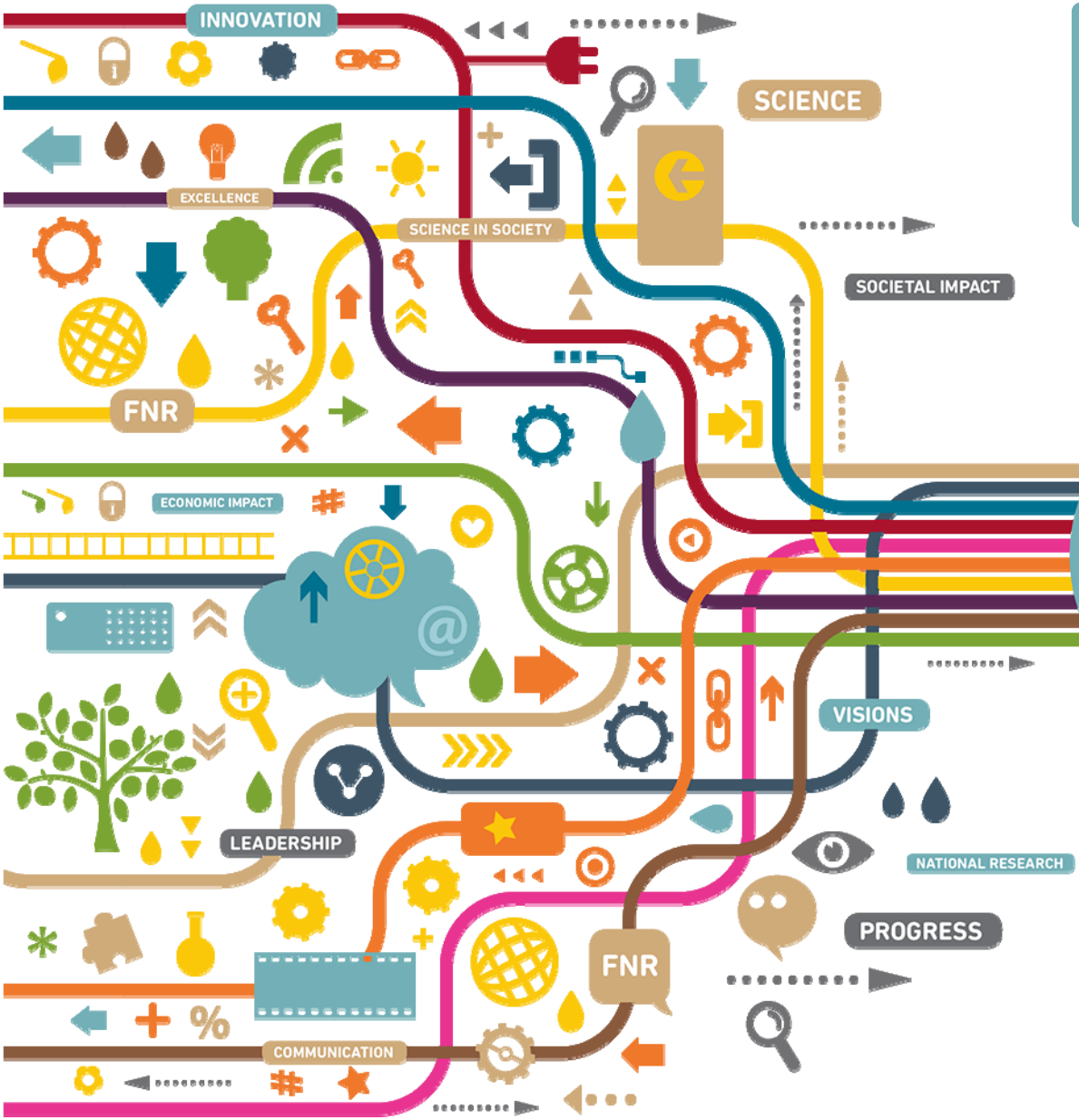


European Data Forum 2015

RESEARCH WITH IMPACT

Marc SCHILTZ
Executive Head

 Fonds National de la
Recherche Luxembourg



What we do

The Luxembourg National Research Fund (FNR) is the **main funder of research activities in Luxembourg.**

Entrusted with an annual budget of 70 MEUR, we fund projects and people in all public research institutions and also support research cooperation with Luxembourg-based companies.

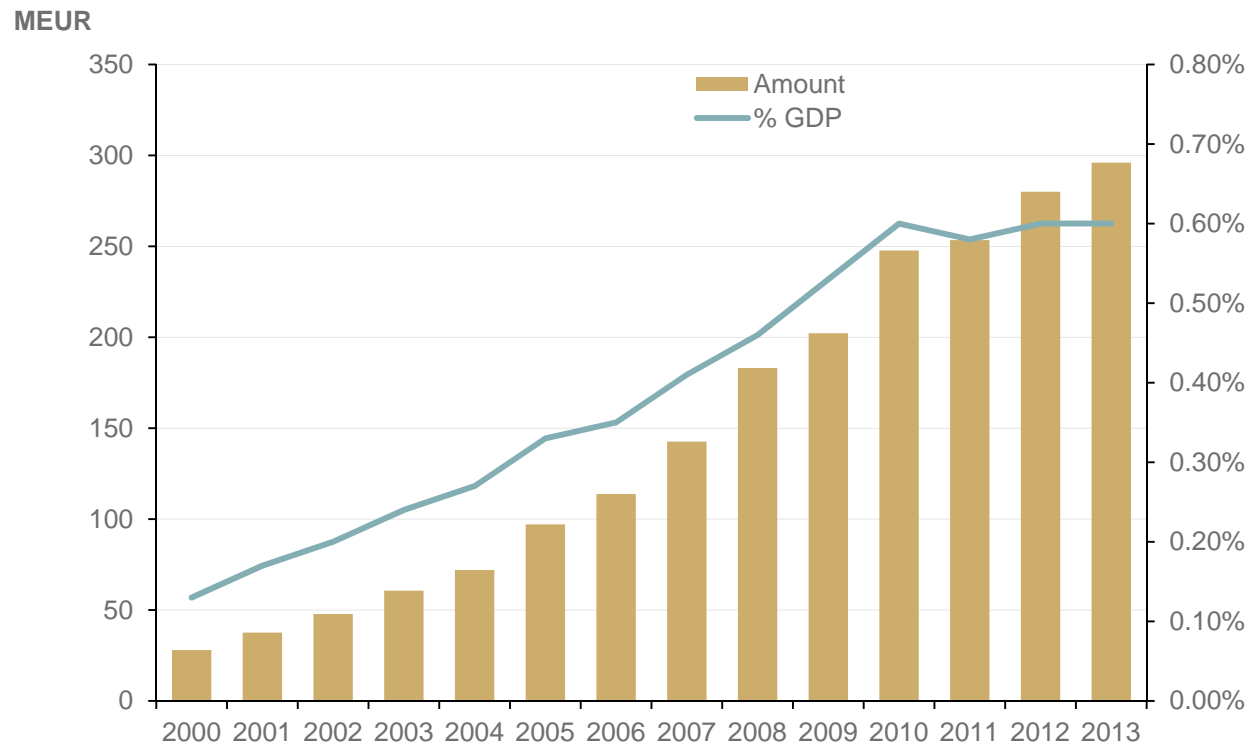
Our vision

To establish Luxembourg as a leading knowledge-based society through science, research and innovation, thereby contributing to the country's economic diversification and future prosperity.

Luxembourg : a young research location

SUSTAINED EFFORTS...

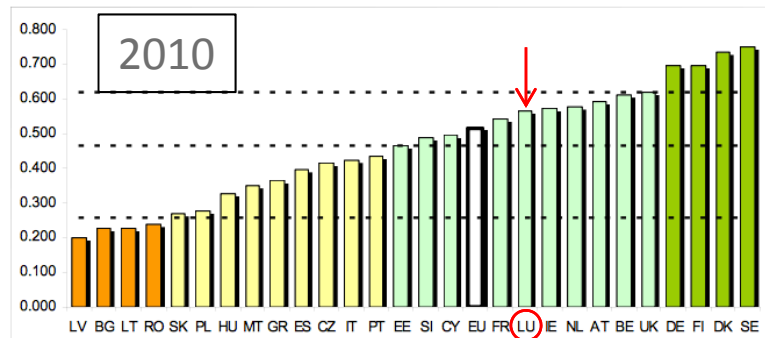
Luxembourg Public Investments in R&D



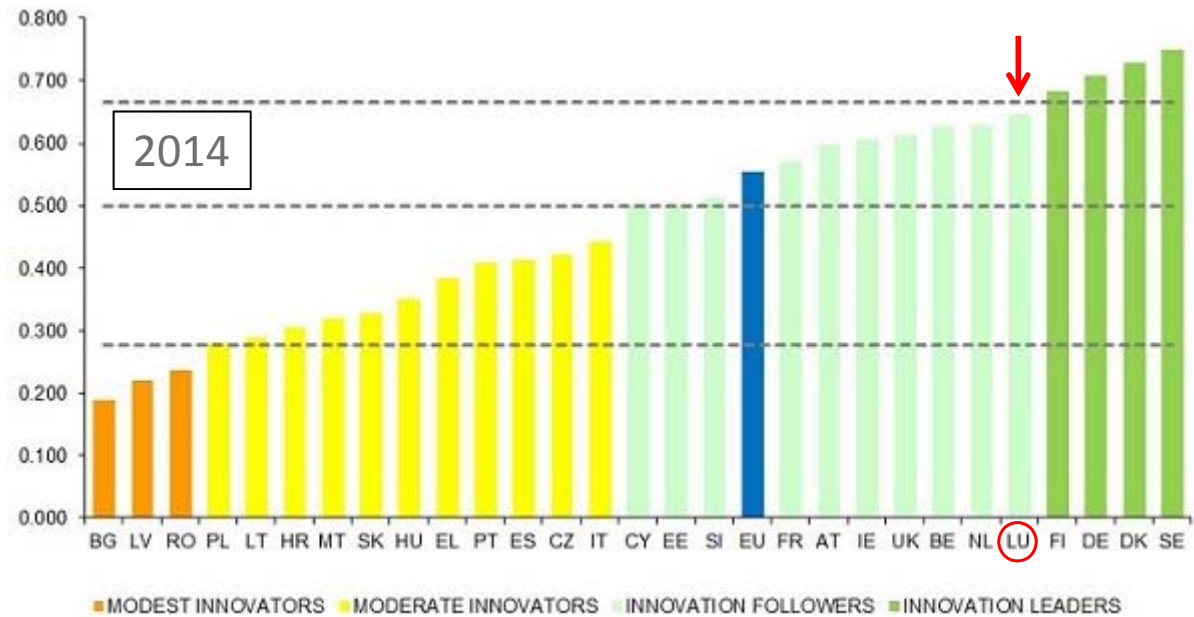
2

Luxembourg : a young research location

SHOWING RESULTS...



EU Member State's Innovation performance
(Source: Innovation Union Scoreboard)



CAMPUS BELVAL

Luxembourg's Research and Innovation Campus

On the 120 hectares of grounds that once housed Luxembourg's largest steel foundry, a 750 MEUR urban renewal project comprising about 20 new buildings, will house all major research and innovation actors. In its ultimate expansion, around 7,000 students and 3,000 teaching staff and researchers will be at work here.

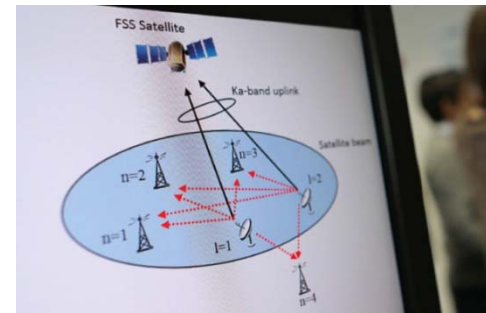
ICT : a sector of paramount importance for Luxembourg

- Luxembourg's economy is based on the service sector (87 % of GDP)
- Luxembourg has developed world-class IT infrastructures
 - Most modern data centre park in Europe
 - International fibre network, providing high-speed low-latency connectivity
- Business-friendly legal and regulatory framework
- SES, the world's largest telecommunication satellite operator is headquartered and operating from Luxembourg

Capacity building :

SnT, the interdisciplinary research centre for security reliability and trust

- Launched at the University of Luxembourg in 2009
- Clear aim to develop the full spectrum from fundamental to applied research
- Staff has been growing to 230
- One of the most successful research centres in Luxembourg
- 1 Spin-off company created with support of FNR



Photos © Université de Luxembourg

6

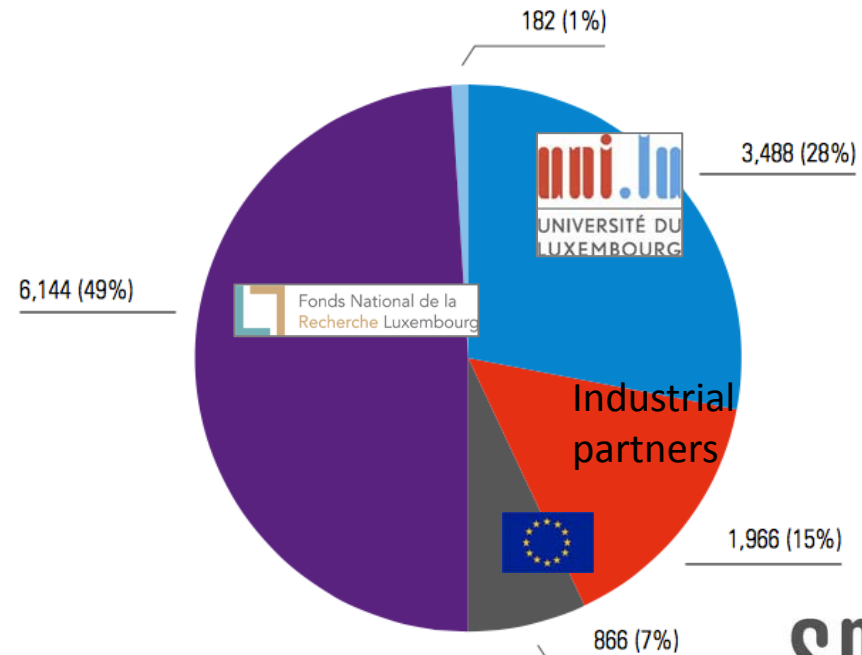
SNT
securityandtrust.lu



Prof. Björn Ottersten
Director

Cooperation with industry: SnT partnership programme with 24 companies co-funded by FNR

2014 SnT consumed income (in kEUR)



Talent attraction

Bringing excellent researchers with a high level of ability in science and technology to Luxembourg is a key mission of the FNR.

The **PEARL** programme seeks to **attract established and highly recognised researchers.**



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Prof. Lionel Briand

Validation and Verification Laboratory

FNR PEARL Chair (4.6 M€ grant)

IEEE Fellow

IEEE Reliability Society, Reliability engineer of the year (2013)

IEEE Computer Society Harlan Mills Award Recipient (2012)



Prof. Paulo Verissimo

Information Infrastructure Security and Dependability

FNR PEARL Chair (4.9 M€ grant)

IEEE Fellow

ACM Fellow



Prof. G. Crean, CEO

Photo © <http://eartovienna.eu/>

- Luxembourg's RTO
- Staff : 550
- In 2014 : conducted 242 R&D projects
 - Materials Sciences
 - Environmental Sciences & Agrobiotechnology
 - IT for Innovative Services
- Decision support system for multimodal mobility - data integration for planning mobility infrastructure, for consulting for companies to optimize fleet management in companies
- Risk management in the financial and telecom sectors



Tipping points expected to occur by 2025

| | |
|---|------|
| 10% of people wearing clothes connected to the internet | 91.2 |
| 90% of people having unlimited and free (advertising-supported) storage | 91.0 |
| 1 trillion sensors connected to the internet | 89.2 |
| The first robotic pharmacist in the US | 86.5 |
| 10% of reading glasses connected to the internet | 85.5 |
| 80% of people with a digital presence on the internet | 84.4 |
| The first 3D-printed car in production | 84.1 |
| The first government to replace its census with big-data sources | 82.9 |
| The first implantable mobile phone available commercially | 81.7 |
| 5% of consumer products printed in 3D | 81.1 |
| 90% of the population using smartphones | 80.7 |
| 90% of the population with regular access to the internet | 78.8 |
| Driverless cars equalling 10% of all cars on US roads | 78.2 |
| The first transplant of a 3D-printed liver | 76.4 |
| 30% of corporate audits performed by AI | 75.4 |
| Tax collected for the first time by a government via a blockchain | 73.1 |
| Over 50% of internet traffic to homes for appliances and devices | 69.9 |
| Globally more trips/journeys via car sharing than in private cars | 67.2 |
| The first city with more than 50,000 people and no traffic lights | 63.7 |
| 10% of global gross domestic product stored on blockchain technology | 57.9 |
| The first AI machine on a corporate board of directors | 45.2 |