



Strategy for international cooperation Research Foundation – Flanders

3.6.2019 - Paris

dr. Ir. Isabelle Verbaeys
Head International Affairs FWO

Content

- ❑ Belgian context
- ❑ Research Foundation – Flanders (FWO)
- ❑ FWO strategy for international cooperation
 - Main drivers & Strategic objectives
 - Theory of change
 - Governance
- ❑ Conclusions

Belgian context



Federal

Regions

- Flemish Region;
- Walloon Region;
- Brussels-Capital Region.

Communities

- Flemish Community;
- French Community;
- German Community.

Research related to:

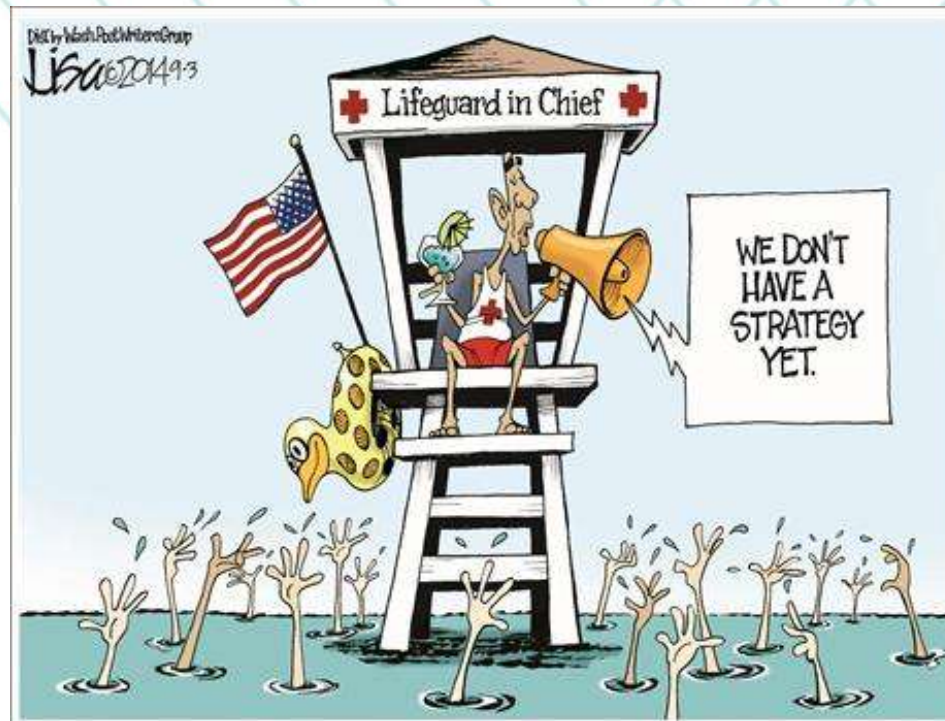
Economy; energy; public works; environment; transport; support to basic technological & industrial research

Space & nuclear; Federal Scientific Institutes; infrastructures; regulatory frameworks and R&I tax incentives

Education; healthcare; culture; **research performed in higher education institutions**

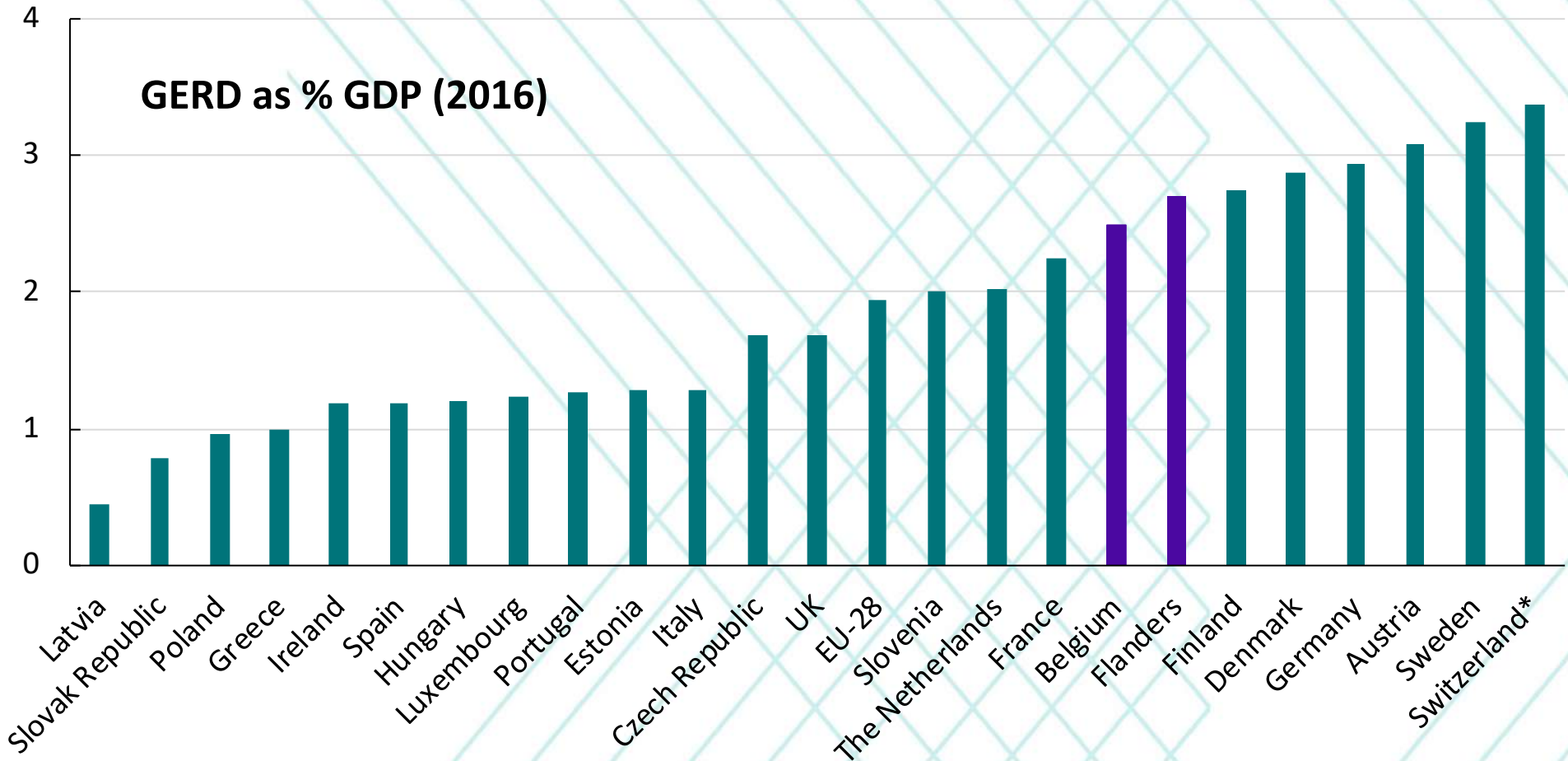
Belgian context

- No overall Belgian strategy
- No overall Flemish strategy



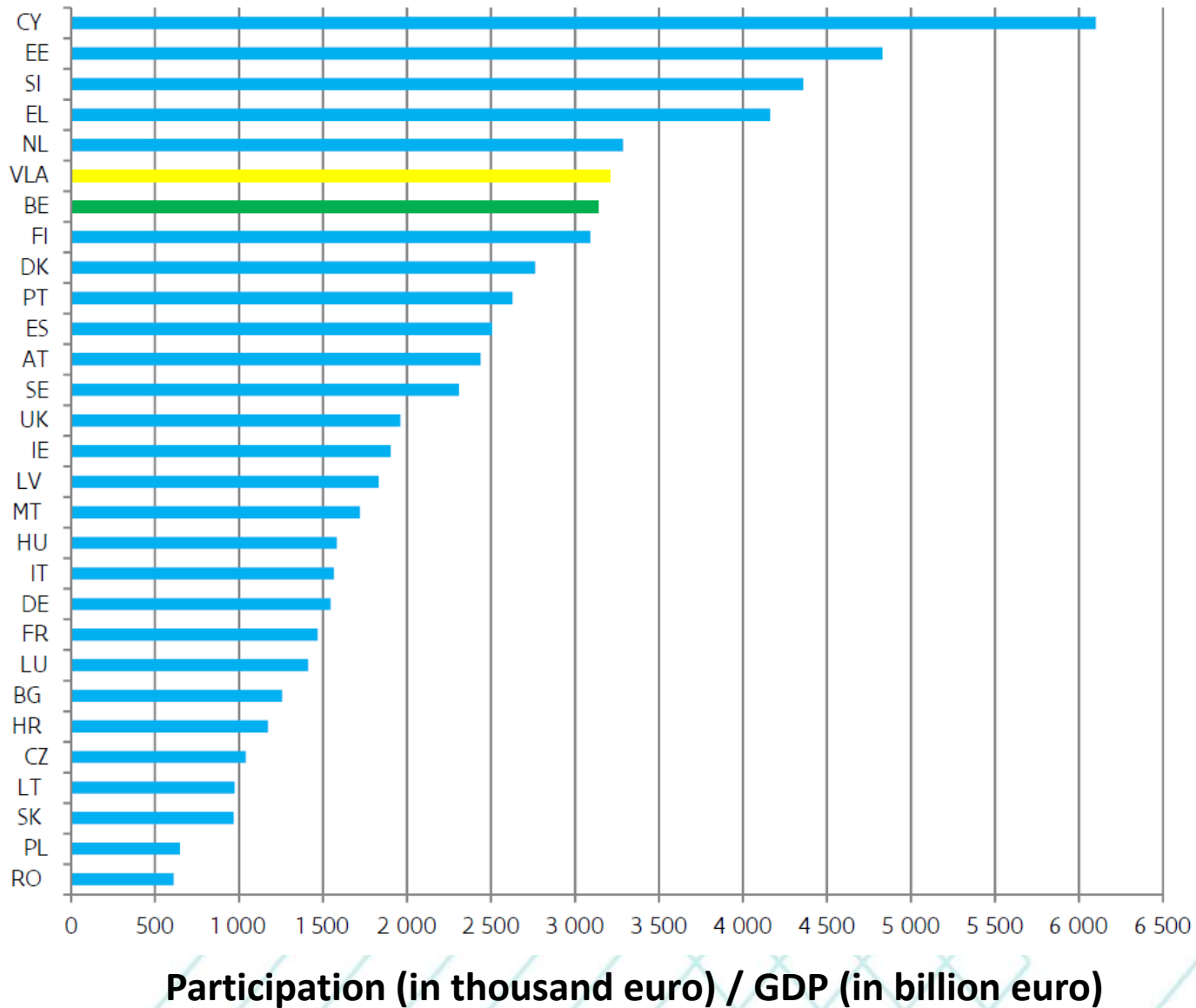
Nevertheless...

3% norm



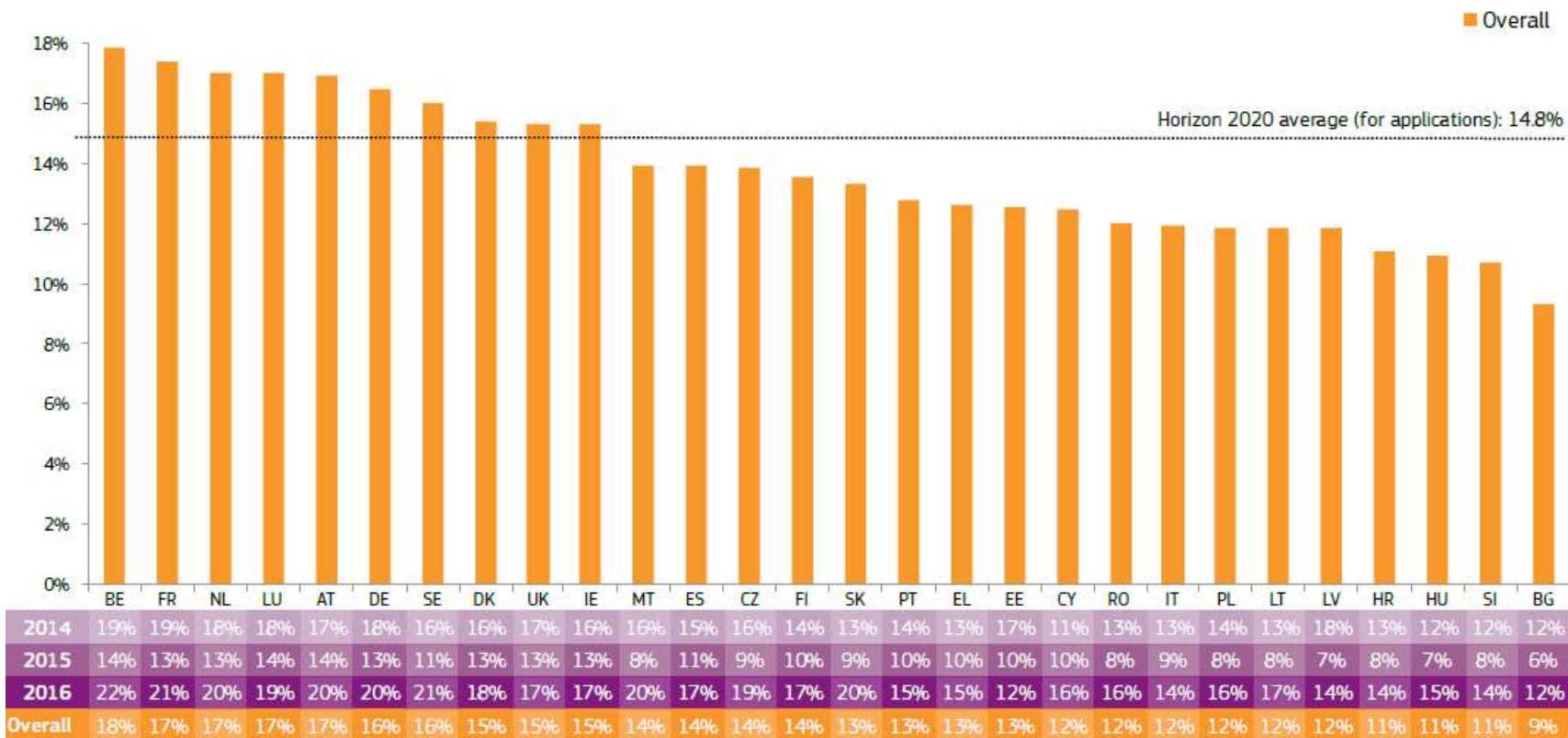
Totale O&O-intensiteit in Vlaanderen 2005-2016 "3% nota", p.10.
 OECD, Main Science and Technology Indicators, 2018/08
 *2015

Flemish Participation in H2020



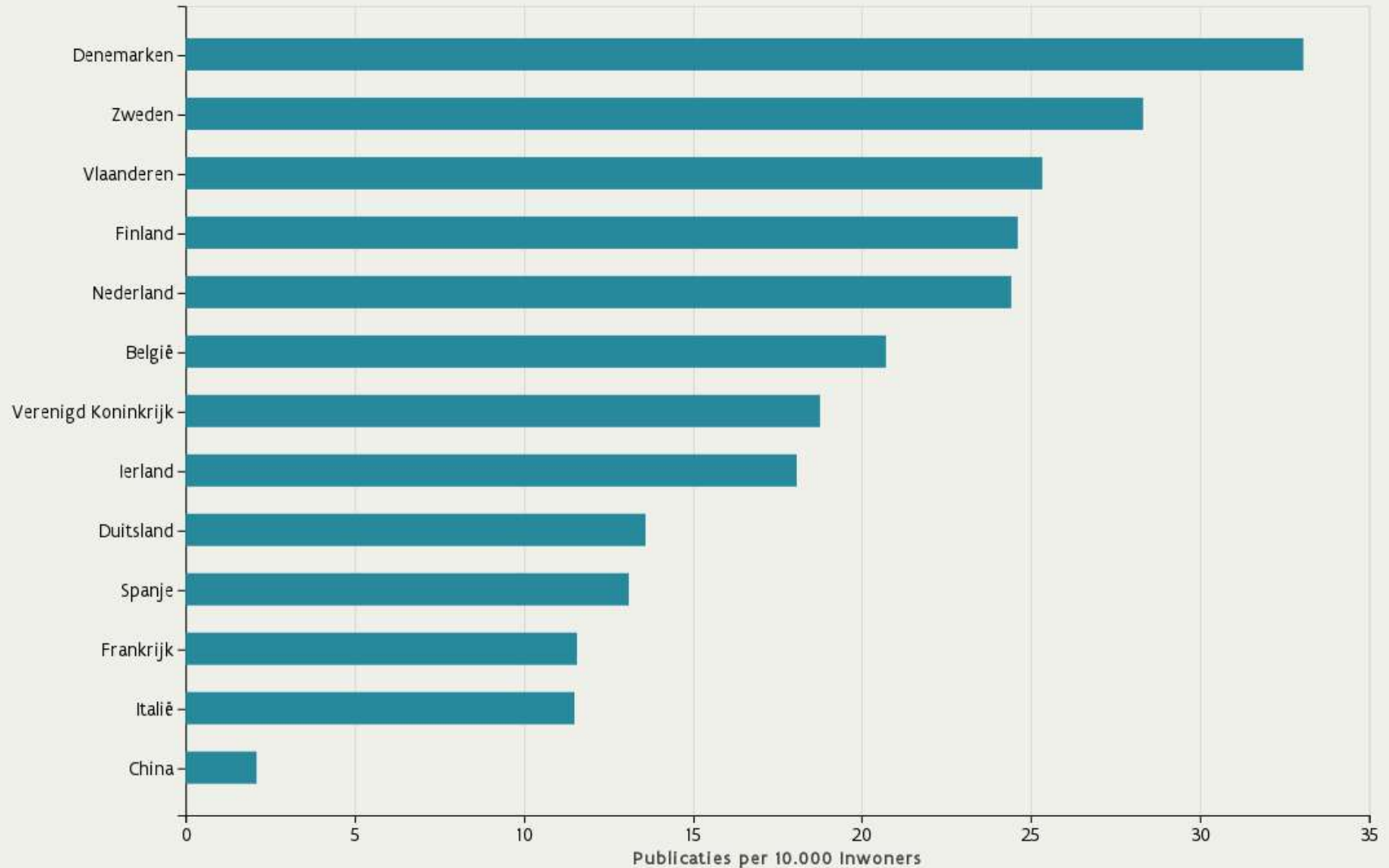
Belgian Success Rates in H2020

FIGURE 10: Success rates of Horizon 2020 applications per Member State, 2014-2016



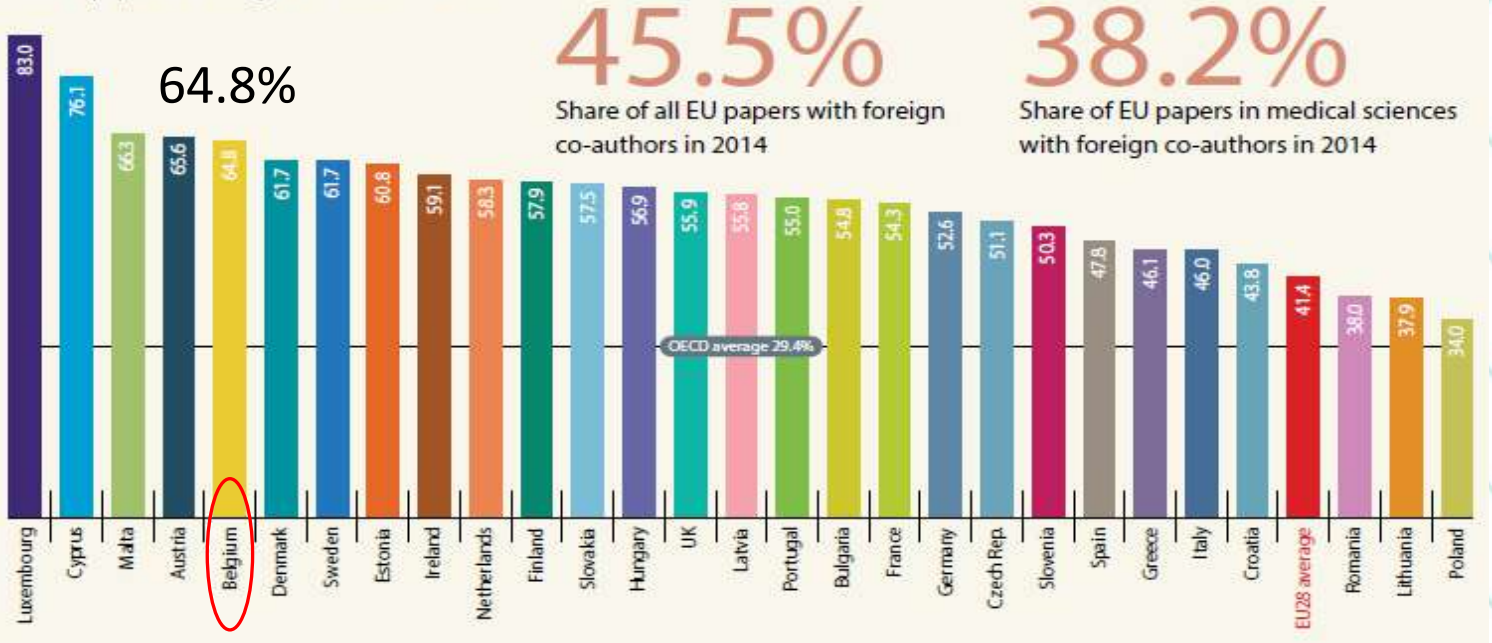
Source: Corda, calls in 2014, 2015 and 2016, Signed Grants cut-off date by 1/09/2017 (excluding grants to named beneficiaries)

International position of Flanders concerning publication output (all domains, journals and proceedings)



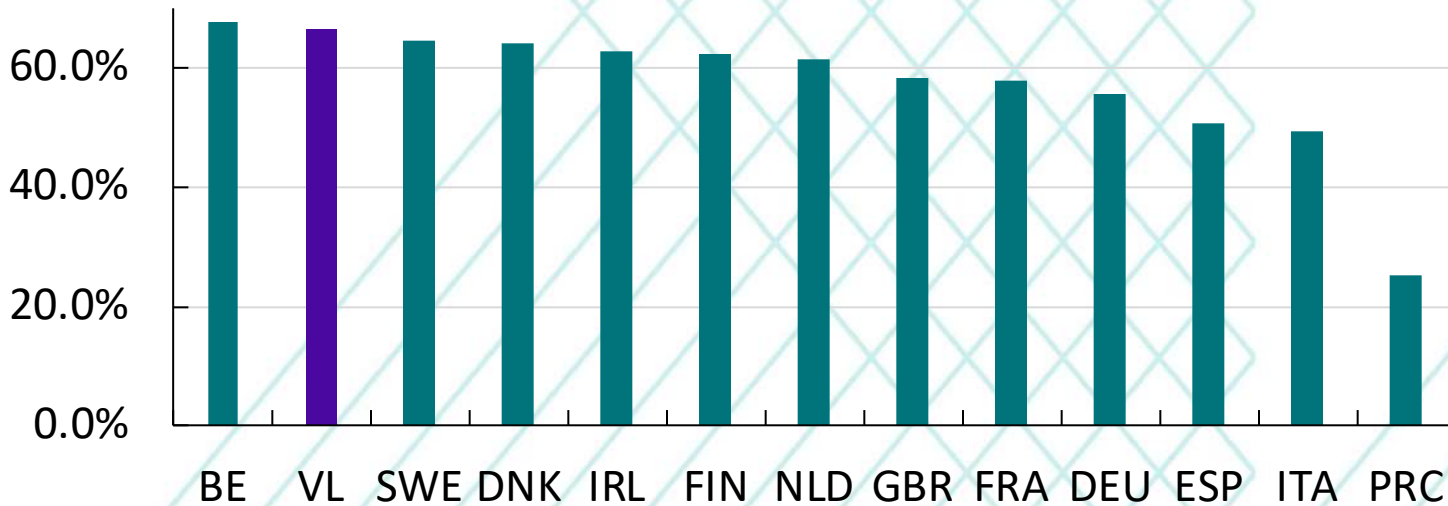
All EU members are well above the OECD average for the intensity of international co-operation

Share of papers with foreign co-authors, 2008–2014



66,50%

% international publications (2015)





- **Population:** ca. 6.516.011 (2017)
- **R&D-investments:** $\pm 2,70$ % GDP (Flemish Region - 2016) $\pm 2,76$ % GDP (Flemish Community – 2016)
- **Number of R&D personnel:** ± 48.926 (Flemish Region)/ ± 50.460 (Flemish Community) (0,72% population – 1,54% working force) (2015)
- **Number of scientific papers:** ± 1 % world (2015), or 25,32/10.000 inhabitants (for Med and S&T, 2015)
- **Number of EPO-patent applications** (2013): 313,2/million inhabitants

Belgian context

- No overall Belgian strategy
- No overall Flemish strategy



Nevertheless...

International cooperation is strategic goal at FWO

Content

- ❑ Belgian context
- ❑ Research Foundation – Flanders (FWO)
- ❑ FWO strategy for international cooperation
 - Main drivers & Strategic objectives
 - Theory of change
 - Governance
- ❑ Conclusions



HR EXCELLENCE IN RESEARCH

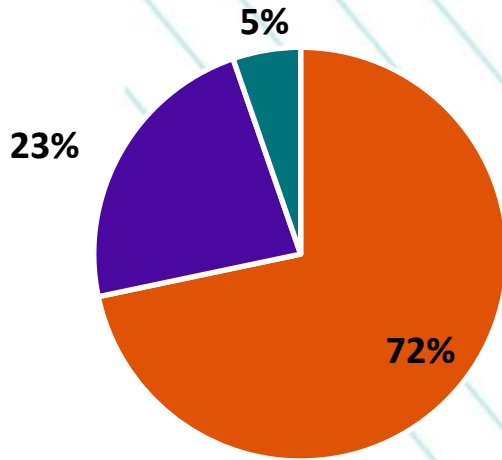


Research Foundation – Flanders (FWO)

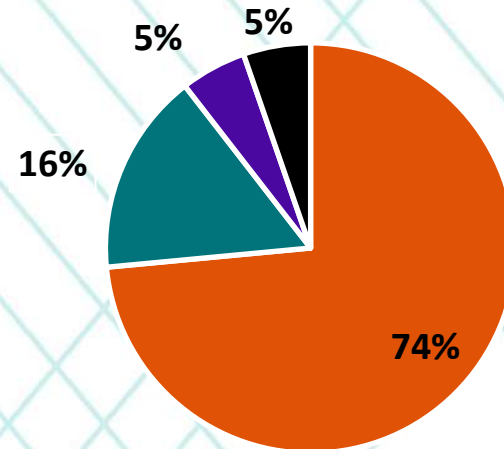
www.fwo.be

Key Facts on FWO (2017)

Budget: 350 million EUR (incl. EOS)



■ Research projects ■ Fellowships ■ Infrastructure



■ Fundamental Research ■ Strategic Basic Research
■ Clinical Research ■ Infrastructure



854 Predocs (basic)
400 Predocs (strategic basic)
791 Postdocs
1220 Projects



82% Predocs 18%
62% Postdocs 38%



51% Predocs 49%
42% Postdocs 58%



2017

21,3% Predocs (basic)
29,3% Predocs (strategic basic)
27,4% Postdocs
20,5% Projects

Strategic goals 2019-2023

- Excellent and breakthrough research
- Clear and easy procedures
- **Opportunities in Europe and the world**
- Open Science
- Building bridges in society

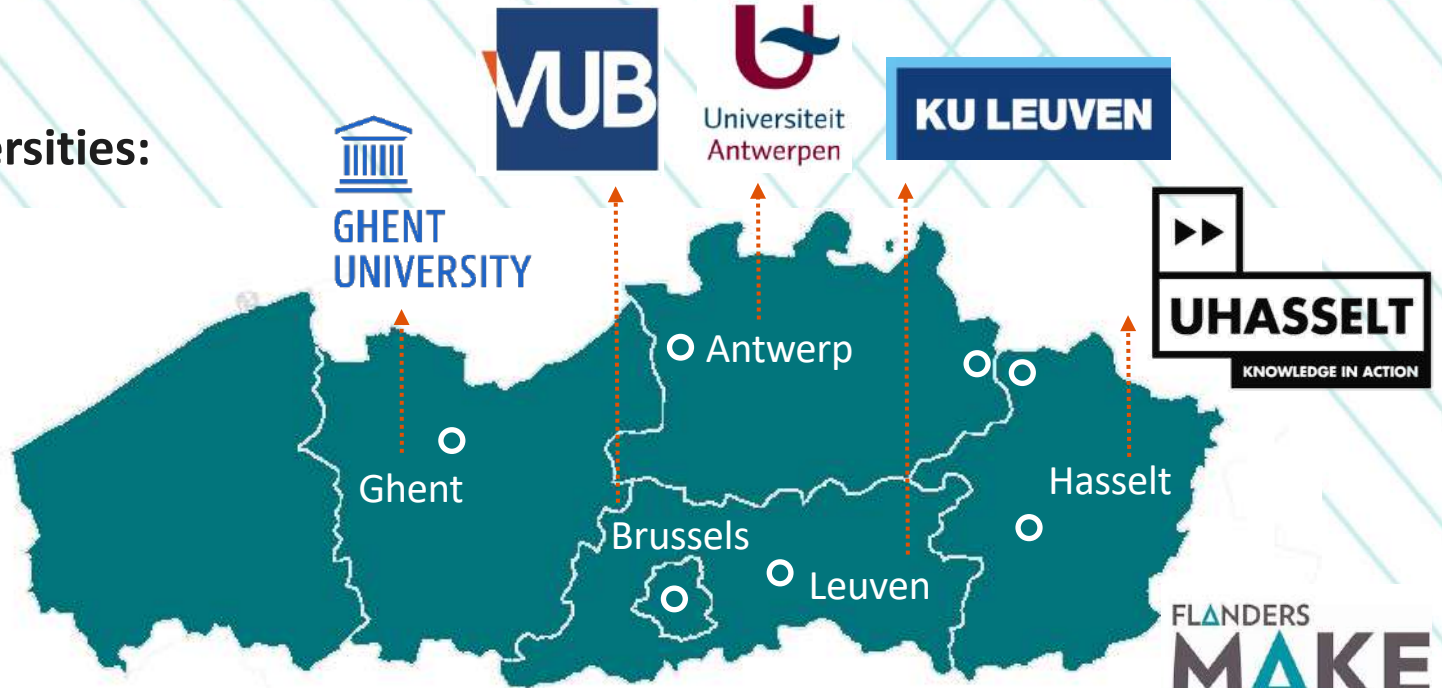


Main funding streams Flanders SINCE 01.01.2016:

- **FWO:**
 - Basic, non-oriented research (Mainly at universities)
 - Strategic research (Former SB/SBO/TBM IWT programmes)
 - Research infrastructure (Before: Hercules)
- **BOF/IOF:** Basic funding for fundamental and industrial research
- **'Flanders Innovation and Entrepreneurship':** Applied and Industrial research

Main Research Performing Centers

World-Class Universities:



Leading (Strategic) Research Centers:



Content

- ❑ Belgian context
- ❑ Research Foundation – Flanders (FWO)
- ❑ FWO strategy for international cooperation
 - Main drivers & Strategic objectives
 - Theory of change
 - Governance
- ❑ Conclusions

Strategy for international cooperation



Main drivers

- Belgian/Flemish context:
 - Knowledge society
 - Competitiveness
 - Cope with Flanders 'smallness'
- FWO context
 - Core principles of FWO
 - Excellent science, bottom-up principle
 - Basic, strategic basic research and infrastructure
 - Research careers
 - Open science

Content

- ❑ Belgian context
- ❑ Research Foundation – Flanders (FWO)
- ❑ FWO strategy for international cooperation
 - Main drivers & Strategic objectives
 - Theory of change
 - Governance
- ❑ Conclusions

Strategic objectives



1. Excellence objective

1. Remain top knowledge region in Europe
2. Maintain/improve competitiveness
3. Invest in highly skilled human resources:
 1. Attract top talent
 2. Keep top talent in Flanders
 3. Mobility opportunities for all career stages

Strategic objectives

2. Development ERA:

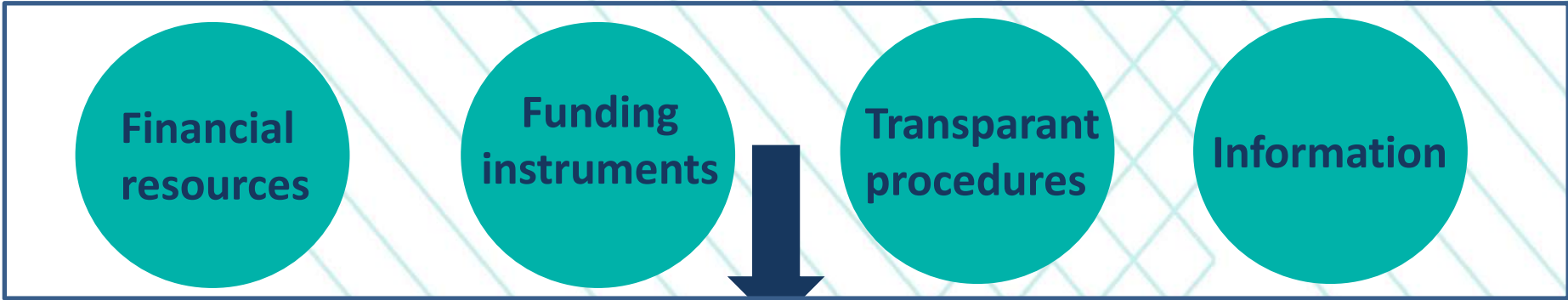
- Multilateral lead agency
 - Science Europe
 - ERA-Nets, JPI,...
-
- Market (innovation) objective: FWO passerelles
 - Global challenge objective: bottom-up principle
 - Science diplomacy: link Ministry Foreign Affairs
 - Location Marketing: Flanders research area
 - No development objective



Content

- ❑ Belgian context
- ❑ Research Foundation – Flanders (FWO)
- ❑ FWO strategy for international cooperation
 - Main drivers & Strategic objectives
 - **Theory of change**
 - Governance
- ❑ Conclusions

FWO investment



Output



Long term objectives

Excellent Flemish research & Development ERA

Financial resources

- 350 million/year
- Justification towards government
- Lobby 3% norm

Funding instruments

- For all stages of careers
- Attract top talent
- Maintain top talent
- Network funding
- Programs for intra- and extra–Europe
- Infrastructure
- MLAP

Transparent procedures

- Extensive info on website
- Procedures in English
- International peer review

Information

- NCP
- Science Europe; exchange good practice



Incoming mobility

Regular

- Open recruitment
- Money follows cooperation

Pegasus

- Postdoctoral fellowships
- MSCA-COFUND

Odysseus

- Open recruitment
- Brain gain program

Bilateral

- Intra- & extra-European agreements
- Mobility and entire research projects

Outgoing mobility

Congres Workshop

- Accessible
- All career stages

Foreign stays

- International experience
- Daily allowance

Pegasus

- Also outgoing mobility
- MSCA-COFUND

Bilateral

- Intra- & extra-European agreements
- Mobility and entire research projects





The screenshot shows the Nature journal website interface. At the top left is the 'nature' logo with the tagline 'International weekly journal of science'. To the right is a search bar with a 'Go' button and a link to 'Advanced search'. Below the logo is a navigation menu with links for Home, News & Comment, Research, Careers & Jobs, Current Issue, Archive, Audio & Video, and For Authors. A secondary navigation bar shows 'Archive', 'Volume 550', 'Issue 7674', 'Comment', and 'Article'. On the right side, there are social media and alert icons for E-alert, RSS, Facebook, and Twitter. The article title is 'Open countries have strong science' by Caroline S. Wagner & Koen Jonkers, dated 04 October 2017, with a correction on 23 March 2018. The abstract states: 'Caroline S. Wagner and Koen Jonkers find a clear correlation between a nation's scientific influence and the links it fosters with foreign researchers.' At the bottom left are icons for PDF and Rights & Permissions. At the bottom right is a 'nature briefing' banner featuring a smartphone displaying a related image.

nature International weekly journal of science

Search Go [Advanced search](#)

Home | News & Comment | Research | Careers & Jobs | Current Issue | Archive | Audio & Video | For Authors

Archive > Volume 550 > Issue 7674 > Comment > Article

NATURE | COMMENT  



[E-alert](#) [RSS](#) [Facebook](#) [Twitter](#)


Open countries have strong science

[Caroline S. Wagner & Koen Jonkers](#)

04 October 2017 | Corrected: [23 March 2018](#)

Caroline S. Wagner and Koen Jonkers find a clear correlation between a nation's scientific influence and the links it fosters with foreign researchers.

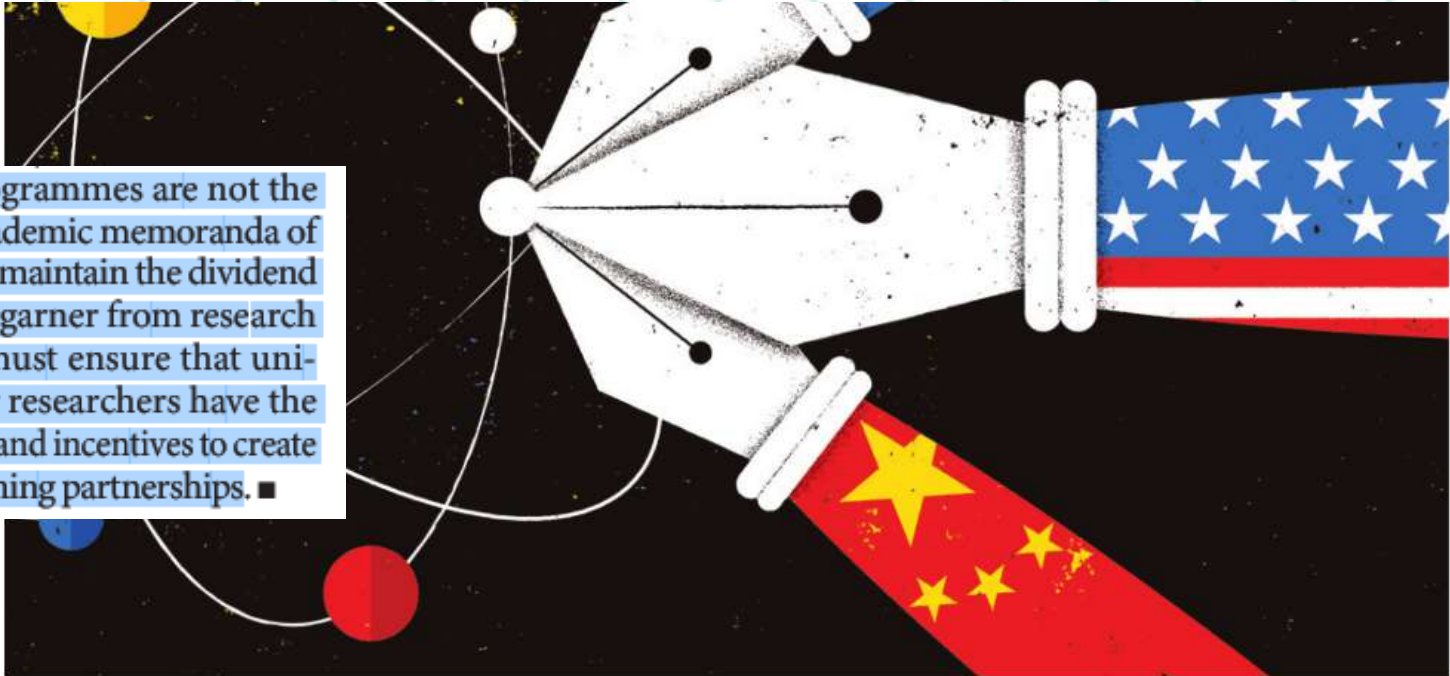
 PDF  [Rights & Permissions](#)

nature briefing 

“Science policymakers who seek to enhance impact should **prioritize international exchange**”

Nature 550 32-33 (Oct. 2017)

Multinational programmes are not the answer, nor are academic memoranda of understanding. To maintain the dividend that governments garner from research excellence, they must ensure that universities and their researchers have the resources, facilities and incentives to create and sustain flourishing partnerships. ■



The fourth age of research

Jonathan Adams analyses papers from the past three decades and finds that the best science comes from international collaboration.

Nature 497, pages 557–560 (May 2013)

Theory of change

- **Plausibility** Offer right frame to research community to obtain objectives
- **Feasibility** Context of basic and strategic basic research and dependent on the provisional means
- **Testability** Right parameters? Impact assessment.



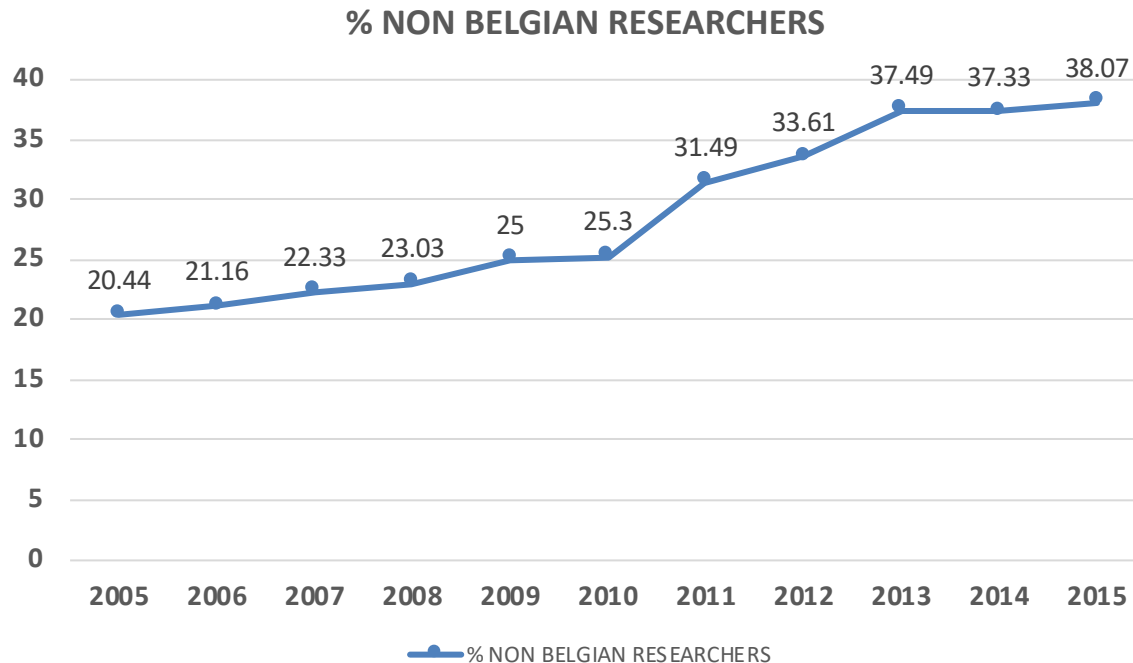
Challenge

- Testability

Example 1: Open recruitment

↓
Increase non-Belgian postdoctoral fellows

↓
Long term impact in Flanders?



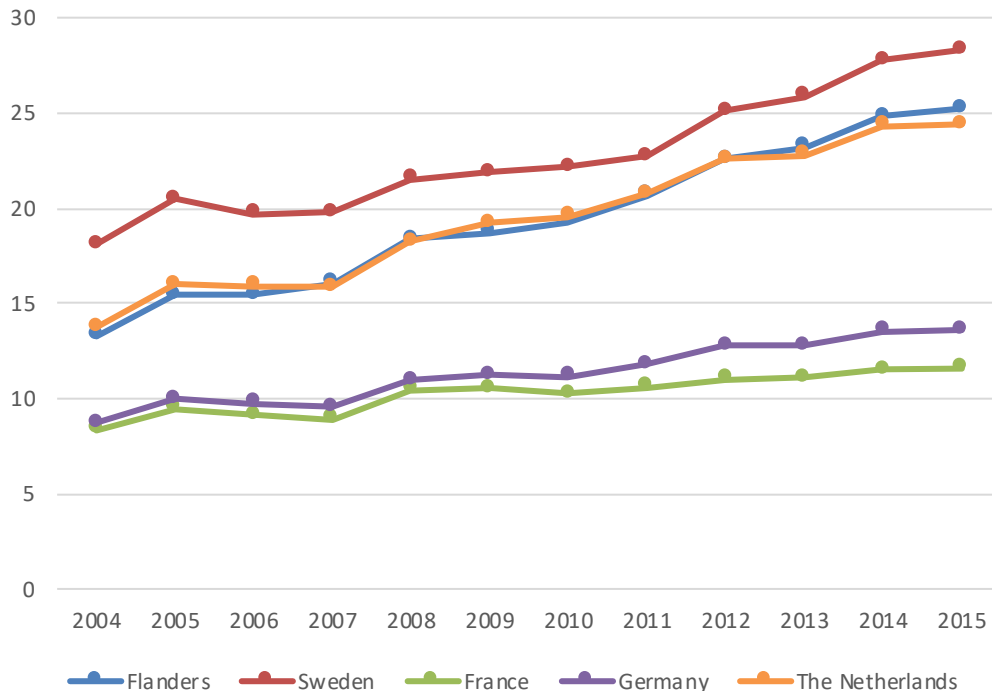
- Testability

Example 2: Multilateral lead agency

Increase international collaboration bottom-up projects

Long term impact in Flanders?

PUBLICATION OUTPUT/10.000 INHABITANTS



Content

- ❑ Belgian context
- ❑ Research Foundation – Flanders (FWO)
- ❑ FWO strategy for international cooperation
 - Main drivers & Strategic objectives
 - Theory of change
 - **Governance**
- ❑ Conclusions

Commission bilateral research cooperation (CBOS)

- Including stakeholders fundamental research
- Monitoring and assessing international agreements
- Selecting new partners/revising existing partners
- Selection criteria:
 - Scientific criteria
 - Economic criteria
 - Strategic criteria
 - Matching other organisations
- FWO Board final decision

Content

- ❑ Belgian context
- ❑ Research Foundation – Flanders (FWO)
- ❑ FWO strategy for international cooperation
 - Main drivers & Strategic objectives
 - Theory of change
 - Governance
- ❑ Conclusions

Conclusions



FWO; institutional strategic plan

Fast decision path

Clearcut objectives in line with FWO core business

One-to-one relation of goals to instruments

Clear focus on both within and beyond Europe



‘Innovation’ and ‘science’ two worlds apart

Lacking overall Flemish policy



Opening new horizons

More info on www.fwo.be

Thanks for your attention

Join us

