

SURVEILLANCE  
DU MARCHÉ

ACCREDITATION

CONFIANCE  
NUMÉRIQUE

MÉTROLOGIE

NORMALISATION

ILNAS

*Welcome*  
*Bienvenue*  
*Willkommen*

# National standardization strategy: Outcomes 2010-2020 [Focus on ICT technical standardization] Perspectives 2020-2030

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

12 December 2019

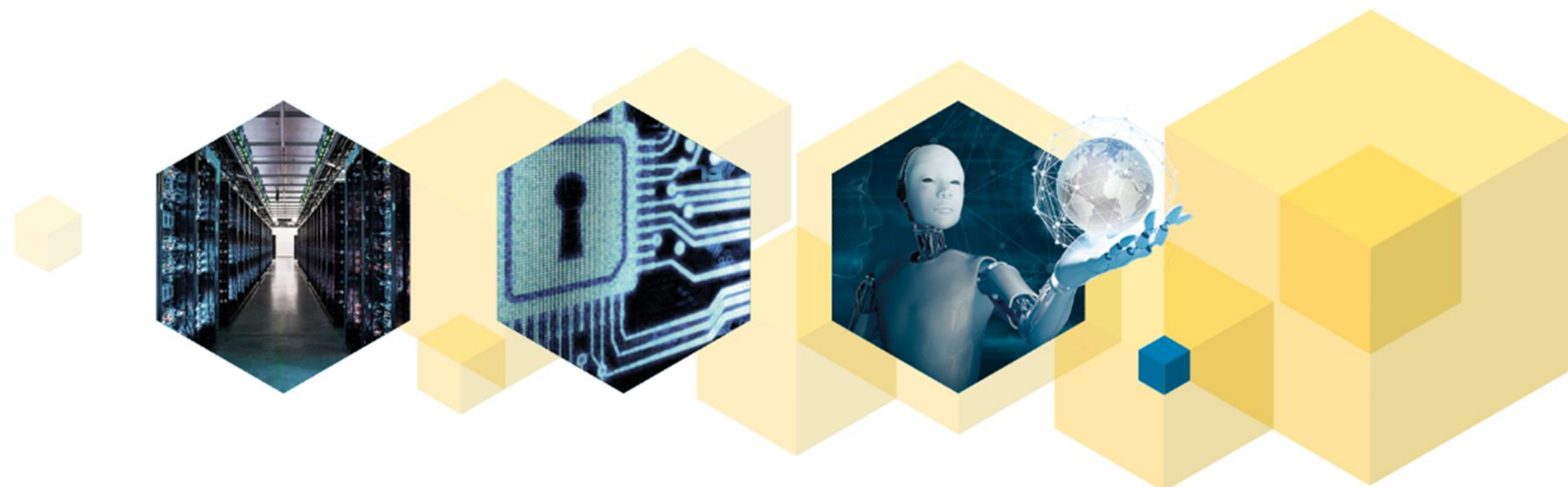


I – INTRODUCTION OF ILNAS

II – NATIONAL STANDARDS BODY

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

IV – NATIONAL STANDARDIZATION STRATEGY 2020-2030

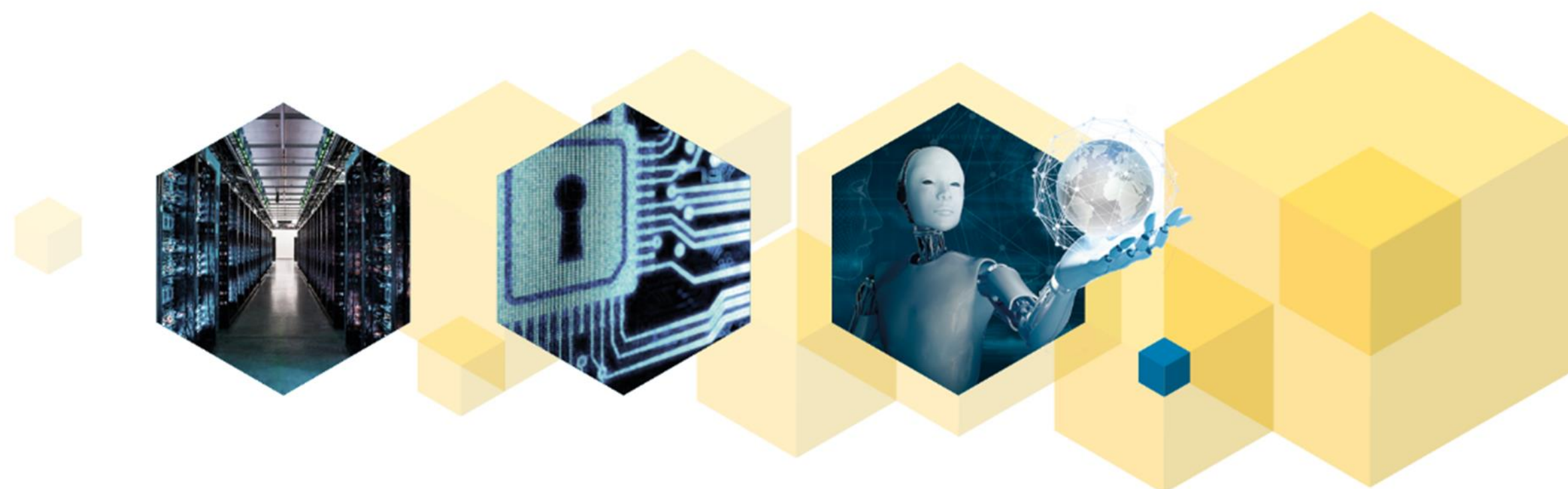


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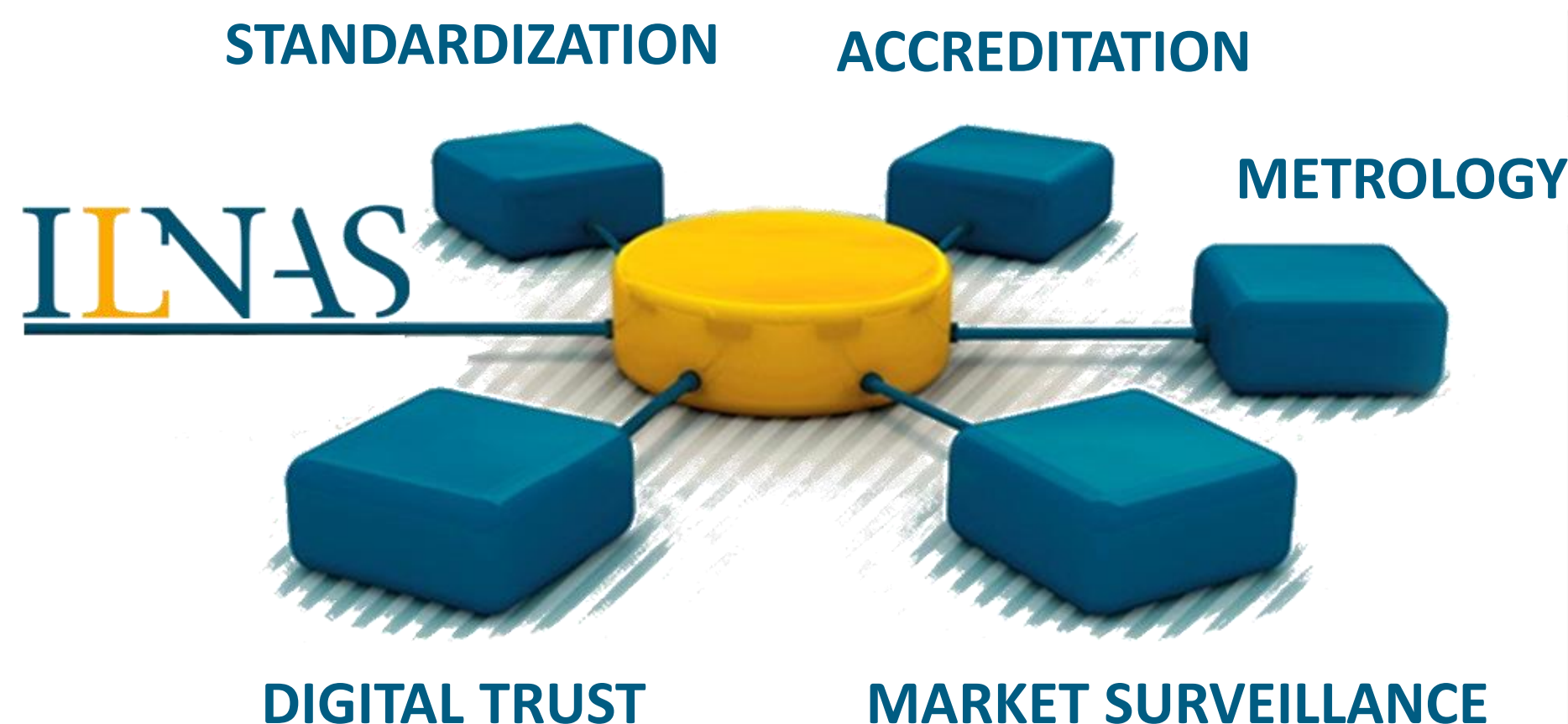
IV – NATIONAL STANDARDIZATION STRATEGY 2020-2030



## 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 (December 2019)
- **Website:** [www.portail-qualite.lu](http://www.portail-qualite.lu)

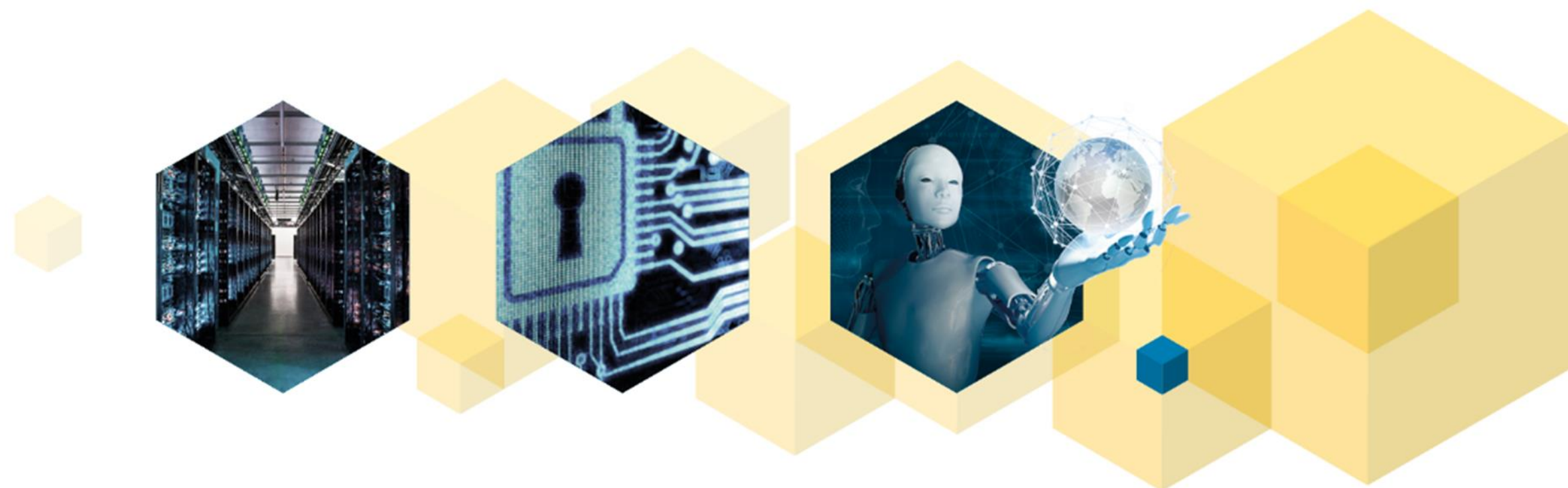


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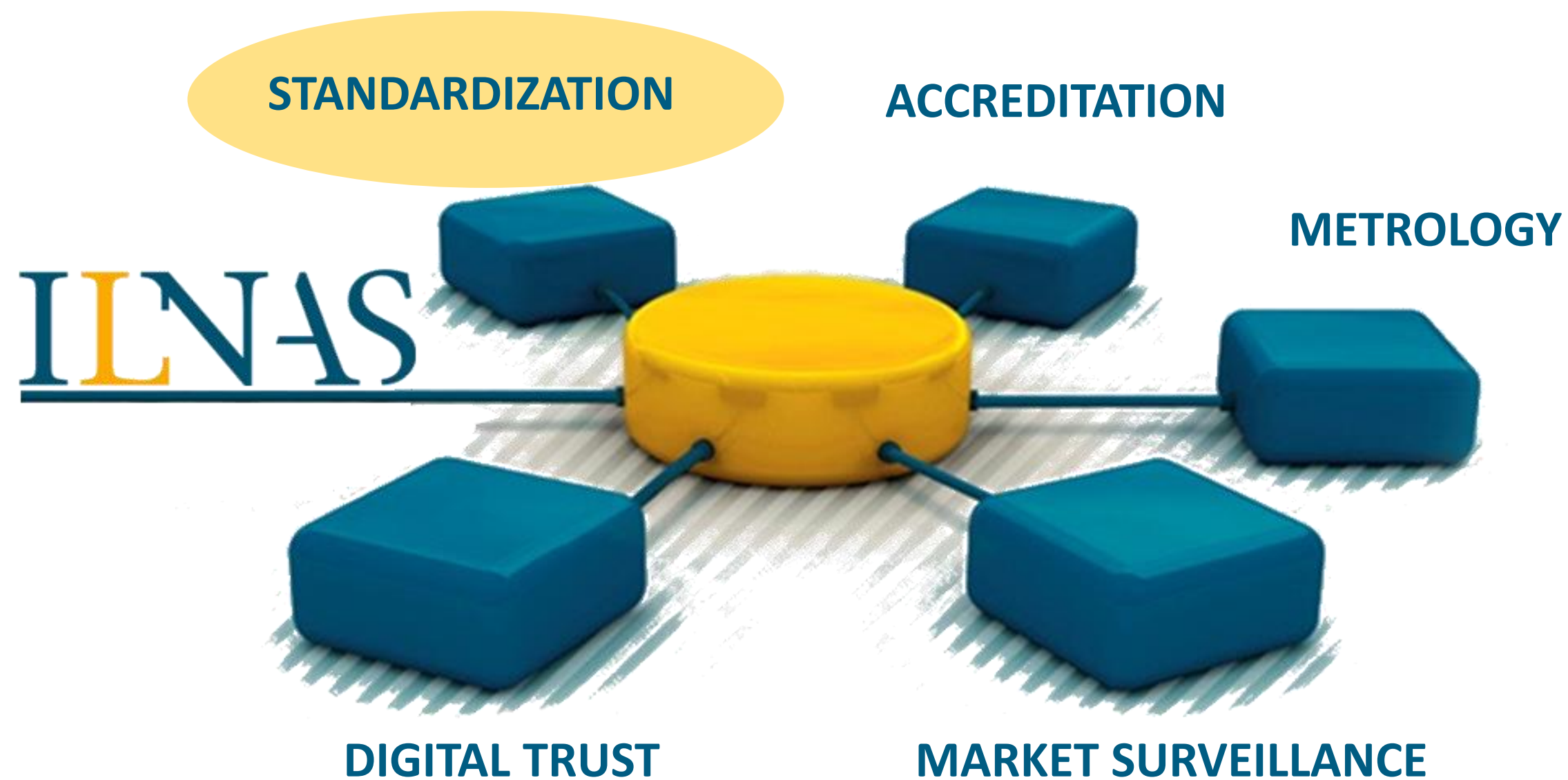
III – NATIONAL STANDARDIZATION STRATEGY (2010-2020) & POLICY ON ICT TECHNICAL STANDARDIZATION (2015-2020)

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)



## 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 (December 2019)

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

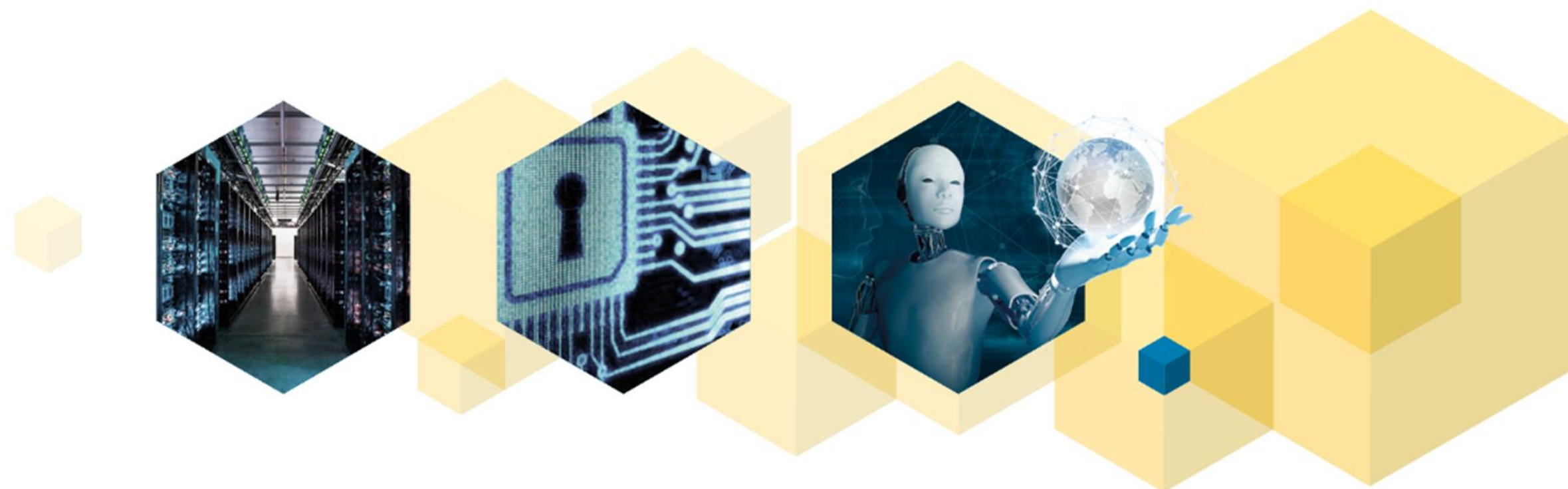
- **Quality system certified against ISO 9001:2015 since July 2018**

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#### 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

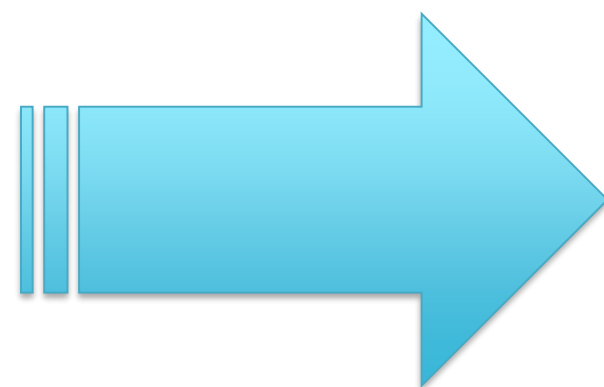
##### PILLAR 3

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 standard



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

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

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

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



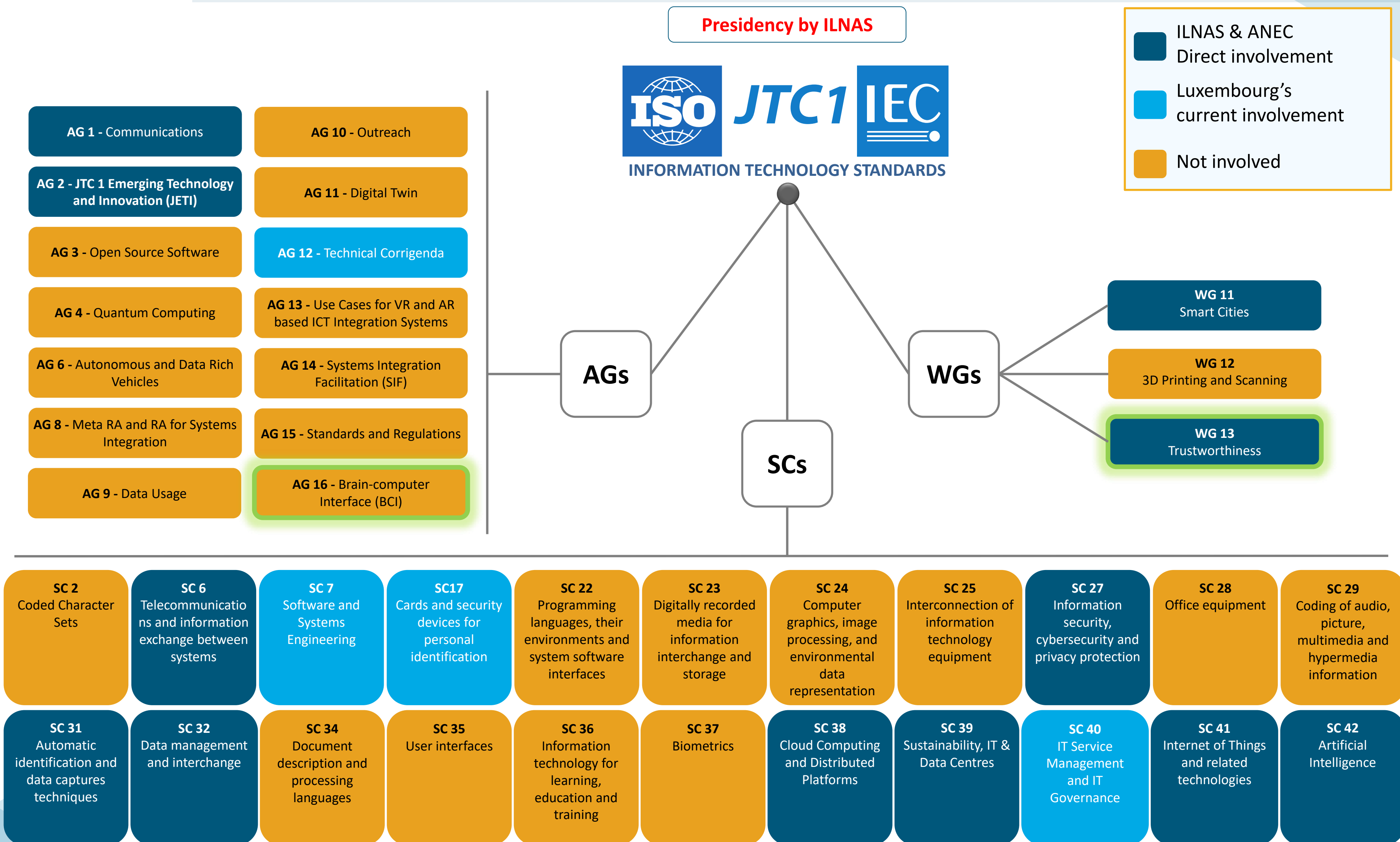
**8 editions** of  
the Standards  
Analysis of the  
**ICT Sector**

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

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

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

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

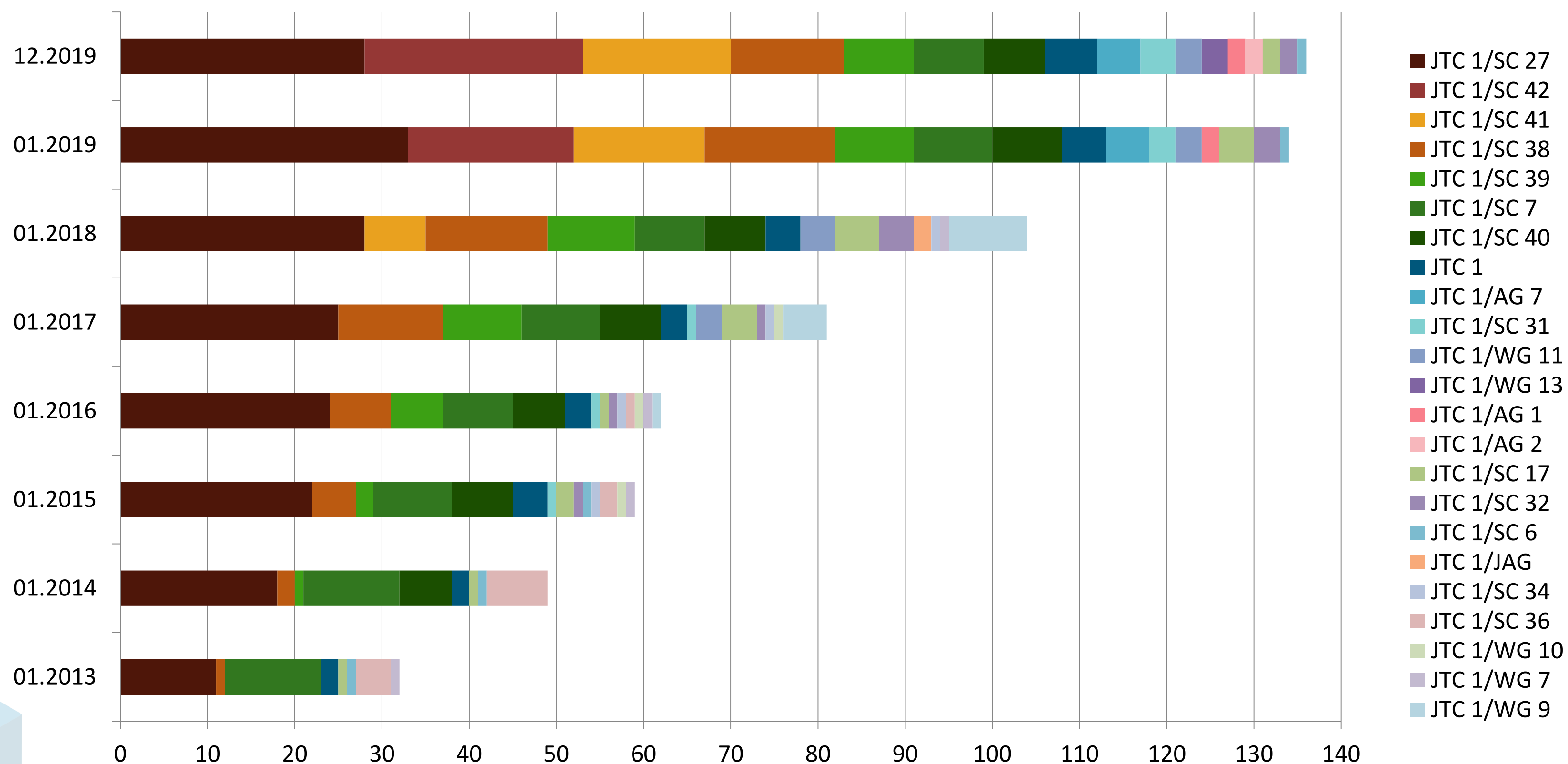


### B. Pillar 1: Information and communication technologies (ICT)

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

##### ➤ Top representation in JTC 1:

- 28 delegates in the IT security domain ( )
- 17 delegates in the IoT domain ( )
- 13 delegates in the Cloud Computing domain ( )
- 25 delegates in the AI / Big Data domains ( )



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

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

##### - 12 ETSI members in Luxembourg:



# 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

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

## 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

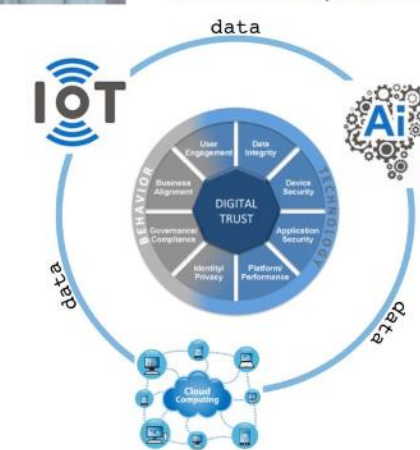
### The Smart-ICT Team



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



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



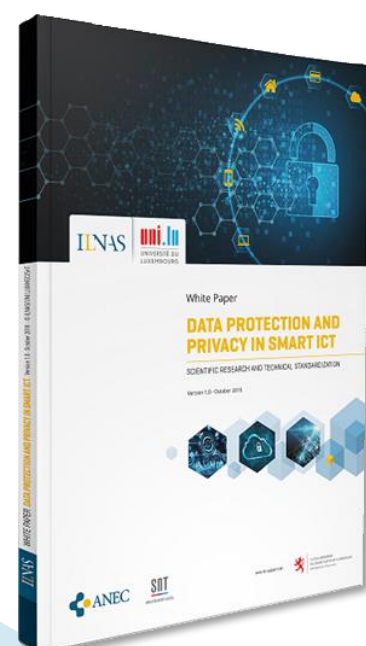
**Saharnaz Dilmaghani**  
- PhD Candidate  
- Since 01.03.2018  
- Standardization experience



**Matthias Brust**  
- Postdoc  
- Project support



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



10/2018 - 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



10/2019 - Technical Reports "SMART ICT: GAP ANALYSIS BETWEEN SCIENTIFIC RESEARCH AND TECHNICAL STANDARDIZATION"

### 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)

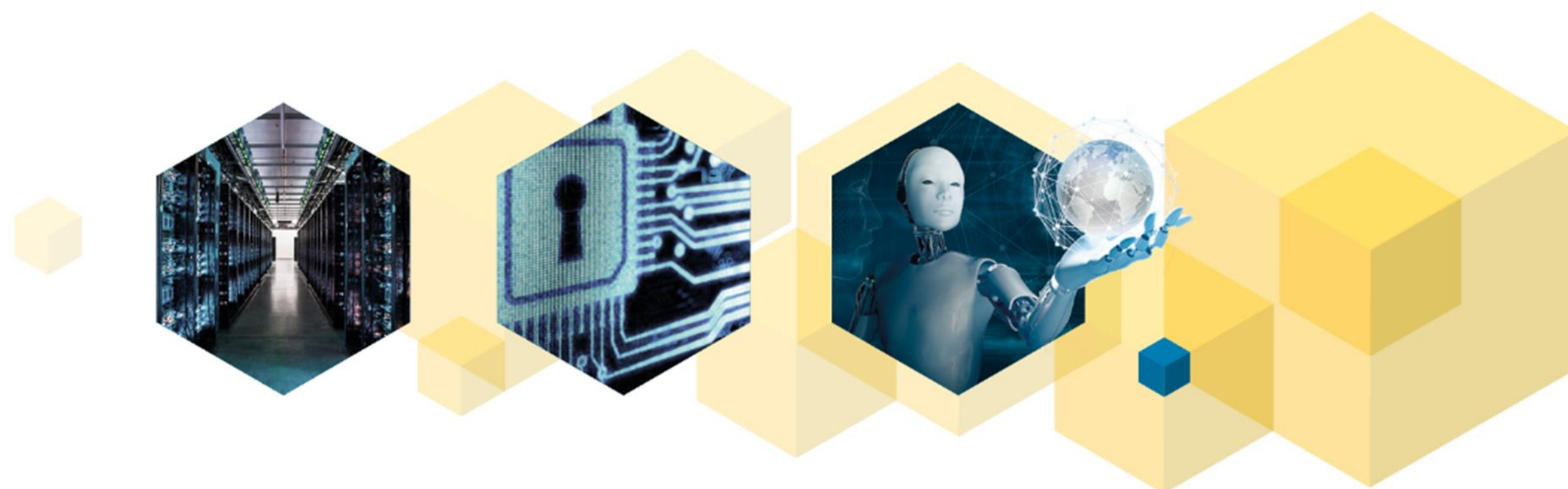
Objective: **Start in  
September 2020**

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## Technical standardization

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

LUXEMBOURG  
STANDARDIZATION STRATEGY  
2014-2020

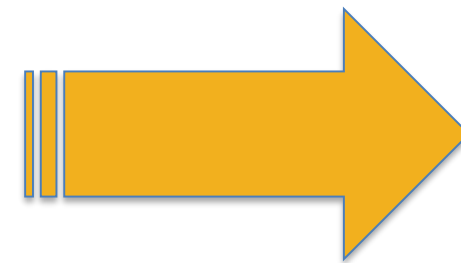
"Technical standardization as a service"

ILN

2010-2020

Build strong foundations for technical standardization in Luxembourg

Develop national expertise in technical standardization



2020-2030

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

## A. Overview

## Technical standardization

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

**3 growth sectors**  
identified



INFORMATION AND COMMUNICATION  
TECHNOLOGIES



CONSTRUCTION



AEROSPACE

## B. Pillars

## 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



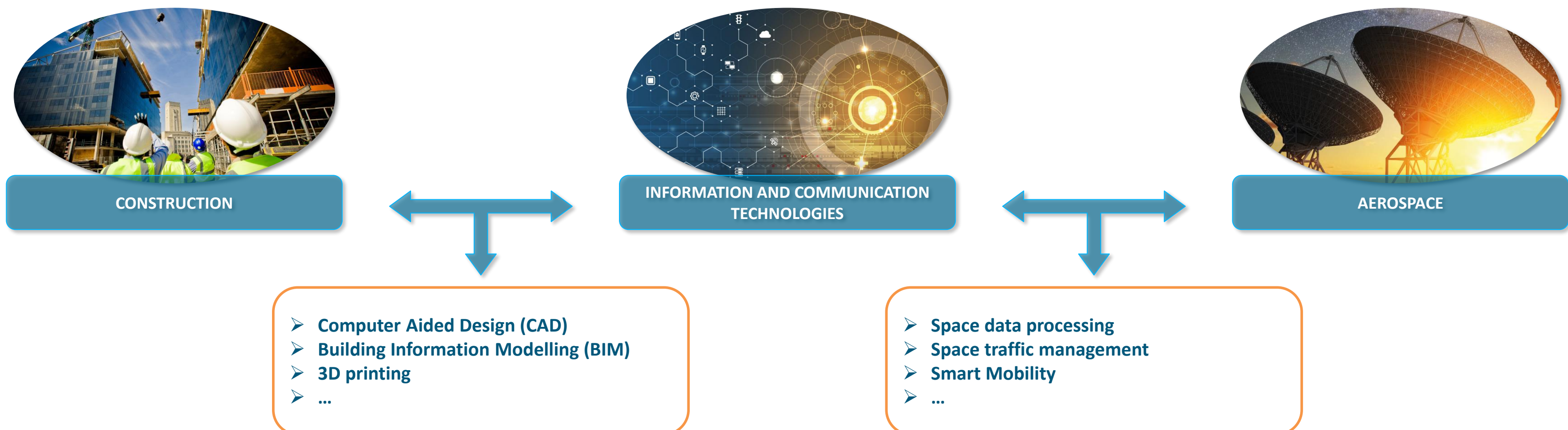
- ☐ Pillar 3 – Active participation of the NSB in the European and international standardization organizations
- ☐ Pillar 4 – Development of research and education about standardization

## C. Implementation

## Technical standardization

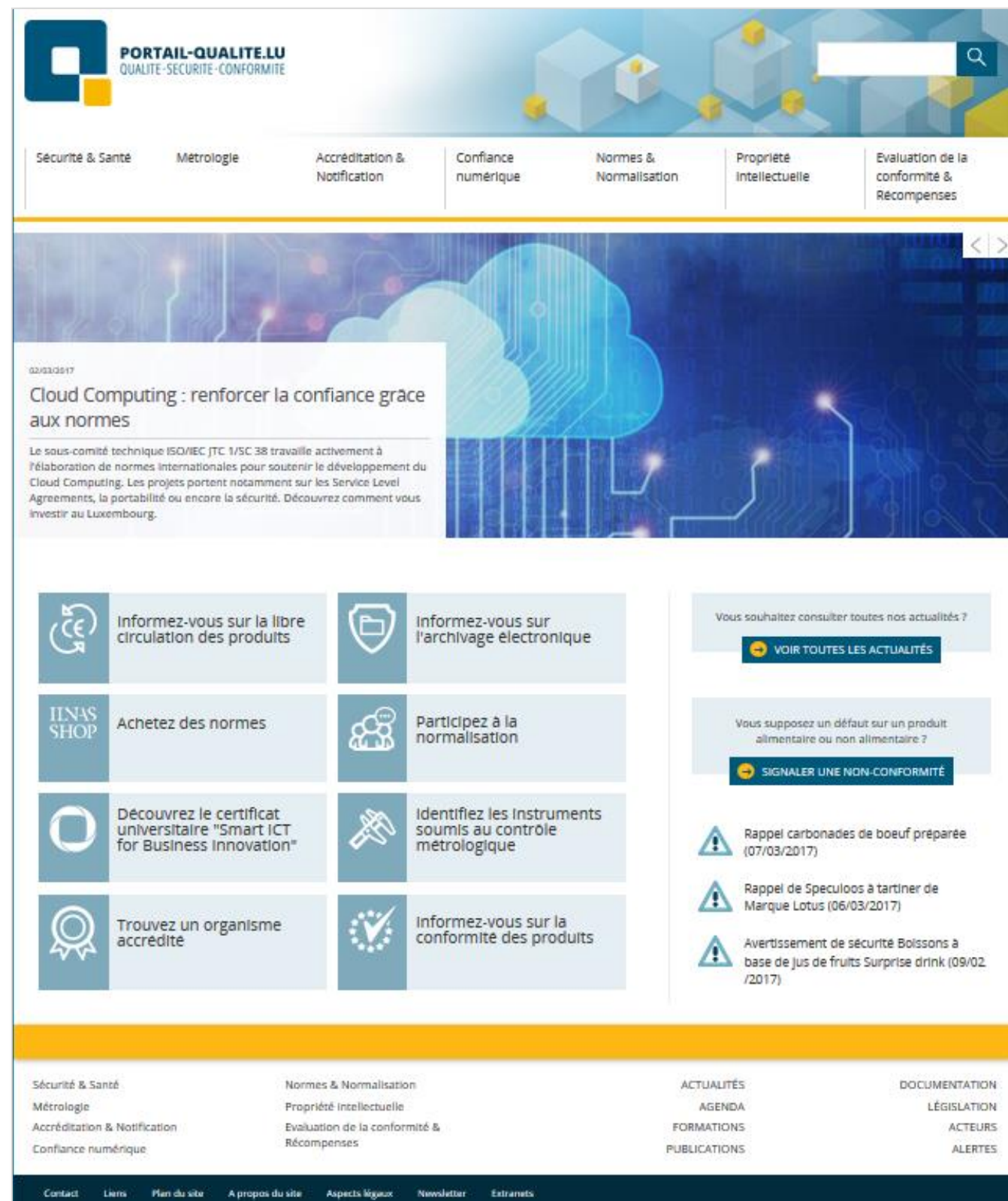
"Inclusive tool for performance and excellence to serve the economy"

- Identification of trans-sectoral standardization interactions



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

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



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



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