Bienvenue

Welcome

Willkommen

SMART ICT
STANDARDS ANALYSIS

ETSI Workshop

07.07.2017
Context and objectives of the Smart ICT Standards Analysis
A – Context of development
B – Objectives

Results of the Smart ICT Standards Analysis
A – Smart ICT technologies overview
B – Standards watch
C – Opportunities for the national market

Smart ICT standardization situation in Luxembourg
A – ETSI members
B – ISO/IEC JTC 1
C – Training on Digital Trust for Smart ICT
Context and objectives of the Smart ICT Standards Analysis

A - Context of development

- LUXEMBOURG STANDARDIZATION STRATEGY 2014-2020
  - Pillar 1: ICT technical standardization

- LUXEMBOURG’S POLICY ON ICT TECHNICAL STANDARDIZATION 2015-2020
  - To foster and strengthen the national ICT sector involvement in standardization work through three leading projects:
    - Developing market interest and involvement
    - Promoting and reinforcing market participation
    - Supporting and strengthening the Education about Standardization (EaS) and related research activities
Context and objectives of the Smart ICT Standards Analysis

A - Context of development

- **FOCUS ON SMART ICT AND DIGITAL TRUST**
  - Cloud Computing
  - Internet of Things
  - Big Data
  - Digital Trust related developments
Context and objectives of the Smart ICT Standards Analysis

B - Objectives

INFORM
about Smart ICT standardization developments

IDENTIFY
standardization opportunities for the national market

ENCOURAGE
the involvement in the standardization process

DEVELOP
“standards-related” skills and collaborations

For the benefit of all national stakeholders
II Results of the Smart ICT Standards Analysis

A - Smart ICT technologies overview

Smart ICT

Smart ICT corresponds to a holistic approach of ICT development, integration and implementation, where a range of emerging or innovative tools and techniques are used to maintain, improve or develop products, services or processes with the global objective to strengthen different societal, social, environmental and economic needs. It includes, through related interconnected ecosystems, advanced ICT such as Cloud Computing, Big Data and Analytics, Internet of Things, Artificial Intelligence, Robotic and new ways of gathering data, such as social media and crowdsourcing.

SMART ICT COMPONENTS AND THEIR INTERACTIONS

- General introduction of the Smart ICT landscape and of the existing interactions between Cloud Computing, IoT and Big Data

FUNDAMENTAL CHARACTERISTICS OF SMART ICT AND RELATED DIGITAL TRUST

- Internet of Things: ITU-T Y.4000/Y.2060 (06/2012), Overview of the Internet of things
- Big Data: ISO/IEC 20546 (under development), Information Technology -- Big Data -- Definition and Vocabulary
- Digital Trust: based on the ILNAS White Paper “Digital Trust for Smart ICT” (October 2016)
Results of the Smart ICT Standards Analysis

B - Standards watch

CLOUD COMPUTING

- TECHNICAL COMMITTEES (1)
  - ISO/IEC JTC 1/SC 38 “Cloud Computing and Distributed Platforms”

- PUBLISHED STANDARDS (13)
  - ...

- STANDARDS UNDER DEVELOPMENT (10)
  - ISO/IEC DIS 19941, Information technology -- Cloud computing -- Interoperability and portability
  - ...

...
Results of the Smart ICT Standards Analysis

B - Standards watch

- **INTERNET OF THINGS**

  - **TECHNICAL COMMITTEES (5)**
    - ISO/IEC JTC 1/WG 7 “Sensor networks” (disbanded)
    - ISO/IEC JTC 1/WG 10 “Internet of Things” (disbanded)
    - ISO/IEC JTC 1/SC 41 “Internet of Things and related technologies”
    - ISO/IEC JTC 1/SC 31 “Automatic identification and data capture techniques”
    - ETSI/TC Smart M2M “Smart Machine-to-Machine Communication”

- **PUBLISHED STANDARDS (24)**
  - ETSI TR 103 375 (10/2016), SmartM2M; IoT Standards landscape and future evolutions
  - ...

- **STANDARDS UNDER DEVELOPMENT (26)**
  - ISO/IEC CD 20924, Information technology -- Internet of Things -- Definition and Vocabulary
  - ISO/IEC CD 30141, Information technology -- Internet of Things -- Internet of Things Reference Architecture (IoT RA)
  - ...

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Results of the Smart ICT Standards Analysis

B - Standards watch

### BIG DATA

- **TECHNICAL COMMITTEES (2)**
  - ISO/IEC JTC 1/WG 9 “Big Data”
  - ISO/IEC JTC 1/SC 32 “Data management and interchange”

- **PUBLISHED STANDARDS (0)**

- **STANDARDS UNDER DEVELOPMENT (5)**
  - ISO/IEC NP 20546, Information technology -- Big Data -- Overview and Vocabulary
  - …
II Results of the Smart ICT Standards Analysis

B - Standards watch

TECHNICAL COMMITTEES (6)
- ISO/IEC JTC 1/SC 27 “IT security techniques”
- ETSI/TC CYBER “Cyber Security”
- ETSI/TC ESI “Electronic Signatures and Infrastructures”
- ...

PUBLISHED STANDARDS (8)
- ETSI TS 118 103 V2.4.1 (09/2016), oneM2M; Security solutions (oneM2M TS-0003 version 2.4.1 Release 2)
- ...

STANDARDS UNDER DEVELOPMENT (7)
- ISO/IEC CD 19086-4, Information technology -- Cloud computing -- Service level agreement (SLA) framework -- Part 4: Security and privacy
- ...

DIGITAL TRUST
II Results of the Smart ICT Standards Analysis

C - Opportunities for the national market

INFORMATION ABOUT STANDARDIZATION

- Smart ICT workshops
- Awareness sessions
- Smart ICT standards watch
- Publications and disseminations
- Free consultation of the standards
- Smart ICT standardization research results

TRAINING IN STANDARDIZATION

- One-day training on digital trust
- University certificate Smart ICT for Business Innovation

INVolVEMENT IN STANDARDIZATION

- Become national delegate in standardization
- Comment standards under public enquiry
- Propose new standards projects
- Monitor the standardization work performed by the European Multi-Stakeholder Platform on ICT Standardization (MSP)
III  Smart ICT standardization situation in Luxembourg

A - ETSI

- 9 ETSI members at national level:
III Smart ICT standardization situation in Luxembourg

B - ISO/IEC JTC 1

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- **SC 2**: Coded Character Sets
- **SC 6**: Telecommunications and information exchange between systems
- **SC 7**: Software and Systems Engineering
- **SC 17**: Cards & Personal Identification
- **SC 22**: Programming Languages
- **SC 23**: Digitally recorded media for information interchange and storage
- **SC 24**: Computer graphics, image processing, and environmental data representation
- **SC 25**: Interconnection of information technology equipment
- **SC 27**: IT security techniques
- **SC 28**: Office equipment
- **SC 29**: Coding of audio, picture, multimedia and hypermedia information
- **SC 31**: Automatic identification and data capture techniques
- **SC 32**: Data management and interchange
- **SC 34**: Document description and processing languages
- **SC 35**: User interfaces
- **SC 36**: Information technology for learning, education and training
- **SC 37**: Biometrics
- **SC 38**: Cloud Computing and Distributed Platforms
- **SC 39**: Sustainability for and by information technology
- **SC 40**: IT Service Management and IT Governance
- **SC 41**: Internet of Things and related technologies

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Luxembourg's involvement

Not involved

- **WG 9**: Big Data
- **WG 11**: Smart Cities
III Smart ICT standardization situation in Luxembourg

- 66 national delegates registered
  - 33 registrations in the Digital Trust domain
  - 16 registrations in the Cloud Computing domain
  - 8 registrations in the IoT domain
  - 11 registrations in the Big Data domain

- ISO/IEC JTC 1
  - JTC 1/SC 27
  - JTC 1/SC 38
  - JTC 1/SC 39
  - JTC 1/WG 9
  - JTC 1/SC 7
  - JTC 1/SC 40
  - JTC 1/WG 10
  - JTC 1/SC 17
  - JTC 1/SC 32
  - JTC 1/JAG
  - JTC 1/SC 11
  - JTC 1/WG 11
  - JTC 1/SC 41
  - JTC 1/SC 34
  - JTC 1/SC 36
  - JTC 1/SC 31
  - JTC 1/SC 6

III Smart ICT standardization situation in Luxembourg

C - Training Digital Trust for Smart ICT

- **OBJECTIVE**
  - Explore Digital Trust for Smart ICT (Cloud Computing, Internet of Things, Big Data)
    - Introduction to the Smart ICT technologies
    - Overview and discussion about digital trust challenges of Smart ICT
    - Details about technical standardization developments reinforcing trust in Smart ICT
  - Based on the ILNAS White Paper Digital Trust for Smart ICT

- **PRACTICAL INFORMATION (TENTATIVE)**
  - Date: September 28th, 2017
  - Location: ILNAS premises (Belval)
  - Duration: 1 day (9:00 a.m. - 6:00 p.m.)
  - Language: English
  - Cost: 250 € (including materials and lunch)