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European Standardization Organizations

ILNAS' World Standards Day 2025

Shaping Europe's future: innovation, research, and education through standards

15 October 2025

Andreea Gulacsi – Director Policy & External Affairs

To set the scene...

Standards are everywhere



Who are CEN and CENELEC?



CEN and CENELEC, together with ETSI, are officially recognized as **European Standards Organizations** ([Regulation EU 1025/2012](#))



Standardization in
various business
sectors



Standardization in the
Electrotechnology
sector



Standardization in
Telecommunications,
broadcasting and other
electronic communications
networks and services

A membership-based organization in line with the **WTO** principles

Transparency, Openness and Inclusiveness

Mechanism in place to involve stakeholders, not only at European but also at national level (industry, SMEs, societal stakeholders, etc.)

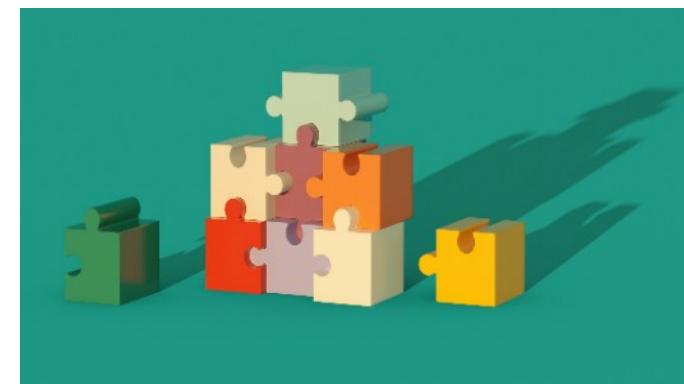
Coherence

Standards developed to support the market and EU legislation

Effectiveness and relevance

- ▶ Bottom-up + top-down approach
- ▶ Systematic review of Standards to maintain state of the art

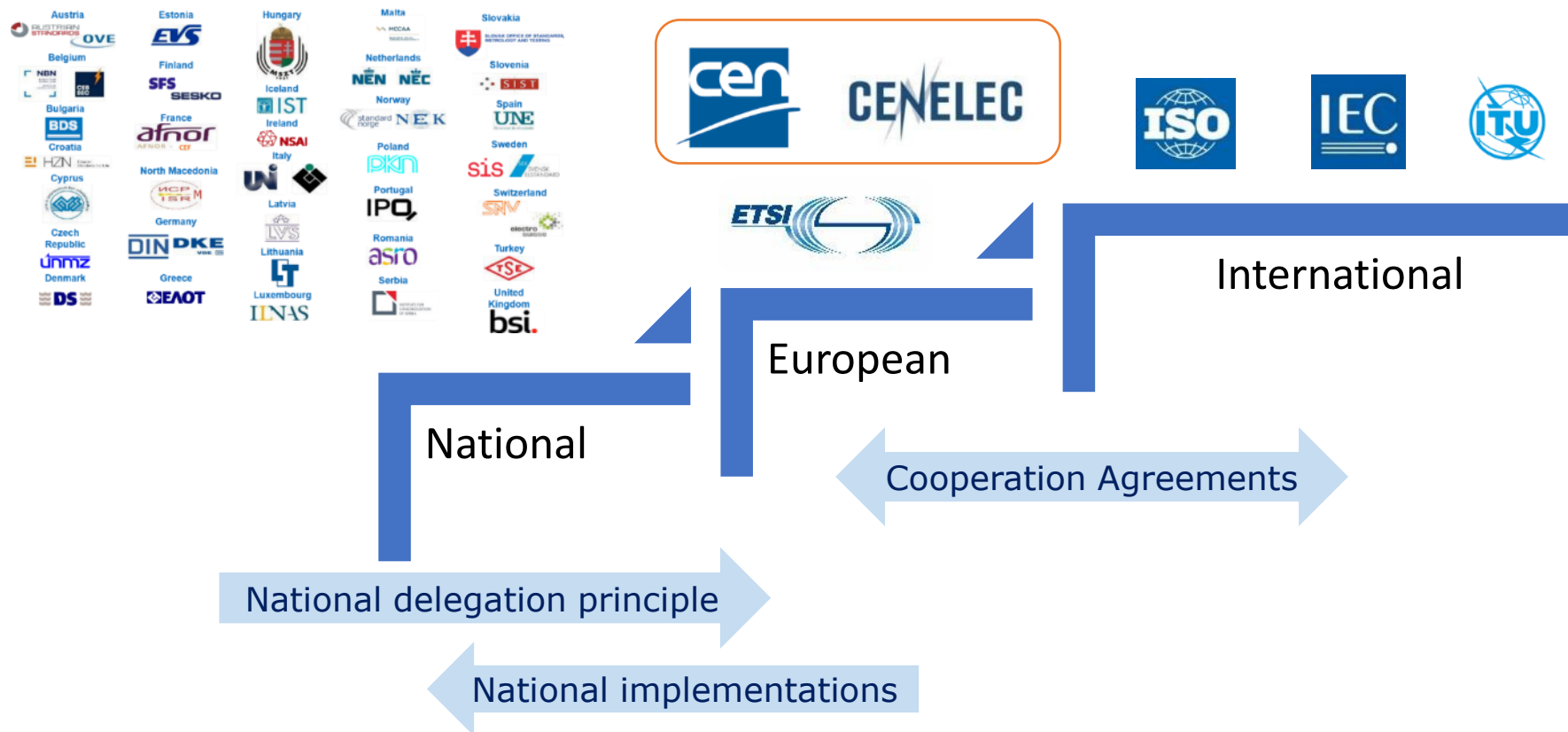
Consensus at all levels, national and European, among different interested parties



The European Standardization System



Inclusive, transparent and **voluntary** since 60 years
Interacting with national and international levels



Single Standards Model

Unique system & best practice

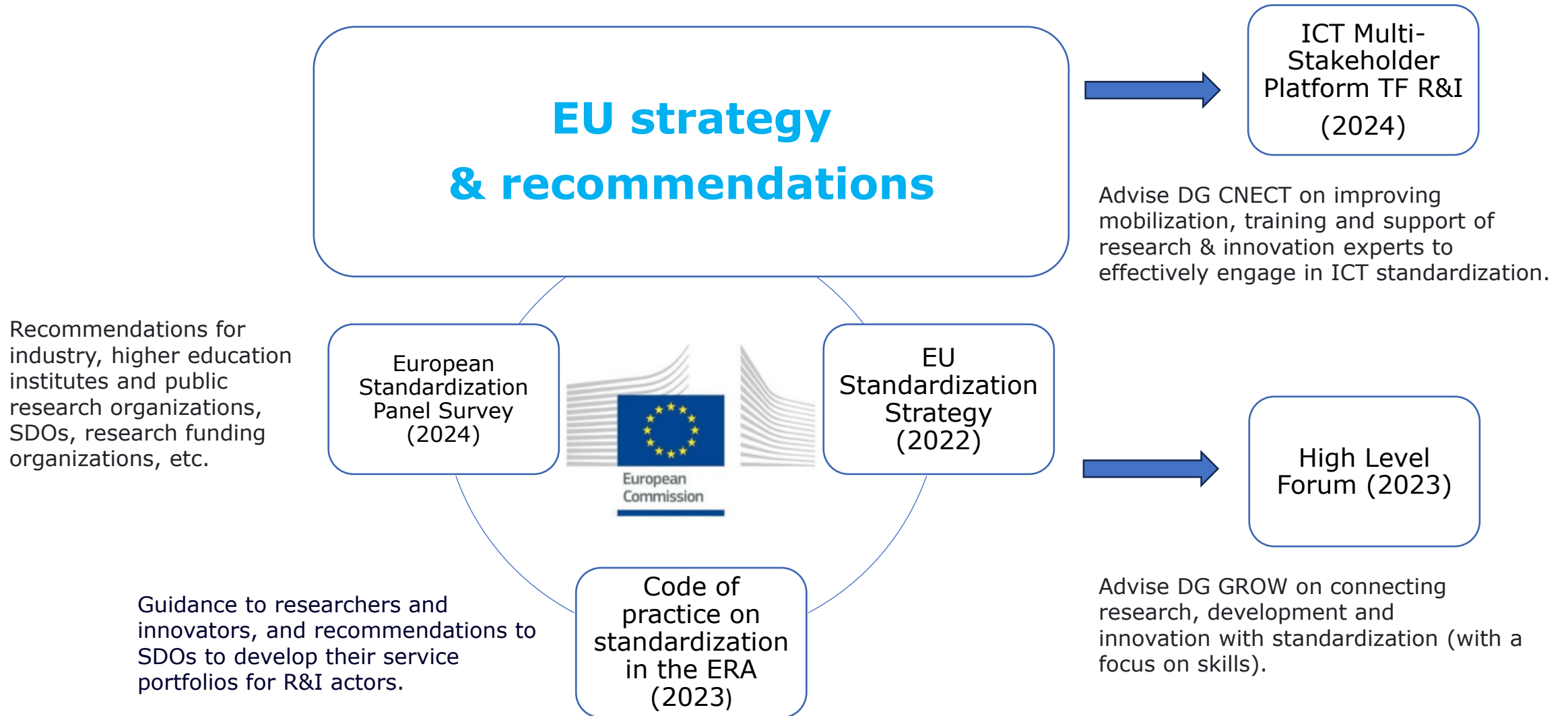


1 European Standard (EN)

34 identical national standards
& all conflicting standards removed

Access to a market of
600 million consumers

EU Policy context



Our approach towards R&I

- ▶ **Identifying new topics for standardization** – using and reinforcing channels and sources to identify new standardization areas for CEN and CENELEC
- ▶ **Integrating standardization and R&I** – bringing standardization closer to researchers, innovators, and R&I activities, seizing opportunities for standardization to bridge the gap between research outcomes and the market
- ▶ **Building capacity and connections** – ensuring the CEN and the CENELEC system, Members and internal process are equipped to engage with research and innovation



Education & Standardization

Empower future professionals and researchers with the knowledge and skills to understand, use, and contribute to standards.

EU Standardization Strategy

High Level Forum – Workstream 1 Education & Skills



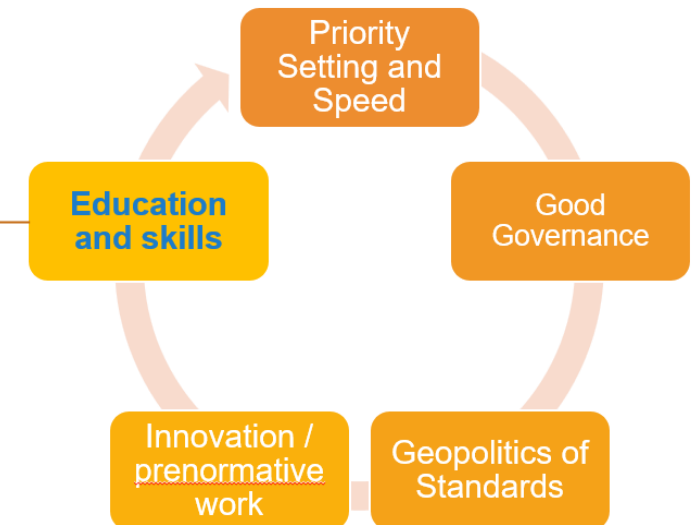
Created in 2023 under the EU Standardisation Strategy, the High-Level Forum advises the European Commission on standardization priorities and key topics like international leadership and education.

Together with CEN, CENELEC and their members

-> Dr. Jean-Philippe HUMBERT is the ILNAS representative



- Bring **standards** into the universities, into the companies and show that this **is a career track**.
- Organise dedicated outreach to potential future standardisation experts.
- **Horizon Europe**: education and skills for standards project "EDU4Standards"
- HLF – **Pledge on E&S** signed now by 46 members. 1-year implementation report submitted at the end of 2024.
- HLF - **Pan-European certificate** on standardisation to help foster the formation of the next generation of standardisation experts.



Edu4Standards Horizon Europe project



3-year project led by Fraunhofer Jan 2024 - Dec 2026, CEN is partner

💡 aiming to **innovate standardisation education within European Higher Education Institutes.**

💡 The project will fund 15 **Academic Standards Days**, coordinated by CEN, across Europe

👉 **Call currently open for CEN and CENELEC Members!**

[EDU4Standards | Innovating how standardisation is taught in European Higher Education](#)

Creating real impact

By 2027, our aim is to increase education in standardisation across Europe

 **200+**

Teachers equipped with standardisation knowledge

 **200+**

Students & professionals educated and ready to contribute to standardisation

 **1**

EU Student Standardisation Association

 **100**

Higher education institutes offering courses on standardisation

 **1**

EU Standardisation Education Roadmap to chart a course for the future

 **15+**

15 Academic standards Days

ILNAS Master MTECH

Bridging ICT excellence and innovation through standardization and hands-on industry experience.

Innovative

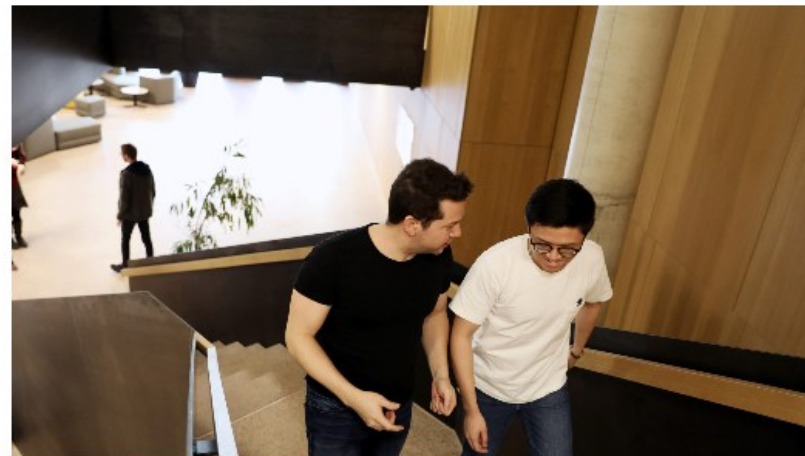
The Master MTECH is extremely innovative. It provides students with a base of knowledge on topics reflecting current issues and those at the cutting edge of Smart ICT. It offers practical examples and case studies illustrating the use of technical standardisation as a tool to give common technical language, build trust, and foster effectiveness in Smart ICT.

Wide range of topics

The Master covers various smart ICT technologies, such as cloud computing, Internet of things, big data, artificial intelligence, blockchains and distributed ledger technologies, while addressing digital trust aspects related to these technologies.

European dimension

The Master degree is supported by the European standardisation organisations, namely the European Committee for Standardization (CEN) and the European Committee for Electrotechnical Standardization (CENELEC), as well as the European Telecommunications Standards Institute (ETSI).



Standards+Innovation Awards 2025

New category in 2025: 🎓 Education Award !

Save the date: 13 November 2025,
associated with DG RTD valorization event

- ▶ Acknowledge contributions of Researchers, Innovators and Entrepreneurs to Standardization
- ▶ 4 categories:
 1. Individual researcher/innovator
 2. Research project
 3. Young Researcher
 4. Technical Body Officer
- ▶ Nominations presented by CEN and CENELEC national members



S+I Young Researcher Award 2024

Maria Hartmann (ILNAS)



- S+I Young Researcher Award given to **Maria Hartmann**, nominated by **ILNAS** for her investigations into the readiness of standardization to support the application of machine learning and AI to the aerospace domain.

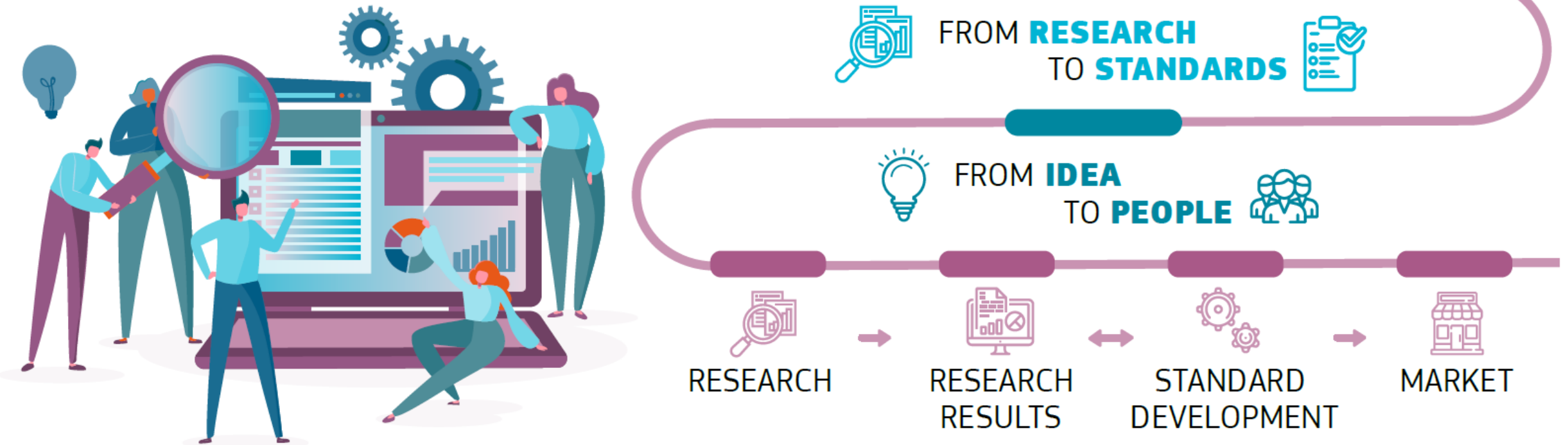


Research & Standardization

Create strong links between research and standardization to accelerate the transfer of innovation from the lab to the market.

Standards as a tool to valorise new knowledge

STANDARDISATION FLOW



Why standardization matters?

It's a
two-way
street!

Why does standardization need R&I?

- ▶ **Relevance and knowledge** – consensus-driven standards evolve with the latest technological advancements.
- ▶ **Competitiveness and collaboration** – position Europe as global leaders and predicts market trends. Create cross-sector collaboration.

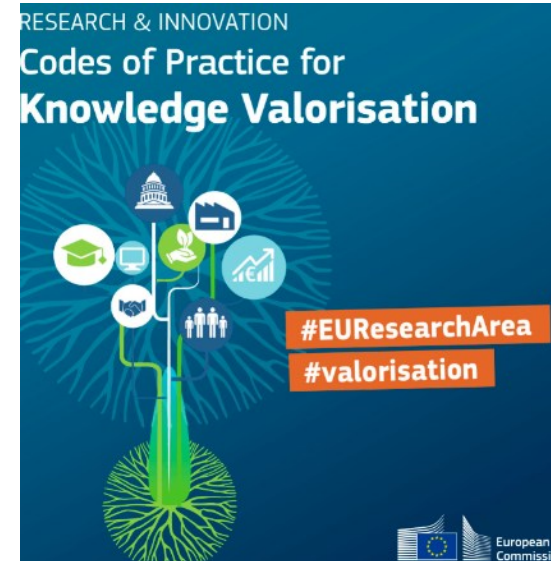
Why does R&I need standardization?

- ▶ **Interoperability and scalability** – innovative solutions work with existing technologies and systems.
- ▶ **Trust and sustainability** - new technologies meet regulatory requirements and account for safety, quality and environmental protection.

CEN-CENELEC's cooperation with the European research community



- ▶ EU valorization policy (DG RTD)
- ▶ Putting Science into Standards (JRC)
- ▶ European Partnership on Metrology (Euramet)
- ▶ EU Multi-Stakeholder Platform on ICT Standardisation, Task Force R&I (DG CNT)
- ▶ Feeding pre-normative needs for Horizon Europe



Our Flagship Horizon Europe projects



EU Standardization Roadmap
on Industrial Symbiosis



EU Standardization Roadmap
for Swappable Battery
Infrastructure



Increasing cooperation on
Digital/ICT standardization
with developing countries



Developing teaching concepts
on standardization for
European Universities

Recognize researcher's contributions

Access to the bibliographies of CEN's and CENELEC's' home-grown' standards, complementing thus the bibliographic information as already available from the ISO website for international standards:

- ▶ Having a scientific publication referenced in a standard's bibliography proves the importance of the scientific publication for standardization.
- ▶ Researchers can make use of this information in support of their scientific careers.

The bibliographies are made available as part of the overall information on CEN's and CENELEC's deliverables accessible at

<https://standards.cencenelec.eu/>



Innovation & the future of Standardization

***Standards are catalysts for innovation and
sustainable growth.***

A few key strategic priorities



- ▶ Cyber resilience
- ▶ EU trusted data framework
- ▶ Artificial Intelligence
- ▶ EU Digital Identity Wallets
- ▶ Clean industry
- ▶ Quantum Technology
- ▶ Ecodesign & Energy labelling
- ▶ Digital Product Passport

Standards driving trust and progress



- ▶ **Interoperability** → Ensure systems, devices, and markets work seamlessly across borders
- ▶ **Resilience** → Provide trusted frameworks that strengthen supply chains and crisis response
- ▶ **Safety** → Guarantee reliability, quality, and protection for citizens and critical infrastructure
- ▶ **Faster Deployment** → Reduce fragmentation, accelerate scaling, and lower market entry barriers
- ▶ **Innovation** → Create a common foundation that unlocks new technologies and business models

Standards support all stages of innovation

Knowledge development

Technology development

Business development

TRL 1

Basic principles observed

TRL 2

Technology concept formulated

TRL 3

Experimental proof of concept

TRL 4

Technology validated in lab

TRL 5

Technology validated in relevant environment

TRL 6

Technology demonstrated in relevant environment

TRL 7

Prototype demonstration in operational environment

TRL 8

System complete and qualified

TRL 9

Actual system proven in operational environment

Semantic standards

facilitate efficient communication in basic research investigating new technologies

Measurement & testing standards

allow progress towards first product-related developments

Interface standards

allow the interoperability of components integrated into product or process technology

Product & service specific standards

define the characteristics of a product/service and their performance thresholds (such as quality and safety)

European Innovation Act (Q1/2026)

- ▶ **The European Innovation Act** aims to accelerate the journey from research to market across all sectors. It will aim to address challenges in commercialising research results, strengthen collaboration between the industry and the academia, and improve access of innovative companies to markets, finance, talent and infrastructures.
- ▶ **CEN and CENELEC key recommendations:**
 - ▶ Embed standardization in R&I policies
 - ▶ Build skills and awareness
 - ▶ Support SMEs and start-ups
 - ▶ Leverage all standardization tools
 - ▶ Use standards as a strategic asset
- ▶ **CEN and CENELEC's response:** [EC portal](#)



Next EU Framework Programme & budget for R&I

- ▶ Horizon Europe (FP9) Work Programmes for 2025–2027 ongoing.
- ▶ European Parliament assessment and recommendation [2024/2109\(INI\)](#)
- ▶ CEN-CENELEC [Position Paper](#):
 - ▶ Standardization still not systematically integrated.
- ▶ On 16 July 2025 the European Commission published its proposal for the **10th Framework Programme on Research and Innovation**, Horizon Europe (2028 – 2034).
- ▶ Next steps: CEN and CENELEC & members amendments.



NEW ! CEN-CENELEC Advisory Committee Research & Innovation



(former BT/WG STAIR) to:

- ▶ Support CEN-CENELEC Strategy 2030 objectives and implementation
 - ▶ Kick-off meeting 29-30 October 2025
 - ▶ Action plan for 2026-2027
- ▶ Provide strategic advice to the CEN and CENELEC Board Standing Committee Policy & Strategy
- ▶ Engage with policy makers (DG RTD, DG CNT, DG GROW, JRC, DG EAC) for a coordinated approach to R&I

18 CEN-CENELEC Members: SN, ASI, OVE, BSI, DS, SFS, AFNOR, DIN, NSAI, UNI, ILNAS, IPQ, SIST, UNE, SIS, CEI

European Counsellors & Research institutions



More information

Standards and Research & Innovation

Click on any topic below or use the menu above to jump to any chapter



CEN and CENELEC

www.standardsplusinnovation.eu

www.standardspluselearning.eu/

Research@cencenelec.eu



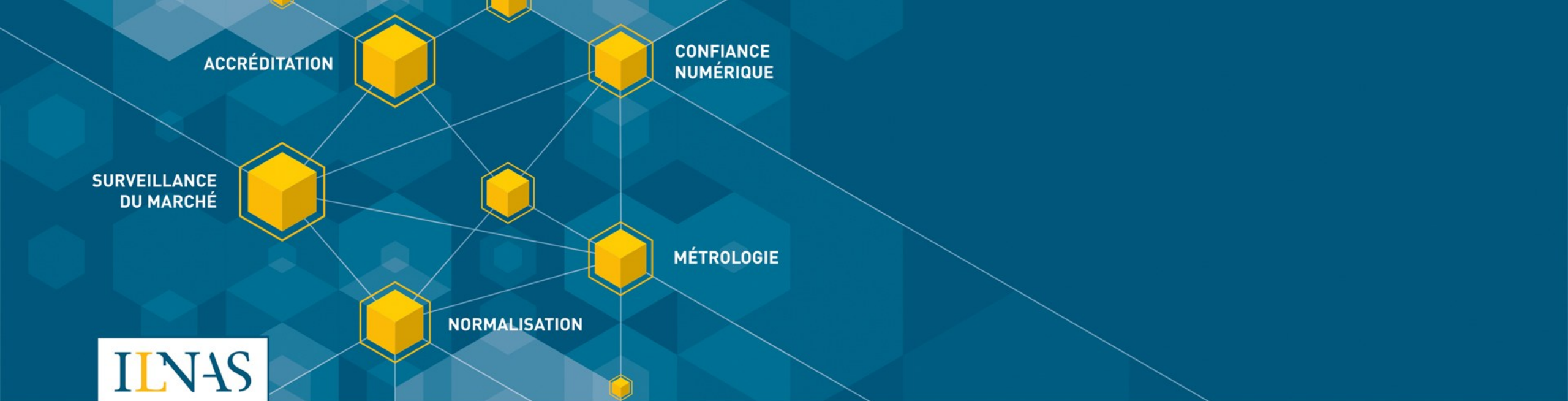
Thank you!

agulacsi@cencenelec.eu

www.cencenelec.eu

Follow us:    

Tag us @standards4EU



Politique pour l'éducation et la recherche dans le cadre de la normalisation technique

15 Octobre 2025

Dr. Lucas Cicero

Chargé de projets - ILNAS



Département « Normalisation & Confiance Numérique »		
Stratégie normative luxembourgeoise (Décennie 2010-2020)		
10.01.2010	Version 01	Page 1 de 12

Stratégie normative luxembourgeoise

(Décennie 2010-2020)

« Celui qui fait la norme fait le marché »

Dossier suivi par Jean-Philippe Humbert
Responsable du département « Normalisation & Confiance numérique »

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Fax: (+352) 46 97 46 39
normalisation@ilnas.etat.lu • www.ilnas.lu

Vérifié par Jean-Marie Raiff
Directeur ILNAS

Approuvé par Jeannot Krecké
Ministre de l'Economie
et du Commerce extérieur

La version à jour de ce document est disponible sur www.ilnas.lu

« Ainsi, pour la prochaine décennie, le développement stratégique de la normalisation au Grand-Duché de Luxembourg, s'inscrit clairement sous l'égide des principes du concept clé du « triangle de la connaissance ». L'importance d'un triangle de la connaissance, fonctionne sous la forme d'interactions entre l'éducation, la recherche et l'innovation. »

PILIER II

Développement de la recherche et
innovation sectorielle

PILIER IV

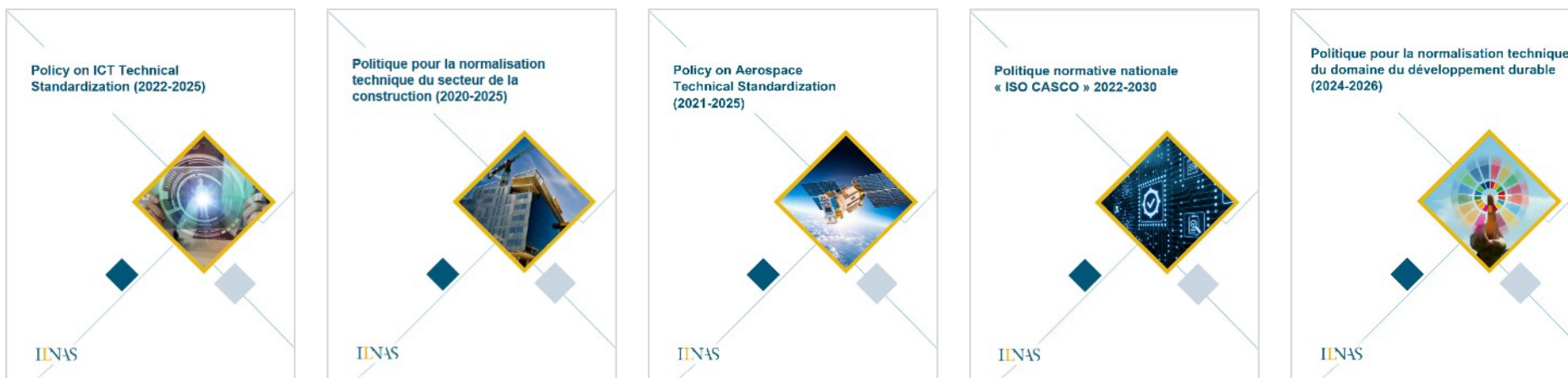
La formation à la normalisation



VERS L'EXCELLENCE

PILIER IV

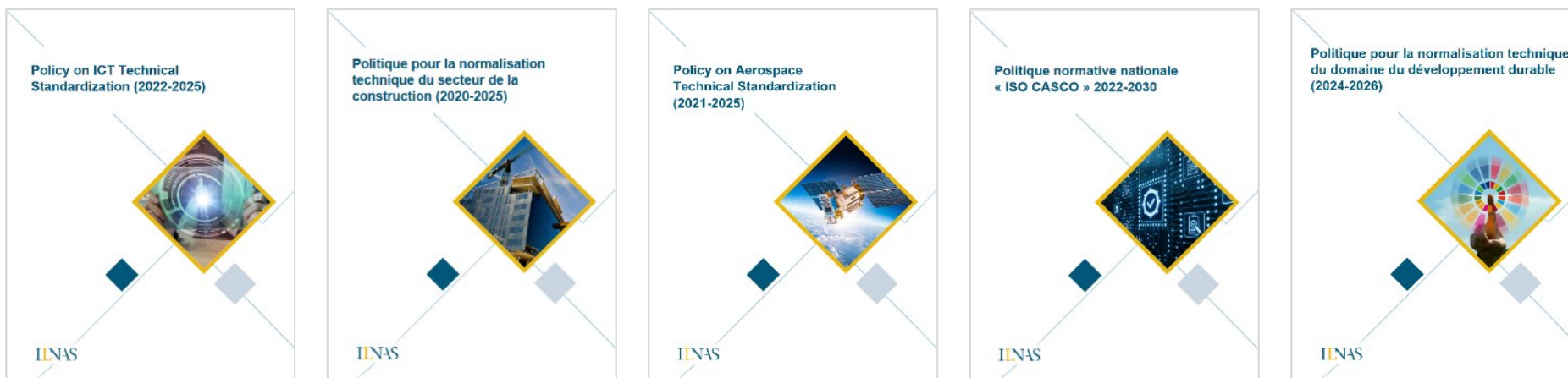
Organiser et participer au développement des axes de recherche et d'éducation normatifs en regard des secteurs économiques identifiés comme « porteurs » et des domaines pertinents au plan national



Chaque politique inclut un axe dédié à l'éducation à la normalisation selon un point de vue sectoriel

AXE III

Soutenir et renforcer l'éducation à la normalisation et les activités de recherche connexes



- Approche éducationnelle par secteur
- Absence de cadrage global (par exemple, programme de recherche ILNAS/SnT)
- Contributions aux initiatives européennes et internationales non formalisées
- Innovation par la normalisation exploitée partiellement

Politique pour l'éducation et la recherche
dans le cadre de la normalisation
technique (2025-2030)

al
2025)



ILNAS

Politique pour la normalisation
technique du secteur de la
construction (2020-2025)



ILNAS

Policy on Aerospace
Technical Standardization
(2021-2025)



ILNAS

Politique normative nationale
« ISO CASCO » 2022-2030



ILNAS

Politique pour la normalisation technique
du domaine du développement durable
(2024-2026)



ILNAS

APPROCHE GÉNÉRALE et HARMONISÉE

Politique pour l'éducation et la recherche
dans le cadre de la normalisation
technique (2025-2030)



DÉVELOPPEMENT DU CHAMP DE CONNAISSANCE GLOBALE DE L'ÉDUCATION À LA NORMALISATION TECHNIQUE

- Participer aux initiatives pertinentes en matière d'éducation à la normalisation
- Former les futures générations à la normalisation technique
- Renforcer le rayonnement luxembourgeois en termes d'éducation à la normalisation technique

DÉVELOPPEMENT DU CHAMP DE CONNAISSANCE GLOBALE DE LA RECHERCHE DANS LE CADRE DE LA NORMALISATION TECHNIQUE

- Participer aux initiatives pertinentes en matière de recherche pour la normalisation
- Sensibiliser les acteurs nationaux de la recherche et de l'innovation
- Mettre en œuvre des programmes/projets conjoints de recherche

Politique pour l'éducation et la recherche
dans le cadre de la normalisation
technique (2025-2030)



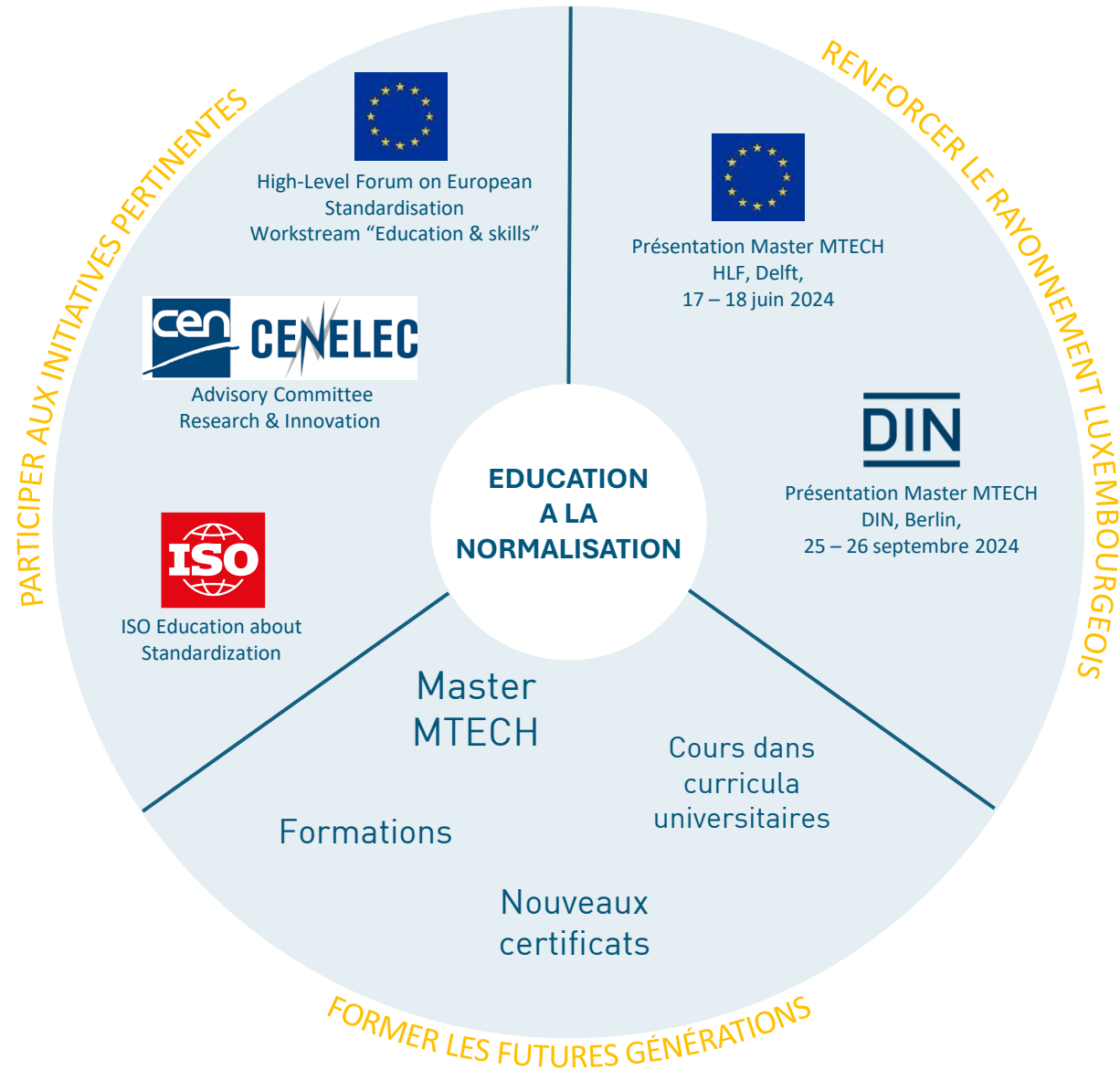
ACCROÎTRE LE RAYONNEMENT DU GRAND-DUCHÉ DE LUXEMBOURG VIA
SON IMPLICATION DANS LE DOMAINE DE L'ÉDUCATION À LA NORMALISATION

CONTRIBUER À L'ÉCONOMIE NATIONALE EN ÉDUQUANT
LES FUTURES GÉNÉRATIONS DE PARTIES PRENANTES À LA NORMALISATION

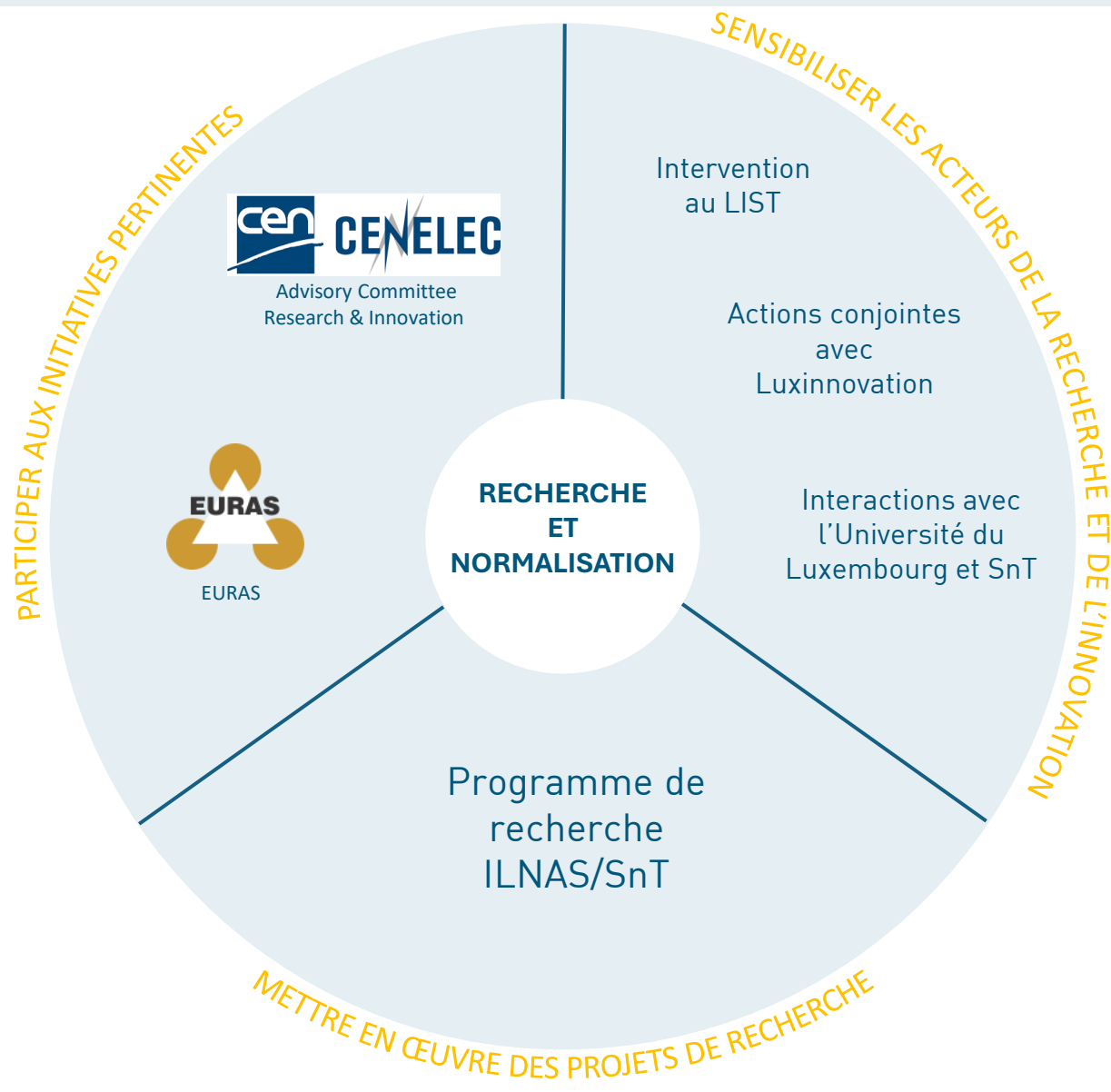
RENFORCER LA PARTICIPATION DES ACTEURS DE LA RECHERCHE LUXEMBOURGEOISE
AU SEIN DES TRAVAUX DE NORMALISATION EUROPÉENS ET INTERNATIONAUX

FAVORISER L'INNOVATION AU GRAND-DUCHÉ DE LUXEMBOURG GRÂCE À
LA SENSIBILISATION AU DOMAINE NORMATIF AU SEIN DES DIFFÉRENTES
ENTITÉS DE RECHERCHE

VALORISER LA COMMUNAUTÉ SCIENTIFIQUE LUXEMBOURGEOISE
IMPLIQUÉE DANS LA NORMALISATION NATIONALE, EUROPÉENNE ET INTERNATIONALE



Activités



ACCROÎTRE LES ACTIVITES DANS L'EDUCATION A LA NORMALISATION ET LA RECHERCHE

CAPITALISER LES INFORMATIONS PERTINENTES DES INITIATIVES EUROPEENNES ET INTERNATIONALES

NOURIR LE MARCHE NATIONAL

CONTRIBUER A LA CONNAISSANCE DE LA COMMUNAUTE

FAIRE RAYONNER LE GRAND-DUCHE DE LUXEMBOURG AUX NIVEAUX EUROPEEN ET INTERNATIONAL



ILNAS

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World Standards Day 2025

ILNAS-SnT Research Programmes

Dr. Grégoire Danoy

Research Scientist, Head of PCO Group

University of Luxembourg

The University of Luxembourg

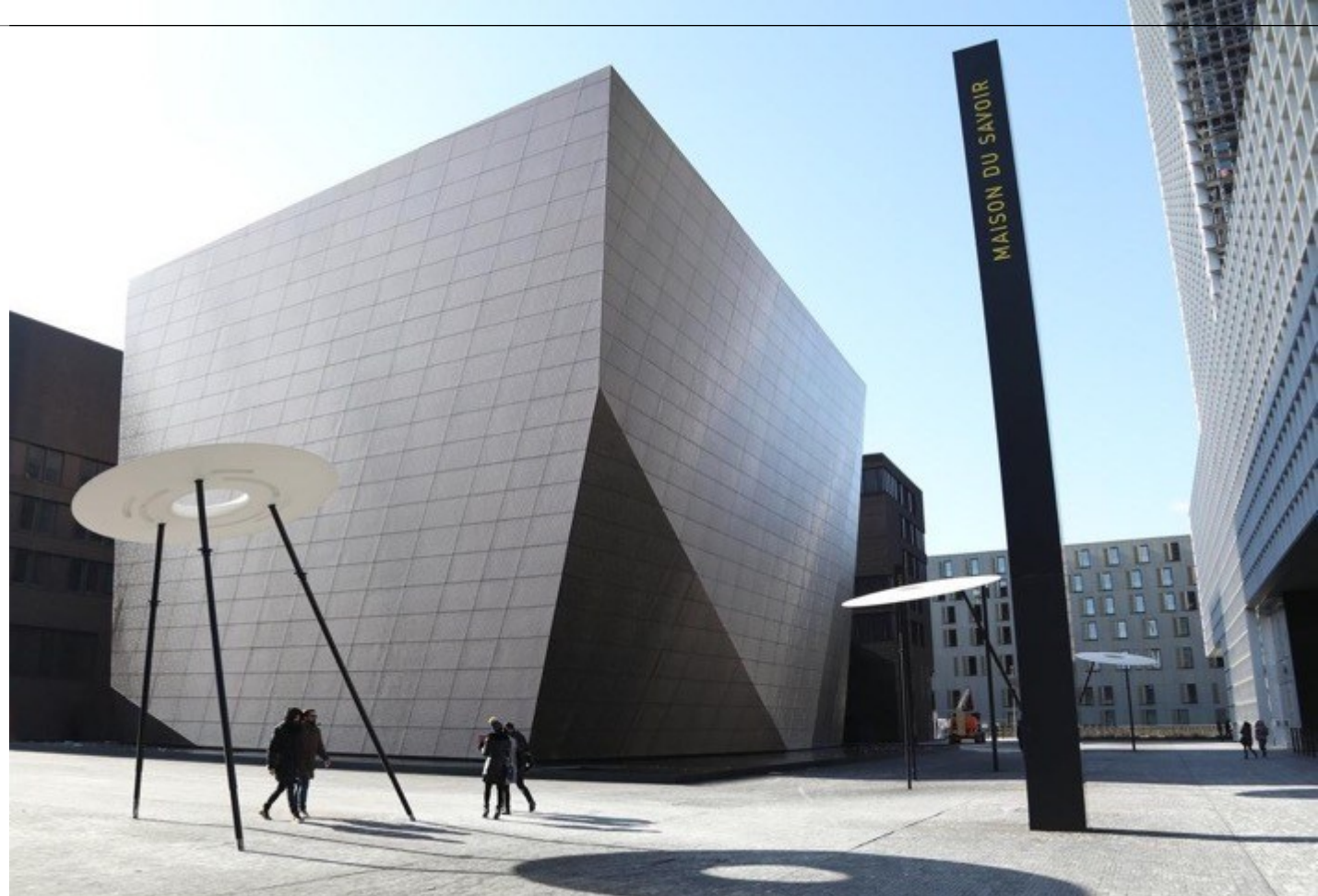
The University of Luxembourg is a research university with a distinctly **international**, **multilingual** and **interdisciplinary** character.



Ranked

20th Young University
4th International outlook
Top 125 in Computer Science

worldwide in the Times Higher Education (THE)
 World University Rankings 2024



7000+
students

1000+
PhDs

300
faculty members

135
nationalities

60%
international
students

Parallel Computing and Optimisation Group

<http://pcog.uni.lu>

Research Focus:

- Parallel & Decentralised computing
- Optimisation, Search and Machine Learning

Our Aim:

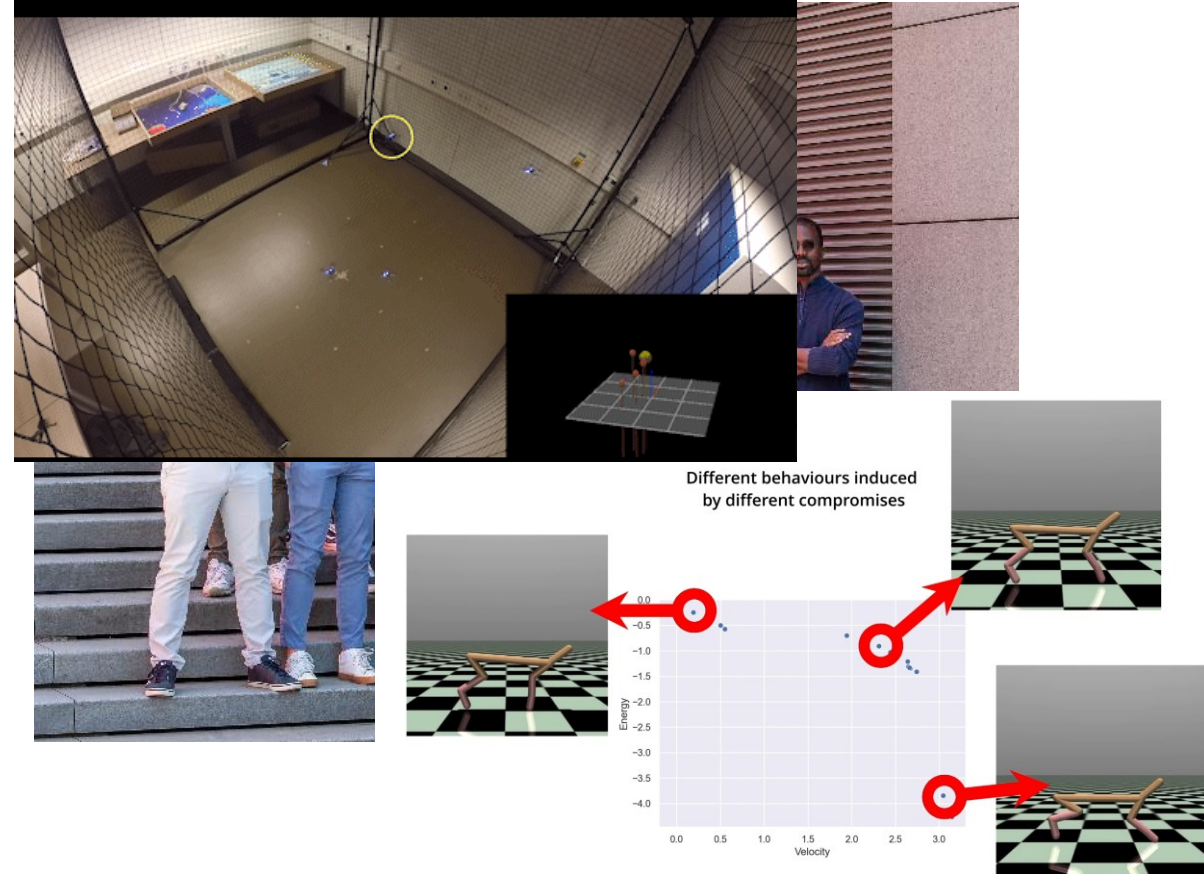
- Design efficient, scalable and reliable algorithms for complex real-world problems at large scale.

Applications:

- Sustainable HPC, Grid & Cloud infrastructures
- Drones and robotic swarms
- Systems biomedicine

Management:

- Head: Dr. Grégoire Danoy



18+
researchers

8
Postdocs

1
Professor

9
PhD students

1
Research Scientist

13
nationalities

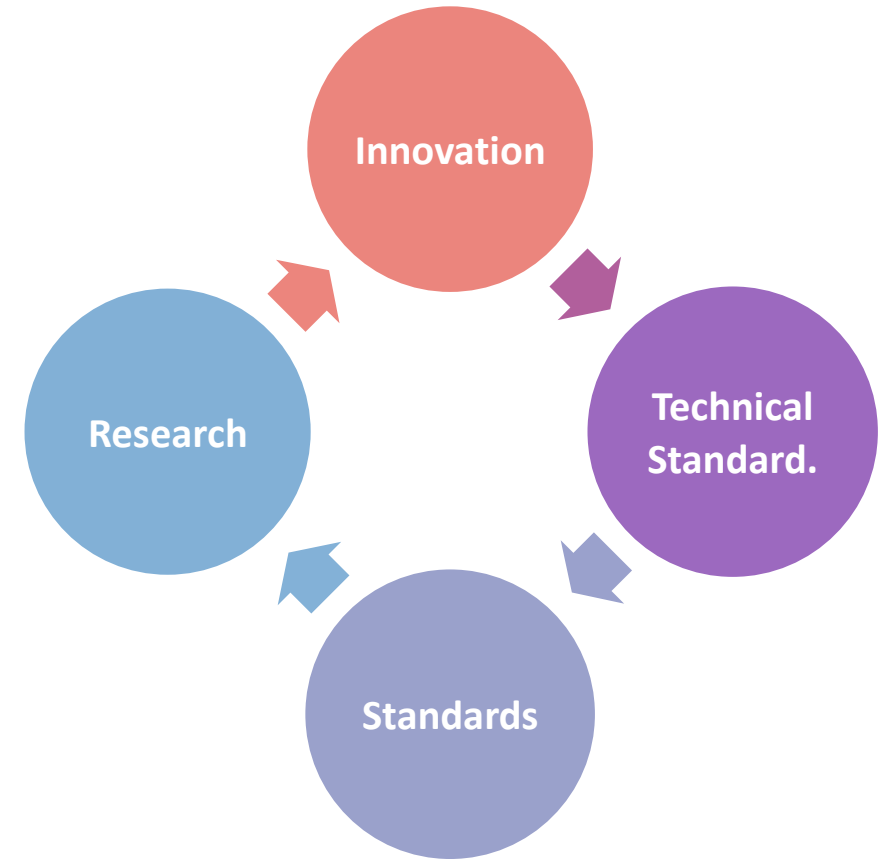
A Partnership Anchored in Standards

- **Objective**

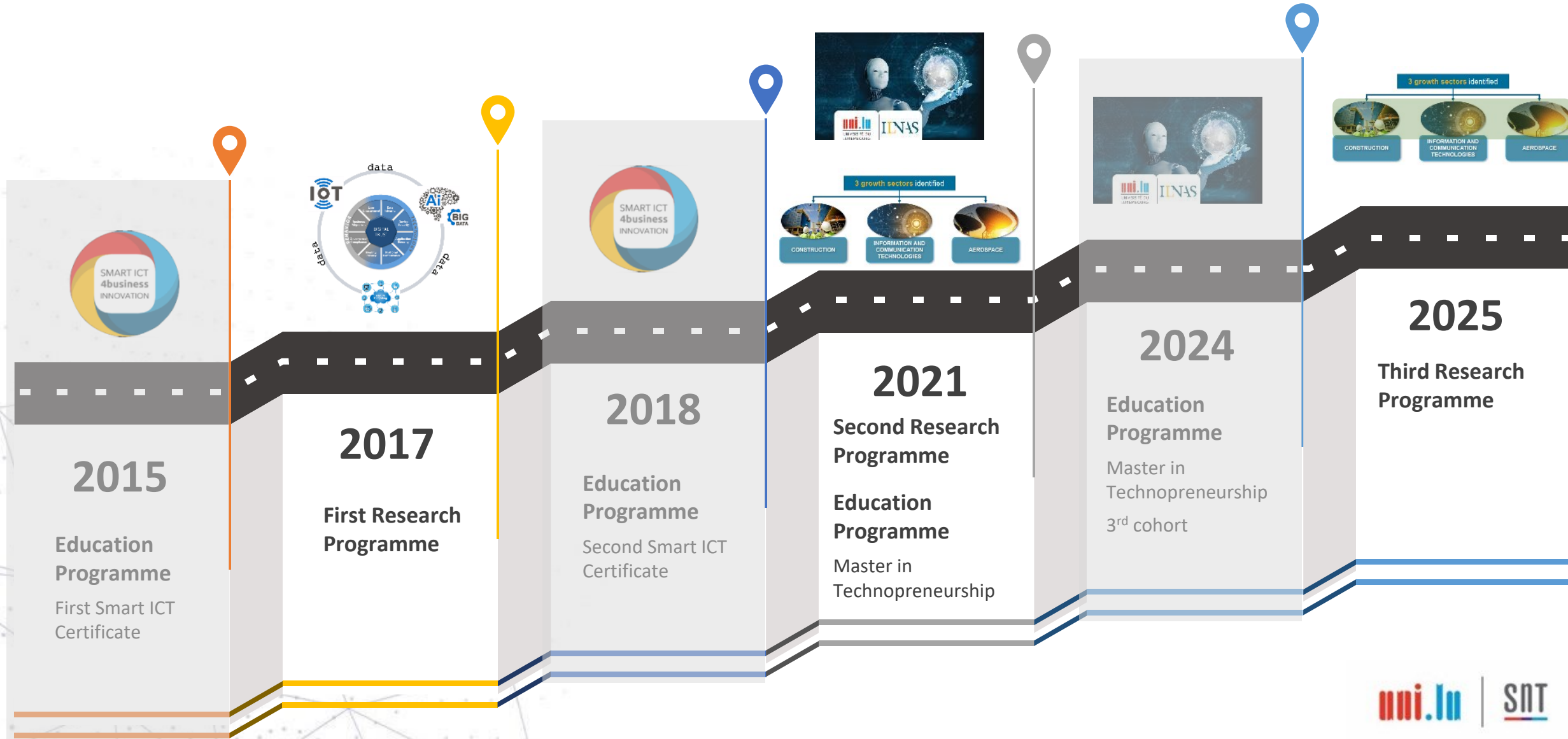
- Strengthen the interface between research and standardisation

- **Outcomes**

- Help researchers amplify their impact through standards
- Detect standardisation needs early, based on research results
- Accelerate translation of research into practical, trusted standards



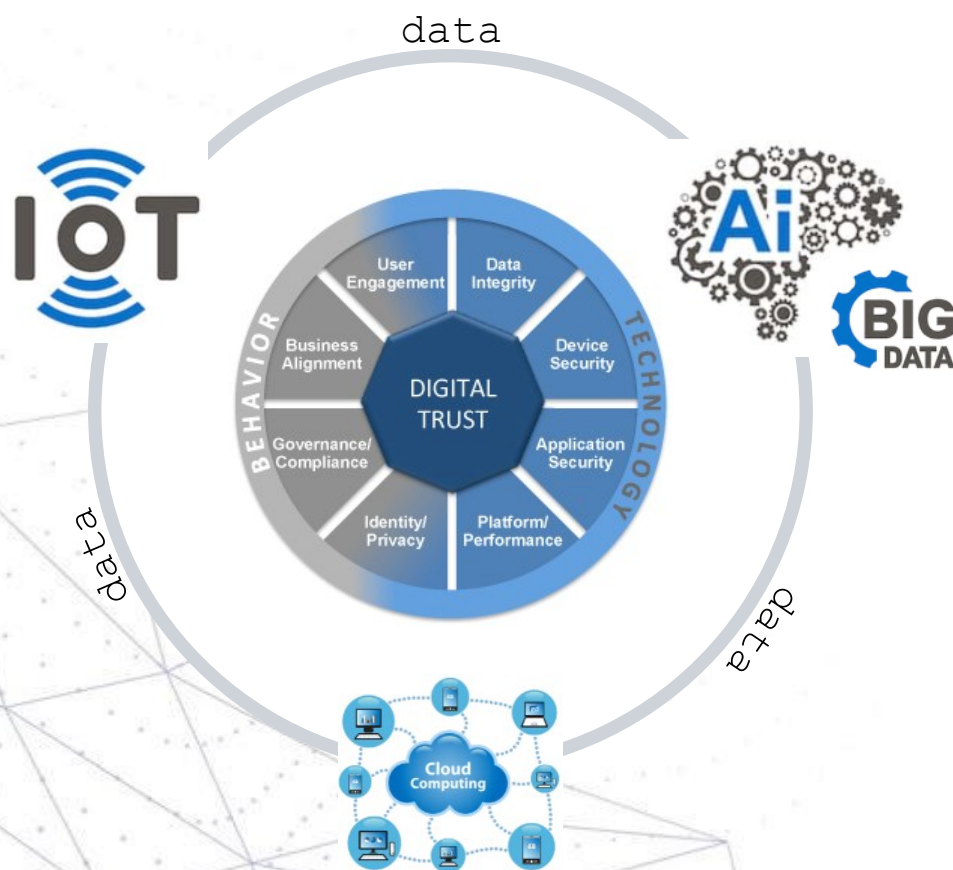
Research & Education Collaboration



First Research Programme (2017- 2020)

“Technical Standardisation for Trusted Use in the Field of Smart ICT”

NATIONAL STANDARDISATION STRATEGY 2010-2020 & POLICY ON ICT



Core research pillars

- Internet-Of-Things
- AI/Big Data
- Cloud Computing

Connecting layer

- Data

Transversal component

- Digital Trust and Security across all domains

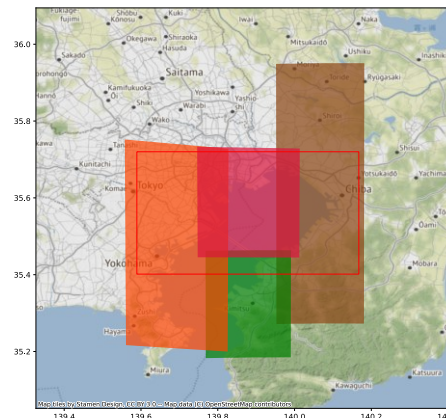
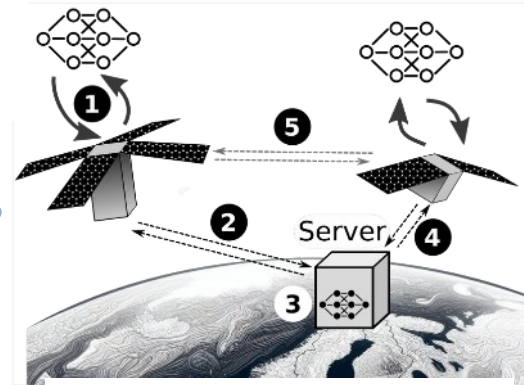
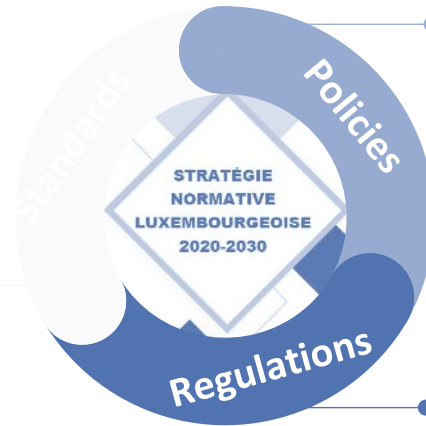
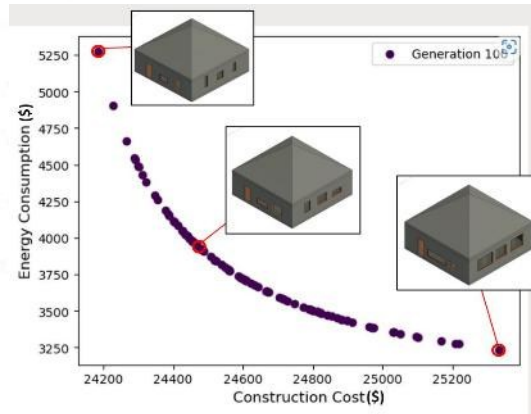
Objective

An innovative environment on digital trust for Smart ICT and related standardisation

The Second Research Programme (2021-2024)

Technical Standardisation for Trustworthy ICT, Aerospace, and Construction

NATIONAL STANDARDISATION STRATEGY 2020-2030



An Impactful Collaboration



2 White Papers
+
2 Technical Reports



Standardisation
Communication
& Impact

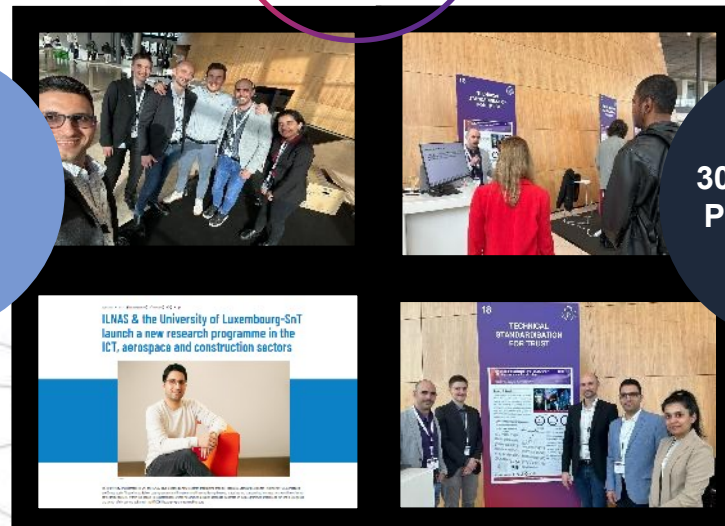
World Standards Days
Technical Standardization Workshops
Participation in multiple standardization committees (ISO, CEN-CENELEC)
Contributions to ISO/IEC JTC 1/SC 42 and CEN-CENELEC Focus Group on AI

Outcomes

3 Awards



30+ Scientific
Publications



JoVe-FL – A Joint-embedding Vertical Federated Learning Framework

A split-training approach to JoVe-FL

Constraint Model for the Satellite Image Mosaic
Selection Problem

MOFL/D: A Federated Multi-objective Learning
Framework with Decomposition

Satellite Image Mosaic Combination Problem

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Keywords: satellite images, combinatorial optimisation, geometric weighted set cover.

Introduction

The space industry is continuously growing, and it is no longer an exclusive market for governmental and military applications. According to the most recent European Union Agency for the Space Programme (EUSPA) report [1], the Global Navigation Satellite System and Earth Observation (EO) market had revenues of around €200 billion in 2022 and is expected to reach €500 billion by 2031. As access to space has become cheaper, more private companies have entered the space business, increasing its popularity. There even exist companies that use space data without owning any space assets, thanks to services such as satellite-as-a-service [2].

Due to the advances in satellite design and high-resolution remote sensors, the EO sector has been experiencing significant development in the last few years. In 2021, the number of satellite launches dedicated to EO was bigger than the sum of launches between 2012 and 2016 [3]. In 2020 more than 100 terabytes of satellite imagery were generated per day [4].

There are several applications based on EO that analyse a vast region or area of interest (AOI) that can be covered only by combining several adjacent images into a bigger one, usually called a mosaic. Mosaics are crucial for applications like crop classification [5], environmental monitoring [6], urban development analysis [7], among others.

Mosaicking satellite images present several challenges such as geometric correction of the images [8, 9], colour harmonization [10], and image stitching [11]. Also, another important problem is the presence of clouds in satellite images. Some research has been done to minimize the cloud covering percentage in the final mosaic [12, 13]. As the number of available images is significantly increasing, a new challenge arises: choose the optimal combination of images to be utilised to produce the mosaic by optimizing one or more criteria.

Continuing the Journey

Third Research Programme (2025-2028)



Construction



Sustainable and people-centred design

ICT



Quantum
(Hybrid-)Quantum Optimisation

Space



Sustainable Space
(e.g., debris/traffic management),

Sustainable development





Parallel Computing and Optimisation Group

Contact:



Grégoire Danoy
Research Scientist
Head of PCOG
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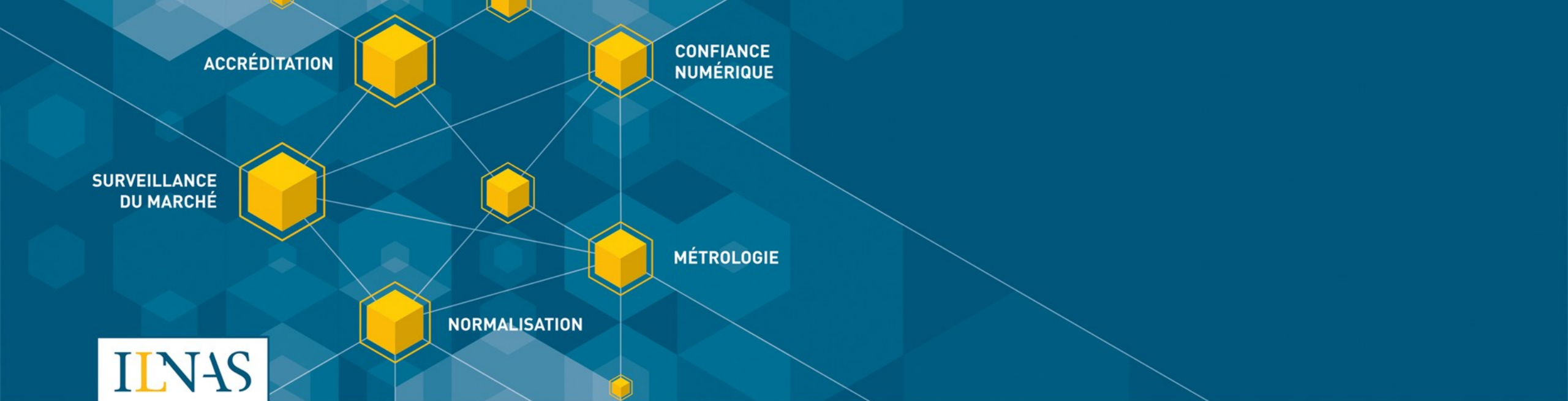
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@SnT_uni_lu



SnT, Interdisciplinary Centre for
Security, Reliability and Trust



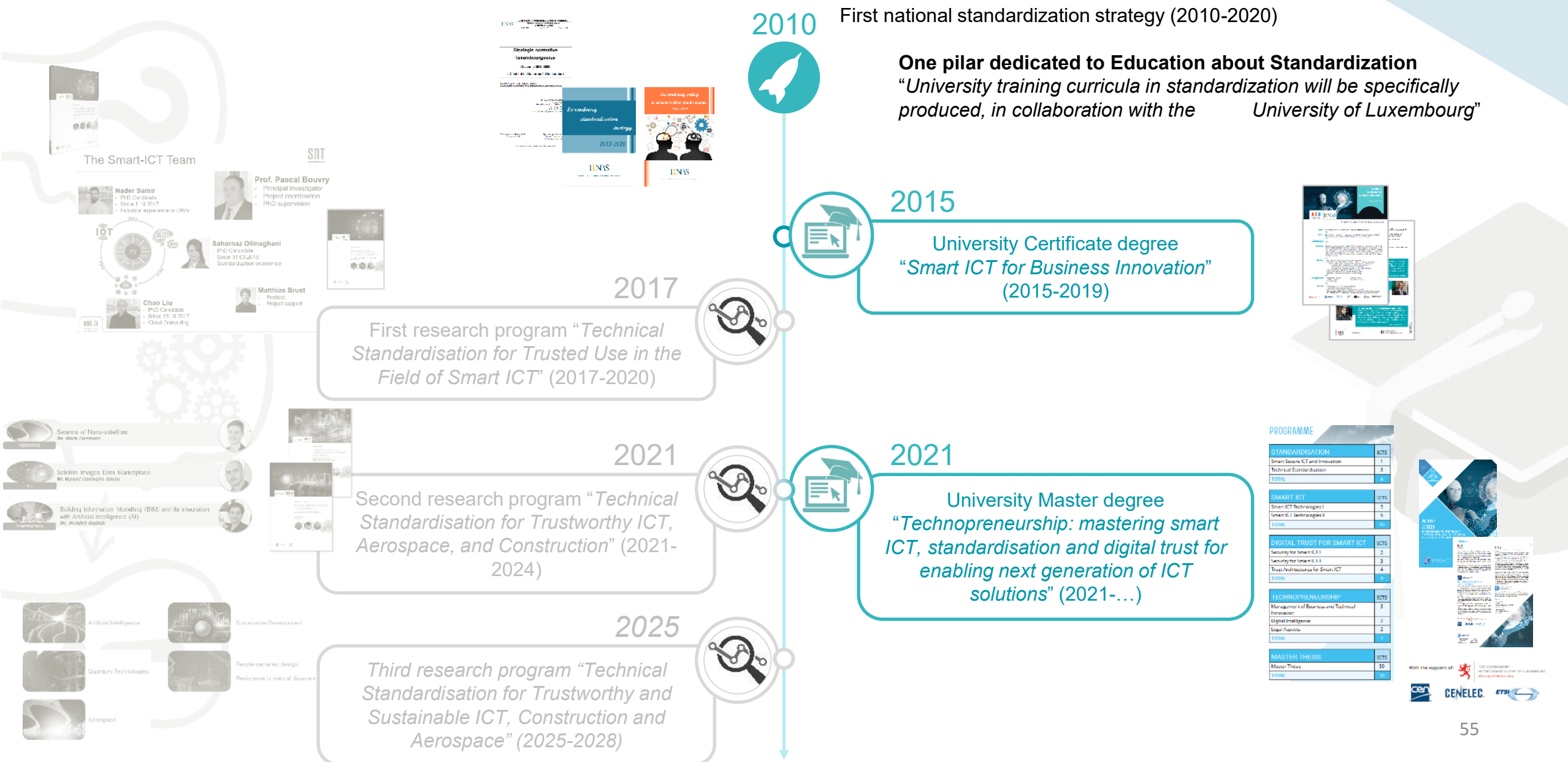
Education about Standardization in Luxembourg: the example of the Master MTECH

15th October 2025

Mr. Nicolas Domenjoud

Responsible "ICT & Technical Standardization" – ILNAS/OLN





2015-2019 - PILOT PROGRAM FOR THE EDUCATION ABOUT ICT TECHNICAL STANDARDIZATION



2 editions
organized

29 students
registered

20 students
graduated



Supporting organizations:



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



ILNAS IN COLLABORATION WITH THE UNIVERSITY OF LUXEMBOURG AND THE CHAMBER OF EMPLOYEES

PROGRAMME

STANDARDISATION	ECTS
Smart Secure ICT and Innovation	1
Technical Standardisation	3
TOTAL	4

SMART ICT	ECTS
Smart ICT Technologies I	5
Smart ICT Technologies II	5
TOTAL	10

DIGITAL TRUST FOR SMART ICT	ECTS
Security for Smart ICT I	2
Security for Smart ICT II	3
Trust Architectures for Smart ICT	4
TOTAL	9

TECHNOPRENEURSHIP	ECTS
Management of Business and Technical Innovation	3
Digital Intelligence	2
Legal Aspects	2
TOTAL	7

MASTER THESIS	ECTS
Master Thesis	30
TOTAL	30

332 hours
of teaching

2 years
lifelong-
learning

60 ECTS

Internship
(750 hours)

11
Modules

* EDITION 1

2021-2023

9 STUDENTS
9 GRADUATED

* EDITION 2

2023-2025

10 STUDENTS
10 GRADUATED

* EDITION 3

2024-2026

7 STUDENTS

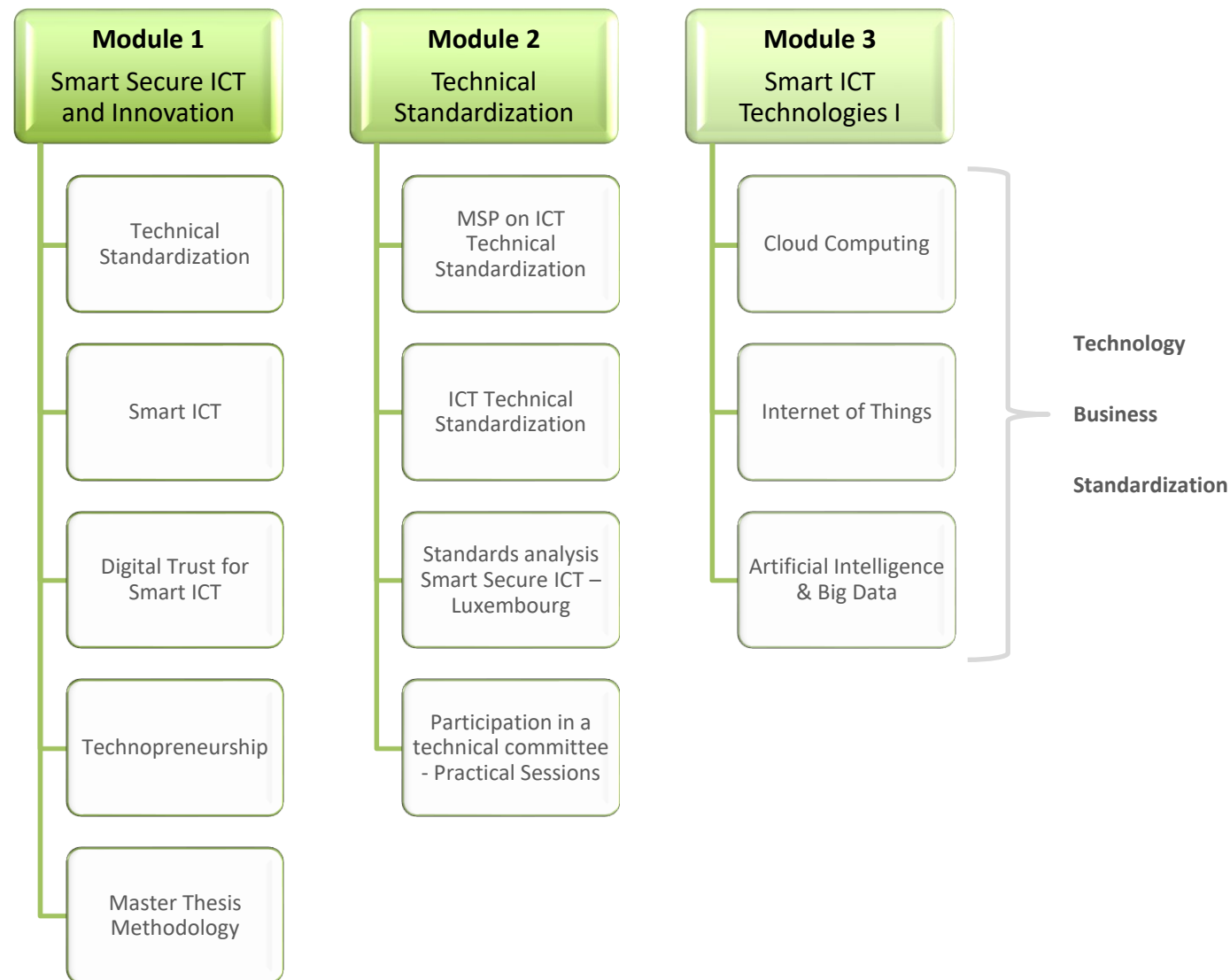
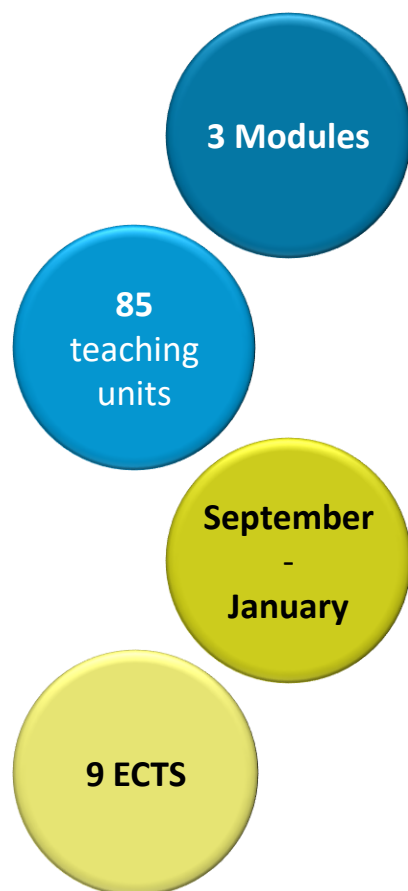


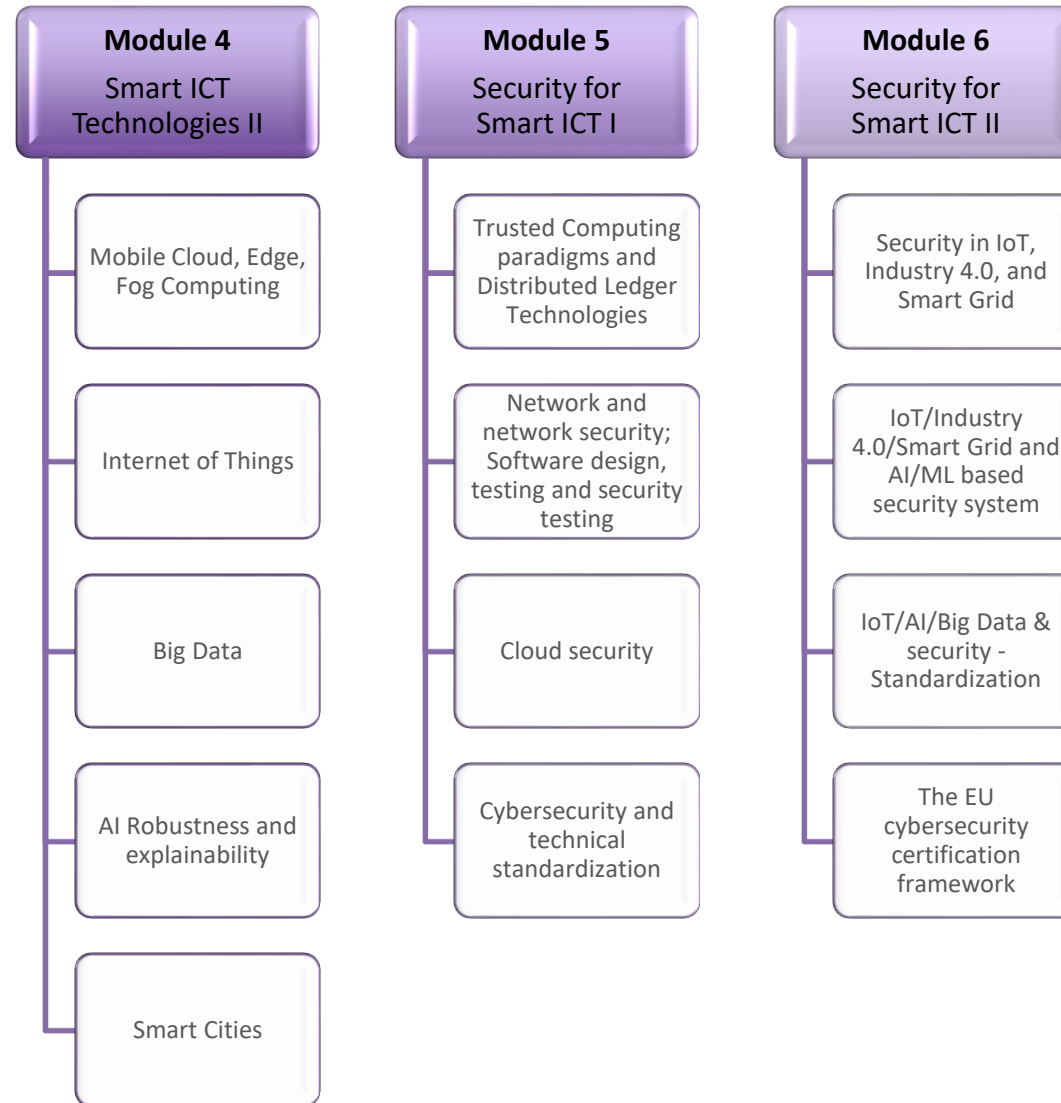
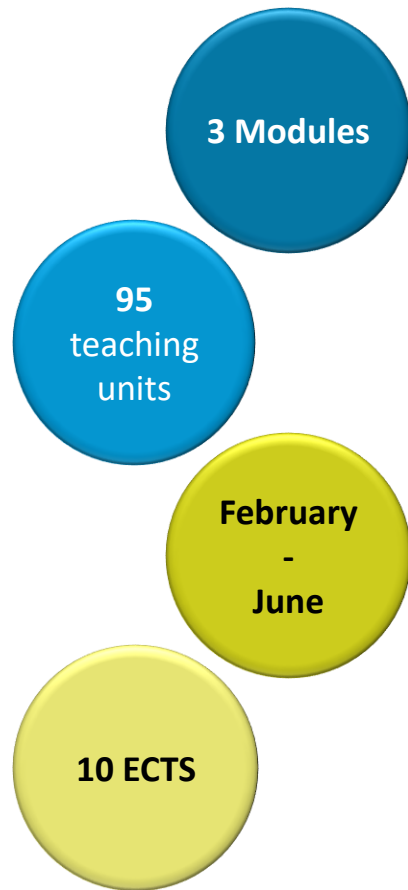
With the support of:

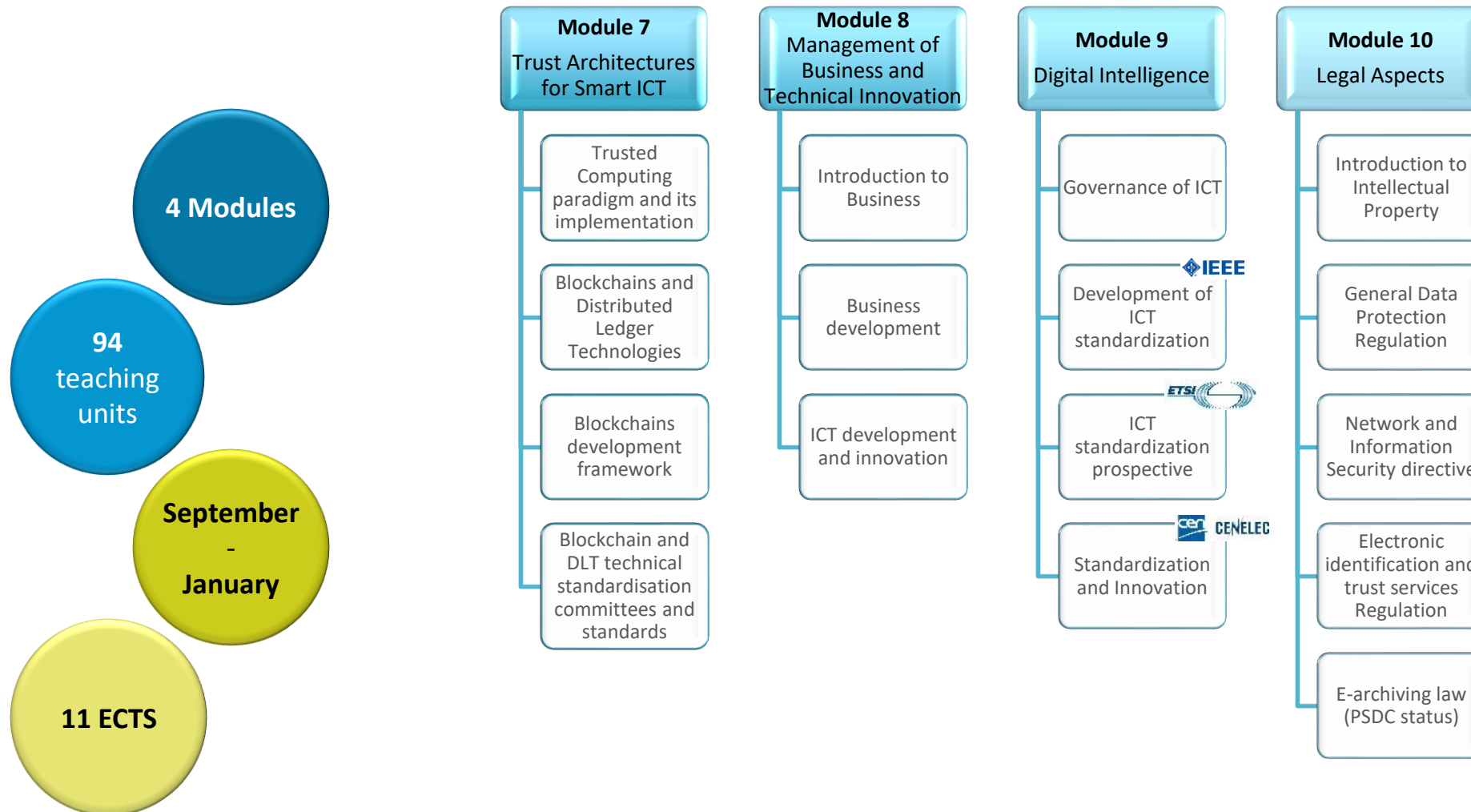


THE GOVERNMENT
OF THE GRAND DUCHY OF LUXEMBOURG
Ministry of the Economy







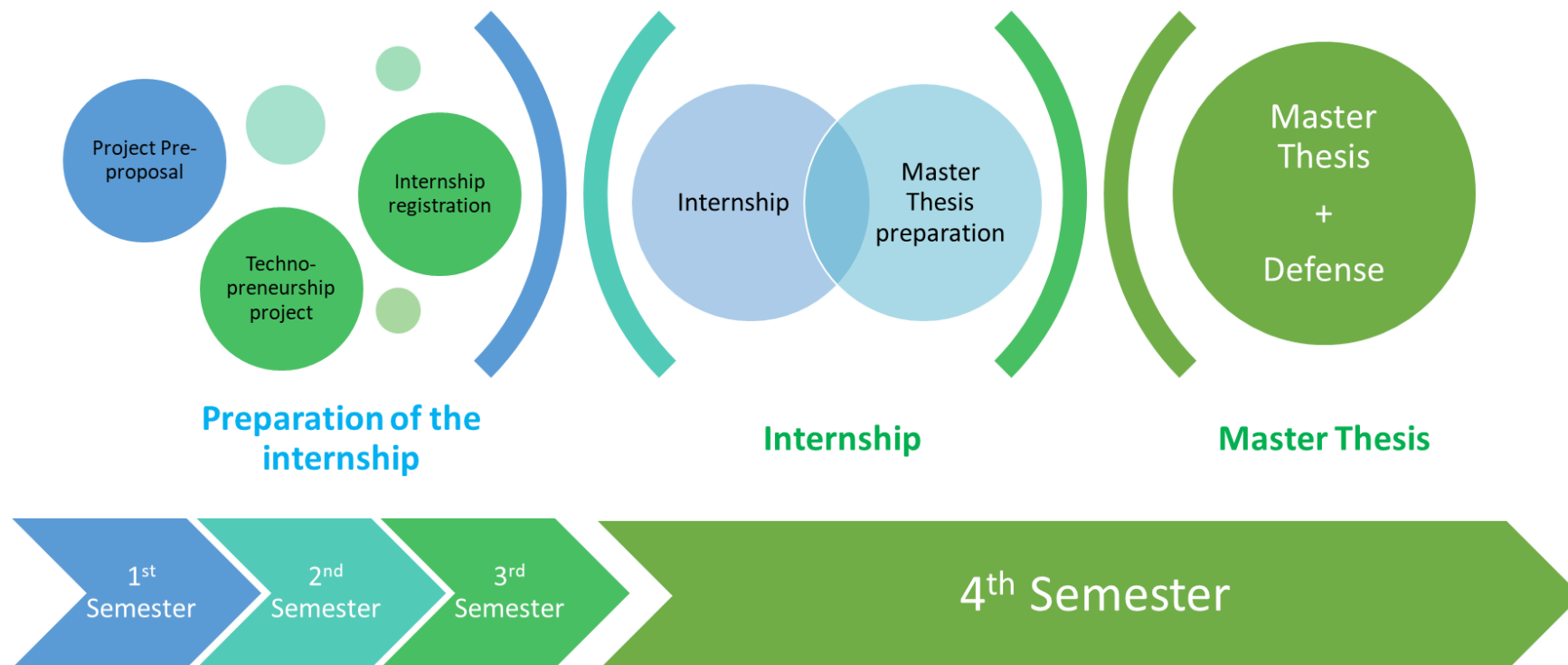


- Technopreneurship project to be implemented during the internship

“How can Smart ICT technologies and entrepreneurial competencies (Technopreneurship), supported by technical standardization and Digital Trust, be effectively implemented within my company or my ecosystem?”

February -
June

30 ECTS



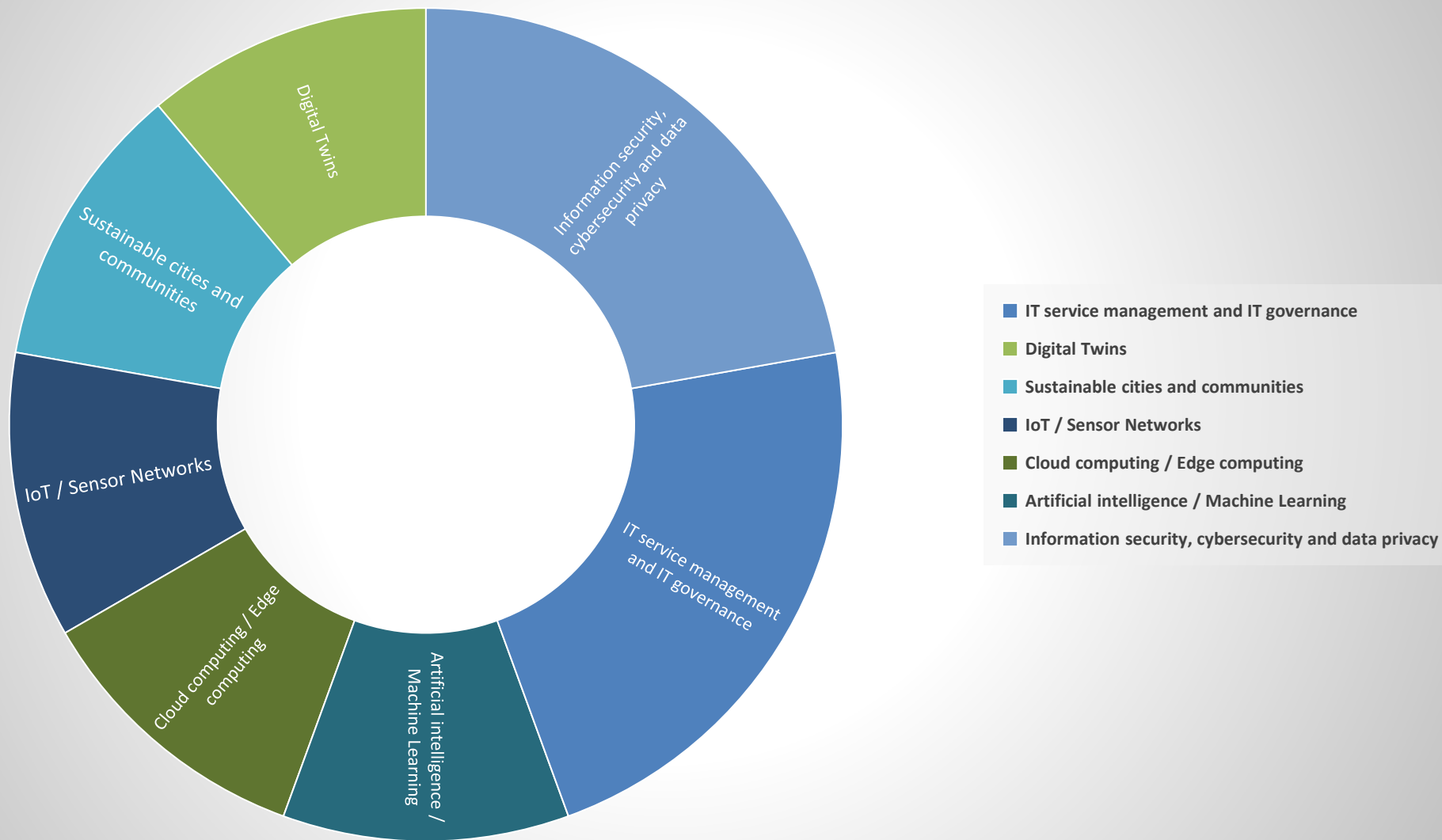
EDITION 2
2023-2025

Standardization topics in the students' projects (Internship + Master thesis)



- IT service management and IT governance
- IT for learning, education and training
- Augmented reality / Virtual reality
- Digital Twins
- Uncrewed Aircraft Systems
- Green ICT
- IoT / Sensor Networks
- Data management
- Cloud computing / Edge computing
- Artificial intelligence / Machine Learning

Students' participation in standardization technical committees



EDITION 2
2023-2025

■ 10 MASTER THESIS DEFENSE HAVE BEEN ORGANIZED IN FEBRUARY 2025

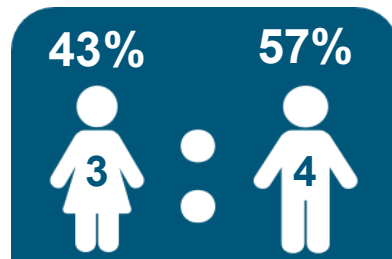
- “Exploring and Developing an Educational Game on Parallel Programming: Implementation and Testing of a Moodle-Based Puzzle Game for Teaching Fundamentals in Task Parallelism and Resource Allocation”
- “The Development of a Framework for Evaluating the Social Impact of Technological Innovations”
- “Revolutionizing Household Services in Luxembourg - The “HomeNova” Online Marketplace”
- “OccupO E-Space Management - A Cloud-based Integrated Workplace Energy Management Software”
- “Compliance Assurance Engine”
- “Exploring Generative AI Large Language Models for Automating Post Editing of Machine Translation in a Business Context”
- “Real Time Locating System for the industry 4.0 - Use case of Smart Safety Guard for workers tracking and safety enhancement”
- “Data Governance Maturity in the Network Data Hub”
- “Green Trail – Carbon Reporting and Auditing Framework”
- “Secure-iiT as a Service: data-value made simple - SioTaaS”



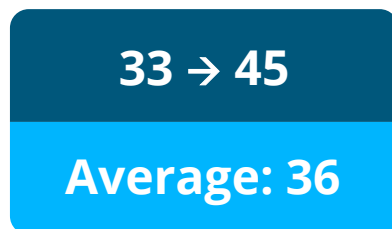
EDITION 3
2024-2026



WOMEN : MEN



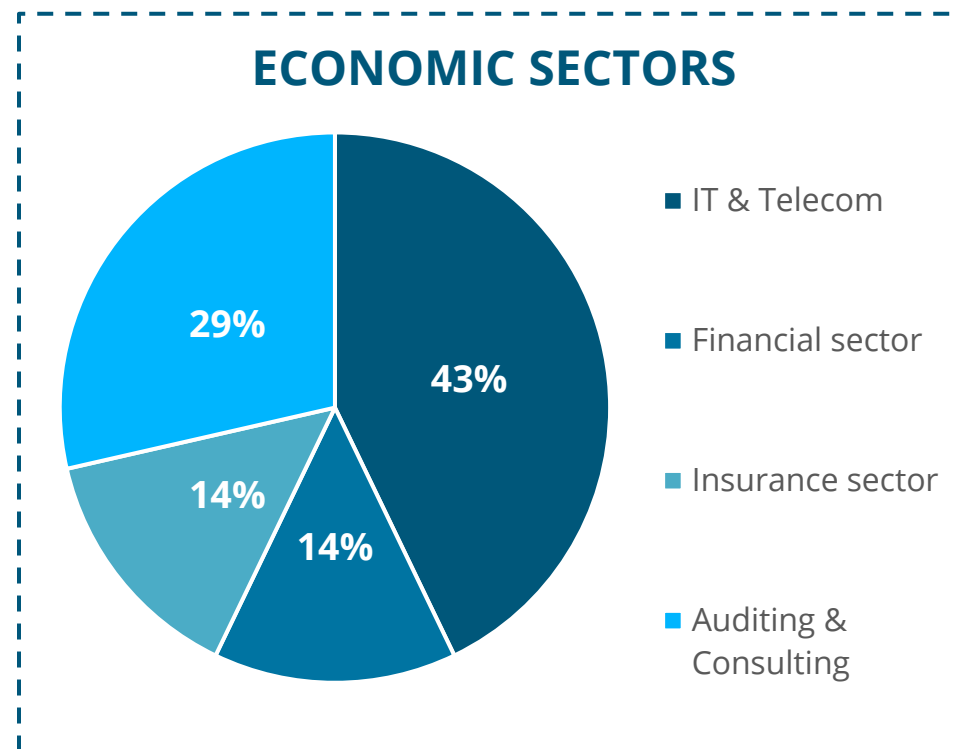
AGE



NATIONALITIES



ECONOMIC SECTORS



What's next?

- 
- **Continuous improvement of the program**
 - ✓ To follow the ICT evolution (e.g.: quantum computing, high performance computing)
 - ✓ To include most recent standardization developments
 - ✓ To better address the constraints of a lifelong-learning program with employed students (based on feedback from students)

 - **Next edition of the Master MTECH: September 2026**
 - ✓ Admissions: 1st February 2026 – 30th June 2026
 - ✓ Applications by email: mtech@uni.lu
 - ✓ More information: <https://www.uni.lu/fstm-en/study-programs/master-in-technopreneurship/>



SAVE THE DATE – 30/10/2025 (2 p.m. – 4 p.m.)

Kick-off meeting
ILNAS/NSC 05 “Cloud and Data”

→ **Registration:** email to normalisation@ilnas.etat.lu



ILNAS

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E-mail: info@ilnas.etat.lu

www.portail-qualite.lu

Remise du trophée



Lauréat 2025

Quelques indices...



Création en 2015



International
Standard

ISO 59040

First edition
2025-02

Circular economy — Product
circularity data sheet

*Économie circulaire — Fiche de données de circularité des
produits*



Lauréat 2025

Quelques indices...

Comités de normalisation/techniques concernés

ISO/TC 323 – Circular economy

- ISO/TC 323/WG 2 - Practical approaches to develop and implement Circular Economy
- ISO/TC 323/WG 5 - Product circularity data sheet



Lauréat 2025



+Impakt Circular Tracker



Félicitations !





Creating positive impact
with
data-driven circular
economy solutions



Our Core expertise



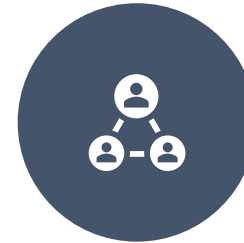
Innovation and New
Business Models for
Circular Economy



Circular Data and
Digital Product
Passport



Circular Building and
Construction

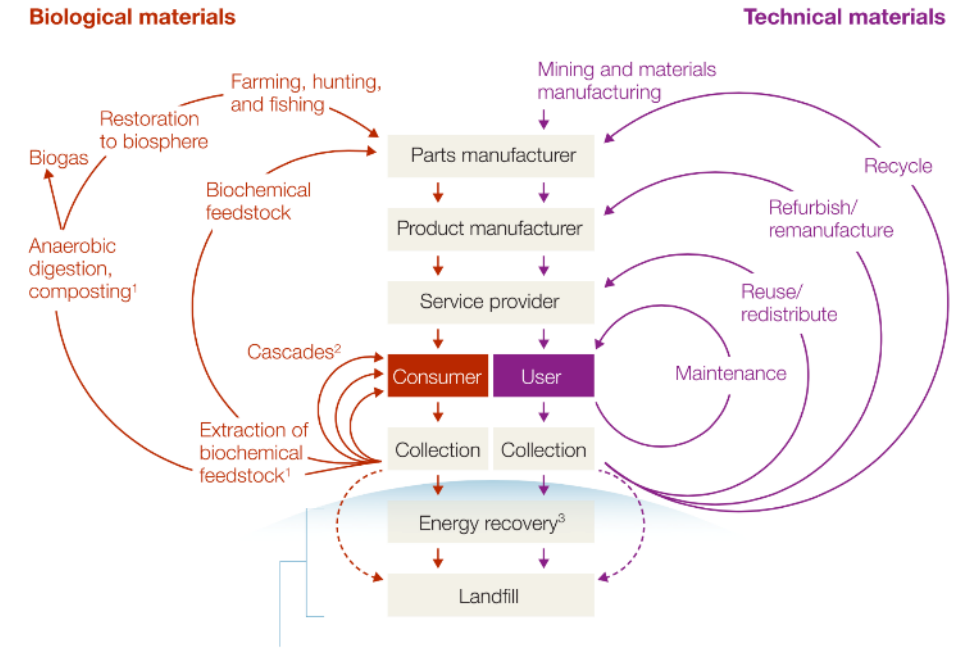
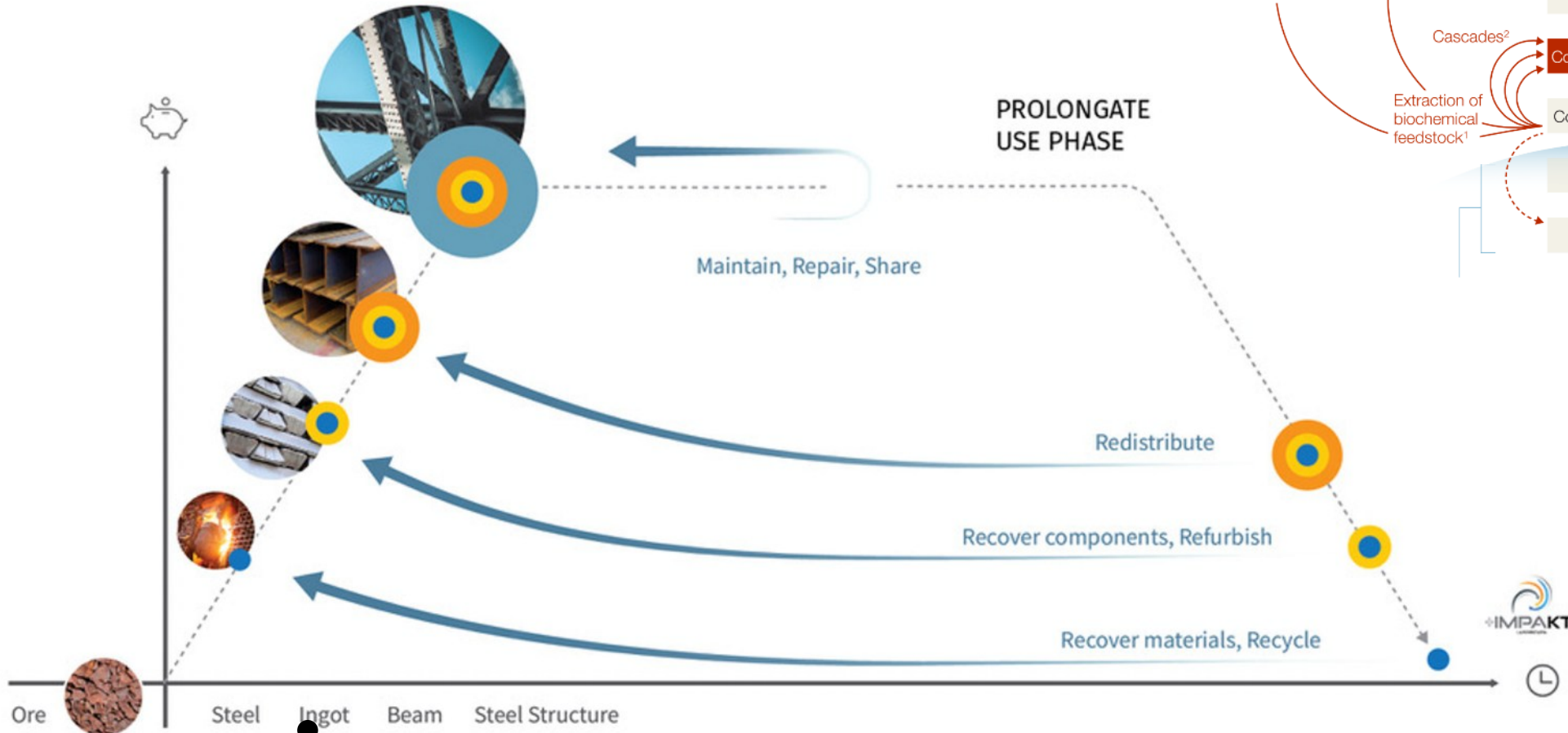


Project Management,
Co-Creation &
Industrial Symbiosis

Myself

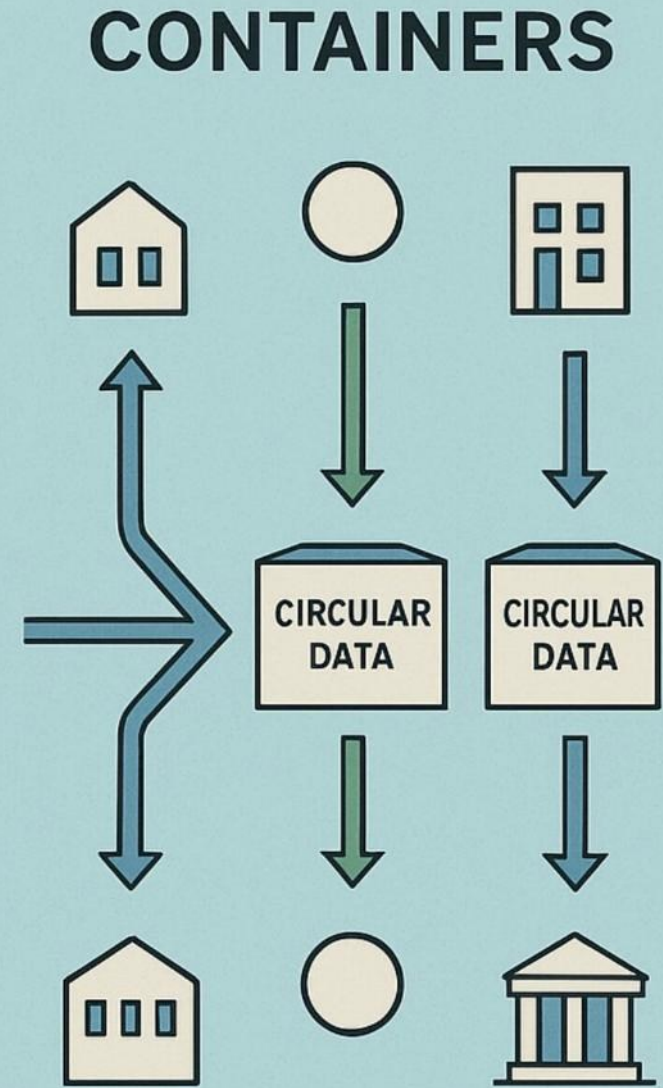
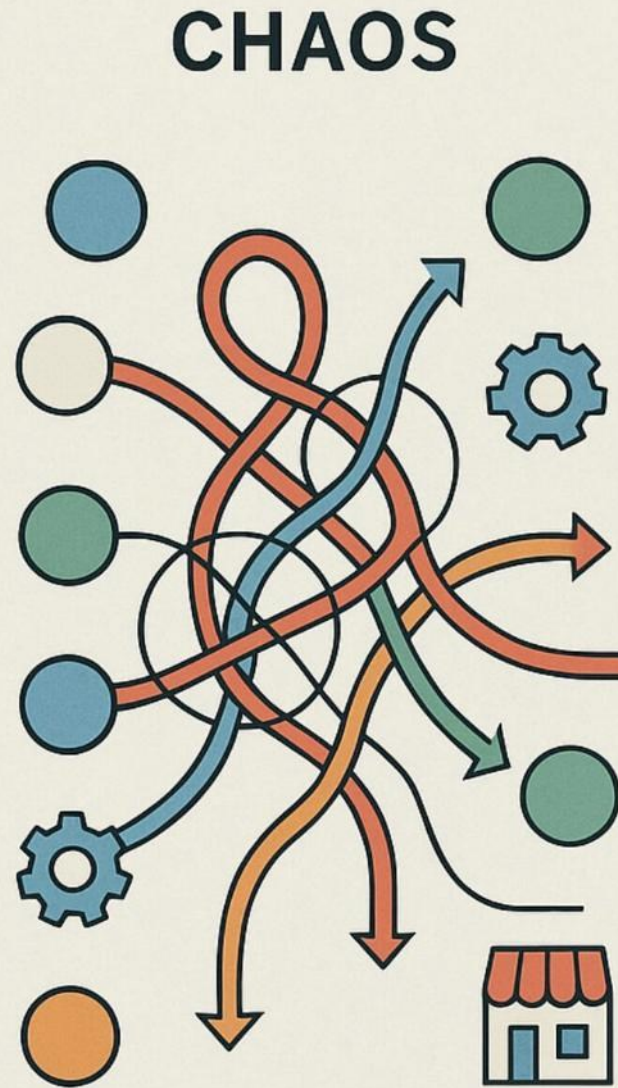


Circular economy: Value Hill



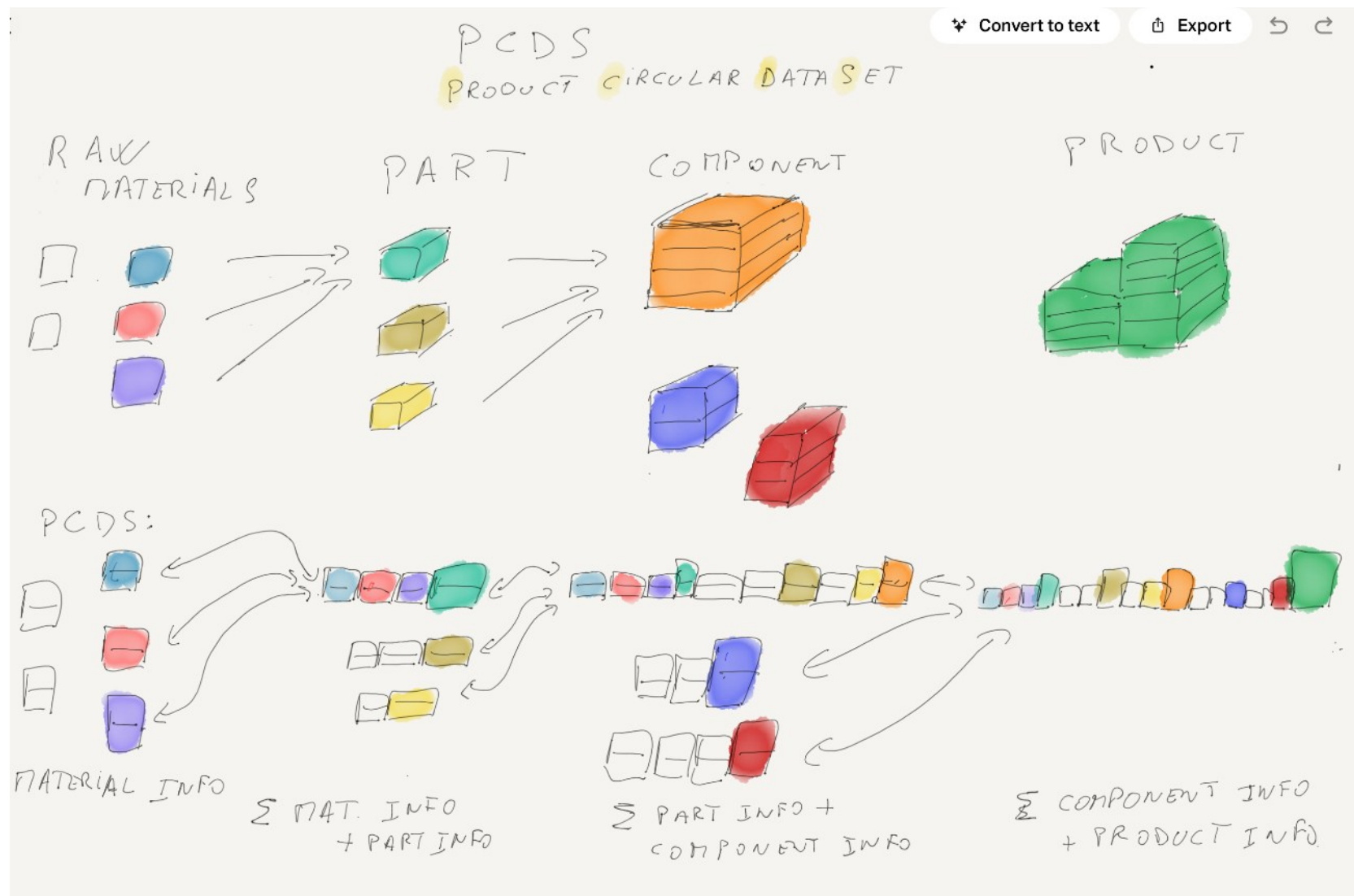
Less pilot projects

More 'Containers'



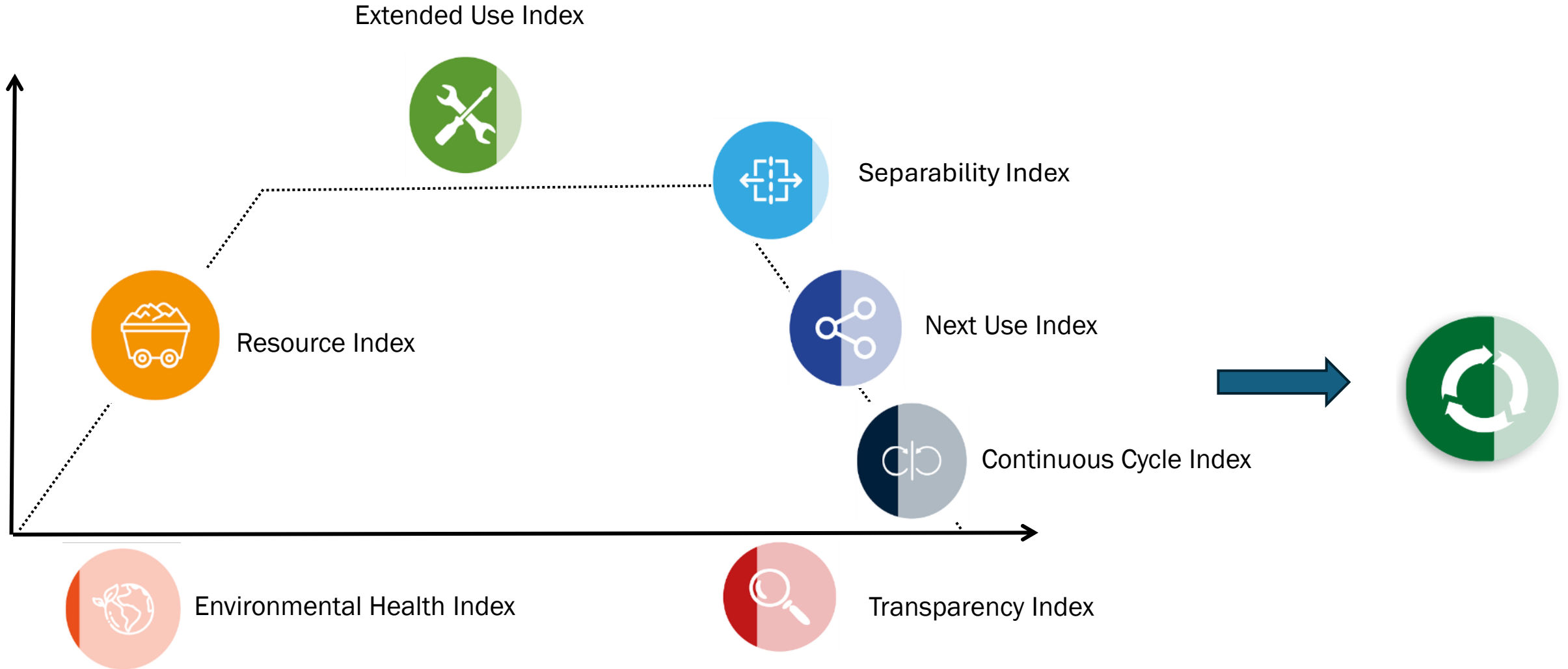
**FROM CHAOS TO CONTAINERS –
CIRCULARITY NEEDS A SHARED LANGUAGE**

The starting blocks

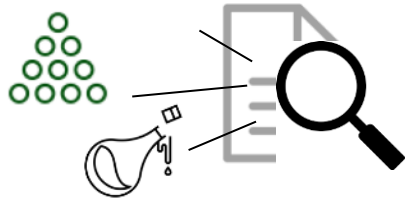


CircularTracker:

8 indices based on the PCDS



With a standardised method we can



Evaluate circular product characteristics



Identify design improvements



Communicate with credibility

Testimonial: Luxembourg Pavilion Osaka 2025



Circularity Scores



44%

TRANSPARENCY INDEX



12%

ENVIRONMENTAL HEALTH INDEX



0%

RESOURCE INDEX



55%

EXTENDED USE INDEX



50%

SEPARABILITY INDEX



100%

NEXT USE INDEX



65%

CONTINUOUS CYCLE INDEX



CIRCULARITY INDEX

TOTAL SCORE: 46%

Interested?

Your tool to assess and showcase product circularity

- Standardised - powered by ISO 59040
- No sensitive data required
- Quick Insights
- Compelling visuals



Try CircularTracker
Get Early Access



Merci à tous les experts impliqués dans la normalisation technique.



Journée Mondiale de la Normalisation World Standards Day

15.10
2025

