



FNR Instruments for supporting Public-Private Partnerships in Research



Our mission

- Funding research at public research organizations
 - Independent evaluation; quality & excellence
- Strategic programmes and instruments to
 - Foster international collaborations
 - Attract excellent researchers from abroad
 - Increase the international visibility of Luxembourg
 - Promote industrial exploitation of research results
 - Fund PhD and PostDoc grants
- Promoting scientific culture and interest in research, especially among the younger generations



Public Research Centers



➤ CRP Gabriel Lippmann

- Staff : 220
- Materials Sciences
- Environmental Sciences
- IT

➤ CRP Henri Tudor

- Staff : 500

Merger in 2015



➤ CEPS-INSTEAD

- Staff : 110
- Social Sciences

➤ CRP Santé

- Staff : 180
- Life & Health Sciences



➤ Integrated BioBank of Luxembourg

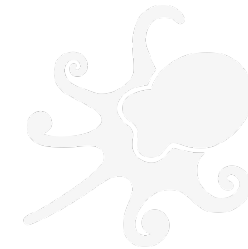
- Staff : 42



University of Luxembourg *(founded in 2003)*



- 6157 Students, of which 545 PhD
- 230 Professors, 425 Research Staff
- Research priorities
 - Systems Biomedicine
 - Security, Reliability and Trust in Information Systems
 - European & Business Law
 - International Finance
 - Learning and Development in Multilingual and Multicultural Contexts
- 2 Interdisciplinary Research Centers
 - Interdisciplinary Center for Security, Reliability and Trust (SnT)
 - Luxembourg Centre for Systems Biomedicine (LCSB)

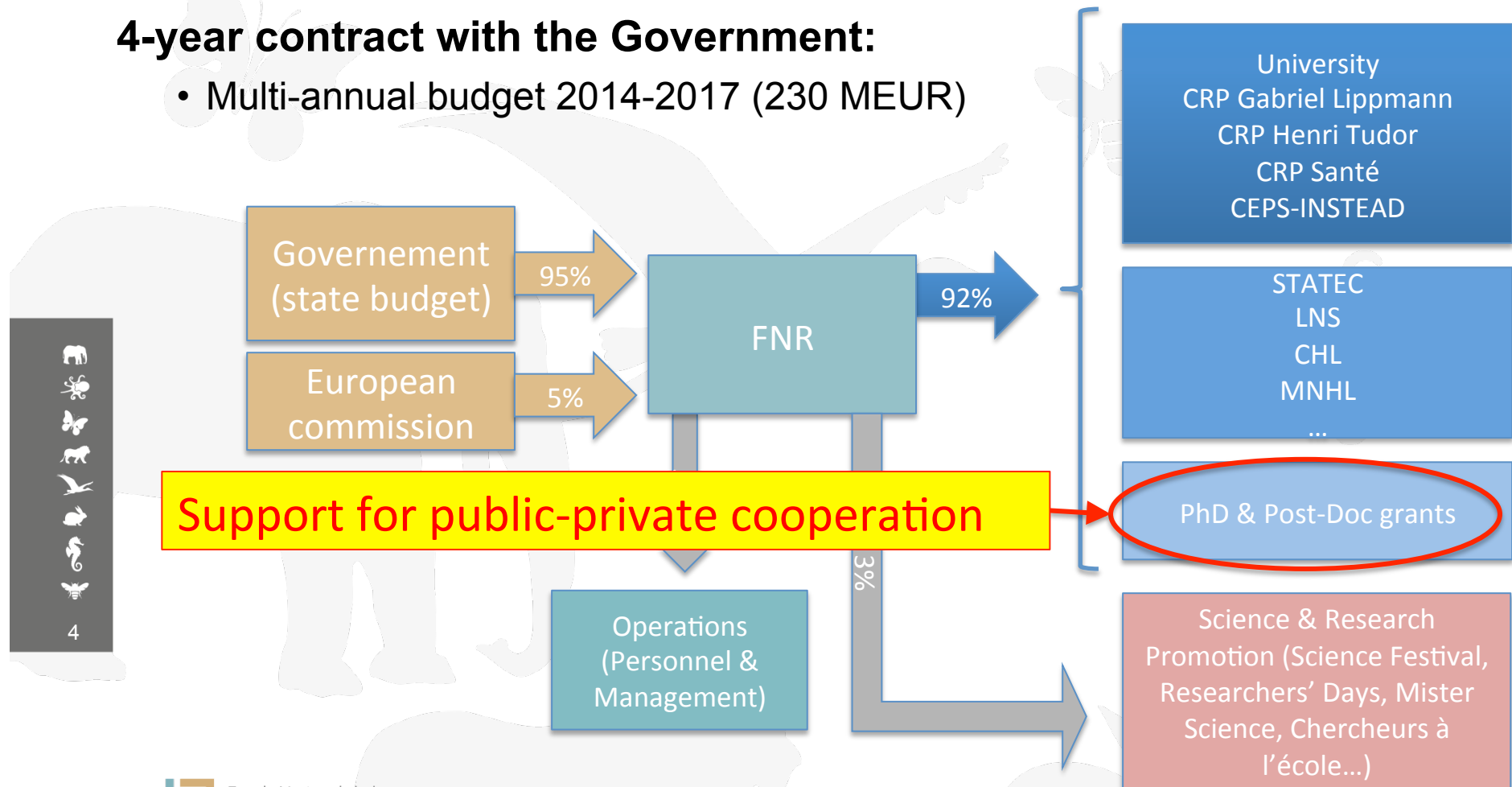


FNR: The National Research Fund



4-year contract with the Government:

- Multi-annual budget 2014-2017 (230 MEUR)





Public-Private Partnerships with AFR-PPP grants

 Fonds National de la
Recherche Luxembourg

AFR-PPP

- AFR = « Aide à la Formation-Recherche »
 - Grant to support PhD candidate or Post-doctoral researcher
- PPP = Public-Private Partnership
 - Research project carried out in cooperation between a public-sector research institution (University, CRP, Research Centre) and a company or other privately-run organization
- AFR-PPP = grant to support a PhD candidate or a Post-doctoral researcher working on PPP research project



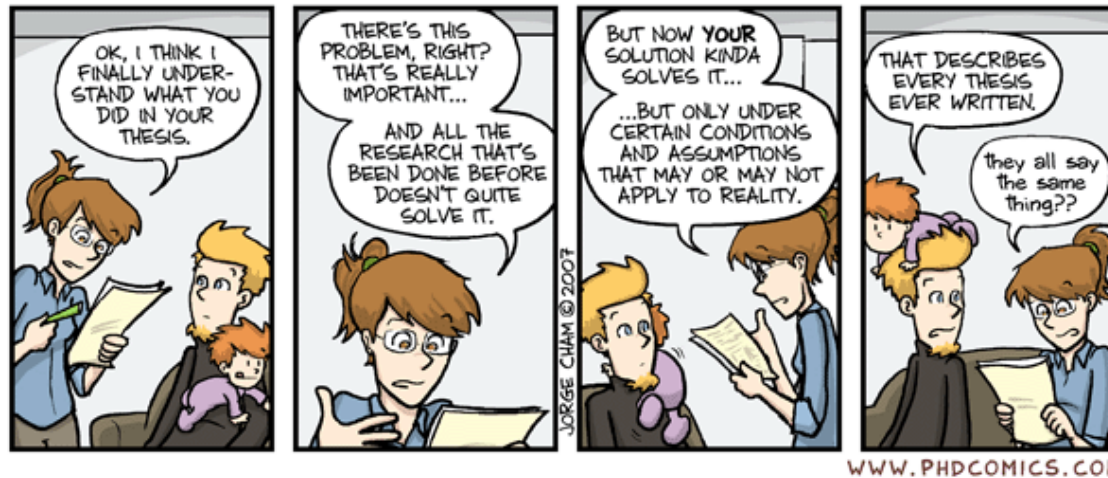
AFR-PPP : Contribution to Salary Costs

The AFR-PPP grant covers the salary costs (including employers social contributions) of the PhD candidate or Post-doctoral researcher

2014 - Salary Index 775.17	PhD	Postdoc
max. AFR contribution to work contracts (incl. employers' charges)	44,030 EUR/year	62,169 EUR/year
Max. duration	4 years	2 years

PhD ??

- Crazy people working for many years on a highly specialized subject that is of no interest to anyone ...



- A means to get a pompous title « Herr Doktor » ...



Modern PhD

- An academic & professional qualification
- A PhD demonstrates the ability to conceive and lead a long-term research project
- May or may not be the first step into a research career
- In any event: added-value for potential employers
- A PhD project can be highly relevant beyond academia

Examples of AFR-PPP projects



Name	Hubert Anton Moser
Position	PhD
Project	Wave-constrained design methodology for space products
Company	LuxSPACE s.a.r.l.
University	University of Luxembourg - SnT
Start Date	01/07/2009
End Date	30/06/2013
Current	Space Systems Engineer, LuxSPACE

“This type of research would not be possible elsewhere, i.e. with a funding scheme other than the AFR grants. I would not have performed a PhD in another scheme, 100% at a university or in parallel to normal work. I will continue to work with LuxSPACE and the cooperating institutions (SnT, German Aerospace Centre) and extend cooperation to sister companies of OHB in Europe and ESA.”

“Hubert Moser’s PhD project provided the company with an interesting perspective and practical approach on how to introduce new young engineers into the company environment. The PhD experience has increased the value of Hubert as an employee and colleague. In addition, it improved the contact between LuxSPACE and the University, leading to more cooperation since then.”



Dr. Jeroen Buursink
Head of Microsatellite
Department at LuxSPACE



Examples of AFR-PPP projects



Name	Pascal Brinks
Position	PhD
Project Title	Concepts for nearly-zero-energy industrial buildings
Company	ASTRON LINDAB S.A.
University	TU Kaiserslautern
Start Date	01/02/2012
End Date	31/01/2015

“The main advantage of a PPP for me was that it allowed me to ensure that all developments in my PhD are applicable in industry but based on the current state of science. The career options for me seem to be much better than for PhD-colleagues from academia. You can make many contacts in industry. Thus, I already got offers from industry and from academia even if my PhD is not yet finished.”



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“A PPP allows the company to attract a competent PhD student and academic partner and share the risks for an additional human resource and project in the R&D department. Publications and participation in international conferences provides great visibility for the project, the company and Luxembourg.”



René Oly
R&D Director at Lindab

Examples of AFR-PPP projects



Name	William Samson
Position	Postdoc
Project Title	Biomechanical and clinical analysis of foot behaviour during gait using an innovative 4D foot scanner
Company	Lion Systems S.A.
University	Université Libre de Bruxelles
Start Date	11/07/2011
End Date	10/07/2013
Current	Sales Manager, GeNouRoB, France

Supervisor Stephane Sanchez, Computer Vision Engineer, Lion Systems

“The PPP has allowed us to better position our products related to dynamic measurements of the foot, to improve them and to highlight their technological innovations to our clients.

William Samson has allowed us to make ourselves known more widely within the scientific community through his presentations at international conferences and publications in prestigious journals such as "Gait & Posture".”



Examples of AFR-PPP projects



Name	Xihui Chen
Position	PhD
Project Title	Secure and Private Location Proofs: Architecture and Design for Location-Based Services
Company	i-trust consulting
University	University of Luxembourg – SnT
Start Date	01/08/2010
End Date	31/07/2014
Current	IT Officer at Industrial and Commercial Bank of China

Supervisor: Dr. Carlo Harpes, Managing Director, i-trust consulting

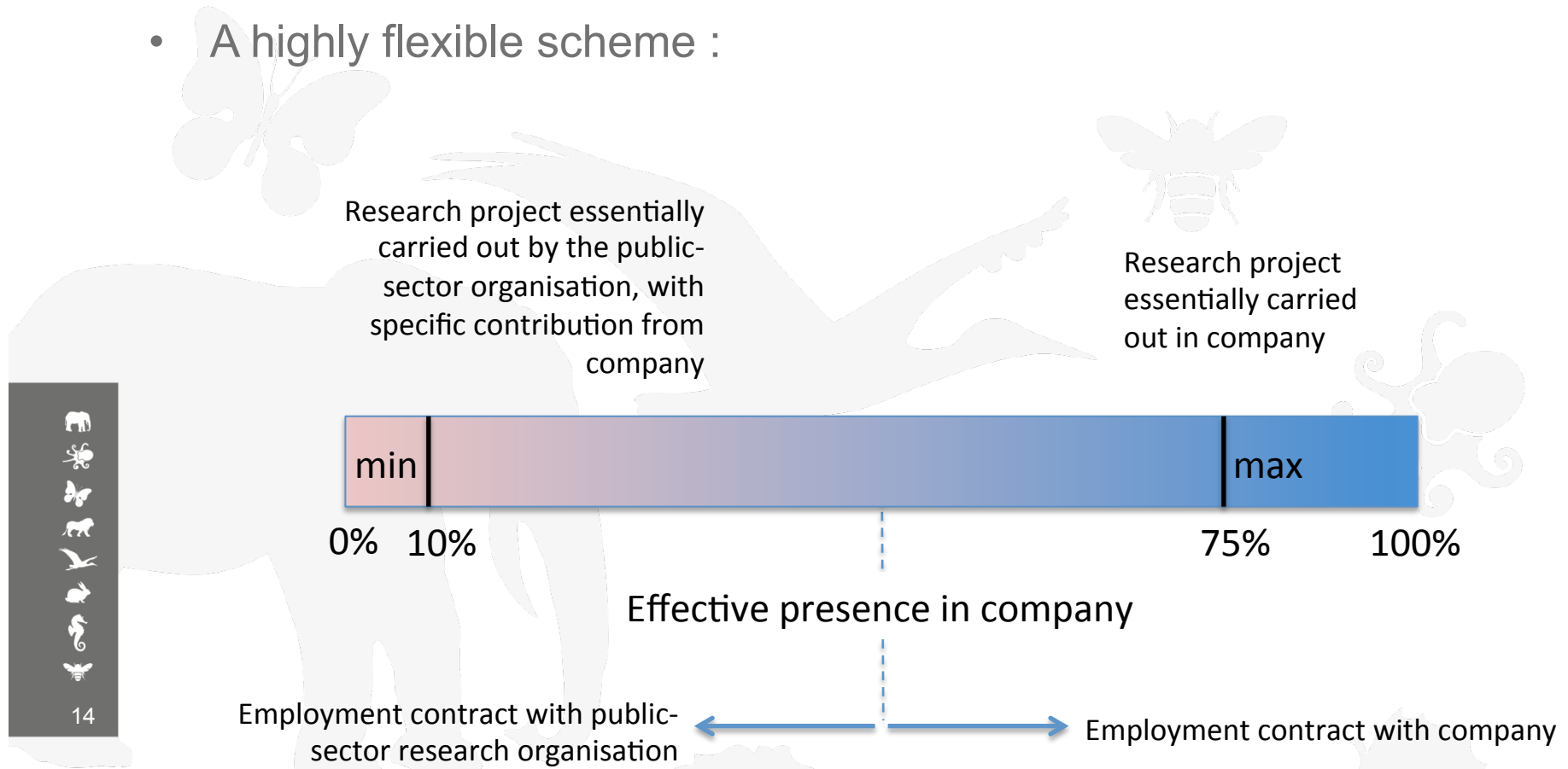
“Thanks to a PPP, the company can recruit highly qualified people, train them on an initial project and then offer them other opportunities within the company.

On the other hand, the type of analysis that a doctoral student can perform under the supervision of a university professor allows the company to develop knowledge that can be integrated into corporate tools.”



AFR-PPP

- A highly flexible scheme :



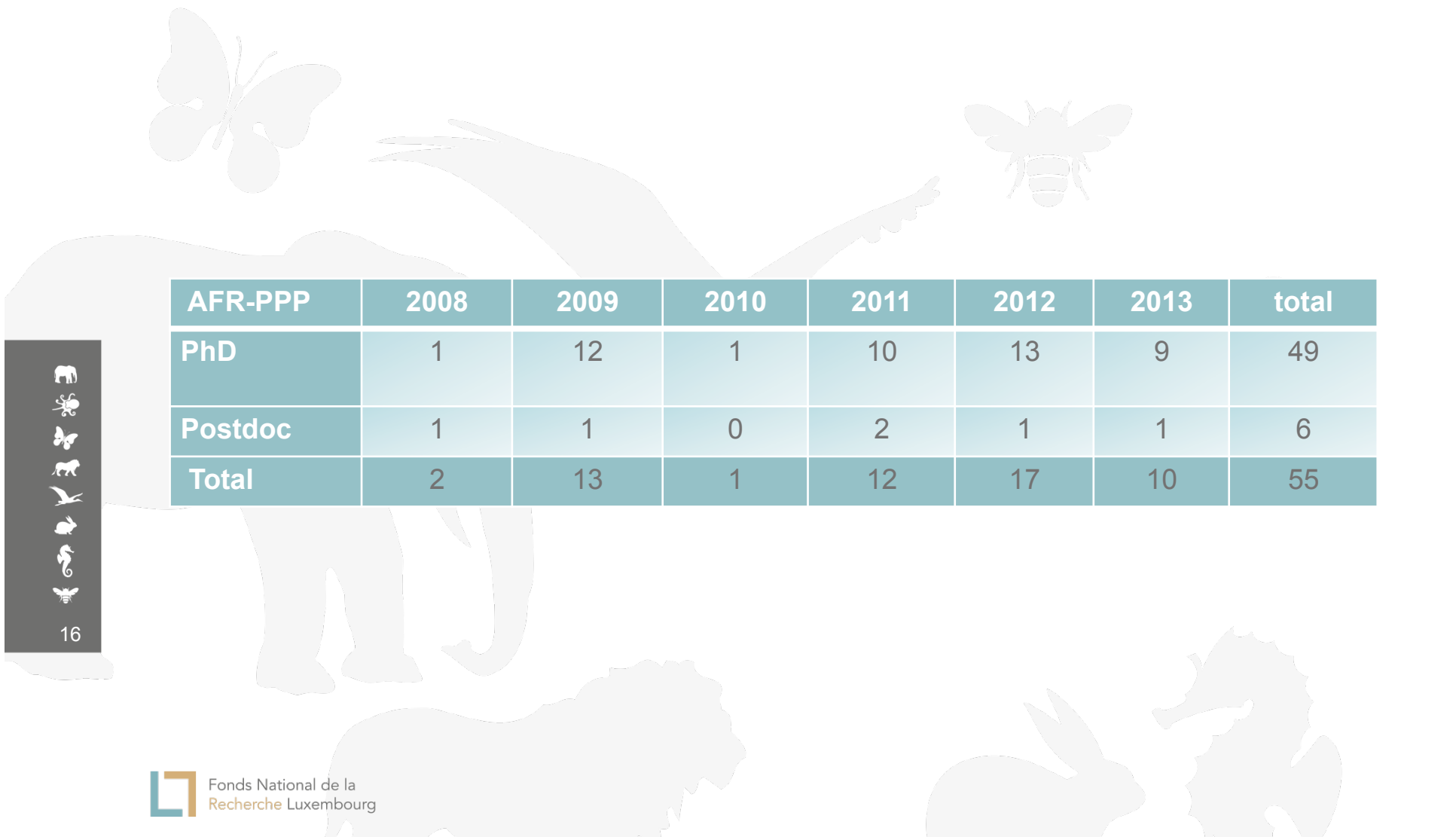
Conditions for AFR-PPP

- R&D accreditation of private company in Luxembourg by the Ministry of Economic Affairs
- Public-sector partner in or outside Luxembourg
- If public-sector partner is outside Luxembourg: at least 25% of research time must be spent in the Luxembourg-based company
- Active supervision and training through company contact(s) and part of the training should be done in the company
- Contract on IPR and other relevant issues



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AFR-PPP Public-Private Partnerships since 2008



AFR-PPP	2008	2009	2010	2011	2012	2013	total
PhD	1	12	1	10	13	9	49
Postdoc	1	1	0	2	1	1	6
Total	2	13	1	12	17	10	55



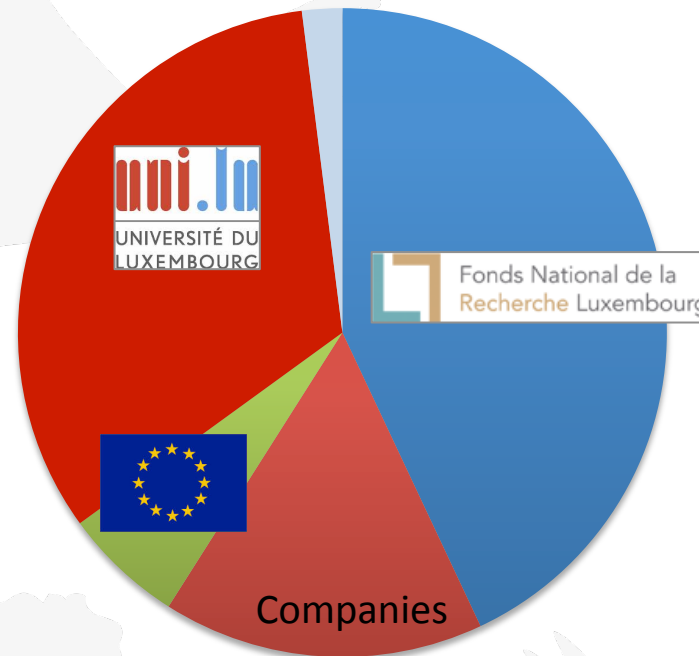
FNR-supported public-private reasearch cooperations



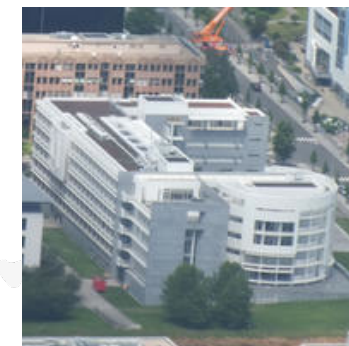
SnT Partnership Programme (Cooperations supported by the FNR)



Funding Sources



Prof. Björn Ottersten
Director



AFR Calls in 2014

AFR grants are allocated **competitively** ! (for AFR-PhD: 25-35 % success rate) by a panel of international experts

AFR Call Reference	Call deadline	Funding decision	Budget
AFR-PDR 2015	March 2014	Mid-June 2014	



How to ?

- Find public-sector partners



www.luxinnovation.lu

&

<http://www.innovation.public.lu/>

- Recruit researchers



www.euraxess.lu

&

<http://ec.europa.eu/>



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Contact Persons at the FNR



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For AFR-PPP

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Thank you for your attention

-  CORE research = excellence + priority
-  OPEN research = excellence + originality
-  ATTRACT research = opportunity + challenge
-  PEARL research = flexibility + synergies
-  INTER research = mobility + collaboration
-  AFR research = training + perspective
-  RESCOM research = support + promotion
-  PSC research = communication + promotion

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