NCP info session:
ERC Starting & Consolidator Grants

erc

European Research Council

Established by the European Commission

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Brussels, 6 June 2018

Outline

- **Quick ERC overview**
- Grants and Evaluation process
- Preparing your proposal
- Statistics
- Questions?

Creative ideas have no limits
ERC, funding blue sky research

The European Research Council

The ERC supports excellence in frontier research through a bottom-up, individual-based, pan-European competition
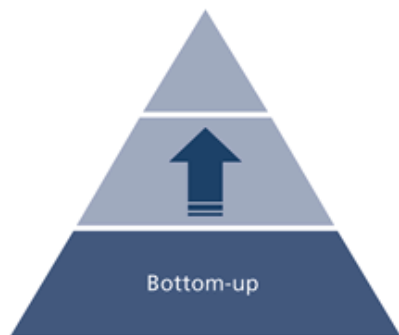
Legislation

- Scientific Council of 22 scientists; independent, full authority over funding strategy
- Support by the ERC Executive Agency
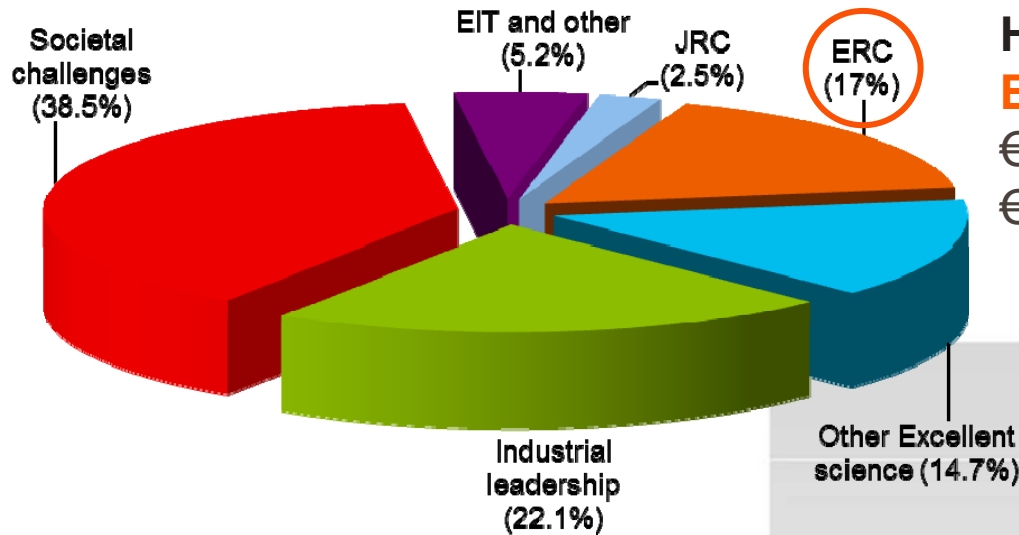- Excellence as the only criterion

Strategy

- Support for the individual scientist – **no networks!**
- **Global** peer-review
- No predetermined subjects (**bottom-up**)
- Support of frontier research in all fields of science

ERC is part of Horizon 2020

Societal challenges (38.5%)

EIT and other (5.2%)

JRC (2.5%)

ERC (17%)

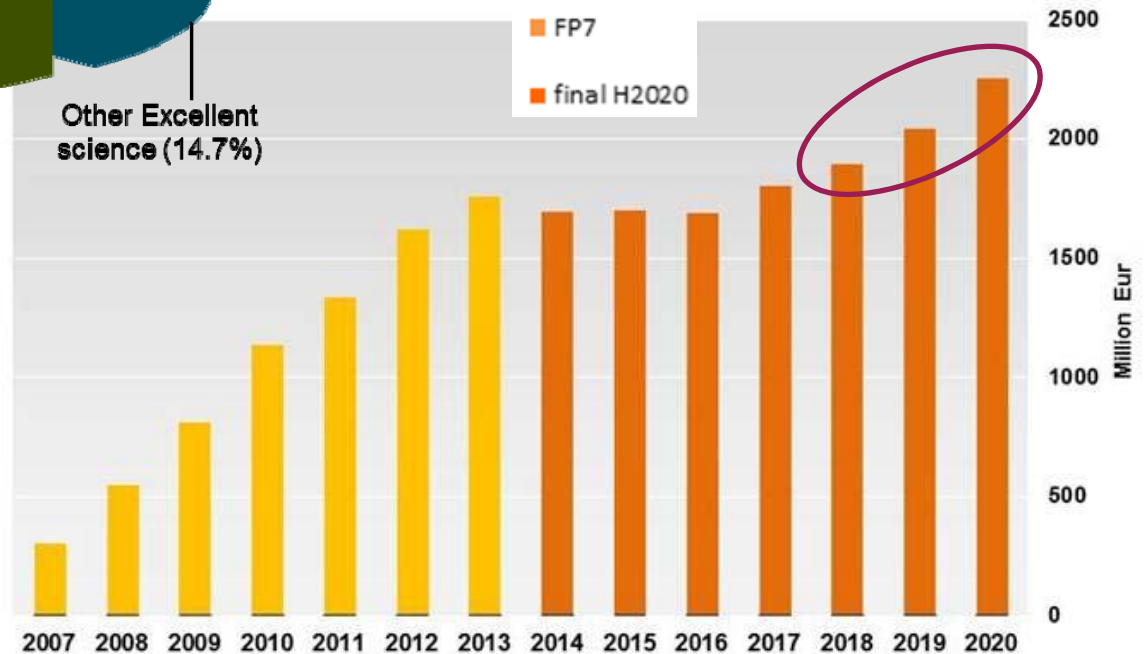Industrial leadership (22.1%)

Other Excellent science (14.7%)

**H2020 budget: €77 billion in 7 years**
ERC Budget:
€ 13 billion (2014-2020) - 1.9 billion €/year
€ 7.5 billion (2007-2013) - 1.1 billion €/year

in 2018, the budget is more than €1.8 billion, the highest ever since the start of the ERC.

FP7

final H2020

2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

Million Eur

2500
2000
1500
1000
500
0

European Research Council
Established by the European Commission

European Commission

Scientific Council

- 22 prominent researchers appointed by the European Commission
- Establishes overall scientific strategy
- Controls quality of operations and management
- Ensures communication with the scientific community
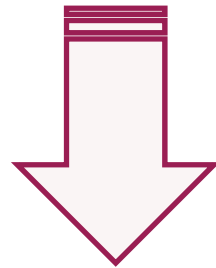
Panel Members
(25 panels: PE,LS,SH)

- Appointed by the Scientific Council
- Full independence in the evaluation and ranking of the proposals
- Appoint remote referees to help them in the evaluation

European Commission

ERC Executive Agency

- Implementing calls for proposals
- Organising peer review evaluation
- Establishing and managing grant agreements
- Administering scientific and financial aspects
- Carrying out communication activities
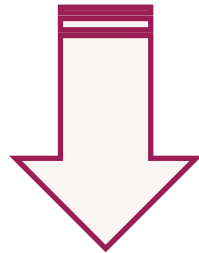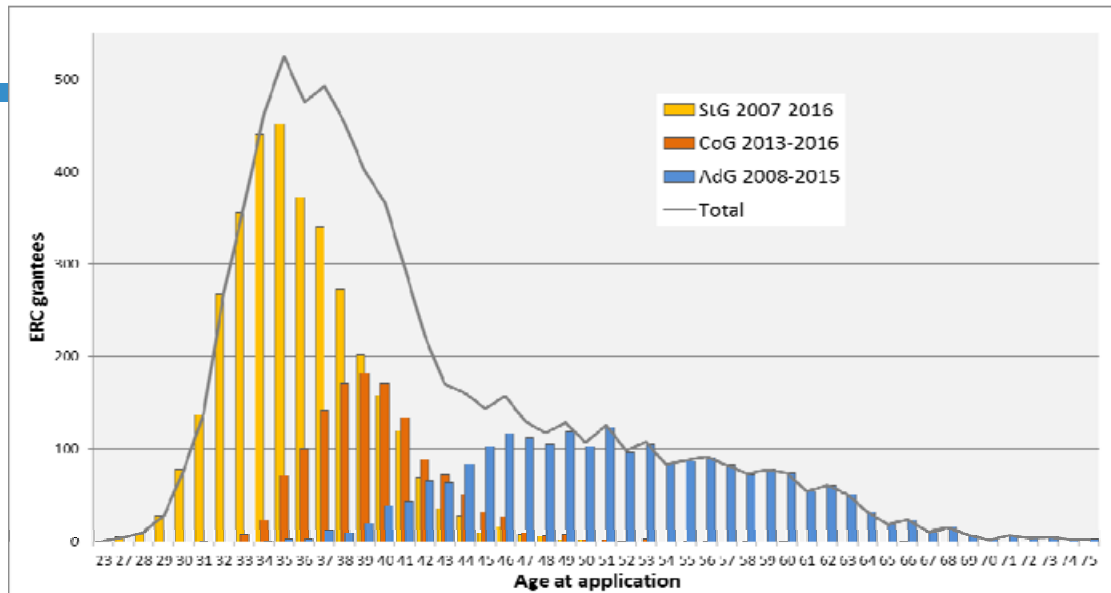
Scientific Officers

- Work closely with the panel members
- Manage all practical aspects of the evaluations
- Carry out scientific follow-up

ERC: Priority to Young Scientists

SLG 2007 2016
CoG 2013-2016
AdG 2008-2015
Total

~ 33 000 people
working in ERC teams.

Two-thirds of ERC grants go to
early-stage Principal Investigators

8300 signed grants
- 5600 running grants
- 2700 completed grants
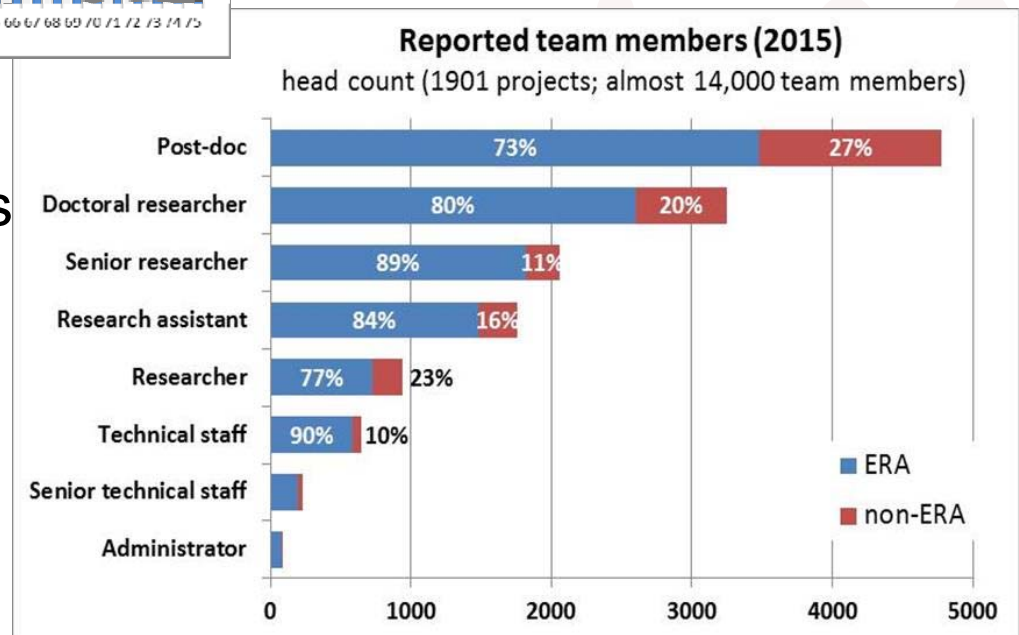
Reported team members (2015)
head count (1901 projects; almost 14,000 team members)

	ERA	non-ERA
Post-doc	73%	27%
Doctoral researcher	80%	20%
Senior researcher	89%	11%
Research assistant	84%	16%
Researcher	77%	23%
Technical staff	90%	10%
Senior technical staff		
Administrator		

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What do ERC grants offer?

Independence, recognition & visibility:

- research topic of **own choice**, with a team of **own choice**

- true **financial autonomy** for 5 years

- negotiate with the host institution the **best conditions** of work

- attract **top team members** (EU and non-EU) **and collaborators**

- move with the grant to any place in Europe if necessary **(portability of grants)**

- to attract **additional funding** and **gain recognition**; ERC is a quality label

ERC Grant Schemes

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Starting Grants

(2-7 years after PhD)

up to €1.5 Million
for 5 years
+ €500,000

Consolidator Grants

(7-12 years after PhD)

up to €2 Million
for 5 years
+ €750,000

Advanced Grants

10 Y research
track-record

up to €2.5 Million
for 5 years
+ €1 Million

Proof-of-Concept
bridging gap between research - earliest stage of
marketable innovation
up to €150,000 for ERC grant holders

Synergy Grants
2 – 4 Principal Investigators
up to €10 Million for 6 years
+ €4 **Million**

European Commission

Starting Grants (2-7 y past PhD)

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- **Objective:** support excellent PIs at the stage at which they are **starting** their own independent research team

- **Grant size:** €1.5M (possibility of additional €0.5M)
  - Start-Up costs for scientists moving to EU/Associated Countries
  - Purchase of major equipment
  - Access to large facilities

- **PI Profile:**
  → Potential for research independence
  → **Minimum 1** publication as main author or without PhD supervisor
  → Invited presentations in conferences
  → Funding, patents, awards, prizes
  → 50% of PI's time on the project + 50% in the EU or AC

Consolidator Grants (7-12 y past PhD)

- **Objective:** support excellent PIs at the stage at which they **are consolidating** their own independent research team

- **Grant size:** €2.0M (possibility of additional €0.75M)

- **PI Profile**
  - → Has achieved a certain degree of research independence
  - → **Several publications** as main author or without PhD supervisor
  - → Invited presentations in conferences
  - → Funding, patents, awards, prizes, **mentoring**
  - → 40% of PI's time on the project + 50% in the EU or AC

Extensions of eligibility window

**Extensions possible for StG and CoG
for documented cases of:**

- Maternity – 18 months per child (before or after PhD)

- Paternity – actual time taken off (before or after PhD)

- Military service

- Medical speciality training

- Long-term illness (>90days)
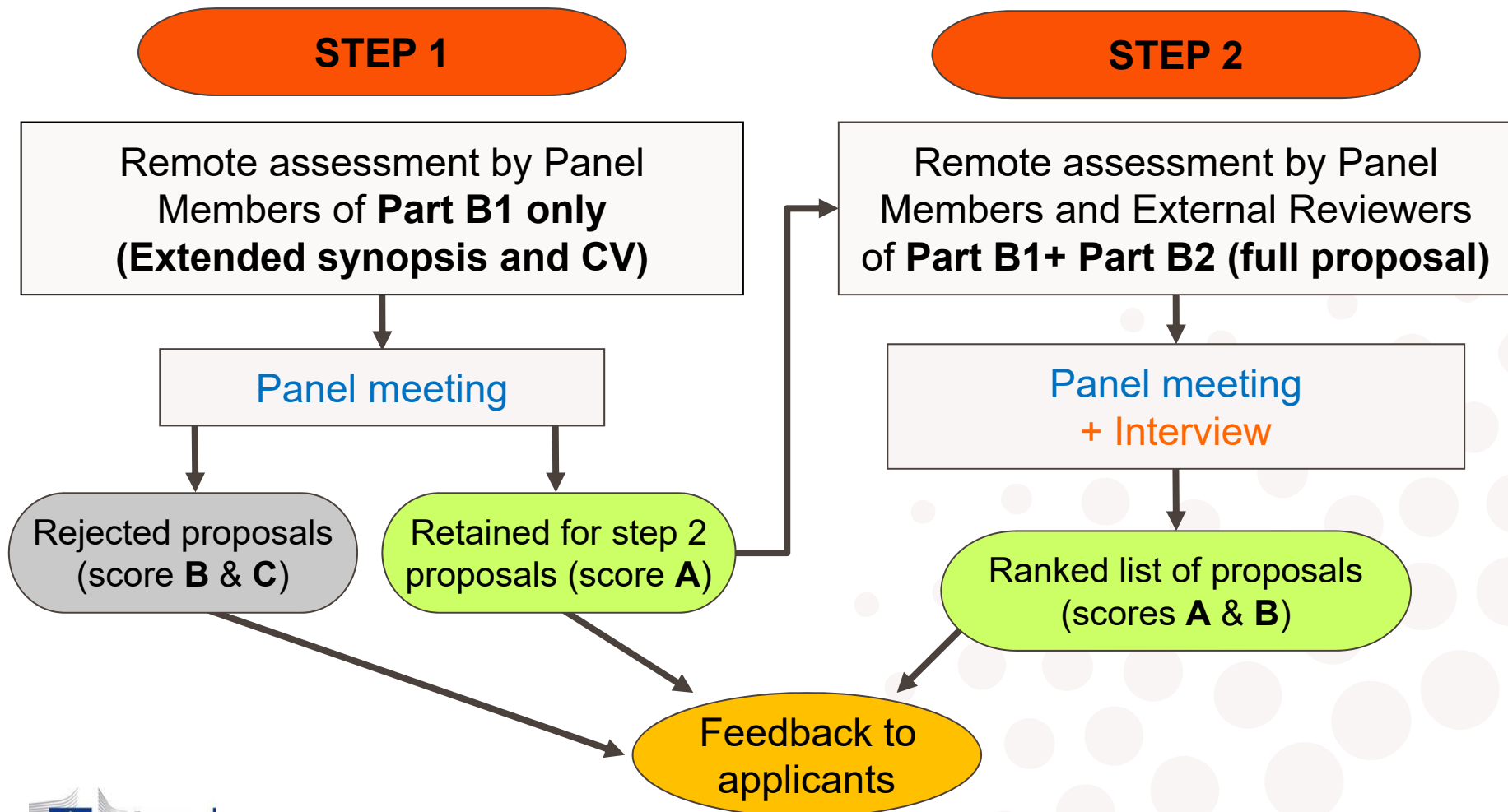
No limit to the total extension

Evaluation procedure

Single submission, two-step evaluation

STEP 1

STEP 2

Remote assessment by Panel Members of **Part B1 only (Extended synopsis and CV)**

Remote assessment by Panel Members and External Reviewers of **Part B1+ Part B2 (full proposal)**

Panel meeting

Panel meeting + Interview

Rejected proposals (score **B** & **C**)

Retained for step 2 proposals (score **A**)

Ranked list of proposals (scores **A** & **B**)

Feedback to applicants

European Commission

Submission to Panels

- Proposals are submitted to a *Targeted Panel* (of PI's choice)

  ➔ PI can flag one '*Secondary Review Panel*' (+justify why)

- **Applicant chooses his/her panel**, this panel is 'responsible' and takes the ownership of the evaluation of the particular proposal

- **But**: In case of cross-panel or cross-domain proposals, evaluation by members of other panels is possible

- Allocation of the proposal to another panel is exceptional (e.g. in case of clear mistake made by the applicant or when the necessary expertise is available in a different panel) and requires the agreement of both panel chairs

- Select carefully relevant **panel descriptors** and indicate **free keywords** (used when allocating proposals to PMs)

ERC panel structure
The PI applies to a panel

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Each panel:
Panel Chair and 10-16 Panel Members

Life Sciences

LS1 Molecular and Structural Biology and Biochemistry

LS2 Genetics, Genomics, Bioinformatics and Systems Biology

LS3 Cellular and Developmental Biology

LS4 Physiology, Pathophysiology and Endocrinology

LS5 Neurosciences and Neural Disorders

LS6 Immunity and Infection

LS7 Diagnostic Tools, Therapies , Applied Medical Technology & Public Health

LS8 Evolutionary, Population and Environmental Biology

LS9 Applied Life Sciences & Non-Medical Biotechnology

Social Sciences and Humanities

SH1 Individuals, Markets and Organisations

SH2 Institutions, Values, Environment and Space

SH3 The Social World, Diversity, Population

SH4 The Human Mind and Its Complexity

SH5 Cultures and Cultural Production

SH6 The Study of the Human Past

Physical Sciences & Engineering

PE1 Mathematics

PE2 Fundamental Constituents of Matter

PE3 Condensed Matter Physics

PE4 Physical & Analytical Chemical Sciences

PE5 Synthetic Chemistry and Materials

PE6 Computer Science & Informatics

PE7 Systems & Communication Engineering

PE8 Products & Process Engineering

PE9 Universe Sciences
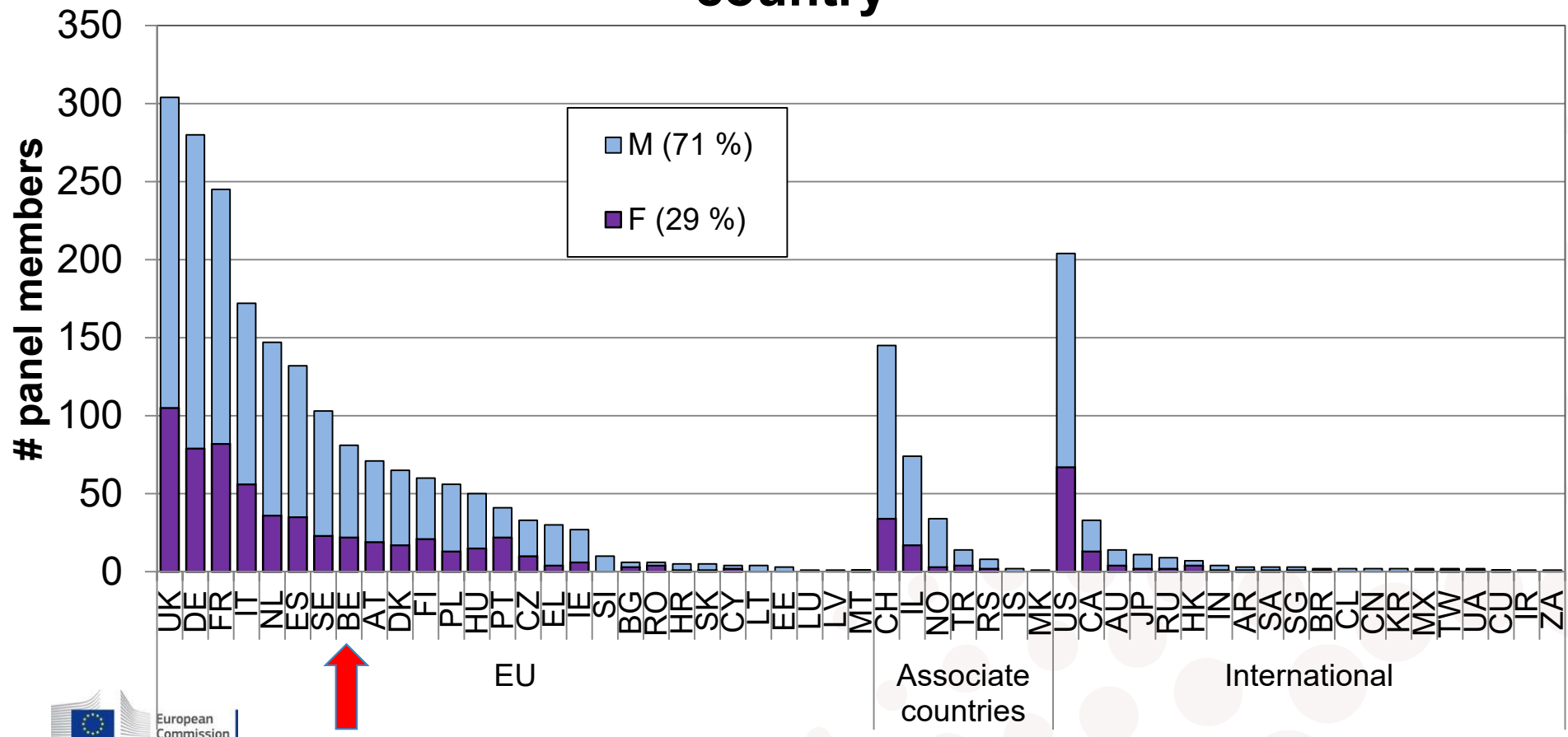
PE10 Earth System Science

Who evaluates your proposal?

ERC panel members 2007-2014 by host institution country

Excellence is the sole evaluation criterion

Research Project

- ✓ **Ground-breaking nature**
- ✓ **Potential impact**
- ✓ **Scientific Approach**

Principal Investigator

- ✓ **Intellectual capacity**
- ✓ **Creativity**
- ✓ **Commitment**

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How to prepare a proposal?

- Have a **bright, original and exciting idea**

- **Design a research project** to implement your idea

- Get a letter of support from the **Host Institution** where the project is to be carried out (in EU or any of the H2020 associated countries)

- Write your **research proposal:**

  Two-step evaluation: proposal Part B1 and Part B2

- **Get feedback** from peers

- **Submit** your research proposal **before the deadline** -> fully electronic/web based submission system

Preparing your proposal:
Questions to ask yourself as an applicant

- Does it promise to go substantially **beyond the state of the art**?

- Is it **timely**? (Why wasn't it done in the past? Is it feasible now?)

- What's the risk? Is it justified by a substantial potential gain? Do I have a plan for managing the risk?

- Why is my proposed project important?

- Why am I the best/only person to carry it out?

- Am I internationally competitive as a researcher at my career stage and in my discipline?

- Am I able to work independently, and to manage a 5-year project with a substantial budget?

Preparing your proposal:
Tips

- **Register early**, get familiar with the system and templates and start filling in the forms

- A submitted proposal can be **revised until the call deadline** by submitting a new version and overwriting the previous one

- Follow the formatting rules and page limits.

- Download and proof-read the proposal before submitting.

- Make use of the **help tools and call documents** (*Information for Applicants, Work Programme, Frequently asked questions*) to prepare your proposal

- Talk to the NCPs and your Institution's grant office

Preparing a proposal
Host Institution

- You **can change** HI during the project's lifetime, if needed

- **Negotiate** with the HI (your position, equipment, administrative support, access to infrastructure, etc.)

- Make sure to have the HI letter ready in time for the submission deadline

- The Host Institution is not an evaluation criterion

Preparing a proposal:
writing your CV

- Remember that the CV/Track Record is as important as your project

- Describe activities which can indicate scientific leadership

- Explain what has been your own contribution to your key publications

- Explain publishing habits in your field and country if needed.

- If you know that you have gaps or other issues in your CV, explain them

- Use the template provided by the ERC in the submission system

Proposal structure

Part A: Administrative form

1. General information
2. Administrative data of
   participating organisation(s)
3. Budget
4. Ethics
5. Call specific questions
   (PhD date, time commitment…)

Annexes - submitted as pdf

Commitment of the Host Institution,
PhD certificates (StG,CoG), etc.

Part B1 - submitted as pdf
Evaluated in Step 1 & Step 2

Cross-domain explanation	1 page
Extended synopsis	5 pages
Curriculum vitae	2 pages
Funding ID	1 page
Track-record	2 pages

Part B2 - submitted as pdf
<u>NOT</u> evaluated in Step 1 (Step 2 only)

Scientific proposal	15 pages

a – State-of-the-art and objectives
b – Methodology
c – Resources (+budget table)

<u>Guidelines and Recommendations in the 2019 Information for Applicants</u>

In **Step 1**: **Panel members** evaluate **only Part B1** of your proposal: Prepare it
accordingly!

- Pay particular attention to the **ground-breaking nature** of the research project – no incremental research. State-of-the-art is not enough. Think big!

- Know your competitors – what is the **state of play** and why is your idea and scientific approach outstanding?

- **concise and clear presentation** is crucial (evaluators are not necessarily all experts in the field – at step 1 acting as generalist is normal)

- **Outline** of the **methodological approach** – the feasibility is assessed. Do you provide convincing elements on the scientific approach used?

- Show your **scientific independence** in your CV

In **Step 2**: Both **Part B1 and B2** are evaluated by **panel members** and **external reviewers** with specific expertise relevant to the project

- Do not just repeat the synopsis

- Provide **sufficient detail** on methodology, work plan, selection of case studies where relevant, etc. (15 pages)

- Make sure you give **full references** (these are excluded from page count)

- Add a timeline

- **Explain your budget properly**

- Explain **involvement of team members**

- Provide alternative strategies to **mitigate risk**

Explain your budget properly

- Panels have the responsibility to ensure that the requested resources are reasonable and well justified. Not explained costs may be cut.

- Granting is made on a 'take-it-or-leave-it' basis: no negotiations.

- ☀ **Ensure coherence between the description of resources and the budget table.**

- ☀ **Follow *Information for Applicants* on how to fill the budget table and calculate overheads.**

- ☀ Ask for funding for Open Access – **OA is obligatory in Horizon2020** and these costs are eligible.

Preparing your interview:

If invited to Step 2:

- Practice thoroughly, several (many?) times;

  - 10 minute Powerpoint presentation

  - 10-15 minutes of questions

- Get Panel Members interested in you and what you are doing

- Panels want to see that these are *your* ideas, not those of your supervisor/research coordinator…

Contrary to what you may think…..

- ERC funds "frontier research", including applied research
- The budget is distributed among the panels as a function of demand (equal success rate)
- The panel descriptors do not represent ERC scientific priorities
- The success rate is virtually flat across the eligibility window (StG, CoG)
- Publication record is not decisive in selection
- Re-applying pays off

2018 Call Calendar ~2019:

ERC calls	Budget	Call Opening	Submission Deadline(s)
Starting Grants ERC-2018-StG	581 M€ (391 grants)	3 August 2017	**17 October** 2017
Consolidator Grants ERC-2018-CoG	550 M€ (287 grants)	24 October 2017	**15 February** 2018

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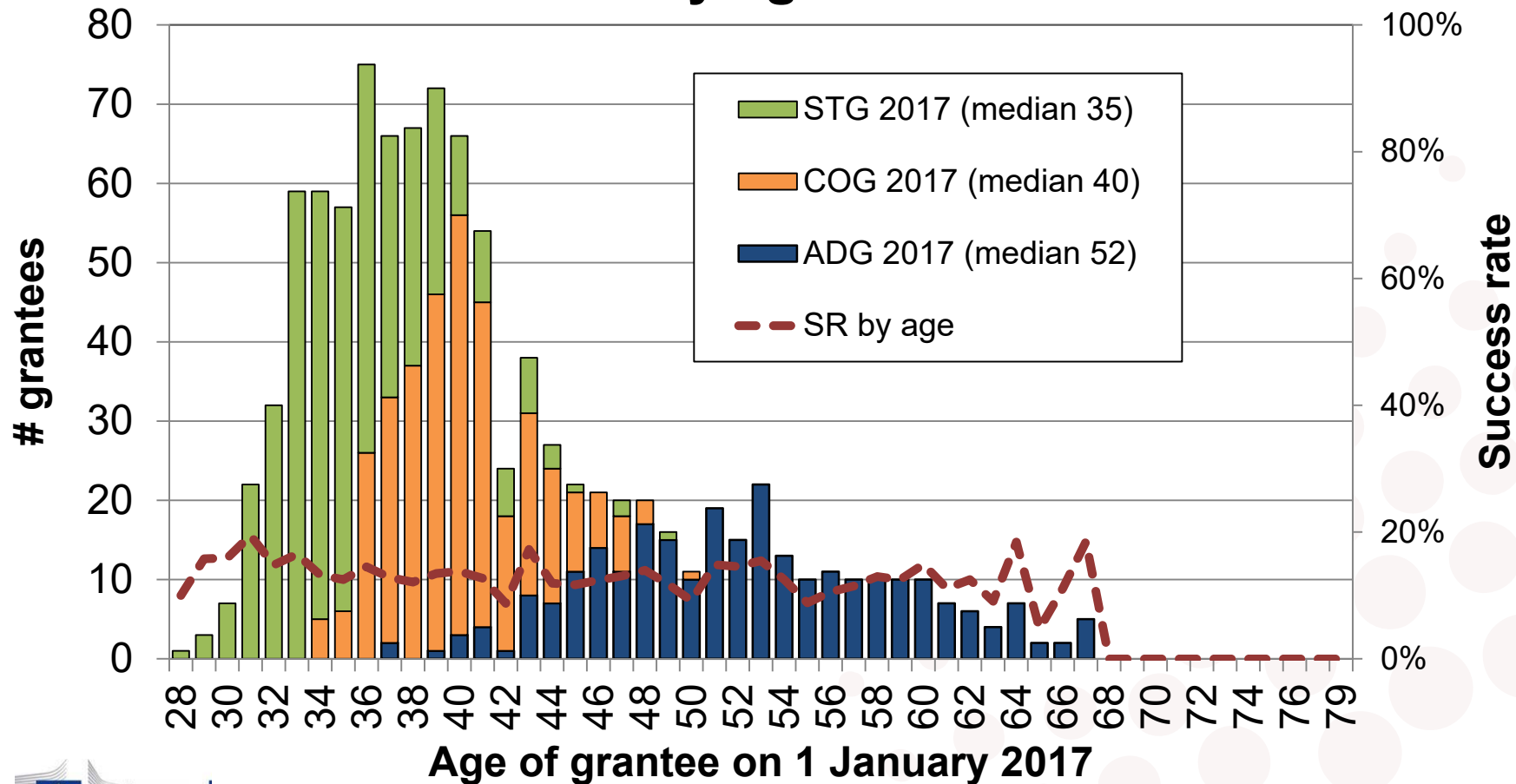ERC, funding blue sky research

2017 StG-CoG-AdG Calls
Age of Grantees

2017 Grantees by age and success rate

Legend:
- STG 2017 (median 35)
- COG 2017 (median 40)
- ADG 2017 (median 52)
- SR by age

Y-axis (left): # grantees (0–80)
Y-axis (right): Success rate (0%–100%)
X-axis: Age of grantee on 1 January 2017 (28–79)

ERC Funded Projects by Country
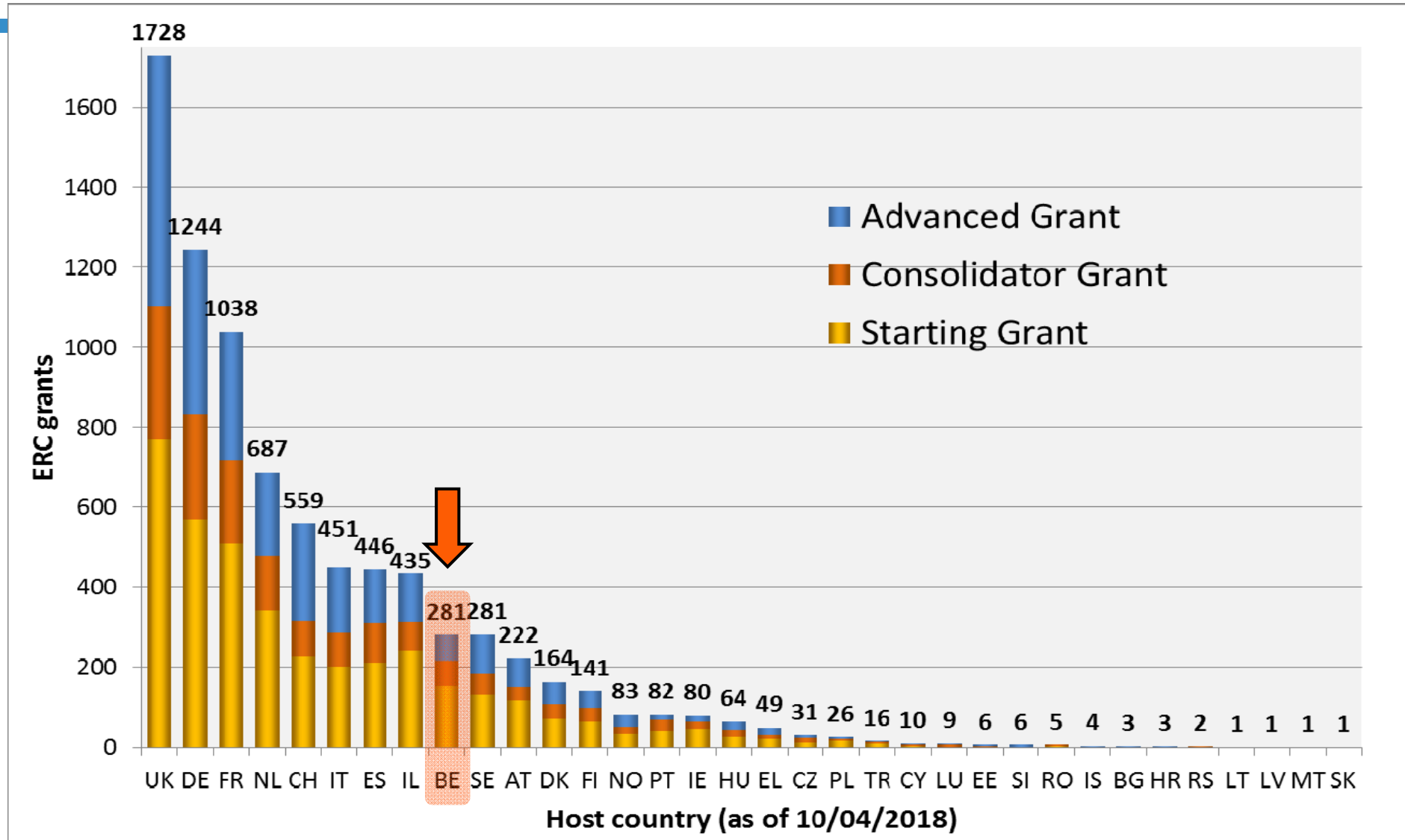
ERC Funded Projects by Domain

Host country (as of 05/12/2017)
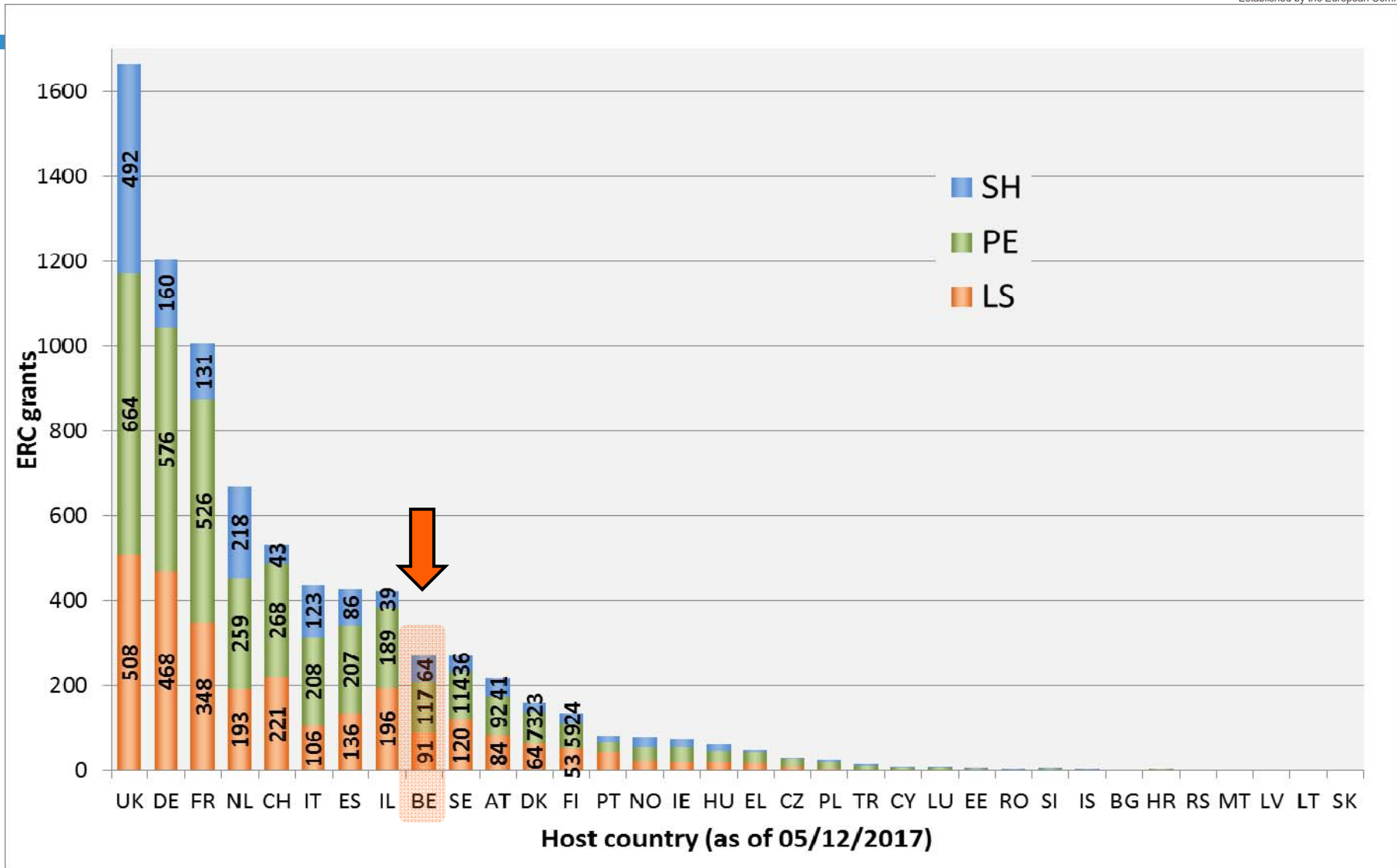
Success Rate by Country of HI
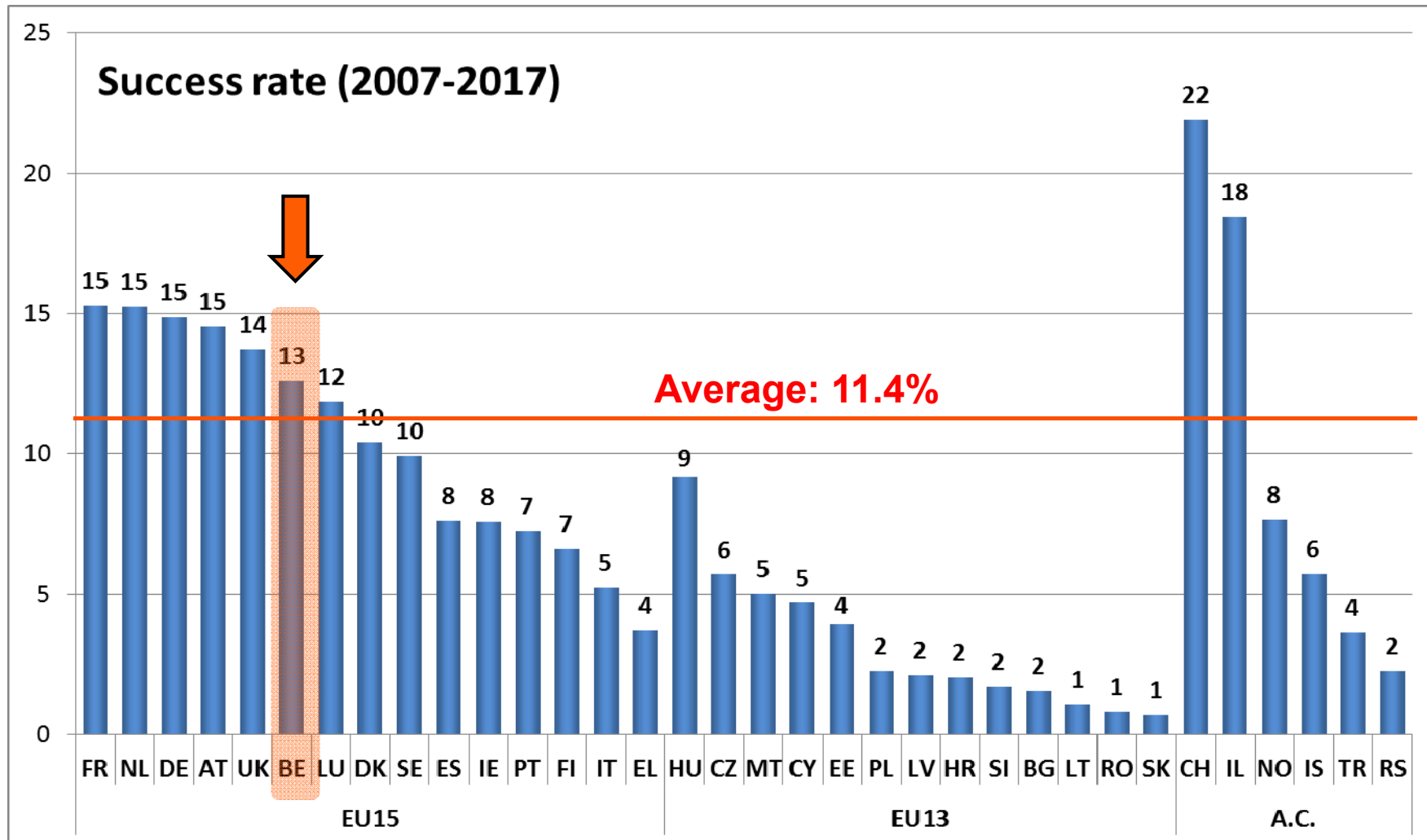
ERC Grants by Belgian institutions
(provisional data)
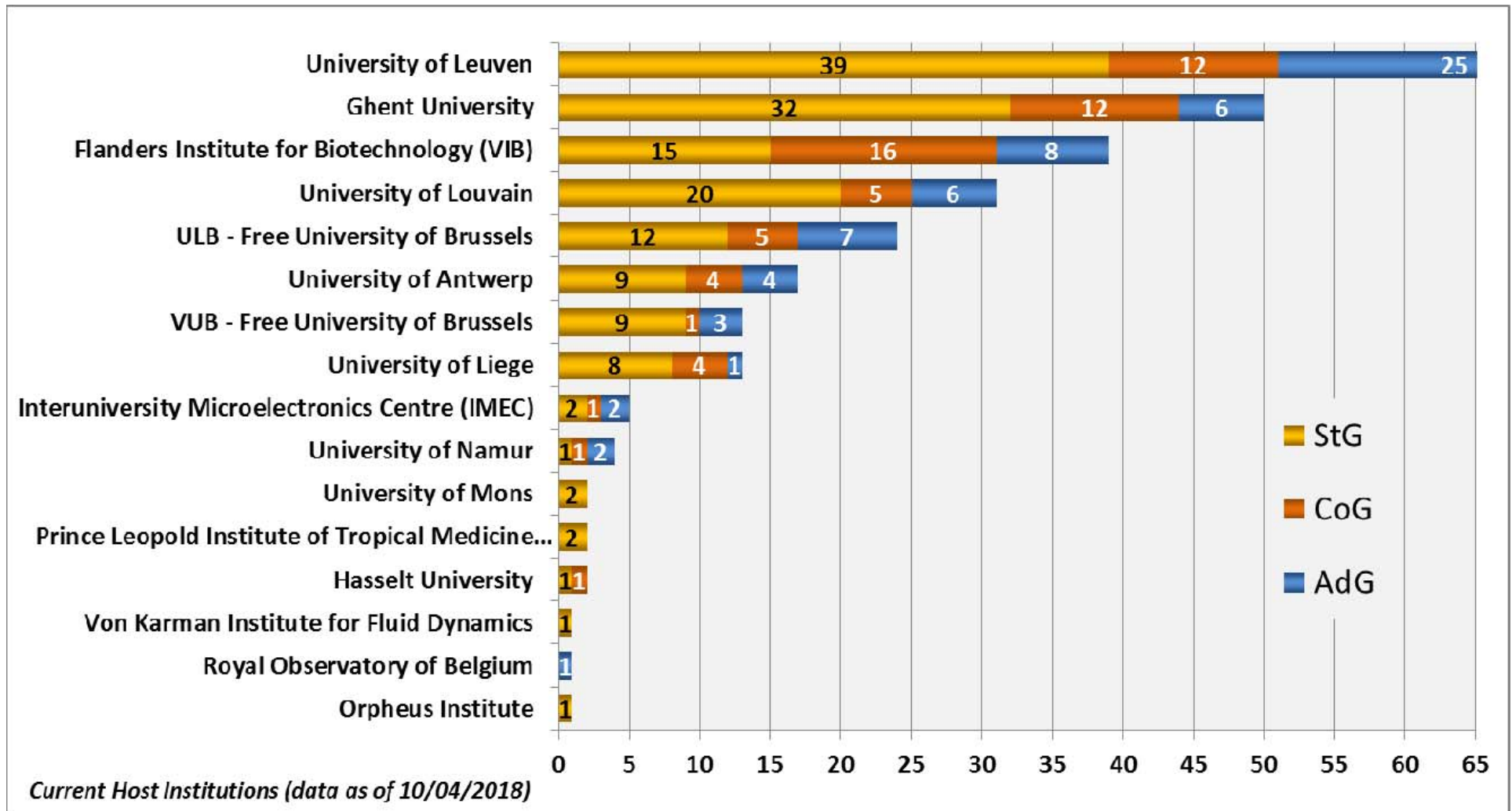
ERC Grants by Belgian institutions in EU/AC

ERC calls 2007-2017: 762 institutions

1	National Centre for Scientific Research (CNRS)	425
2	University of Cambridge	218
3	University of Oxford	214
4	Max Planck Society	210
5	University College London	157
6	Swiss Federal Institute of Technology Zurich (ETH Zurich)	136
7	Swiss Federal Institute of Technology Lausanne (EPFL)	134
8	Weizmann Institute	133
9	Hebrew University of Jerusalem	117
10	Nat. Institute of Health and Medical Research (INSERM)	101
11	Imperial College	97
12	University of Edinburgh	97
13	University of Amsterdam	83
14	University of Copenhagen	80
15	University of Munich (LMU)	80
16	University of Leuven	76
17	Tel Aviv University	75
18	Delft University of Technology	66
19	French Alternative Energies and Atomic Energy Comm.	66
20	Spanish National Research Council (CSIC)	66
34	Ghent University	50
45	Flanders Institute for Biotechnology (VIB)	39
62	University of Louvain	31
79	ULB - Free University of Brussels	24

Grantees at Home and Abroad
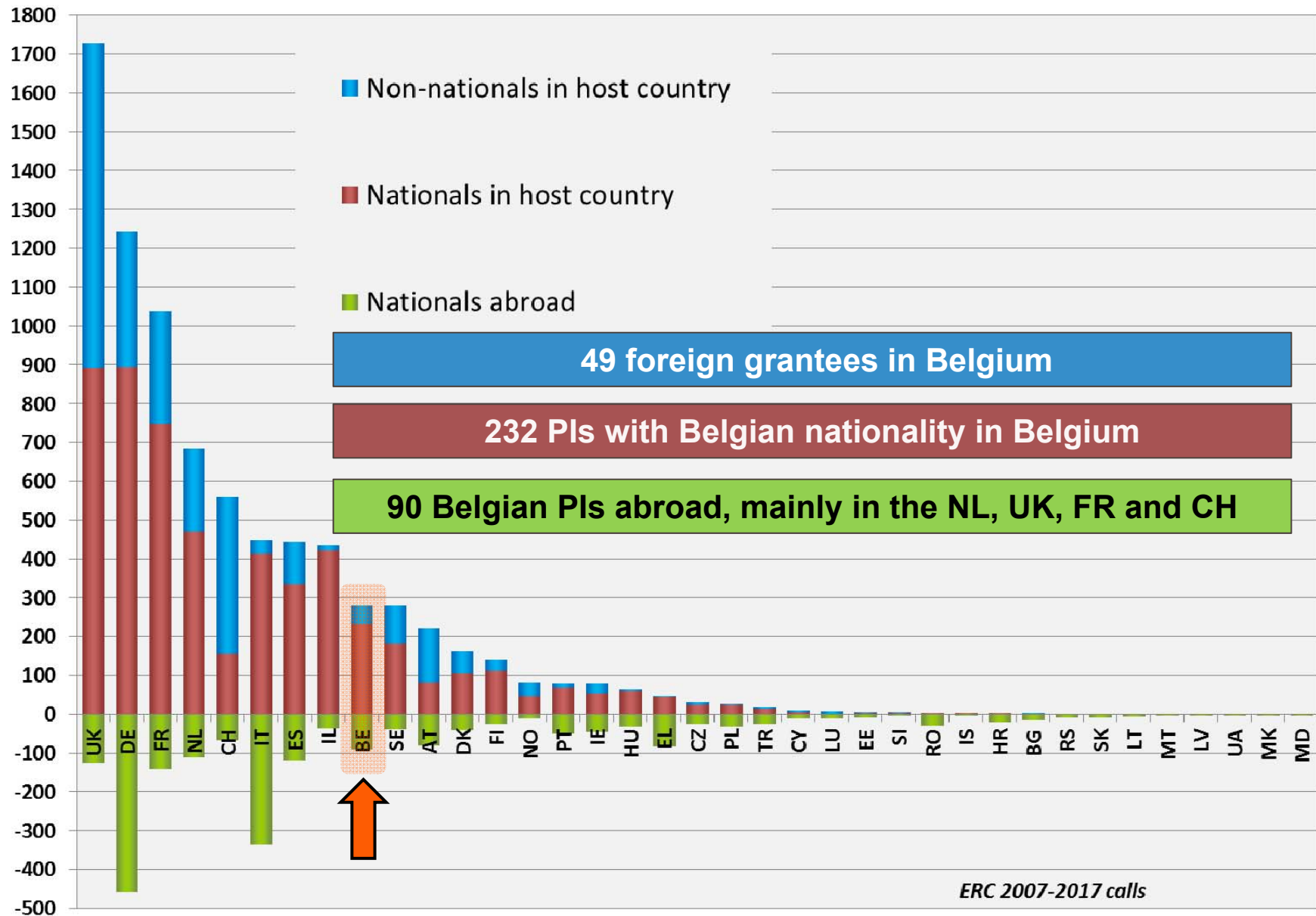
Legend:
- Non-nationals in host country
- Nationals in host country
- Nationals abroad

49 foreign grantees in Belgium

232 PIs with Belgian nationality in Belgium

90 Belgian PIs abroad, mainly in the NL, UK, FR and CH

ERC 2007-2017 calls

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Q: Can you show us an example of a successful proposal and say what factors made it stand out from the crowd?

We can't provide a 'representative' example.
Every panel decides whether and why a proposal is successful as compared to others.
The reasons for this can be very different from one panel to another.

Applicants should find their own way and rely on themselves to come up with a convincing proposal.

See on the ERC Website what projects have been funded in your field.

Questions

- Does a successful proposal require collaboration with international groups or should all expertise be available in house?

- Tips for writing a successful consolidator grant application without having obtained an ERC starting grant previously.

- What is the need for preliminary data in a proposal. Can we suggest broad ideas without pilot experiments?

- Compatibility of the ERC starting grant and any other 'young investigator' type grants (e.g. Sofja Kovalevskaja Award; START, FWF, Human frontiers)

Questions: CV

- Whether my CV is ready for starting/consolidator grant

- Are candidates with 2 years from the PhD evaluated at the same level of candidates with 5 years from the PhD?

- Is the CV evaluated in the context of the research field?

Questions: Multidisciplinary proposals

- How to choose a panel for multidisciplinary research?

- How does the ERC treat multidisciplinary proposals that do not exactly fit in any of the panel descriptions?

- Is there any counterpart for the interdisciplinary panel at the FWO?

Questions: Risk

- How to write well impact or risk when you are working on literature for example

- ERC grants are supposed to be highly innovative and 'risky' - how can this be understood in a policy science perspective?

- ERC grants have been awarded to people that will essentially pursue their line of research. Is the mantra "high risk high reward" really true (how innovative should we go)?

Questions: Eligibility

- Are there restrictions regarding the nationality of an applicant?

- Am I eligible for ERC starting grant while working as postdoc?

- Do the 7 years include career breaks due to unemployment after the PhD?

Thank you