



ILNAS



# Finalization of the normative strategy 2010-2020 and perspectives 2020-2030

Dr. Jean-Philippe Humbert  
*Adjoint à la Direction - ILNAS*

October 2019

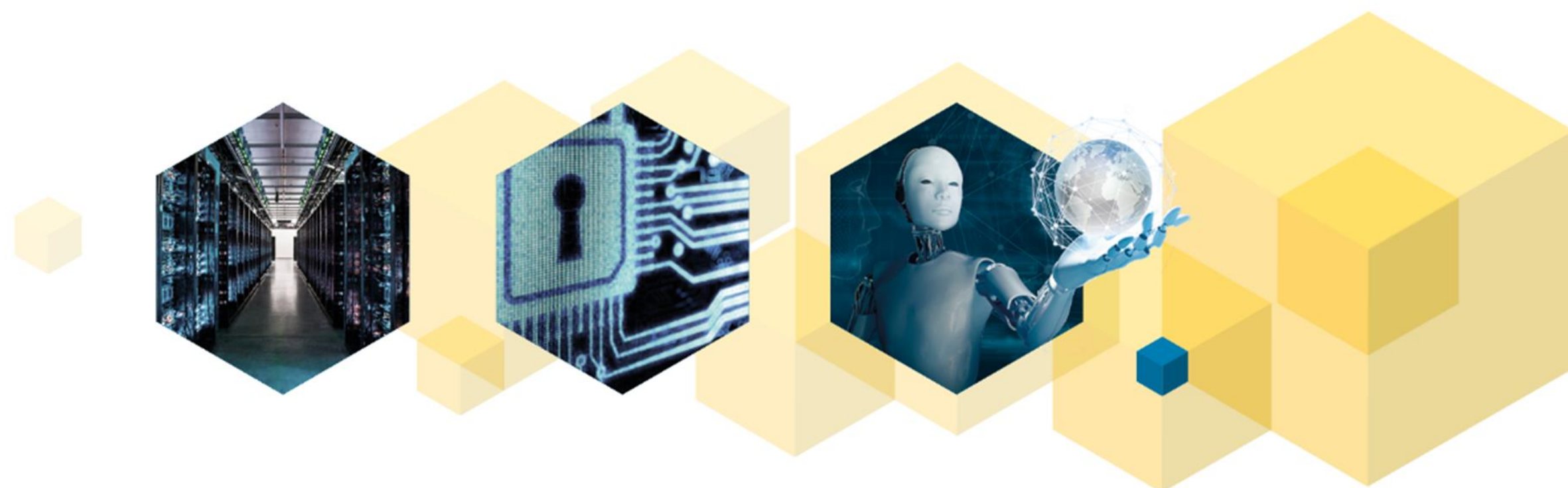


I – INTRODUCTION OF ILNAS

II – NATIONAL STANDARDS BODY

III – NATIONAL STANDARDIZATION STRATEGY (2010-2020) & POLICY ON ICT  
TECHNICAL STANDARDIZATION (2015-2020)

IV – NATIONAL STANDARDIZATION STRATEGY 2020-2030

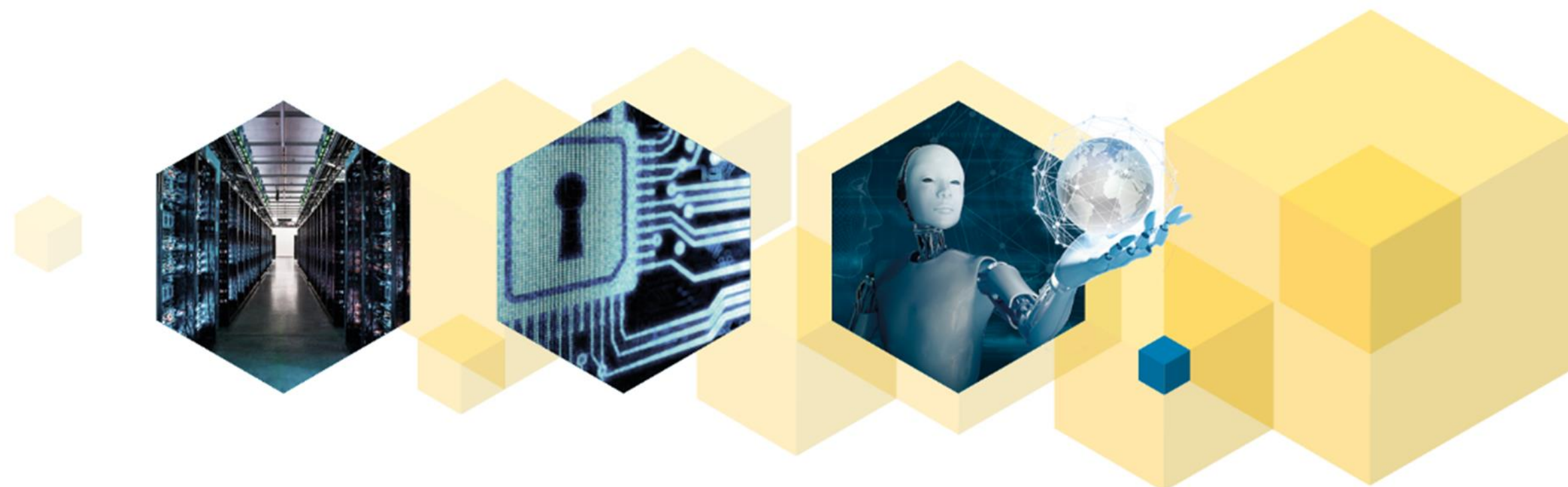


**I – INTRODUCTION OF ILNAS**

II – NATIONAL STANDARDS BODY

III – NATIONAL STANDARDIZATION STRATEGY (2010-2020) & POLICY ON ICT  
TECHNICAL STANDARDIZATION (2015-2020)

IV – NATIONAL STANDARDIZATION STRATEGY 2020-2030



## A. Key figures

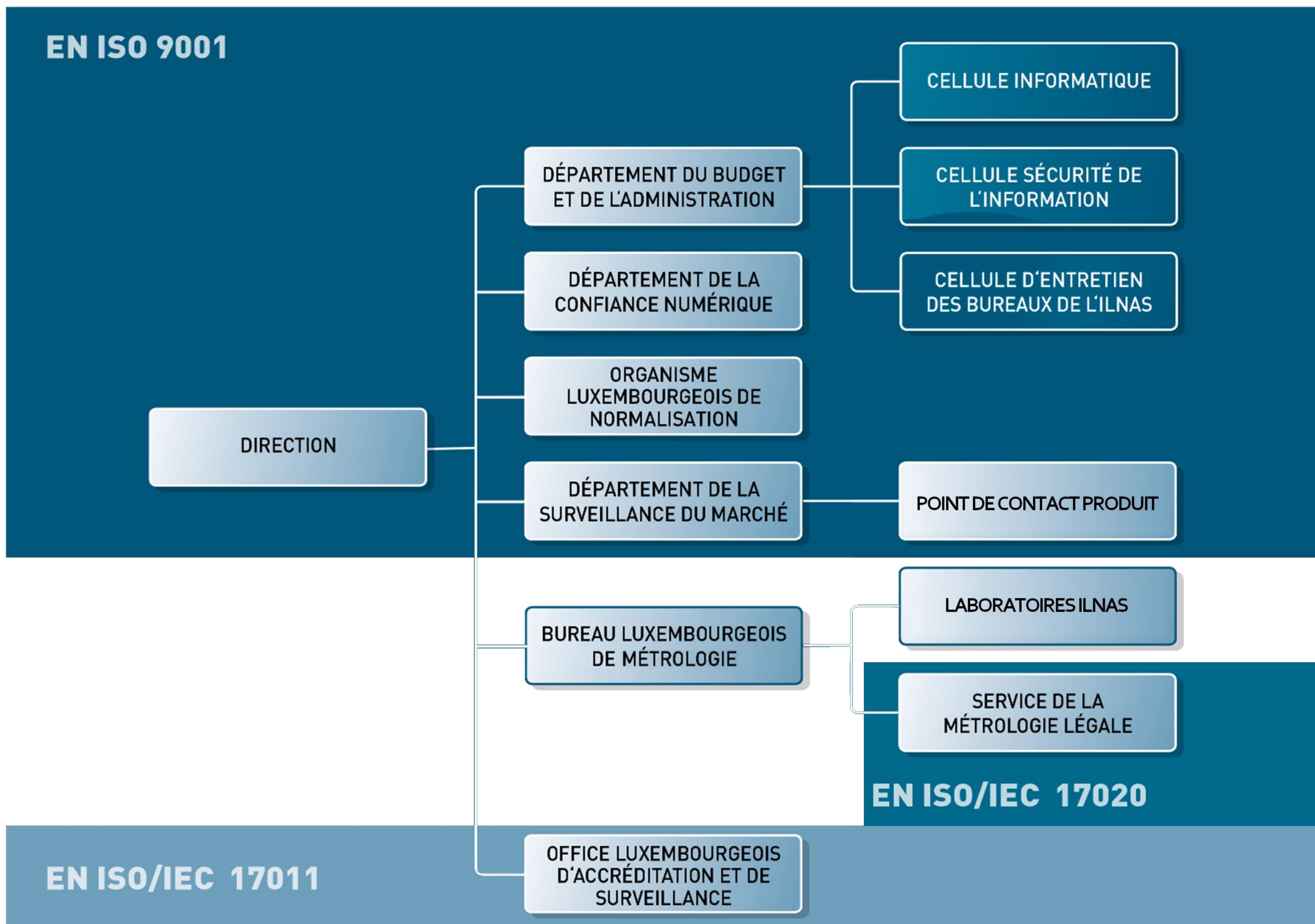
**ILNAS, Institut luxembourgeois de la normalisation, de l'accréditation, de la sécurité et qualité des produits et services**

- **Creation:** law dated July 14, 2014 (repealing the amended Law of May 20, 2008) and law dated February 17, 2017
- **Legal form:** Public administration under the authority of the Minister of the Economy
- **Total staff:** 48 (October 2019)
- **Website:** [www.portail-qualite.lu](http://www.portail-qualite.lu)



# I. INTRODUCTION OF ILNAS

## B. ILNAS Quality Systems





## Agency for standardization and knowledge-based economy

→ Supports ILNAS in the execution of the national standardization strategy

- **Creation:** October 4, 2010
- **Legal form:** Economic Interest Grouping (EIG)
- **Objectives:** Promotion, awareness raising and training, applied research in the field of standardization and metrology in order to support companies' competitiveness in Luxembourg
- **Total staff:** 9 employees (October 2019)

– **Partners:**



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère de l'Économie

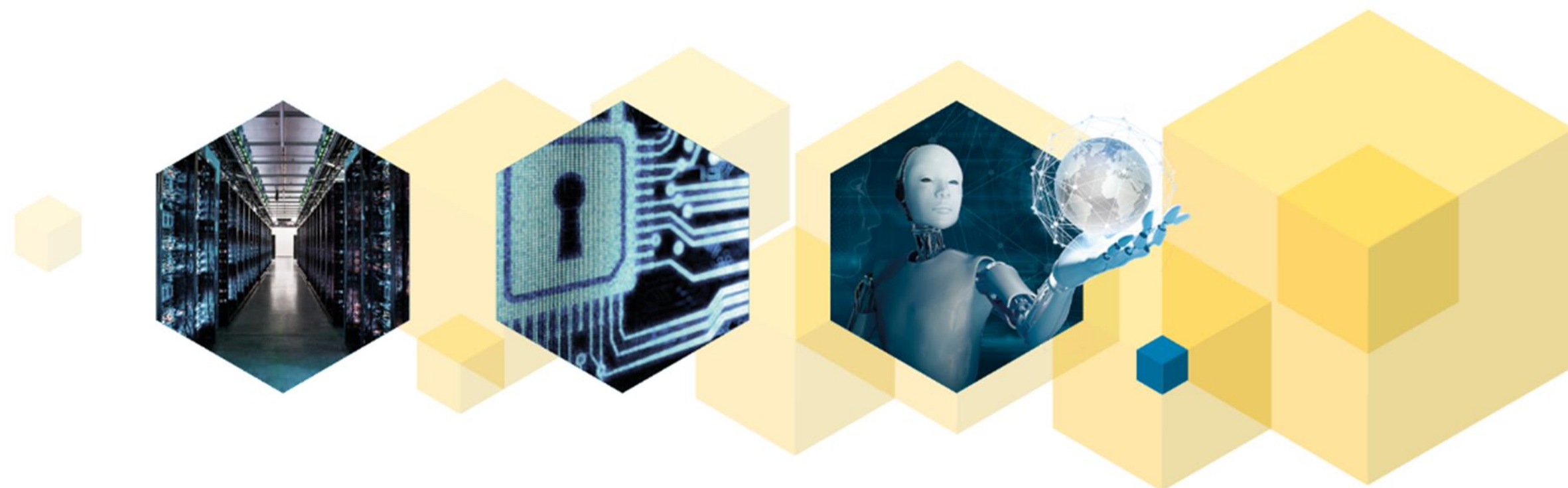
- **Quality system certified against ISO 9001:2015 since July 2018**

I – INTRODUCTION OF ILNAS

**II – NATIONAL STANDARDS BODY**

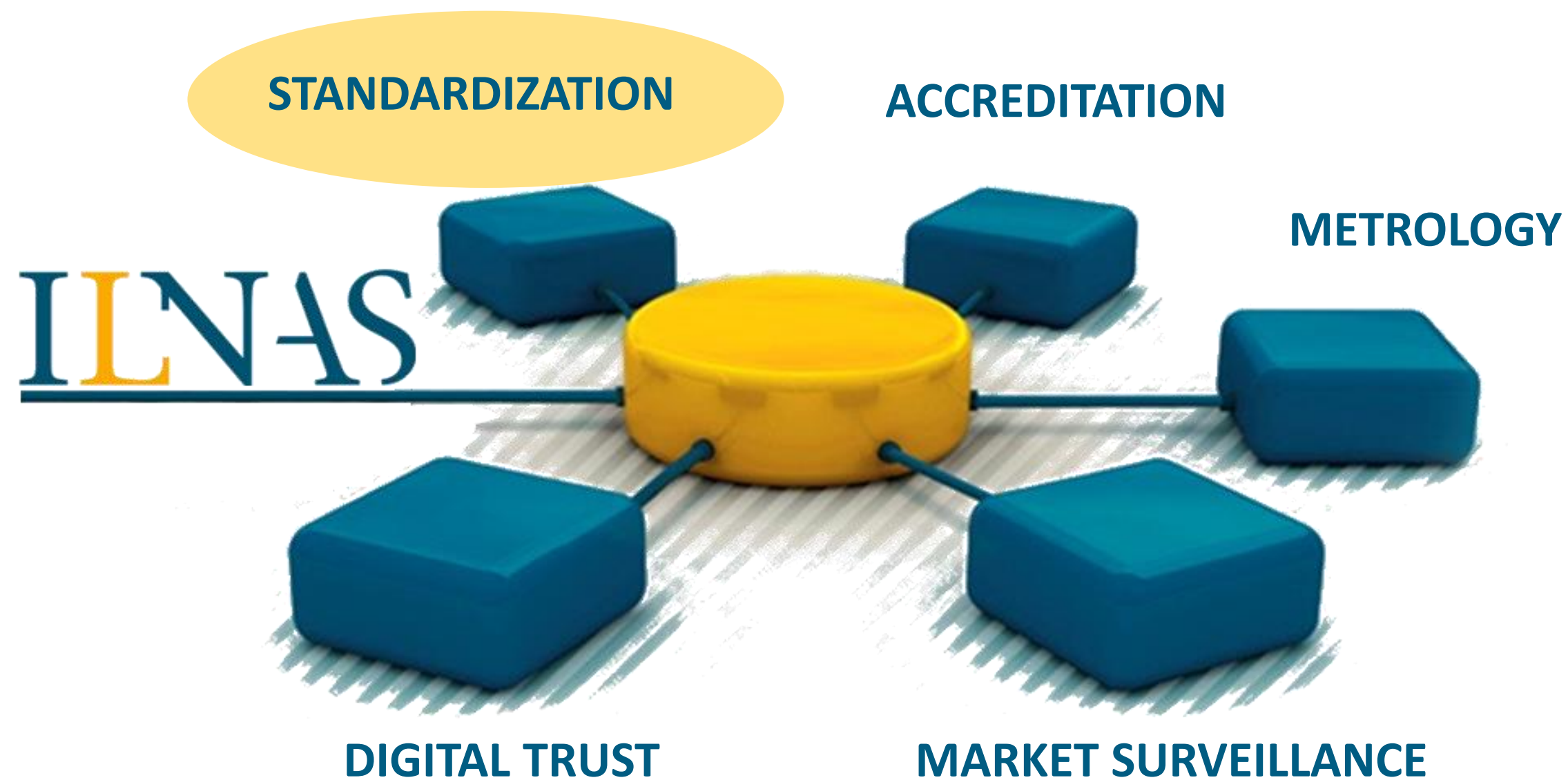
III – NATIONAL STANDARDIZATION STRATEGY (2010-2020) & POLICY ON ICT  
TECHNICAL STANDARDIZATION (2015-2020)

IV – NATIONAL STANDARDIZATION STRATEGY 2020-2030



**A. Overview**

- **OLN - Organisme luxembourgeois de normalisation**
  - Composed of 6 persons
  - Close collaboration with the G.I.E. ANEC-N (6 persons)



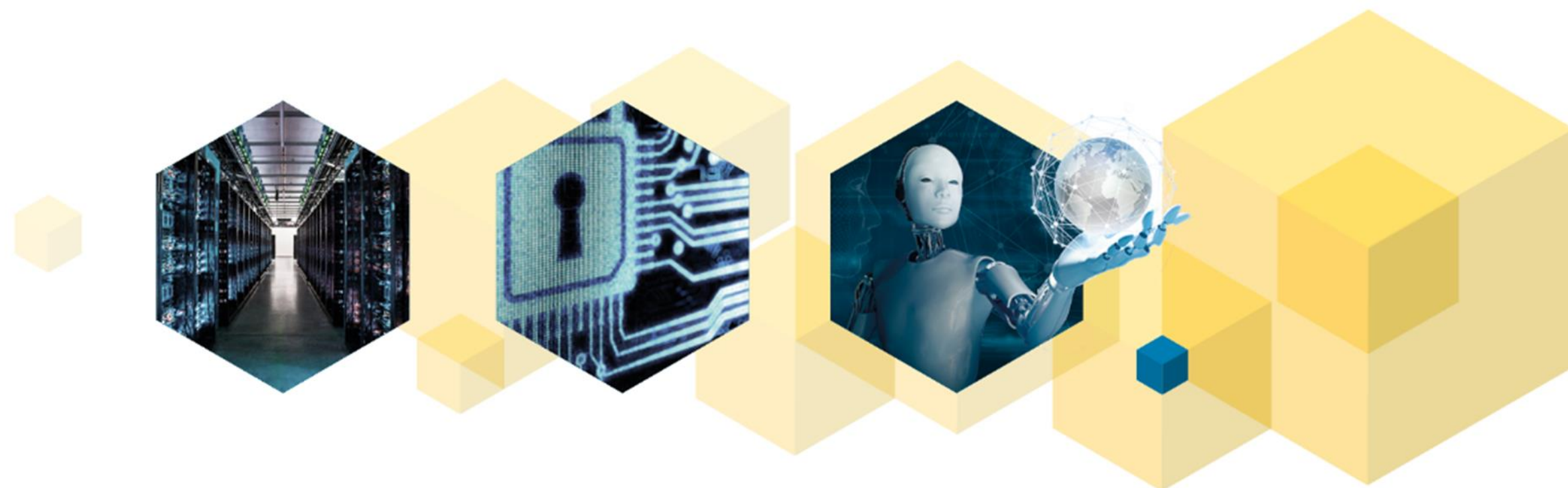


I – INTRODUCTION OF ILNAS

II – NATIONAL STANDARDS BODY

**III – NATIONAL STANDARDIZATION STRATEGY (2010-2020) & POLICY ON ICT  
TECHNICAL STANDARDIZATION (2015-2020)**

IV – NATIONAL STANDARDIZATION STRATEGY 2020-2030



## A. Overview

### LUXEMBOURG STANDARDIZATION STRATEGY 2014-2020

*"Technical standardization as a service"*

ILNAS

– THREE PILLARS:

PILLAR 1

Information and communication technologies (ICT)

PILLAR 2

National influence and compliance with legal attributions

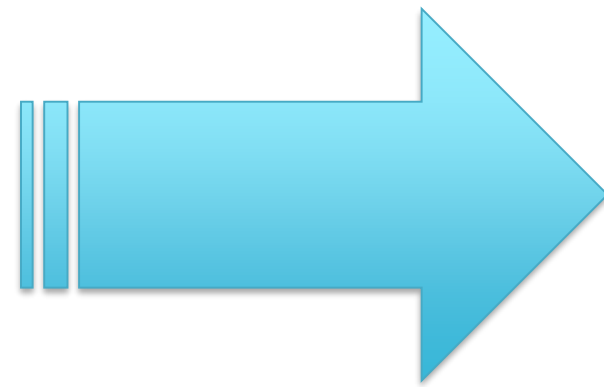
PILLAR 3

Products and services

### III. NATIONAL STANDARDIZATION STRATEGY 2010-2020 & POLICY ON ICT TECHNICAL STANDARDIZATION (2015-2020)

#### B. Pillar 1: Information and communication technologies (ICT)

LUXEMBOURG  
STANDARDIZATION STRATEGY  
2014-2020



#### Pillar 1: Information and communication technologies (ICT)

"Technical standar



1

Developing the interest and the involvement of the market

2

Promoting and reinforcing market participation

3

Supporting and strengthening the EaS and related research activities

## B. Pillar 1: Information and communication technologies (ICT)

### - Standards Analysis of the (Smart) (Secure) ICT Sector



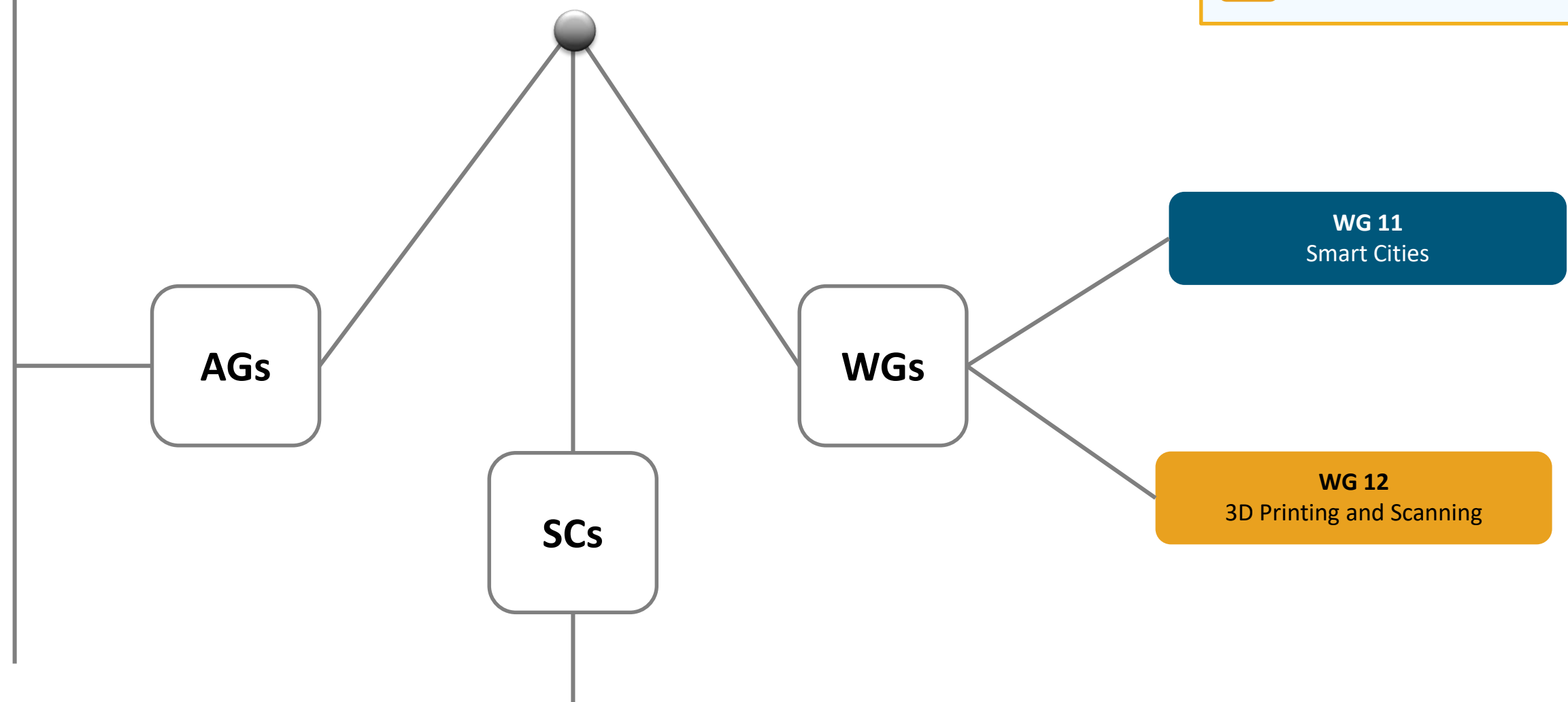
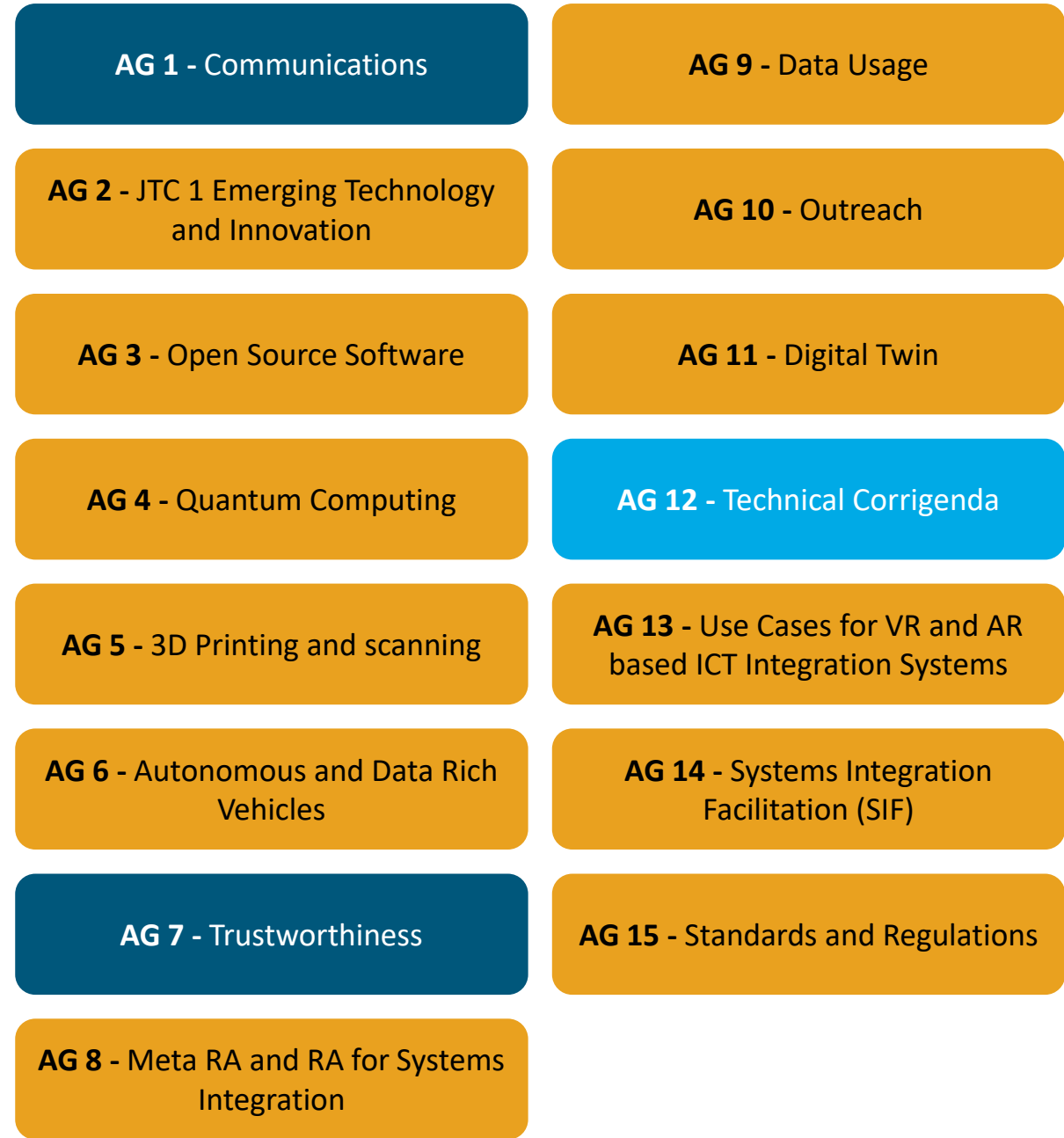
**8 editions** of the Standards Analysis of the **ICT Sector**

**2 editions** of the Standards Analysis **Smart ICT**

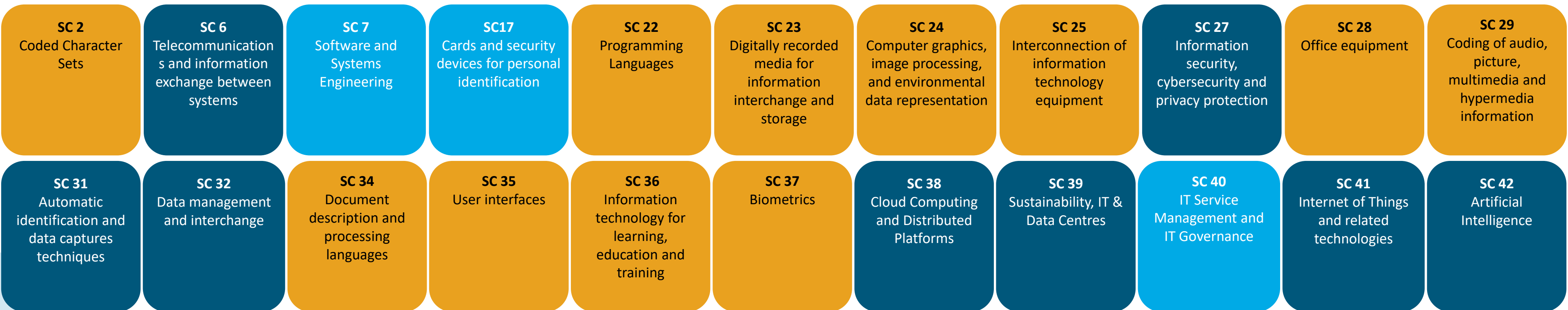
**1 edition** of the Standards Analysis **Smart Secure ICT** (ed. 2 under development)

# III. NATIONAL STANDARDIZATION STRATEGY 2010-2020 & POLICY ON ICT TECHNICAL STANDARDIZATION (2015-2020)

## B. Pillar 1: Information and communication technologies (ICT)



- ILNAS & ANEC
- Direct involvement
- Luxembourg's current involvement
- Not involved



## B. Pillar 1: Information and communication technologies (ICT)

Participation in  
**14 plenary meetings**

### - Management of Smart ICT National Mirror Committees



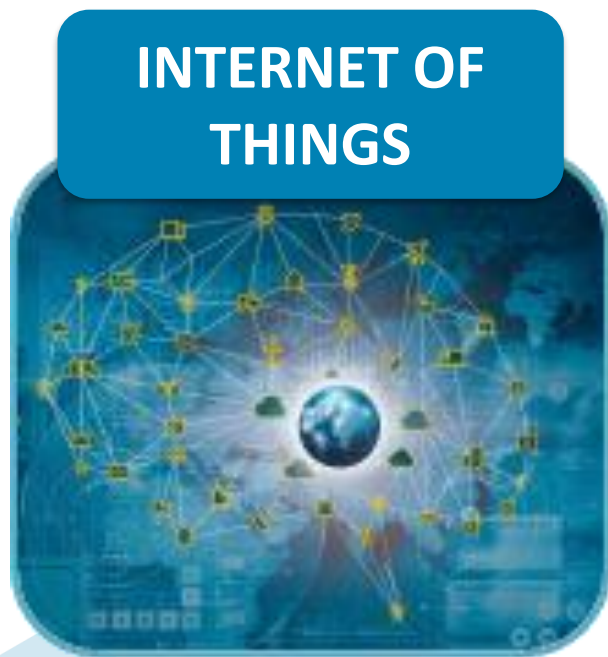
**CLOUD COMPUTING**

- Participation in **3 plenary meetings**
- 6 NMC meetings organized



**BIG DATA / ARTIFICIAL INTELLIGENCE**

- Participation in **4 plenary meetings**
- 9 NMC meetings organized



**INTERNET OF THINGS**

- Participation in **4 plenary meetings**
- 6 NMC meetings organized



**BLOCKCHAIN AND DLT**

- Participation in **3 plenary meetings**
- 3 NMC meetings organized

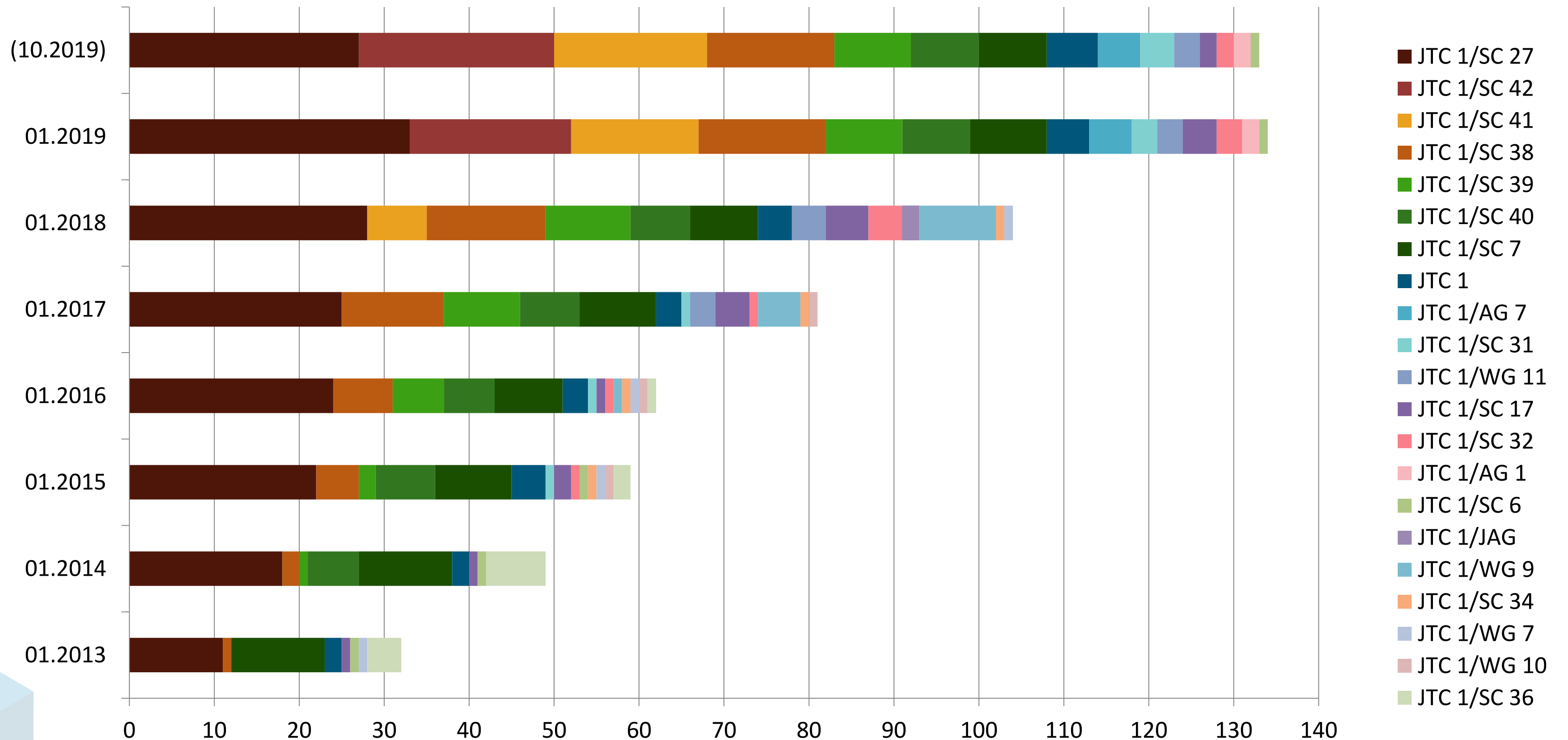


## B. Pillar 1: Information and communication technologies (ICT)

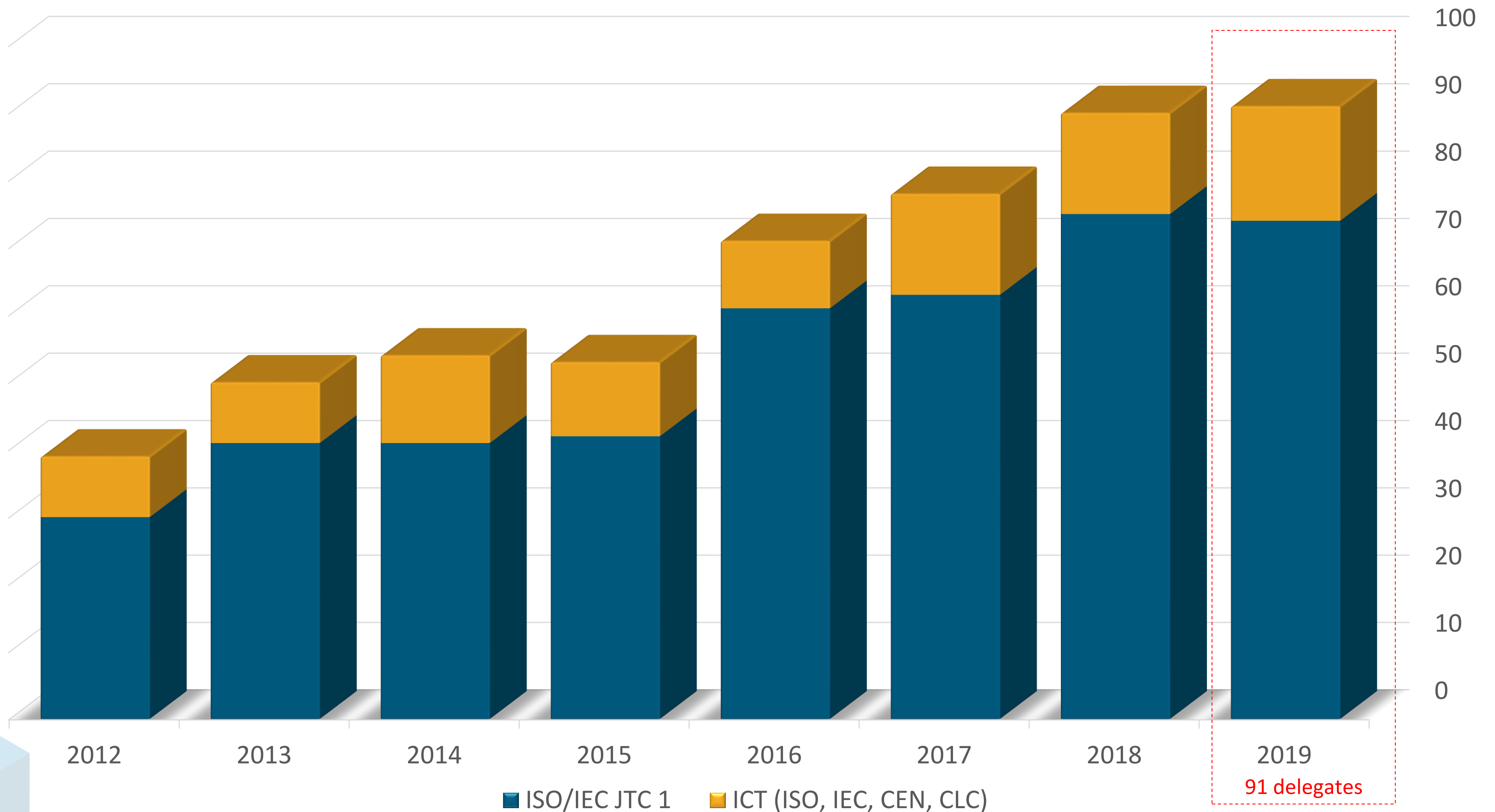
### - Evolution of the number of national standardization delegates in ISO/IEC JTC 1

#### ➤ Top representation in JTC 1:

- 27 delegates in the IT security domain
- 18 delegates in the IoT domain
- 15 delegates in the Cloud Computing domain
- 23 delegates in the Artificial Intelligence / Big Data domains



- Evolution of the number of national standardization delegates in the ICT sector





# III. NATIONAL STANDARDIZATION STRATEGY 2010-2020 & POLICY ON ICT TECHNICAL STANDARDIZATION (2015-2020)

## B. Pillar 1: Information and communication technologies (ICT)

31 events organized

More than 1 000 professionals met

### WORLD STANDARDS DAY



### WORKSHOPS ILNAS-ETSI



### BREAKFASTS / WORKSHOPS (SMART) ICT



# III. NATIONAL STANDARDIZATION STRATEGY 2010-2020 & POLICY ON ICT TECHNICAL STANDARDIZATION (2015-2020)

## B. Pillar 1: Information and communication technologies (ICT)

### - Publication of White Papers



8 White Papers published

3 White Papers under development

## B. Pillar 1: Information and communication technologies (ICT)

### - Development of a Research Program (2017-2020) in collaboration with the University of Luxembourg

The University of Luxembourg and ILNAS are strengthening their collaboration in the field of Smart ICT and standardization. A ceremony was held on May 17, 2017 at the Ministry of Economy to formally conclude the partnership.



In the rear row, from left to right: Jean-Philippe Humbert, Pascal Bouvry, Paul Heuschling, Yves Elsen, Björn Ottersten;  
In the front row, from left to right: Ludwig Neyses, Francine Closener, Jean-Marie Reiff



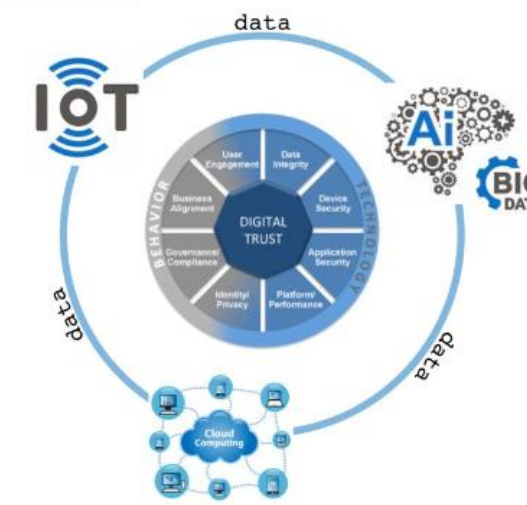
### The Smart-ICT Team



**Nader Samir**  
- PhD Candidate  
- Since 1.10.2017  
- Industrial experience in UAVs



**Prof. Pascal Bouvry**  
- Principal Investigator  
- Project coordination  
- PhD supervision



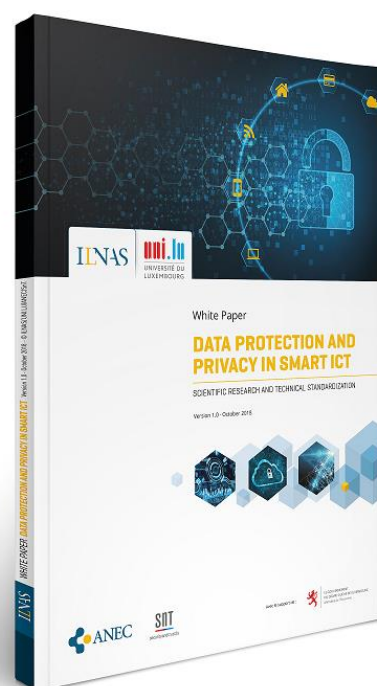
**Saharnaz Dilmaghani**  
- PhD Candidate  
- Since 01.03.2018  
- Standardization experience



**Matthias Brust**  
- Postdoc  
- Project support



**Chao Liu**  
- PhD Candidate  
- Since 15.10.2017  
- Cloud Computing



White Paper "DATA PROTECTION AND PRIVACY IN SMART ICT - SCIENTIFIC RESEARCH AND TECHNICAL STANDARDIZATION"



IS Day 2019 - Information Security Awards  
Security Project of the Year: Snt – ILNAS

# III. NATIONAL STANDARDIZATION STRATEGY 2010-2020 & POLICY ON ICT TECHNICAL STANDARDIZATION (2015-2020)

## B. Pillar 1: Information and communication technologies (ICT)

### - Development of the University Certificate “Smart ICT for Business Innovation” in collaboration with the University of Luxembourg

**Certificate Smart ICT for business innovation**  
Professional Certificate

**Degree:** Certificate Smart ICT for business innovation (Professional)

**Duration:** 1 year programme (Thursday and Friday evenings + some Saturday mornings) / 2 semesters, 30 ECTS  
Application opening date: September 18, 2017 // Start of the courses: February 2018

**Teaching language:** English

**Presentation:** Information and Communication Technologies (ICT) are becoming more interconnected and smart, in particular through standardization, and they play an increasingly important role in all economic and societal sectors. Indeed, Smart ICT (e.g. Cloud Computing, Internet of Things, Big Data and Analytics) nowadays contribute significantly to economic growth and offer promising unimagined possibilities for innovation and business development. This Certificate aims to enhance skills of professionals in the fields of Smart ICT and standardization by offering a broad view of Smart ICT concepts and tools at their disposal to develop their career of innovation.

**Objectives:** Students who successfully complete the Certificate will be able to:  
 - Identify and decide the high potential of Smart ICT concepts for business and innovation  
 - Contribute to the current and future issues and standardization needs in ICT areas, such as:  
 - Digital Intelligence (development of ICT standardization, ICT ecosystem)  
 - Smart Platforms (Cloud Computing, Smart Cities, Green ICT)  
 - Smart Interactions (Internet of Things, Big Data and Analytics, Digital Trust)  
 - Analyse the challenges of Digital Trust and information security  
 - Identify and use published and draft standards relevant to Smart ICT  
 - Implement ICT technical standardization in the business strategy

**Career opportunities:**  
 - Digital Strategy Consultant  
 - Smart ICT Consultant  
 - Standard Manager  
 - Head of Digital Strategy  
 - Innovation Manager

**Strengths:**  
 - Individual coaching and courses taught in small groups  
 - Internationally renowned professors and experts  
 - Multidisciplinary approach (lectures, tutorials and practical projects)  
 - Programme supported by the Ministry of the Economy, the European standardization organizations (CEN, CENELEC and ETSI), Fedict ICT, Digital Luxembourg, Chambre de Commerce and Technoport

**Comments:** MSc in ICT or a Master degree in ICT  
 T. +352 / 46 66 44 5217  
 fatc-smartict@uni.lu  
 http://smartict.uni.lu

**Prof. Pascal Bouvier, Course Director**

**Mathis Steichen, Graduate 2016**  
 "This course offers in-depth knowledge of standardization efforts on the international, the European and the national levels. Due to the reliance on standards in our everyday life, I consider the taught knowledge a considerable asset, both from a personal and a professional viewpoint. Furthermore, the interaction with the international experts and with the professors, as well as the hands-on approach that this course follows made it a very pleasant, insightful and ongoing experience."

www.uni.lu  
 Join us on Facebook: www.facebook.com/fatc.uni.lu

**2 classes organized**

**29 students registered**

**20 students graduated**

**SMART ICT FOR BUSINESS INNOVATION PROFESSIONAL CERTIFICATE**

**LECTURERS**

- Mrs. Natalia Cassagnes**  
Chargée de mission - Smart ICT & Normalisation
- Prof. Dr. François Collier**  
Head of the Department of Information and Communication Technologies (ICT)
- Dr. Christophe Enery**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Mr. Gary Doman**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Mr. Nicolas Dorniguel**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Mr. Arshad Gansh**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Mr. Jérôme Heurdel**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Mr. Willem Janssen**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Dr. René Ruyter**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Dr. Jean-Philippe Humbart**  
Senior Lecturer in Information and Communication Technologies (ICT)

**MEET OUR EXPERTS COURSE DIRECTORS**

- Prof. Dr. Pascal Bouvier**  
Head of the Department of Information and Communication Technologies (ICT)
- Dr. Robert van Wessel**  
Senior Lecturer in Information and Communication Technologies (ICT)

**SUPPORTING ORGANISATIONS**

**MEET OUR EXPERTS COURSE DIRECTORS**

- Mr. Terry Landers**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Mr. Cédric Mabry**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Mr. Ulrich Melgarejo**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Dr. Johannes Perrey**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Mr. Pascal Steichen**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Dr. Tam Ash Dink**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Mr. Alain Wolf**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Dr. Rhyann Wagle**  
Senior Lecturer in Information and Communication Technologies (ICT)

**MEET OUR EXPERTS COURSE DIRECTORS**

- Mr. Jérôme Heurdel**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Mr. Willem Janssen**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Dr. René Ruyter**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Dr. Jean-Philippe Humbart**  
Senior Lecturer in Information and Communication Technologies (ICT)

**MEET OUR EXPERTS COURSE DIRECTORS**

- Mr. Jérôme Heurdel**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Mr. Willem Janssen**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Dr. René Ruyter**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Dr. Jean-Philippe Humbart**  
Senior Lecturer in Information and Communication Technologies (ICT)

**MEET OUR EXPERTS COURSE DIRECTORS**

- Mr. Jérôme Heurdel**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Mr. Willem Janssen**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Dr. René Ruyter**  
Senior Lecturer in Information and Communication Technologies (ICT)
- Dr. Jean-Philippe Humbart**  
Senior Lecturer in Information and Communication Technologies (ICT)

**Enrico Ozzano, Graduate 2016**  
Technical Expert Digitalization-BIL

**Mathis Steichen, Graduate 2016**  
PhD student, Interdisciplinary Centre for Security, Reliability and Trust (SnT)

**Natalia Cassagnes, Graduate 2016**  
Chargée de mission - Smart ICT & Normalisation



### III. NATIONAL STANDARDIZATION STRATEGY 2010-2020 & POLICY ON ICT TECHNICAL STANDARDIZATION (2015-2020)


















#### B. Pillar 1: Information and communication technologies (ICT)

- Development of a Master degree “Technopreneurship: mastering smart ICT, standardization and digital trust for enabling next generation of ICT solutions” in collaboration with the University of Luxembourg

60 ECTS

2 years  
lifelong-  
learning

20  
students

Blocks and Modules	ECTS
<b>STANDARDISATION</b>	
1. Smart Secure ICT and Innovation    	1
2. Technical Standardisation	3
<b>SMART ICT</b>	
3. Smart ICT Technologies I  	5
4. Smart ICT Technologies II  	5
<b>DIGITAL TRUST FOR SMART ICT</b>	
5. Security for Smart ICT I 	2
6. Security for Smart ICT II 	3
7. Trust Architectures for Smart ICT 	4
<b>TECHNOPRENEURSHIP</b>	
8. Management of Business and Technical Innovation	3
9. Digital Intelligence 	2
10. Legal Aspects  	2
<b>MASTER THESIS</b>	
12. Master Thesis   	30
<b>Total</b>	<b>60</b>

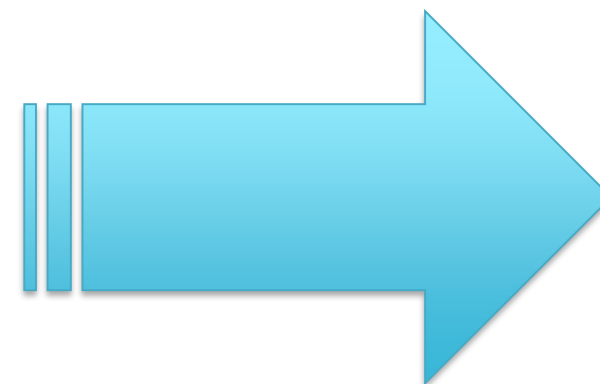
12  
Modules

327 hours  
of  
teaching

Internship  
(750 hours)

Objective: Start in  
September 2020

#### C. Pillar 2: National influence and compliance with legal attributions



**Pillar 2: National influence and compliance with legal attributions**

## C. Pillar 2: National influence and compliance with legal attributions

### - Representation of Luxembourg in General Assemblies and strategic meetings



Participation in **46 General Assemblies**



Participation in more than **50 strategic meetings**



## C. Pillar 2: National influence and compliance with legal attributions

### - Joint Initiative on Standardisation (March 2017 – June 2019)



### The Joint Initiative on Standardisation

#### Friends of Standardisation

Standards facilitate market access for businesses, build trust in the quality and safety of products and services, eliminate technical barriers to trade, ensure interoperability, support technological developments and the continued digitalisation of the European economy. Standards also shape the everyday life of citizens and contribute to achieving the UN-Sustainable Development Goals.

The Single Market and standardisation is at its heart. Voluntary standards, driven by market needs, play a crucial role in the development of the Single Market, its advancement and deepening, enabling it to be future-proof for the benefit of businesses and citizens.

The Joint Initiative on Standardisation reflects this crucial role. It has been a unique voluntary collaborative effort that started in 2016 under the NL-Presidency and that has brought a wide range of partners with an interest in standardisation around the table to help further modernise the European standardisation system and raise awareness of its benefits.

#### Clear objectives

- Strategically focusing on the important role of standards in key areas, such as digitalisation, services, public procurement, research and innovation, and on awareness-raising with academia, public authorities and civil society.
- 15 actions in three cluster domains, with the emphasis on increasing the use of standards and inclusiveness of the process to promote high quality, market relevant and user-friendly European standards, which support European policies and European competitiveness globally as well as to improve and to facilitate everyday life for citizens.

#### Over three years (2016-2019), it has been a launch pad for mutually beneficial results.

#### A unique approach

- More than 100 participants signed and endorsed the partnership.
- Signatories include EU and EFTA Member States, European and national standardisation bodies, associations representing consumers, environmental interests, workers, industry and SMEs; and individual businesses from several sectors.
- In true European spirit, the partnership has brought representatives around the table from across the economic and social spectrum, voluntarily working together and dedicated to delivering a set of actions.

#### An active network

- Open, transparent and reflecting the public-private partnership in European standardisation.
- Regular meetings to assess implementation, progress and functioning of the Joint Initiative on Standardisation with concrete results on actions and recommendations for the future.
- Strong call for a permanent European collaborative platform.

#### A shared vision

- To strengthen the competitiveness of European businesses and enhance societal welfare by supporting the further development of the European standardisation system and by ensuring the delivery of timely and state-of-the-art standards.
- To support EU policy priorities and objectives while respecting the roles of the various stakeholders, the national delegation principle and the different competences of the EU, EFTA and their Member States.

#### A unique approach

Elzbieta Bietkowska, Commissioner for Internal Market, Industry, Entrepreneurship and SMEs: "The role of standards is little known to the public, however they are essential to make our Single Market work on the ground and increase the global competitiveness of our industry. This initiative is about making our standardisation system ready for the technologies of the future. It has been highly successful in improving dialogue and understanding amongst the parties."

Christel Davidson, Director, Small Business Standards (SBS): "The Joint Initiative on Standardisation demonstrated to be a unique opportunity to reach out to new audiences spanning from students to public authorities. Broadening the standardisation community whilst recognising the effective participation of small and medium-sized enterprises in standardisation is one of its greatest successes."

Elena Santiago Cid, Director General, CEN and CENELEC: "We have achieved a great deal together. The CEN and CENELEC committees have invested considerable resources in the Joint Initiative, which has given us the chance to build even closer working relationships with our stakeholders, to help address misunderstandings, and to make clear cases to the Commission to benefit the European standardisation system. This networking effort will help to address together the remaining challenges to the implementation of EU Regulation 1025/2012 and to the attainment of harmonised standards."

Oliver Pograt, Director General, AFNOR: "This platform has indeed created a steady dialogue that has obviously delivered greater understanding and smooth cooperation, within a group that now openly refers to itself as the 'Friends of Standardisation'."

Francesca Puggiali, Public Policy Director for Europe, DIN: "It is not an exaggeration to say that the power of standards to improve the way we work and live and thanks to JIS, it was exciting to see that this is the common belief of so many friends of standardisation."

#### A unique approach

Thomas Stenmark, CEO, Swedish Standards Institute: "We made it our mission that the role of standards within public procurement need be better defined, and that knowledge and tools to public servants be developed. This is highly beneficial for both the buyers and the suppliers. Following the hard work within the action we now know more on the situation in different European countries and we have contributed to improving the situation."

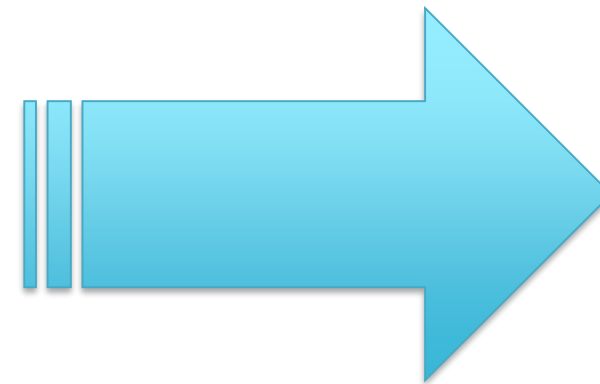
Sibylle Gabler, Head of Government Relations at DIN: "JIS (Action 4) has created a great momentum for increasing amongst Friends of Standardisation from national public authorities and national standardisation bodies with the aim of improving standardisation awareness. This has been an exciting and rewarding experience."

Professor Henrik de Vries, President of the European Academy for Standardization EURAS: "Remarkable and great that the European Commission, though initiator of the initiative, did not take any hierarchical position – all stakeholders could participate on equal basis and in the 'Kitchen on Education' I was involved in, the EC was really supportive. JIS has been a perfect example of cooperation between the European Commission and other stakeholders."





## D. Pillar 3: Products and services








**Pillar 3: Products and services**

## D. Pillar 3: Products and services

### - Development of trainings on technical standardization

#### TECHNICAL TRAININGS ON SMART ICT STANDARDIZATION

- BIG DATA / ARTIFICIAL INTELLIGENCE**  

- CLOUD COMPUTING**  

- INTERNET OF THINGS**  

- BLOCKCHAIN AND DLT**  

- DIGITAL TRUST FOR SMART ICT**  


55 trainings organized

More than 250 professionals trained

#### GENERAL TRAININGS ON STANDARDIZATION

- STANDARDS & STANDARDIZATION**  

- STANDARDIZATION IN THE ICT SECTOR**  


#### NEW DELEGATE IN STANDARDIZATION



TRAINING CATALOGUE

MAKE STANDARDS YOURS yours!

TRAINING CATALOGUE 2015

CATALOGUE DE FORMATION

ILNAS ANEC

TRAINING CATALOGUE 2016 CATALOGUE DE FORMATION

ILNAS ANEC

CATALOGUE DE FORMATION TRAINING CATALOGUE 2019

ILNAS ANEC

D. Pillar 3: Products and services

- Development of products and services



Awareness raising  
 in more than 100  
 organizations

More than 30  
 standards watch  
 conducted

Different  
 diagnostics  
 delivered

## D. Pillar 3: Products and services

### - On-demand Standards Analysis



**2 editions** of the Standards Analysis of the **Energy Sector**



**2 editions** of the Standards Analysis of the **Biomedical Sector**



**2 editions** of the Standards Analysis of the **Aerospace Sector**

# III. NATIONAL STANDARDIZATION STRATEGY 2010-2020 & POLICY ON ICT TECHNICAL STANDARDIZATION (2015-2020)

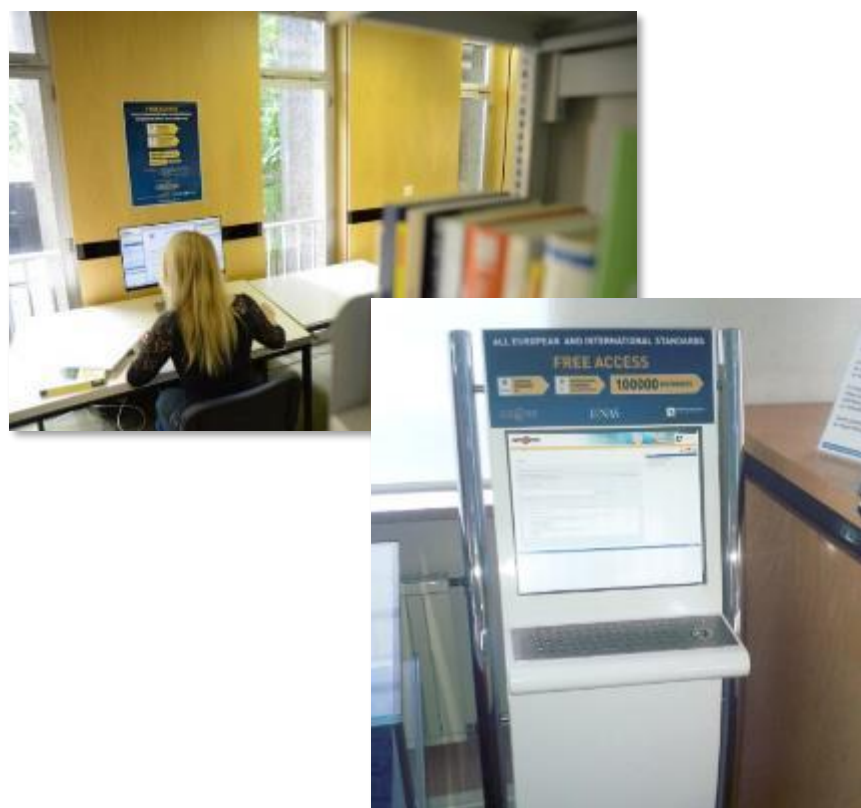


## E. Other achievements during the period 2010-2020

### Creation of the ILNAS eShop



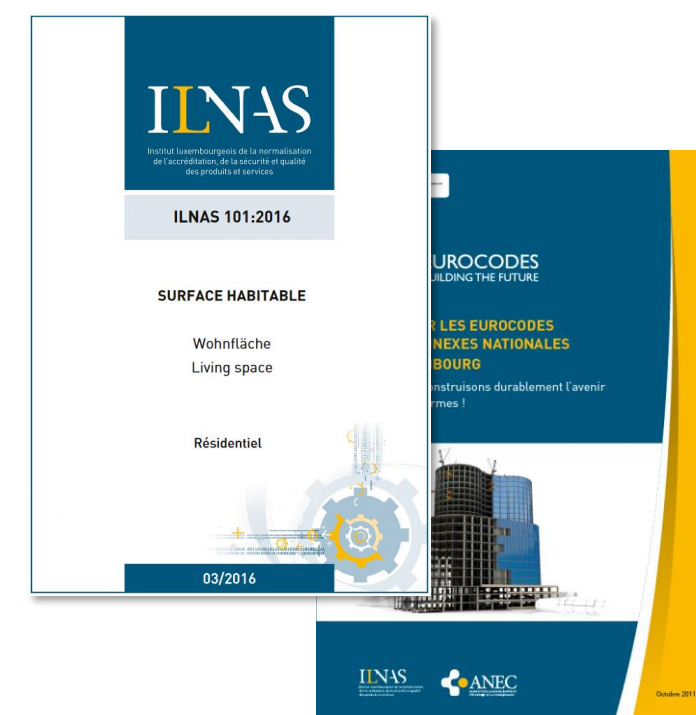
### Creation of the ILNAS lecture stations



### Certification of the ILNAS QMS against ISO 9001



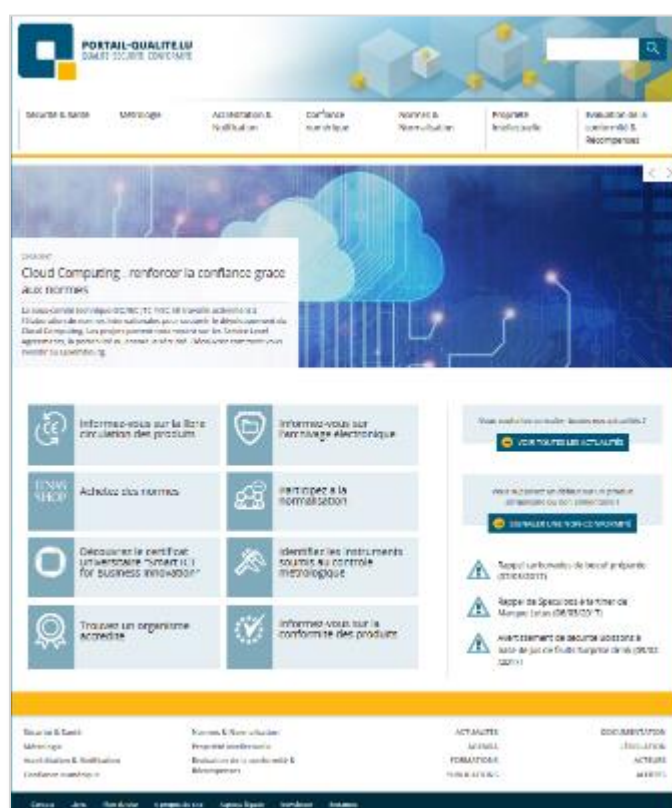
### Creation of national standards



### Creation of the ANEC EIG



### Creation of the Portail-qualite.lu



### Certification of the ANEC EIG QMS against ISO 9001

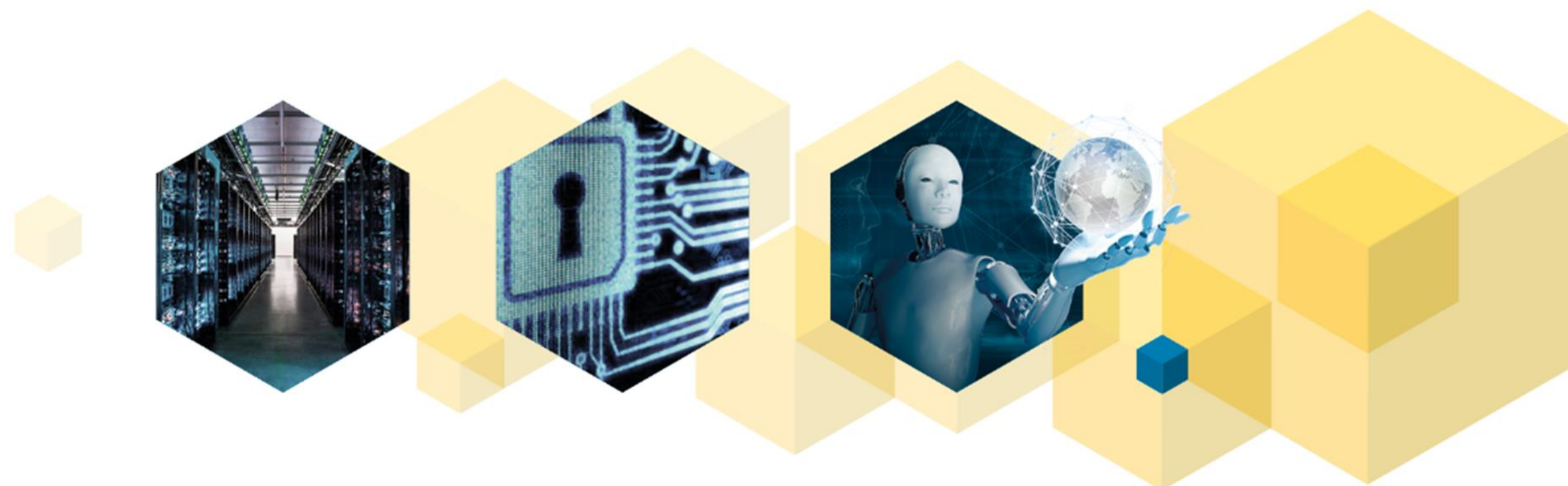


I – INTRODUCTION OF ILNAS

II – NATIONAL STANDARDS BODY

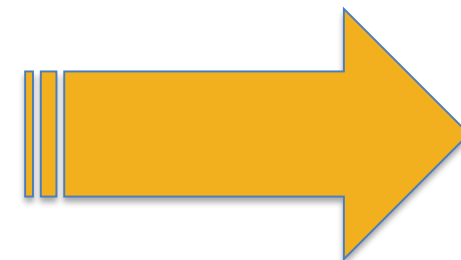
III – NATIONAL STANDARDIZATION STRATEGY (2010-2020) & POLICY ON ICT  
TECHNICAL STANDARDIZATION (2015-2020)

**IV – NATIONAL STANDARDIZATION STRATEGY 2020-2030**



Technical standardization

"Inclusive tool for performance and excellence to serve the economy"



- Build strong foundations for technical standardization in Luxembourg
- Develop national expertise in technical standardization

- Enhance the use of standards and the involvement in the standardization process
- Improve the global positioning of Luxembourg in the standardization landscape

**INFRASTRUCTURE**

**KNOWLEDGE**

**PERFORMANCE**

**EXCELLENCE**

## Technical standardization

"Inclusive tool for performance and excellence to serve the economy"

**3 growth sectors**  
identified



**INFORMATION AND COMMUNICATION  
TECHNOLOGIES**



**CONSTRUCTION**



**AEROSPACE**



## Technical standardization

"Inclusive tool for performance and excellence to serve the economy"



- Pillar 1 – Use of relevant technical standards
- Pillar 2 – Involvement in the standardization process



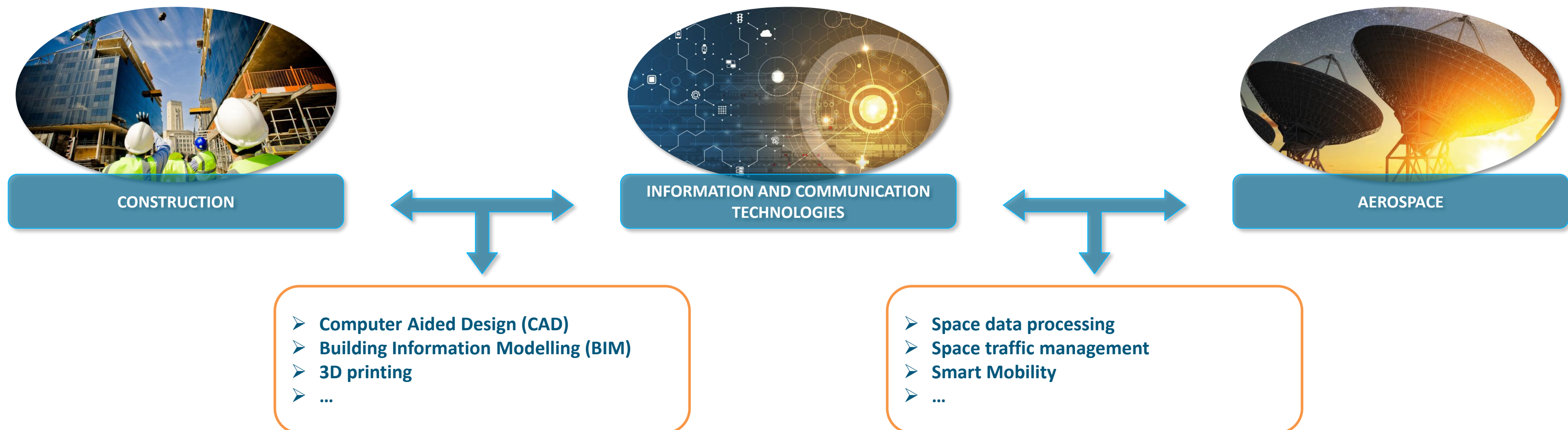
- Pillar 3 – Active participation of the NSB in the European and international standardization organizations
- Pillar 4 – Development of research and education about standardization

## C. Implementation

## Technical standardization

"Inclusive tool for performance and excellence to serve the economy"

- Identification of trans-sectoral standardization interactions



- Creation of products and services to support the normative development of the growth sectors

→ **Portail qualité:**  
[www.portail-qualite.lu](http://www.portail-qualite.lu)

→ **ILNAS e-shop:**  
<https://ilnas.services-publics.lu/>

→ **Newsletters:**  
<https://portail-qualite.public.lu/fr/support/newsletter.html>



# ILNAS

Southlane Tower I · 1, avenue du Swing · L-4367 Belvaux

Tel. : (+352) 24 77 43 - 00 · Fax : (+352) 24 79 43 - 10

E-mail: [info@ilnas.etat.lu](mailto:info@ilnas.etat.lu)

[www.portail-qualite.lu](http://www.portail-qualite.lu)