO F5 and DG INFSO H2

Contact Person: DG ENTR D3 Martina Sindelar

13. INDUSTRIAL CONTROL SECURITY

EU policy area: Industrial control security
– Cyber-security of industrial control systems
Justification for the standardisation activities
Supervisory Controls and Data Acquisition (SCADA) is the term for security of process control and industrial manufacturing systems. These have increasingly relied on commercial information technologies, but the number of user groups and standardisation activities dealing with security issues in the area of SCADA systems has rapidly grown over the last few years. On the one hand this is a good message, because it underpins that security has become an important issue being taken into account. On the other hand it leads to a jungle of standards and guidelines, because these are often being developed in parallel, with resulting lack of interoperability and other conflicts. The FP7 ESCoRTS project ("European Network for the Security of Control and Real-Time Systems") has provided an overview of the relevant standards and guidelines. This work should be taken forward in order to provide interoperability specifications and implementation guidance.
Reference documents
<u>General</u> • COM(2009) 691 – "A European Security Research and Innovation Agenda – Commission's initial position on ESRIF's key findings and recommendations." • ETSI Security Standards Roadmap. <u>Cyber-security of industrial control systems</u> • ISA99 standard, ANSI/ISA-99.00.01-2007, "Security for Industrial Automation and Control Systems: Concepts, Terminology and Models."
Required standardisation actions
In collaboration with interested stakeholders, the JRC and ENISA, the ESOs are invited to prepare a programme for the production of the relevant interoperability specifications and related guidance. The programme should be prepared in full collaboration with the relevant TCs in ISO and IEC and with consortia activities as cited in the ESCoRTS overview, and recommend timescales.
The time frame for the required standardisation deliverables
Actions launched under this work programme are expected to be finalised by 2013
Involved Commission services
Lead Services: DG INFSO A3 (Cyber-security of industrial control systems). **Contact Person:** DG ENTR D3 Martina Sindelar

14. eBUSINESS

EU policy area: eBusiness
– e-Procurement – Classification systems for public procurement – Standardisation of e-tools in the field of e-procurement (e.g. e-catalogues, e-attestations, etc.) – Electronic communication of business and financial data – Enhancing interoperability and efficiency through global Digital Supply chains – Business registries
Justification for the standardisation activities
There is a need to eliminate / prevent interoperability barriers to the participation in electronic public procurement procedures, in particular across borders, and to facilitate and accelerate the effective usage of electronic public procurement procedures and tools. Most standardisation work is ongoing in the post-award area and quite advanced in this domain, so no new standardisation efforts are required for the time being. The pre-award area still requires some standardisation work related to information exchange related to tendering qualifications. As far as business and financial data are concerned, the use of the "eXtensible Business Reporting Language" (XBRL) is emerging. It is a language for the reporting of business and financial data that provides major benefits in the preparation, analysis and communication of business information. It offers cost savings, greater efficiency and improved accuracy and reliability to all those involved in supplying or using financial data. It belongs to the family of "XML" languages. It is being developed by an international non-profit consortium of approximately 450 major companies, organisations and government agencies. It is free of licence fees. There are already several implementations based on XBRL, and their number is growing rapidly. More information is available at www.xbrl.org and http://en.wikipedia.org/wiki/XBRL . XBRL could be of interest to the eBSN members and to the Commission service who is in charge of the administrative simplification. XBRL has been widely accepted as a way of recording, storing and transmitting business financial information, and has the potential to deliver major cost savings and gains in efficiency, improving processes in companies, governments and other organisations. The introduction of XBRL tags enables automated processing of business information by computer software, cutting out laborious and costly processes of manual re-entry and comparison. Computers can treat XBRL data "intelligently": they can recognise the information in a XBRL document, select it, analyse it, store it, exchange it with other computers and present it automatically in a variety of ways for users. XBRL greatly

increases the speed of handling of financial data, reduces the chance of error and permits automatic checking of information.

Conversion of some basic XBRL Recommendations into European standardization deliverables, with appropriate cross-referencing, will help improve the acceptance of the specification across Europe, and enable improvements to be made.

With regards to digital supply chains, it is commonly accepted that, in most sectors, there remain significant inefficiencies and gaps. In any given industry, different companies are using different e-business systems and protocols, which too often are incompatible with those of their suppliers and clients. The complexity of the supply chain and the prevalence of smaller operators have resulted in a fragmented technological outlook, with a multiplicity of different standards and solutions and with very low interoperability levels. This results in the eventual use of manual, inefficient, error-prone and time-consuming communication and business processes, especially among smaller firms and in cross-border transactions. Therefore, the huge potential of ICT-enabled business innovations still remains to be fully exploited, notably among SMEs.

The Communication COM(2010) 614 of 28 October 2010 "An Integrated Industrial Policy for the Globalisation Era - Putting Competitiveness and Sustainability at Centre Stage" states that an “improved use of ICT for industrial competitiveness and innovation will be essential for future competitiveness”. Particular emphasis is made to the need for “a more innovative use of ICT throughout industrial value chains to streamline business transactions and boost overall competitiveness through demonstration projects to promote the integration of enterprises, especially SMEs in global digital value chains.”

To address the above issues, there is a need for an industry agreement on more innovative and efficient business processes, standards and solutions that allow the seamless electronic exchange of data or documents for business-to-business (B2B) transactions along the supply chain, in any particular industry or services sector. This is known as the ‘global digital supply chain’ approach. This will reduce operational costs, yield savings, improve time-to-market and facilitate demand-driven production. More important, this will also allow for better customer satisfaction, due to the fluid flow of knowledge and ideas for new products and services, better serving customer needs. This in turn will boost businesses’ responsiveness to changing market conditions and stimulating greater innovation.

This is why the Commission launched a series of initiatives to improve the efficiency of various sector’s supply chains through the innovative use of IT in the exchange of business data and documents. More specifically, they aim at improving the integration of companies, particularly SMEs, in the sectors’ digital supply chains. In order to achieve this, they seek to catalyze a pan-European agreement among the industry stakeholders on a seamless digital supply chain. This includes a Reference Model of an interoperable digital supply chain which is designed to streamline the electronic exchange and processing of business data and documents seamlessly, over existing, but currently incompatible, IT systems, thereby allowing companies to keep their current infrastructure investments.

It is wishful to convert such pan-European agreements and Reference Models of seamless digital supply chains into European standardization deliverables. This will a) allow for continuous maintenance and updates of the specifications in order to take into account new market developments; b) provide a pan-European consensus platform for potential extensions

of the Reference Models to include new and enhanced functionalities (e.g. integration of transport and logistics processes, integration between electronic data exchanges and physical flows of goods, through RFID, etc.) and c) improve the acceptance of the specifications across Europe, and stimulate broader implementation.

Finally, a uniform approach of representing current unique business identifiers in eBusiness messages and protocols is a cornerstone to achieve interoperability among different eBusiness systems. Business registries should be addressed along the lines set in Green Paper COM(2009) 614 on their interconnection.

Reference documents

e-Procurement:

- Directive 2004/17 of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors
- Directive 2004/18 of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public services contracts
- Regulation (EC) No 2195/2002 of 5 November 2002 on the Common Procurement Vocabulary (CPV)
- Commission Regulation (EC) No 1564/2005 of 7 September 2005 establishing standard forms for the publication of notices in the framework of public procurement procedures pursuant to Directives 2004/17/EC and 2004/18/EC of the European Parliament and of the Council
- 2004 Action plan for the implementation of the legal framework for electronic public procurement (2005)
- i2010 eGovernment Action Plan: Accelerating eGovernment in Europe for the Benefit of All (2006)
- 2005 Manchester Ministerial declaration on e-Government and 2009 Malmö Ministerial Declaration on eGovernment
- COM(2010) 571 of 18 October 2010 - Green Paper on expanding the use of e-Procurement in the EU.

XBRL:

- The announcement of the European Parliament from 10 March 2009 (http://www.europarl.europa.eu/sides/getDoc.do?type=TA&language=EN&reference=P6-TA-2009-0100):
- [The European Parliament] “calls on the Commission to stimulate simplification and harmonisation of company law and, in particular, accounting rules within the internal market in order to reduce the administrative burden for SMEs and increase the

transparency for all relevant stakeholders; urges the Commission to promote strongly the use of new technology such as eXtensible Business Reporting Language (XBRL) by presenting a roadmap for introducing XBRL reporting in the European Union with a view to making it mandatory within a reasonable time frame and to promote and support wide use of this open standard;"

Digital Supply Chains

- COM(2008) 398 "The Small Business Act for Europe" foresees "actions involving all relevant stakeholders to help SMEs participate in global supply chains, and that Members States will support the development of an electronic identity for businesses, to enable e-invoicing and e-government transactions;
- COM(2009) 614 - Green Paper on the interconnection of business registries
- COM(2010) 245 "A digital agenda for Europe" foresees the implementation of seamless eProcurement as well as practical e-identification and e-authentication cross border services (including mutual recognition of security levels for authentication)
- COM(2010) 614 of 28 October 2010 "An Integrated Industrial Policy for the Globalisation Era - Putting Competitiveness and Sustainability at Centre Stage"

Required standardisation actions

e-Procurement:

– Classification systems, convergence between different classification systems (CPV, eCl@ss, gpc/gs1, etc.), electronic catalogues and their use in procurement phases (e-tendering, e-ordering). In particular, work covering the following issues:

  - possible synergies between eCl@ss, CPV and other classifications.

  - product data interoperability through reference data libraries.

  - activities aimed at the adoption of Product Data standards by SMEs

– Definition of standard formats, messages and data exchange for various e-procurement phases and tools

  - Continuation of the work on technical, semantic, organisational and legal interoperability in the field of public procurement, follow-up to the results of the CEN Workshop BII with focus on their implementation and on a sustainable governance model.

– Definition of standard formats for certificates and attestations issued by public offices to provide evidence to third parties of status, situations, events, etc., concerning individuals and businesses.

– Multilingualism in ICT (e.g. for classification systems, standard forms, certificates and attestations…)

– Promotion and awareness activities (conferences, events) on the above topics.

XBRL:

The activity should be undertaken in full collaboration with XBRL.ORG, and take due account of other relevant international standards activities (e.g. UN/CEFACT).

The outcome is expected to be constituted by Technical Reports, CWAs, and guidelines.

Digital supply chains:

- Standards for representing and reporting engineering materials data in order to enable a transition from paper-based to electronic reporting procedures, in accordance with CWA 16200:2010.

- Harmonisation of identification schemes for electronic identification of enterprises (business registries).

In general, the activities in this domain are expected to produce Technical Reports, CWAs, guidelines and other relevant standardisation deliverables.

The time frame for the required standardisation deliverables

Actions launched under this work programme are expected to be finalised by 2013

Involved Commission services

Lead Services: DG MARKT C4 (e-procurement), SG (XBRL)

Contact Person: DG ENTR D3 Antonio Conte

15. EGOVERNMENT

EU policy area: eGovernment
eGovernment is about using the tools and systems made possible by Information and Communication Technologies (ICT) to provide better public services to citizens and businesses. Such technologies are already widely used by government bodies, just as in enterprises, but eGovernment involves much more than just the tools. Effective eGovernment also involves rethinking organisations and processes, and changing behaviour so that public services are delivered more efficiently to the people who need to use them. Implemented well, eGovernment enables all citizens, enterprises and organisations to carry out their business with government more easily, more quickly and at lower cost. In the European Union's internal market, people are able to move freely – either for work or for private reasons – and consequently they have to be able to deal with public services outside their home country more and more. If eGovernment services are to provide significant added value to citizens and business, then it is crucial that different government bodies, both within a country and in different EU Member States, are able to share information easily and co-operate in serving citizens. Therefore, public services are getting more and more a pan-European character. In order to share information easily and to co-operate, government bodies need to ensure interoperability between legal environments, organisational structures, and underlying information systems (both at the semantic level – what is the meaning of the information that is exchanged – and at the technical level). Whenever possible, interoperability should be based on standards.
Justification for the standardisation activities
While standardisation at the technical level can best be left to industry, governments should be main stakeholders in eGovernment standardisation attempts at the higher levels (semantical, organisational, legal). It is not certain that the traditional standardisation methods and processes, used today for standardisation in the area of ICT, are adequate for this new domain. In support of activities related to this emerging area and more specifically for promoting semantic interoperability, SEMIC.EU constitutes a collaborative DIGIT/ISA service where after passing a well-defined conformance process a library of high quality semantic assets is populated and finally discussed and endorsed by representatives of the Member States. The ultimate goal is the promotion of commonly accepted semantic definitions in MSs as well as the rise of awareness and definitions alignment in the MSs National Interoperability Frameworks. Regarding the need for specific standardisation work in the domain, another case is constituted by the European Case Law Identifier (ECLI), that has strong links to the European e-Justice Portal. Other domains of this Work Programme include specific actions for e-ID, e-signatures, e-learning and e-skills that are related to e-Justice too.
Reference documents

- The eGovernment Action Plan (http://ec.europa.eu/information_society/activities/egovernment/docs/highlights/comm_pdf_com_2006_0173_f_en_acte.pdf)
- eGovernment related activities under the CIP ICT PSP programme (http://ec.europa.eu/information_society/activities/egovernment/implementation/ict_psp/index_en.htm)
- The IDABC programme (http://ec.europa.eu/idabc)
- The ISA programme (http://ec.europa.eu/isa)
- The SEMIC.EU service (http://www.semic.eu/semic/)
- The European e-Justice Action Plan (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:075:0001:0012:EN:PDF)
- The Roadmap for the European e-Justice Action Plan, June 2010 - see Item 17 in table on ECLI: http://register.consilium.europa.eu/pdf/en/10/st09/st09714-re01.en10.pdf
- Council Conclusions of December 2010 on the introduction of ECLI

Required standardisation actions

The ESOs are invited to propose initiatives related to:

- The creation of an effective process ensuring a wide participation of government bodies in standardisation activities related to eGovernment.
- Ensuring effective dissemination of relevant standards towards government bodies and towards those involved in constructing ICT systems supporting eGovernment
- Supporting the spread of best practices in this area.
- Support work in the context of SEMIC.EU
- Support the implementation of the European Case Law Identifier (ECLI)

The time frame for the required standardisation deliverables

Actions launched under this work programme are expected to be finalised by 2013

Involved Commission services

Lead Services: DG DIGIT 01, DG INFSO H2, DG JUST B2

Contact Person: DG ENTR D3 Emilio Castrillejo

16. EMERGENCY COMMUNICATIONS

EU policy area: Emergency Communications
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.
Justification for the standardisation activities
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.
Reference 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 • COM(2009) 434 final: eCall: Time for Deployment
Required standardisation actions
The Commission will address a standardisation mandate to the ESOs inviting them to support the Location Enhanced Emergency Call Service by producing the relevant standards. The ESOs are invited to contribute to the establishment of a successful mandate, taking also into account next generation networks. The ESOs are invited to consider the standardisation needs 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.
The time frame for the required standardisation deliverables
Actions launched under this work programme are expected to be finalised by 2013
Involved Commission services
Lead Services: INFSO.B2, INFSO.H3 (e-Accessibility), INFSO.G4 (eCall) **Contact Person:** DG ENTR D3 Emilio Castrillejo

17. DIGITAL CONTENT

EU policy areas: Cinema heritage and digital cinema
Justification for the standardisation activities
• Cinema heritage The second report on the Implementation of the Film Heritage Recommendation underlines that the transition to digital cinema puts the ability of future generations to have access to digital films at risk. Therefore, there is a need to update the legal instruments establishing legal or compulsory deposit of films, in order to cover films produced in all media. The establishment of standards at European level specifying the conditions for the submission of films to archives and for their preservation is also important, in particular due to the fact that currently many questions are still open about the storage and long-term preservation of digital material. The Commission is considering specifying voluntary standards at European level for the conditions for the submission of digital films to archives and the conditions for their preservation. These should preferably specify a digital submission format based on European or international standards. In this context, certain principles are recommended from a competition perspective: - In view of the aim of long-term archiving, the most important principle may be that the full documentation of the standard that is used is public and available together with whatever material is archived in that format. Other relevant attributes for long-term archiving might be error robustness and human readability; - In view of the objective of making the archive material publicly available, the relevant attribute might be the existence of free implementations of the standard that would not impose a private "tax" to pay a specific party; - Royalty-free standards may be the most robust against abuse of dominant positions but are not necessarily the only ones that comply with competition law. - Regarding affordability, the archive format should be one which could be easily generated by the producer and could be suitable for both online distribution and digital projection. They should also specify the (non-exclusive) distribution rights allocated to the national archives for the deposited work (eg, a Creative Commons Attribution, non-commercial licence for global online and theatrical release). • Digital cinema The Commission Communication on “Opportunities and Challenges for European Cinema in the Digital era (Hereafter "Digital Cinema Communication") has presented the challenges and implications of the choice of technical specifications of digital cinema distribution. The

Digital Cinema initiative (DCI) launched in 2002 has now resulted in the publication of ISO (International Standard Organisation) standard ISO 26428-1:2008 (2048X1080 or 2k) for digital projection. 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 notably) is due to be reviewed in 2012.

However, as stated in the Digital Cinema Communication, other (less expensive) projectors (1920 X 1080 or 1.9 k) are presently available to cinema owners (providing a high degree of security and a highly transportable device). While they present some disadvantages (not as bright, notably), they could represent an economic solution for operators with smaller screens (less than 8 meters) both in large multiplexes and single screen theatres. An appropriate standard other than the ISO previously referred to should be available for such smaller screens. Following criteria should notably be duly taken into account:
- the quality of the picture must meet the minimum viewers' expectations, in view of the technological means available today;
- the security, notably in order to avoid piracy.

3D Digital projection has now been successfully initiated in digitised cinemas and has become very popular. 3D As indicated in the Digital Cinema Communication, there is no standard for 3D projection yet. The Commission is considering specifying voluntary standards for 3D projection taking into account the need to meet the minimum viewers' expectations, the quality of the materials, its costs, etc.

Reference documents

- 2nd Implementation report of the EP and Council Recommendation on Film Heritage[6]
- Communication from the Commission on opportunities and challenges for European Cinema in the Digital Era[7]
- COM(2010) 245: "A Digital Agenda for Europe" of 26 August 2010
- COM(2010) 183 of 27.4.2010, Green paper "unlocking the potential of creative and cultural Industries"
- FIAF (International Federation of Film Archives) Technical Commission Recommendation on the deposit and acquisition of D-cinema elements for long term preservation and access (2 September 2010)

Required standardisation actions

The ESOs are invited to propose initiatives related to

- In relation to cinema heritage:

- conditions for the submission of digital films to archives and the conditions for their preservation

[6] SEC(2010) 853 of 2 July http://ec.europa.eu/avpolicy/reg/cinema/report_2/index_en.htm

[7] COM(2010)487 http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0487:EN:NOT

• In relation to digital cinema: - digital projection of digitised heritage films - digital technology to distribute and project films in cinema theatres - conditions for the 3D digital projection In order to speed up the process, light deliverables such as CWA should be selected.
The time frame for the required standardisation deliverables
Actions launched under this work programme are expected to be finalised by 2013
Involved Commission services
Lead Service: DG INFSO A1, DG EAC D3 **Contact Person:** DG ENTR D3 Martina Sindelar

18. SUPPORT TO IMPLEMENTATION OF STANDARDS

EU policy area: Support to implementation of standards
Standardisation is one important way to widespread the application of research results under the condition that it is part of an overall approach to encouraging innovation through market uptake and commercialisation of innovating technologies, the dissemination of scientific results and the development of common specifications and standards. In addition, the recommendations in the communication from the Commission "Towards an increased contribution from standardisation to innovation in Europe", refer, inter alia, to: - the inclusion of new knowledge in standards resulting from publicly funded research and innovation programmes - the need to involve SMEs in European standardization.
Justification for the standardisation activities
Initiatives to better 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. Furthermore, a failure 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.
Reference documents
• COM(2009) 479 final: A public-private partnership on the Future Internet • COM(2008) 133 final: Towards an increased contribution from standardisation to innovation in Europe
Required standardisation actions
The ESOs are invited to propose standardisation related initiatives to further support the effective take up and implementation of standards in the priority domains identified by the Work Programme. These actions should 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.
The time frame for the required standardisation deliverables
Actions launched under this work programme are expected to be finalised by 2013
Involved Commission services
Lead Service: DG ENTR D3 **Contact Person:** DG ENTR D3 Emilio Castrillejo