Bienvenue

SMART ICT
STANDARDS ANALYSIS

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## 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
- **D** – Some updates from ISO/IEC JTC 1 Plenary Meeting (October 2017)

## Smart ICT standardization situation in Luxembourg

- **A** – ISO/IEC JTC 1
- **B** – Involvement of ILNAS & ANEC EIG
- **C** – ETSI members
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

<table>
<thead>
<tr>
<th>INFORM</th>
<th>IDENTIFY</th>
<th>ENCOURAGE</th>
<th>DEVELOP</th>
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<tbody>
<tr>
<td>about Smart ICT standardization developments</td>
<td>standardization opportunities for the national market</td>
<td>the involvement in the standardization process</td>
<td>“standards-related” skills and collaborations</td>
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For the benefit of all national stakeholders
Smarter 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 FDIS 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” (dismanded)
  - ISO/IEC JTC 1/WG 10 “Internet of Things” (dismanded)
  - 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)
  - ...
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 CD 20546, Information technology -- Big Data -- Overview and Vocabulary
  - ...
Results of the Smart ICT Standards Analysis

B - Standards watch

DIGITAL TRUST

- 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
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

IN 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)
Results of the Smart ICT Standards Analysis

D - Some updates from ISO/IEC JTC 1 Plenary Meeting (October 2017)

- **ISO/IEC JTC 1 Plenary Meeting**
  - ISO/IEC JTC 1 organized its 30th plenary meeting from 02/10/2017 to 07/10/2017 in Vladivostok

- **Objectives**
  - Review JTC 1 activities (JAG, SCs, WGs)
  - Discuss and define future directions of JTC 1
  - Vote and publish resolutions

- **Main resolutions related to Smart ICT**
  - Establishment of JTC 1/SC 42, Artificial Intelligence
  - JTC 1 transfers the JTC 1/WG 9 program of work to SC 42, Artificial Intelligence
  - Establishment of JTC 1/WG 12 on 3D Printing and Scanning
III Smart ICT standardization situation in Luxembourg

A - ISO/IEC JTC 1

Luxembourg’s involvement

Not involved

SCs

JAG

WG 9
Big Data

WG 11
Smart Cities

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
III Smart ICT standardization situation in Luxembourg

- 64 national delegates registered
  - 29 delegates in the Digital Trust domain
  - 13 delegates in the Cloud Computing domain
  - 5 delegates in the IoT domain
  - 9 delegates in the Big Data domain
- **Strong involvement of ILNAS and ANEC EIG in National Mirror Committees related to SMART ICT**
  - ISO/IEC JTC 1/WG 9 “Big Data”
    - Single Point of Contact: Mrs. Natalia CASSAGNES (ANEC EIG)
  - ISO/IEC JTC 1/SC 38 “Cloud Computing and Distributed Platforms”
    - National Chairman: Dr. Johnatan PECERO (ANEC EIG)
  - ISO/IEC JTC 1/SC 41 “Internet of Things and related technologies”
    - Acting Chairman: Dr. Shyam WAGLE (ANEC EIG)

- **Representation of Luxembourg in international meetings**

- **Management of votes and comments**

- **Organization of national meetings**
  - Preparatory meetings before the international meetings
  - Debriefing after international meetings
  - Breakfast/Lunch meetings to make professionals aware of Smart ICT standardization developments and opportunities to be involved
  - Organization of awareness-raising sessions in companies
- **Involvement at JTC 1 strategic level**
  - ISO/IEC JTC 1 “Information Technology”
    - National Chairman: Dr. Jean Philippe HUMBERT (ILNAS)
  - ISO/IEC JTC 1/JAG “JTC 1 Advisory Group”

- **Monitoring of Technical Committees related to Digital Trust**
  - ISO/IEC JTC 1/SC 27 “IT security”
  - ISO/TC 307 “Blockchains and distributed ledger technologies”
  - ETSI/TC CYBER “Cyber Security”
  - CEN-CLC/TC 13 “Cybersecurity and Data Protection”

- **Creation of an internal Working Group ILNAS/ANEC dedicated to ISO/IEC JTC 1**
  - Meets twice a month
  - Objectives:
    - Report and share the weekly review of ISO/IEC JTC 1 documentation (N-Documents) → Focus on Smart ICT standardization (Big Data, Cloud Computing, IoT)
    - Follow-up of ISO/IEC JTC 1 votes
    - Prepare Plenary Meetings (JTC 1, JTC 1/WG 9, JTC 1/SC 38, JTC 1/SC 41)
    - Discuss and define strategy to strengthen ISO/IEC JTC 1 at national level
III Smart ICT standardization situation in Luxembourg

C - ETSI

- 9 ETSI members at national level:
Participation in standardization Technical Committees

Join the ILNAS Network -- Prepare for the future!

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