

Welcome
Bienvenue
Willkommen

ACCREDITATION

CONFIANCE
NUMÉRIQUE

SURVEILLANCE
DU MARCHÉ

MÉTROLOGIE

NORMALISATION

ILNAS



ILNAS/SnT - Programme de recherche

*Normalisation technique pour une utilisation fiable dans le
domaine "Smart ICT"*

Journée Mondiale de la Normalisation

October 13, 2017

Dr. Jean-Philippe Humbert – Deputy Director ILNAS



I – ILNAS

Institut Luxembourgeois de la Normalisation, de l'Accréditation, de la Sécurité et qualité des produits et services

II – ILNAS – The National Standards Body

III – National Education about Technical Standardization & Related research activities

A – General framework

B – University certificate “Smart ICT for Business Innovation”

C – Master degree project

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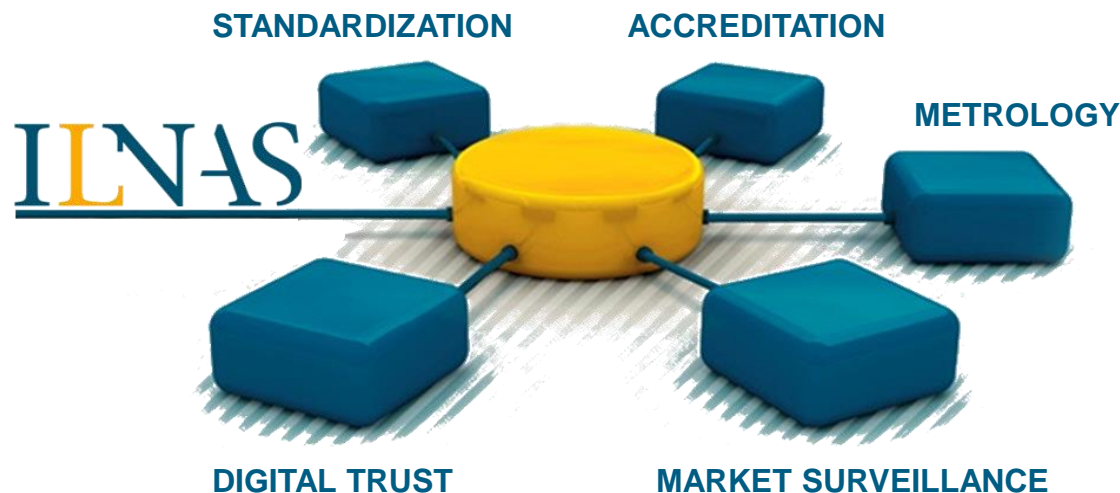
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- **Creation:** Law dated July 14, 2014 (repealing the amended Law of May 20, 2008)
- **Status:** Public administration under the authority of the Minister of the Economy
- **Total staff:** 42 civil servants (October 2017)
- **Web site:**  **PORTAIL-QUALITE.LU**
QUALITE · SECURITE · CONFORMITE



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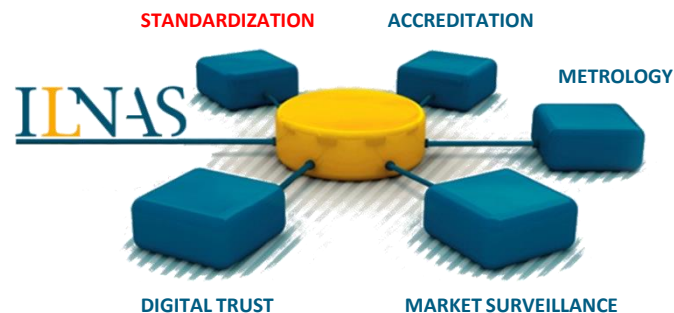
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- Ensure availability of standards

- Maintain the national database of more than 160.000 normative documents:
- Selling standards (e-shop - <https://ilnas.services-publics.lu>):
- Free consultation of standards



- Participation in standardization

- Participation in technical standardization committees
- Publish and implement European, international and national standards
- Manage the National Mirror Committees
- Organize education and training courses about standardization
- Develop partnerships with academia and research
- Foster and promote voluntary, consensus-based standards

- Three Pillars



PILLAR 1

Information and communication technologies (ICT)

PILLAR 2

National influence and compliance with legal attributions

PILLAR 3

Products and services

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- FIRST STEP - University certificate “Smart ICT for Business Innovation”
 - Outcome of more than six years of work by ILNAS
 - Luxembourg Standardization Strategy 2014-2020
 - Policy on ICT technical standardization (2015-2020)
 - ILNAS: Luxembourg Head of Delegation ISO/IEC JTC1, CEN-CENELEC, ETSI
 - White Papers (Green ICT, Big Data, Digital Trust)
 - Standards Analysis of the ICT sector – Luxembourg (7th version published in March)



- STRENGTHS
 - Topics at the cutting edge and reflecting current issues in the field of ICT
 - No equivalent training in this area in Europe
 - An instrument to strengthen the competitiveness of national companies
- FIRST STEP - University certificate “Smart ICT for Business Innovation”
 - Allow a better understanding of the high level Smart ICT concepts
 - Definition of new products and/or services
 - Identification of niche markets
 - To improve commercial approach
 - Basis of new economic developments
 - Added value to facilitate the communication with the client

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- PROGRAM



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To strengthen its relation with academic partners in order to structure standards-related education and research in Luxembourg

- Pilot project conducted between September 2015 and September 2016: University certificate “Smart ICT for Business Innovation” in partnership with the University of Luxembourg
- Next promotion: February 2018 to January 2019
- **Objective: Master degree related to technical standardization**
 - Would address Smart ICT topics in line with national priorities, providing a smart way of linking technology, standards, and business and creating an additional means of innovation at national level

WHITE PAPER “DIGITAL TRUST FOR SMART ICT” – 14TH OCTOBER 2016 - THE BASELINE



<https://portail-qualite.public.lu/content/dam/qualite/publications/confiance-numerique/white-paper-digital-trust-september-2017.pdf>

- It surveys current advances in Digital Trust from three complementary points of view:
 - A technical analysis
 - A business and economic prospective analysis
 - A technical standardization perspective
- From the technical analysis
 - It reviews the basic concepts of the technology and the existing work supporting the development of Digital Trust
 - It presents some technical challenges related to Digital Trust
- From business and economic prospective
 - It highlights the interest for Digital Trust
 - It stresses the need of Digital Trust for each Smart ICT concepts
- From standards point of view technical standardization
 - It considers both as an important tool to support Digital Trust for Smart ICT

Research Program (2017-2020) on Digital Trust for Smart ICT

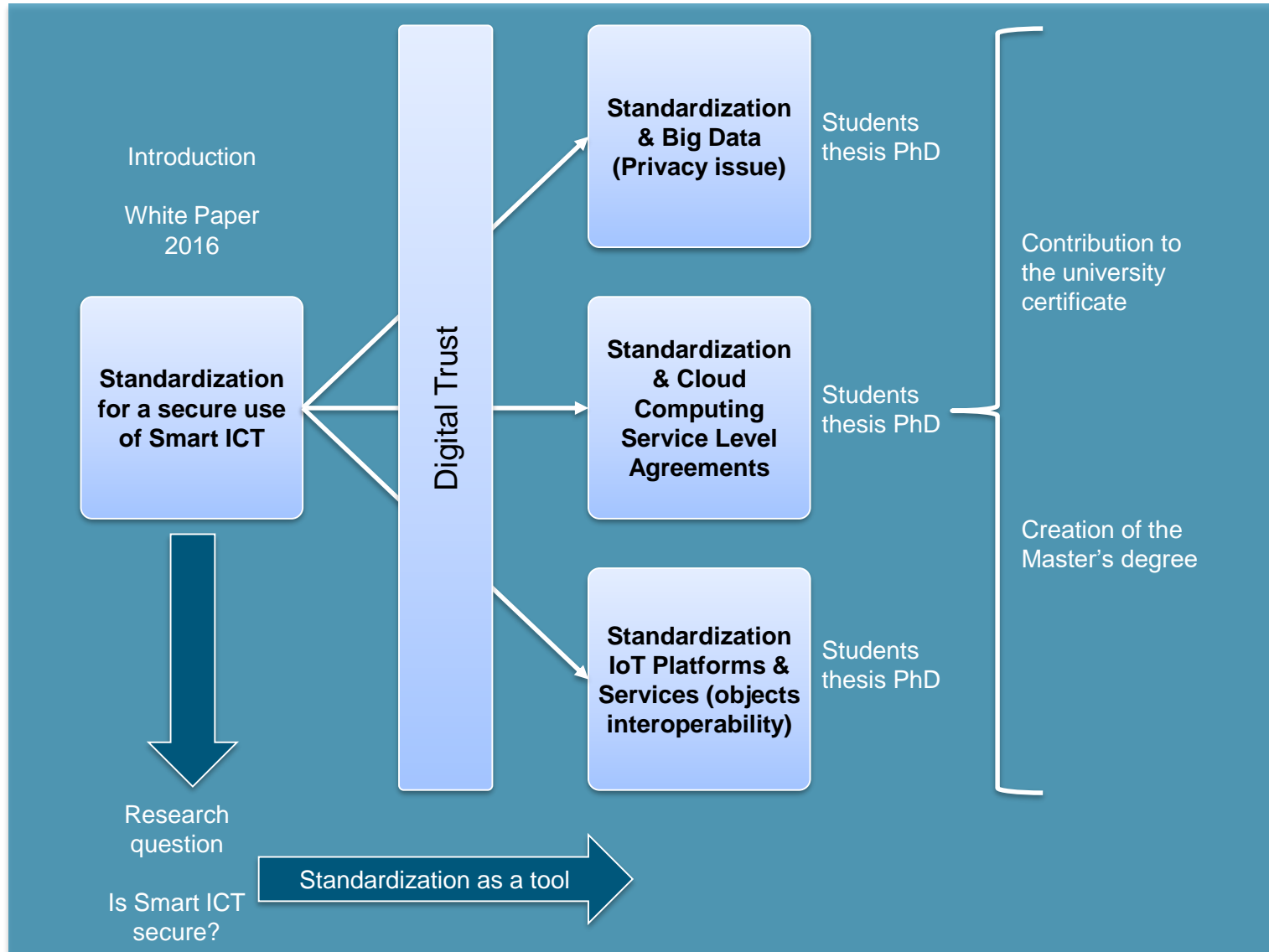
- Joint collaboration between ILNAS & SnT-UL to reinforce the collaboration in the domain of Smart ICT for Business Innovation through Technical Standardization
- Partnership and contract between ILNAS and SnT has been signed in March 2017
- 3 PhD students will be involved : Digital Trust for Smart ICT
 - Cloud Computing
 - Big Data and Analytics
 - Internet of Things
- Other main targets of the research program
 - To support the evolution of the academic program through the results of the research
 - To serve as a basis for a future Master Program Smart Secure ICT for Business Innovation (expected 2019/2020)

Research Program (2017-2020) on Digital Trust for Smart ICT

- 3 PhD students will be involved into the development process of technical standardization:
 - **Big Data and Analytics**
 - ISO/TC 276 - Biotechnology
 - ISO/IEC JTC 1/WG 9 - Big data (in next ISO/IEC JTC1/SC42 – Artificial Intelligence)
 - **Internet of Things**
 - ISO/TC 20/SC 16 - Unmanned aircraft systems
 - ISO/IEC JTC 1/SC41 - Internet of Things
 - **Cloud Computing**
 - ISO/IEC JTC 1/SC 38 – Cloud Computing and Distributed Platforms
 - **Horizontal technical standardization knowledge development**
 - ISO/IEC JTC 1/SC 27 – IT Security techniques
 - ETSI CYBER – Cyber Security

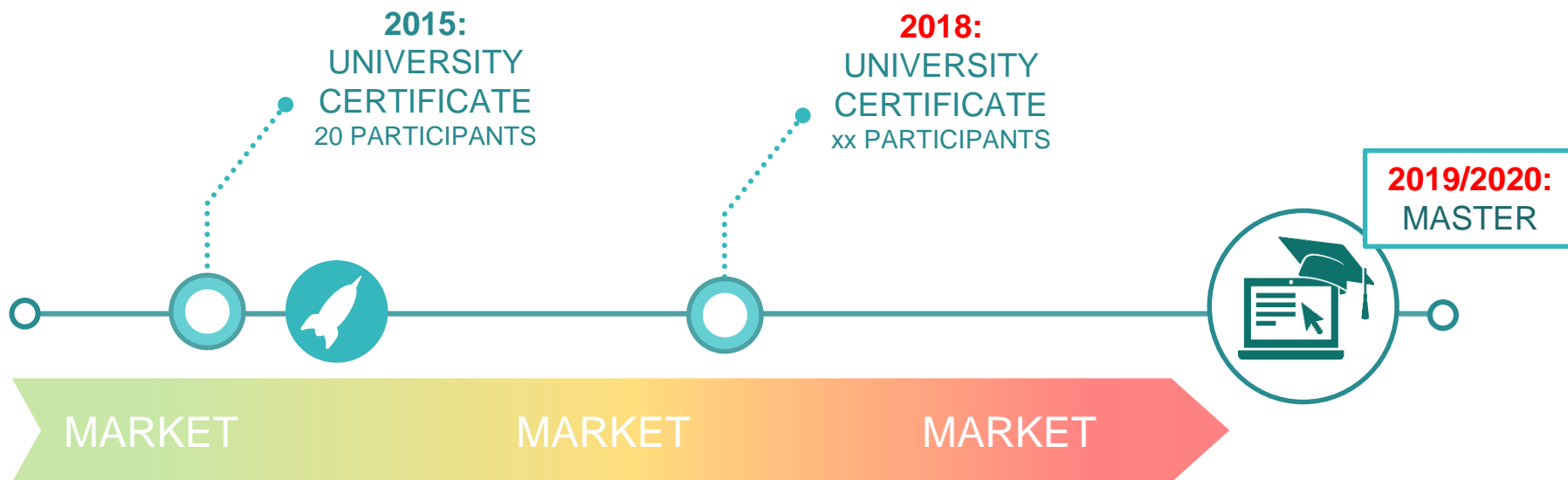
Research Program (2017-2020) on Digital Trust for Smart ICT

- 3 PhD students will be involved:
 - To be registered into one or more relevant technical standardization committee(s) (as defined)
 - To tackle the technical standardization state of the art and its development into their literature list
 - To take part into the related National Mirror Committees(s)
 - To exchange continuously with ILNAS
 - To carry out the related technical standardization “knowledge” into their research questions: (depending on the problematic)
 - Take into account existing standards (or in development)?
 - Consider developing new standards to disseminate research findings?
 - Contribute (by research outcomes) to the work of existing Technical Committees developing standards?
 - ...
- To federate these developments: creation of a common **working-group ILNAS-SnT**:
 - « **Technical Standardization/Research & Smart Secure ICT for Business Innovation** »
 - Development objectives:
 - « **White Paper Digital trust in Smart ICT - Update 2018/Privacy** (Common problematic to the three Smart ICT domains: Cloud Computing, Big Data and Internet of Things) »



MID AND LONG-TERM OBJECTIVES

Prospective evolution





Thank you
Merci
Danke

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