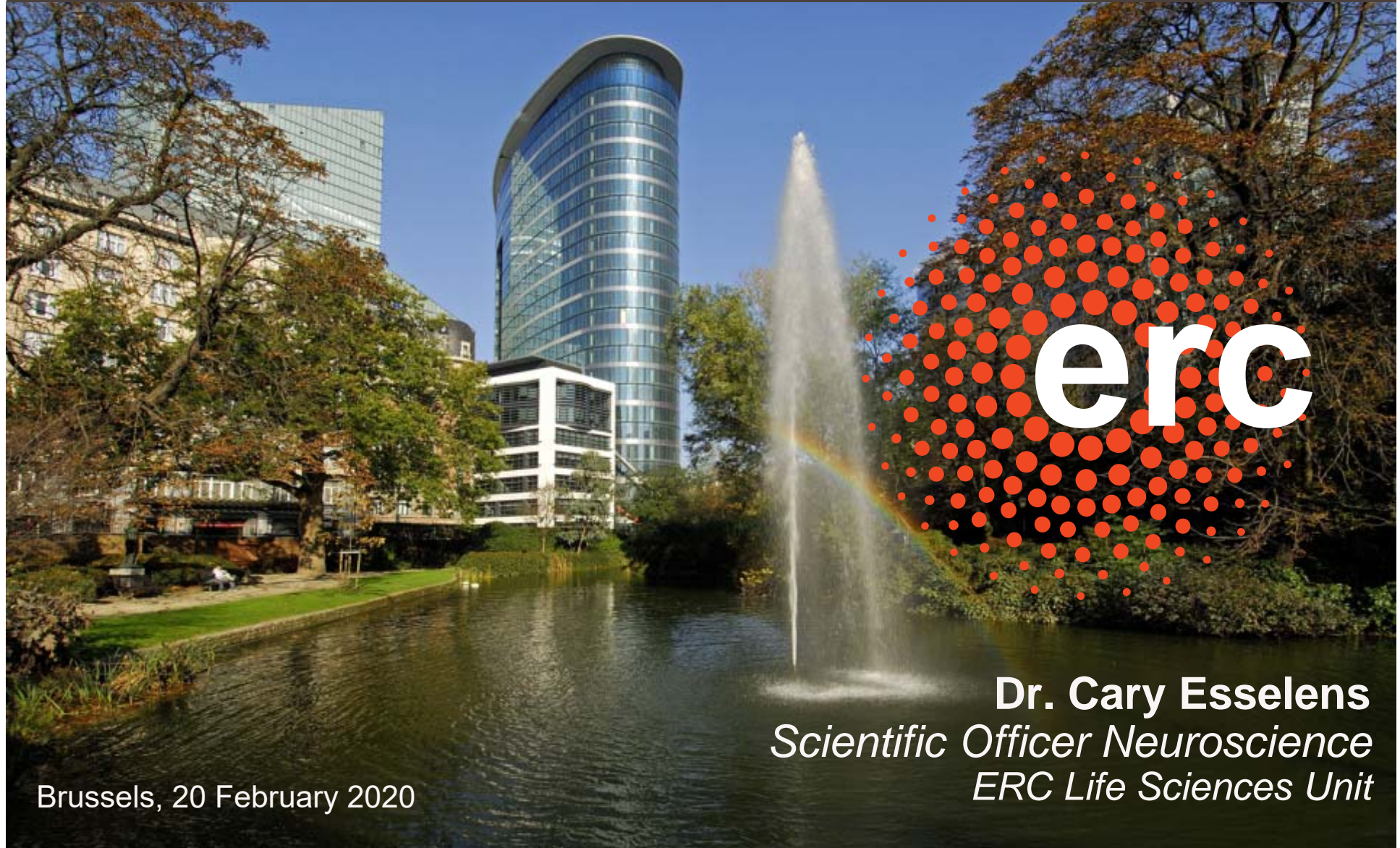


# Belgian NCP info session: ERC Advanced Grant



erc

**Dr. Cary Esselens**  
*Scientific Officer Neuroscience*  
*ERC Life Sciences Unit*

Brussels, 20 February 2020

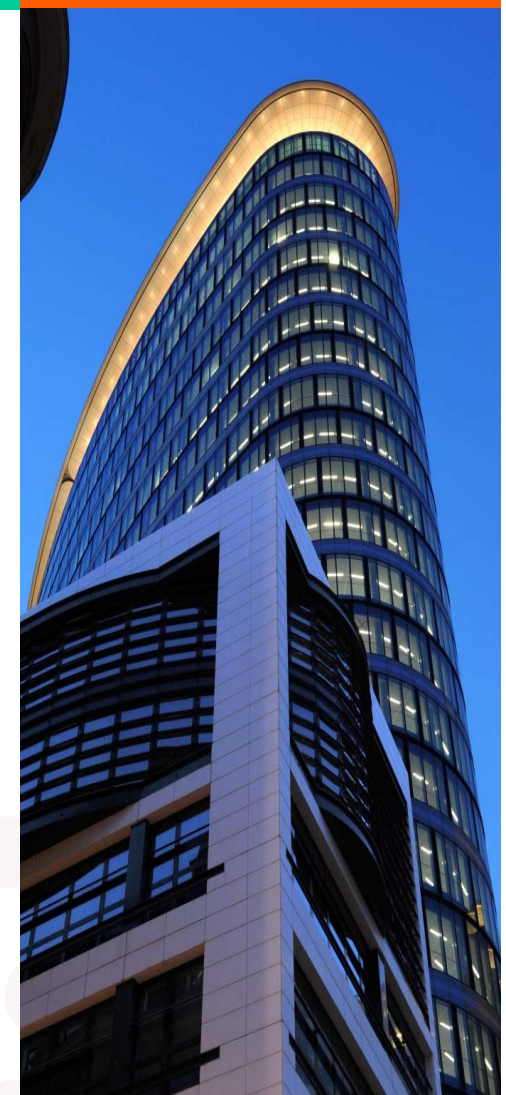
# Outline



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



# The ERC is ...



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- A **funding body** set up by the EU in 2007, based in Brussels
- A component of **Horizon 2020**: 'Excellent Science' Pillar
- Led by **scientists for scientists**
- **International peer-review**
- Supporting **bottom-up, investigator-driven** research across **all fields**, on the basis of **scientific excellence**
- Looking for **High-risk/High-gain** ambitious projects

# After 12 Years...



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Over **9400**  
top researchers funded since  
the ERC's creation in 2007



Over **100.000**  
articles from ERC projects published  
in prestigious scientific journals



Over **60.000**  
researchers and other professionals  
employed in ERC research teams



**780** research institutions  
hosting ERC grantees – universities,  
public or private research centres in  
the EU or associated countries



**€13 billion**  
ERC budget for 2014-2020 under  
Horizon 2020



**82**  
nationalities of  
grant holders

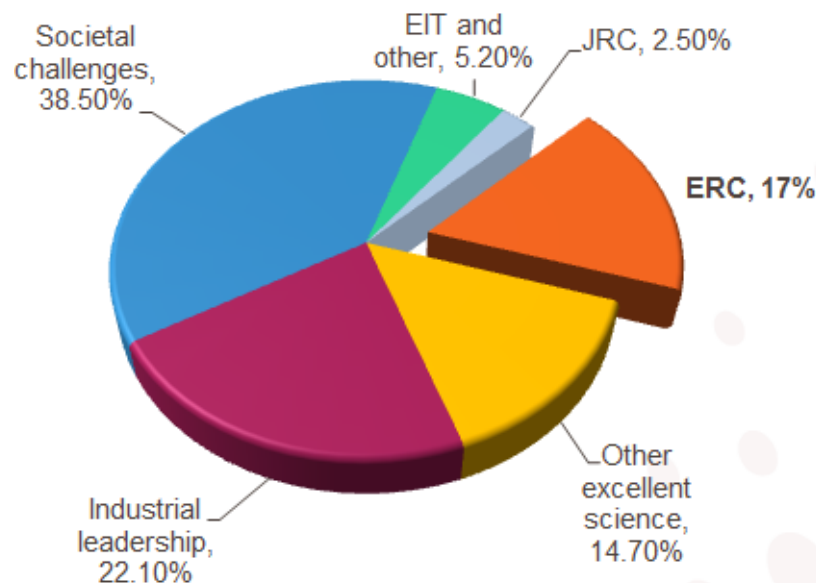
# The ERC is part of Horizon 2020: The EU Research and Innovation programme



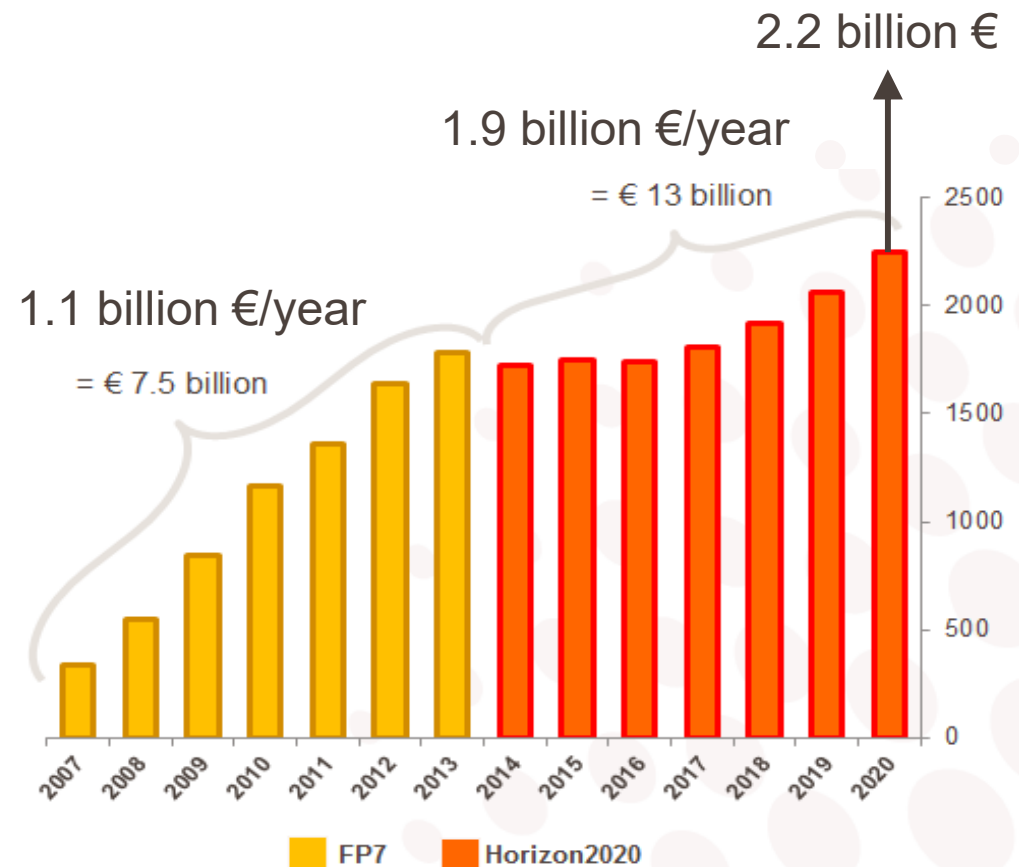
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- Horizon 2020 budget:**

77 billion € in 7 years (11B€/year)



- **ERC budget:**



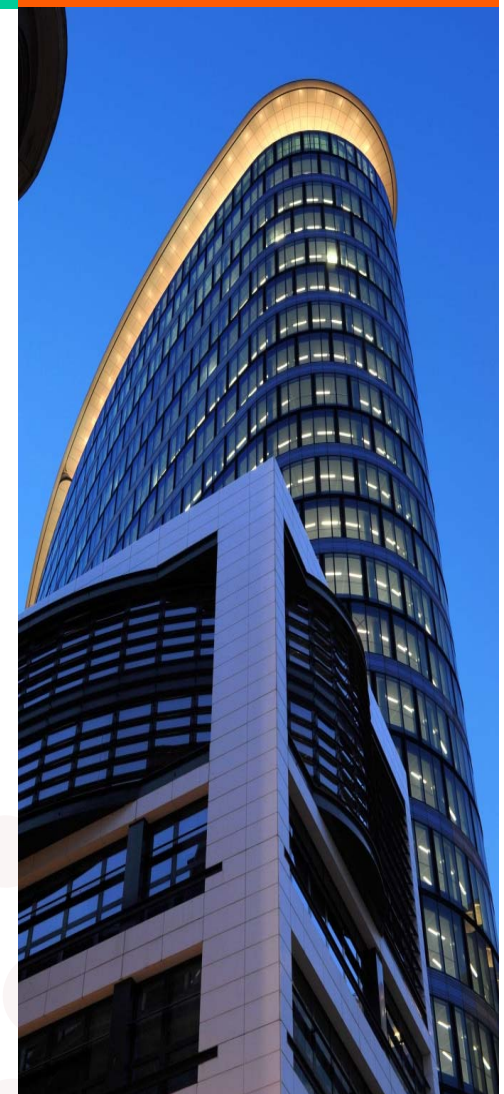
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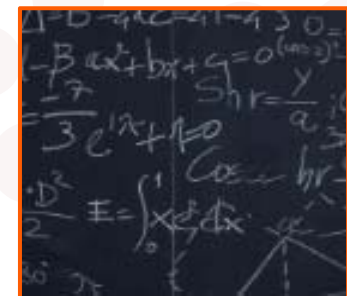
# ERC grants provide independence, recognition & visibility:



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- Work on a research topic of **own choice**, with a team of **own choice**
- Gain true **financial autonomy** for 5 years
- Negotiate the **best conditions** with the Host Institution
- Attract **top team members and collaborators**
- Move with the grant to any place in Europe (**portability**)
- Attract **additional funding**



# ERC Grant Schemes



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## Starting Grants

(2-7 years after PhD)

up to €1.5 Million  
for 5 years  
+ €1 Million

## Consolidator Grants

(7-12 years after PhD)

up to €2 Million  
for 5 years  
+ €1 Million

## Advanced Grants

10 Y research  
track-record

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

## Synergy Grants

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

## Proof-of-Concept

bridging gap between research - earliest stage of  
marketable innovation  
Lump sum: €150,000 for ERC grant holders





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# ERC Synergy Grants (not in 2021)

- Objective: projects that would not be possible by the individual PIs working alone
- Grant size: Up to €10M over 6 years (possibility of additional €4M)
  - 2-4 PIs of any nationality at any career stage
  - One PI designated as corresponding PI (cPI)
  - Ambitious research projects - new methods, approaches, techniques, research between disciplines.
  - Min. 30% of PI's time on the project  
Min. 50% of PI's time in the EU or AC

# ERC Proof of Concept Grants

(need to have a StG, CoG, AdG or SyG grant)



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- To bring ERC-funded ideas to a *pre-demonstration* stage for:
  - *potential* commercialisation opportunities or
  - *potential* societal benefits
- A 150.000€ /1,5 year grant to verify the innovation potential of an idea.
  - The funding should cover technical validation, market research, clarifying IPR strategy, investigating business opportunities.
  - Not a research proposal disguised as a PoC

# Advanced Grants



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- **Objective:** support excellent PIs at the career stage at which they are already established research leaders with a recognised track record of achievements.
- **Grant size:** €2.5M with possibility of an additional €1M:
  - Start-Up costs for scientists moving to EU/Associated Countries
  - Major equipment or other major experimental and field work costs
  - Access to large facilities
- **PI Profile:**
  - Active researchers that are leaders in terms of originality and significance of their research.
  - Last 10 years publication record
  - **Patents, invited presentations, prizes, mentoring, funding**
  - 30% of PI's time on the project + 50% of PI's time in the EU or AC

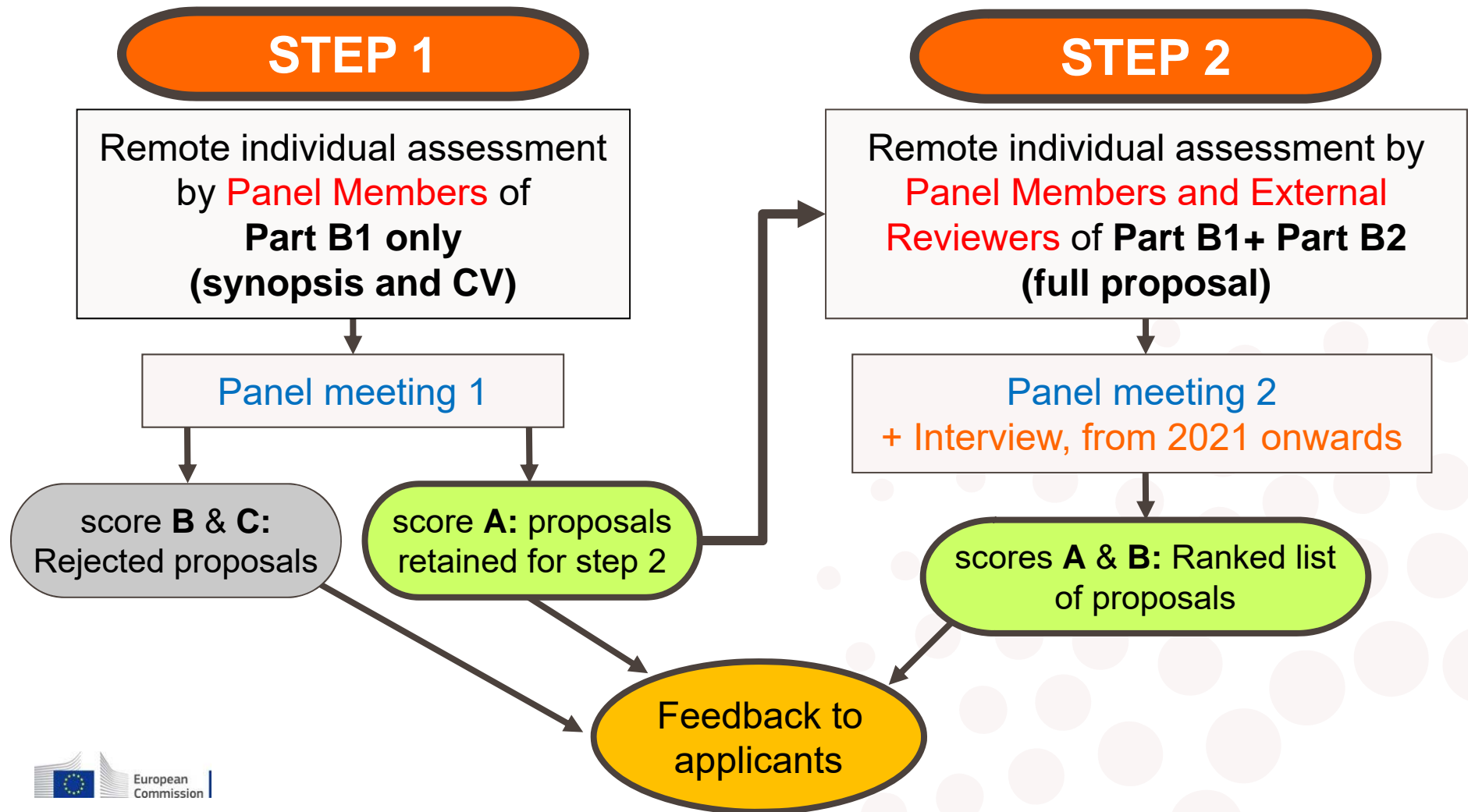
# Evaluation procedure Advanced Grant

Single submission, two-step evaluation



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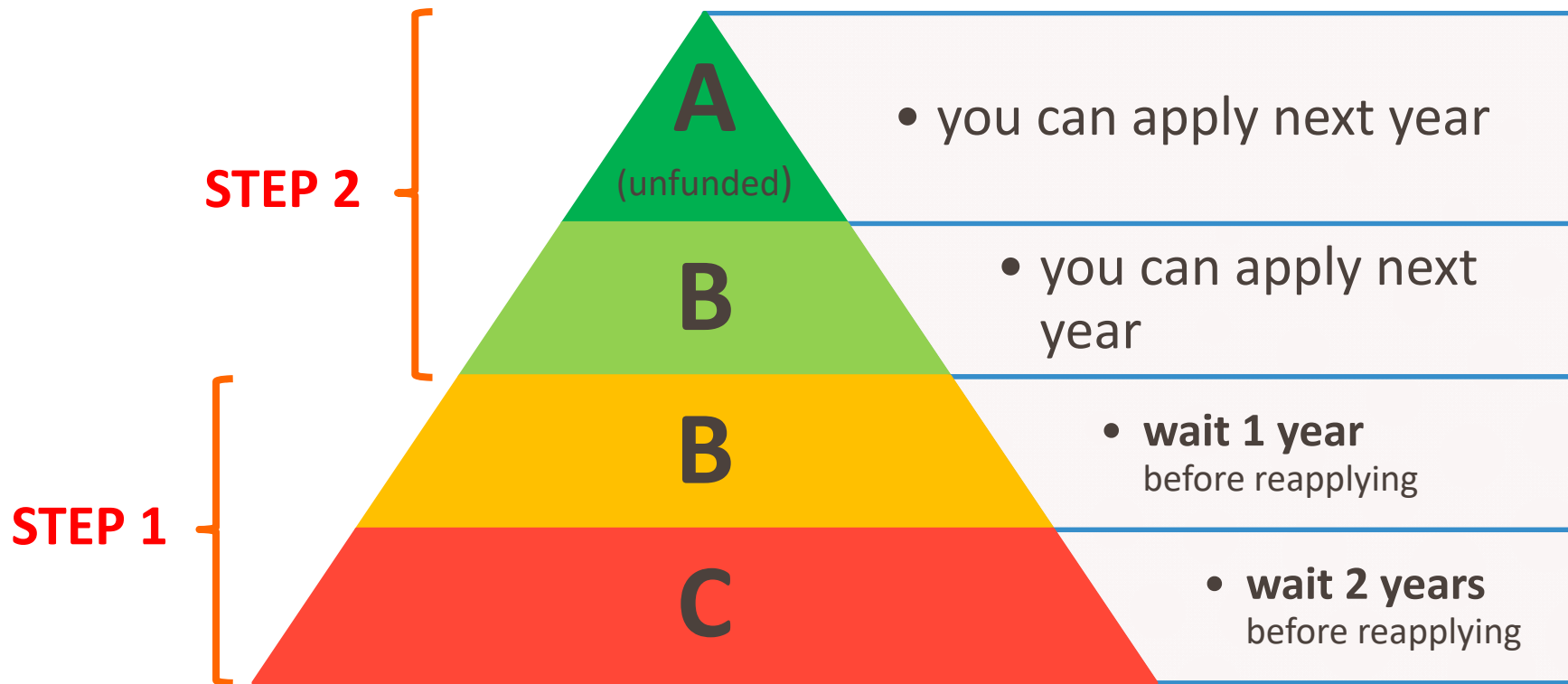


# Re-submission restrictions



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To make the evaluation process more effective





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# Submission to Panels

- The applicant submits a Proposal to a **Panel**.
  - ➔ Possibility to indicate a **Secondary Panel** (+justify why)
- **Applicant chooses the panel**, this panel is 'responsible' and runs the evaluation of the proposal
- **But:** In case of cross-panel or cross-domain proposals, evaluation by other panels is possible
- Changing a proposal's panel is exceptional (when expertise is available in another panel or in case of a clear mistake)
- Select carefully **panel descriptors** and indicate **free keywords** (they are used when allocating proposals to PMs)

# ERC panel structure



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Each panel:  
Panel Chair + 12-16 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

## 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

## 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

# Excellence is the only evaluation criterion



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## Research Project

- Ground-breaking nature
- Potential impact
- Clever Scientific Approach

## Principal Investigator

- Creativity
- Leadership
- Scientific expertise and capacity to execute the project





# Individual evaluation report by panel members:



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## - Criterion 1 - RESEARCH PROJECT

Current score: - / 5.0 ; Threshold 0

---

Your score: \*

1.0 - Non-competitive    1.5    2.0 - Good    2.5    3.0 - Very Good    3.5    4 - Excellent    4.5    5 - Exceptional

### Ground-breaking nature and potential impact of the research project

To what extent does the proposed research address important challenges?

To what extent are the objectives ambitious and beyond the state of the art (e.g. novel concepts and approaches or development between

To what extent is the proposed research high risk/high gain (i.e. if successful the payoffs will be very significant, but there is a higher-than

Comments: \*

### Scientific Approach

To what extent is the outlined scientific approach feasible bearing in mind the extent that the proposed research is high risk/high gain (ba

Comments: \*



## - Criterion 2 - PRINCIPAL INVESTIGATOR

Current score: - / 5.0 ; Threshold 0

---

*Please click here for more information*

Your score: \*

1.0 - Non-competitive    1.5    2.0 - Good    2.5    3.0 - Very Good    3.5    4 - Excellent    4.5    5 - Exceptional

To what extent has the PI demonstrated the ability to conduct ground-breaking research? \*

Non-competitive    Good    Very Good    Excellent    Exceptional

To what extent does the PI provide evidence of creative independent thinking? \*

Non-competitive    Good    Very Good    Excellent    Exceptional

To what extent does the PI have the required scientific expertise and capacity to successfully execute the project? \*

Non-competitive    Good    Very Good    Excellent    Exceptional

Comments:

## - SUGGESTED REMOTE REFEREE FOR STEP 2 EVALUATION

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**Add Remote Referee**

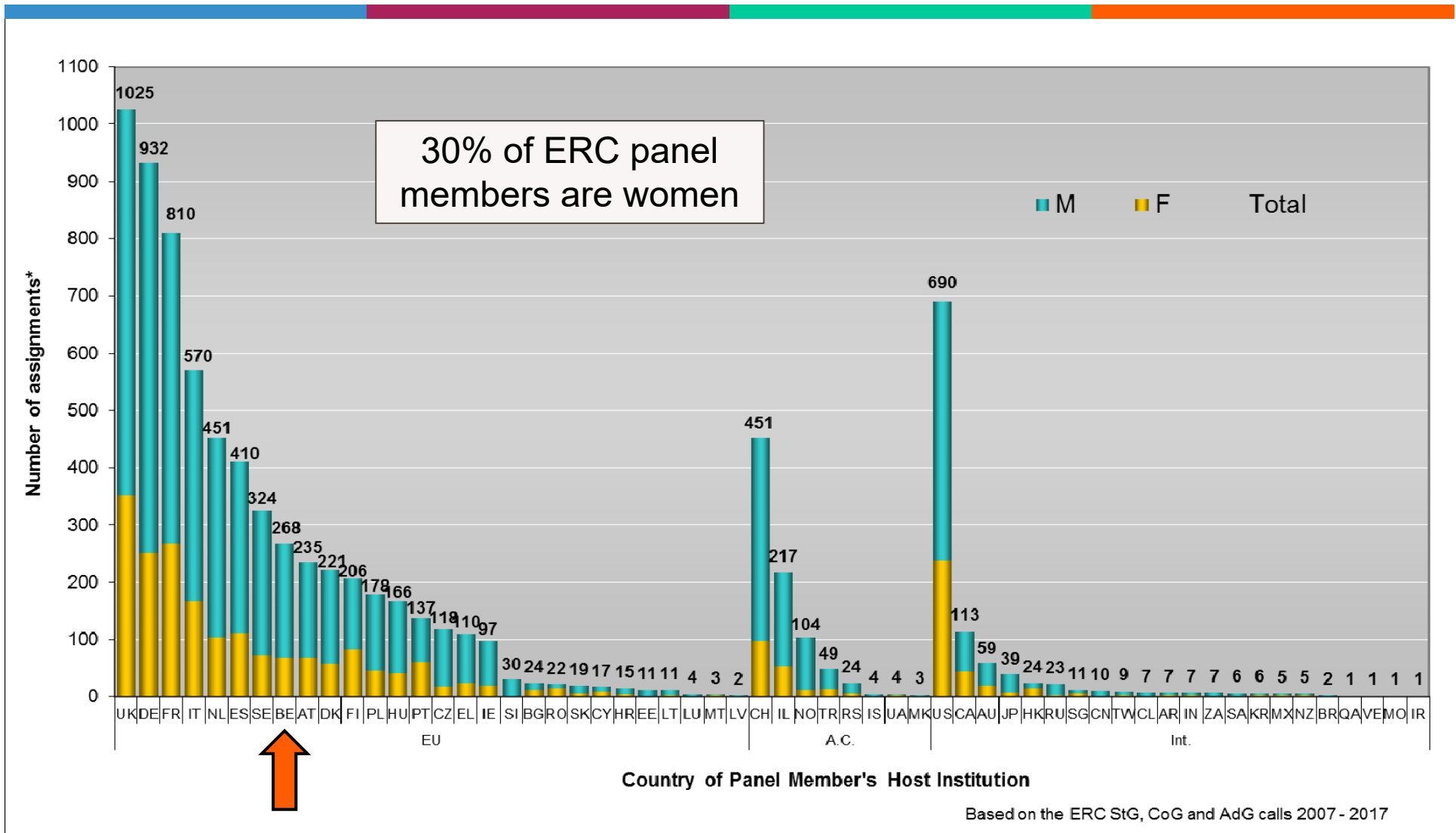


# Who evaluates your proposal?



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## Panel Members by HI Country



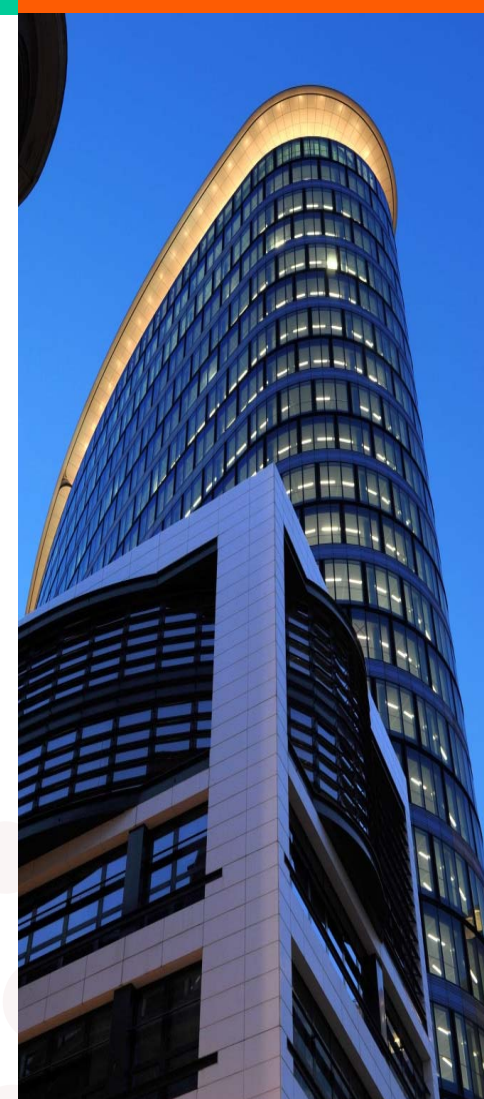
# Outline



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# Preparing your proposal



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- 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 (who have an Advanced Grant)
- **Submit** your research proposal **before the deadline**  
→ fully electronic/web based submission system



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# Preparing your proposal:

## Questions to ask yourself as an applicant

- Does the proposal go **beyond the state of the art**?
- Is it **timely**? (Why wasn't it done in the past? Is it feasible now?)
- What is the risk? Is it justified by the potential gain? Do I have a plan for managing the risk?
- Why is my proposal 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 manage a 5-year project with a substantial budget?



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# Preparing your proposal: Writing your CV

- Remember that the CV/Track Record is as important as your project (50-50)
- Describe activities indicating scientific leadership
- Explain what was your contribution to 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
- Fully fill in your Funding ID

# Preparing your proposal

## Host Institution



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- You **can change** HI during the project's lifetime, if needed
- **Negotiate** with the HI (your position, equipment, administrative support, access to infrastructure, etc.)
- The Host Institution is not an evaluation criterion





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# 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, FAQs*)
- Talk to the **Belgium National Contact Point** and your **Institution's Grant Office**

# Proposal structure



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## Part A: Administrative form

1. General information
2. Administrative data of participating organisation(s)
3. Resources and Budget table
4. Ethics
5. Call specific questions

## 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 *NOT evaluated in Step 1 (Step 2 only)*

Scientific proposal	15 pages
a – State-of-the-art and objectives	
b – Methodology	

# Preparing a proposal

## Differences in Part B1 and Part B2



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

- Pay attention to the **groundbreaking nature** of the project – no incremental research. State-of-the-art is not enough.
- 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 a “generalist” is normal)

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

# Preparing a proposal

## Differences in Part B1 and Part B2



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**Step 2: Panel members** and **external reviewers** (with specific expertise relevant to the project) evaluate both **Part B1** and **Part B2**

- Part B2: Do not just repeat the synopsis from Part B1
- Provide **sufficient detail** on methodology, work plan, selection of case studies where relevant, etc. (15 pages)
- Make sure you give **full references** (excluded from page count)
- Add a **timeline**
- Provide strategies to **mitigate risk**
- Explain your **budget** and involvement of **team members**



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# Explain your budget properly

- Panels have to ensure that the requested resources are reasonable and well justified.

**Unexplained costs may (will) 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.

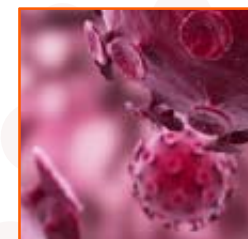
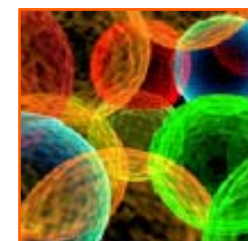


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# Contrary to what you may think.....

- 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
- Publication record is not decisive in selection
- Re-applying pays off (50% success rate increase)
- No indication that native English speakers are more likely to succeed



# 2020 Call Calendar



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ERC calls	Budget	Call Opening	Submission Deadline(s)
<b>Starting Grants</b> ERC-2020-StG	677 M€ (455 grants)	17 July 2019	16 October 2019
<b>Synergy Grants</b> ERC-2020-SyG	350 M€ (39 grants)	18 July 2019	5 November 2019
<b>Consolidator Grants</b> ERC-2020-CoG	657 M€ (343 grants)	24 October 2019	4 February 2020
<b>Advanced Grants</b> ERC-2020-AdG	492 M€ (209 grants) (166 last year)	14 May 2020	26 August 2020
<b>Proof of Concept</b> ERC-2020-PoC	25 M€ (167 grants)	15 October 2019	21 January 2020 23 April 2020 17 September 2020

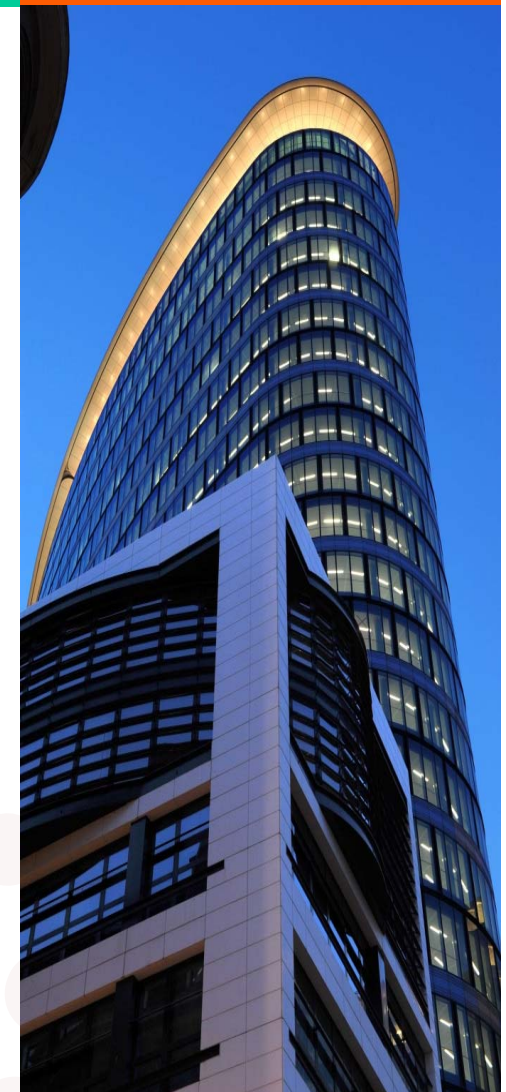
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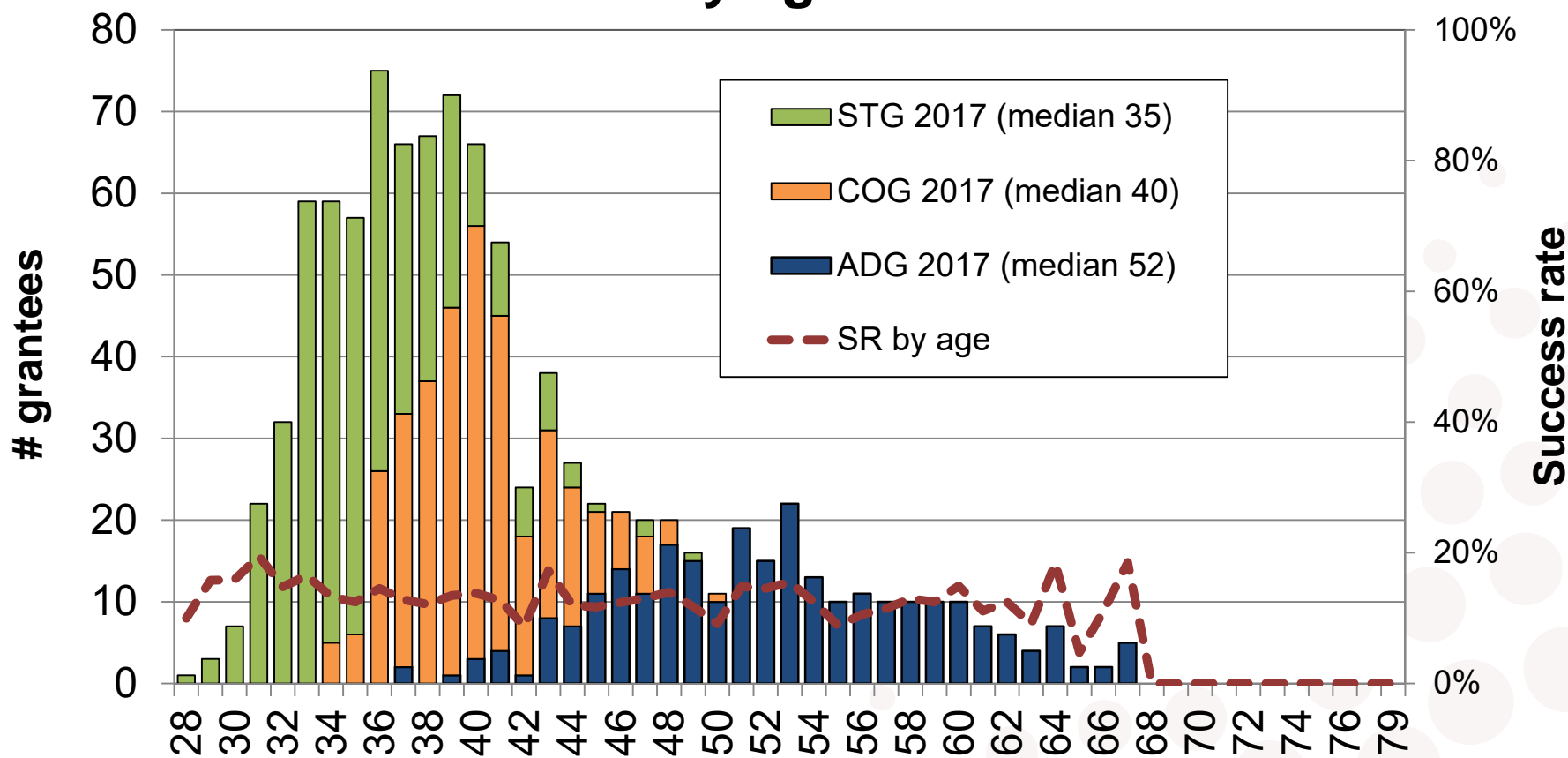
# 2017 StG-CoG-AdG: Age of Grantees



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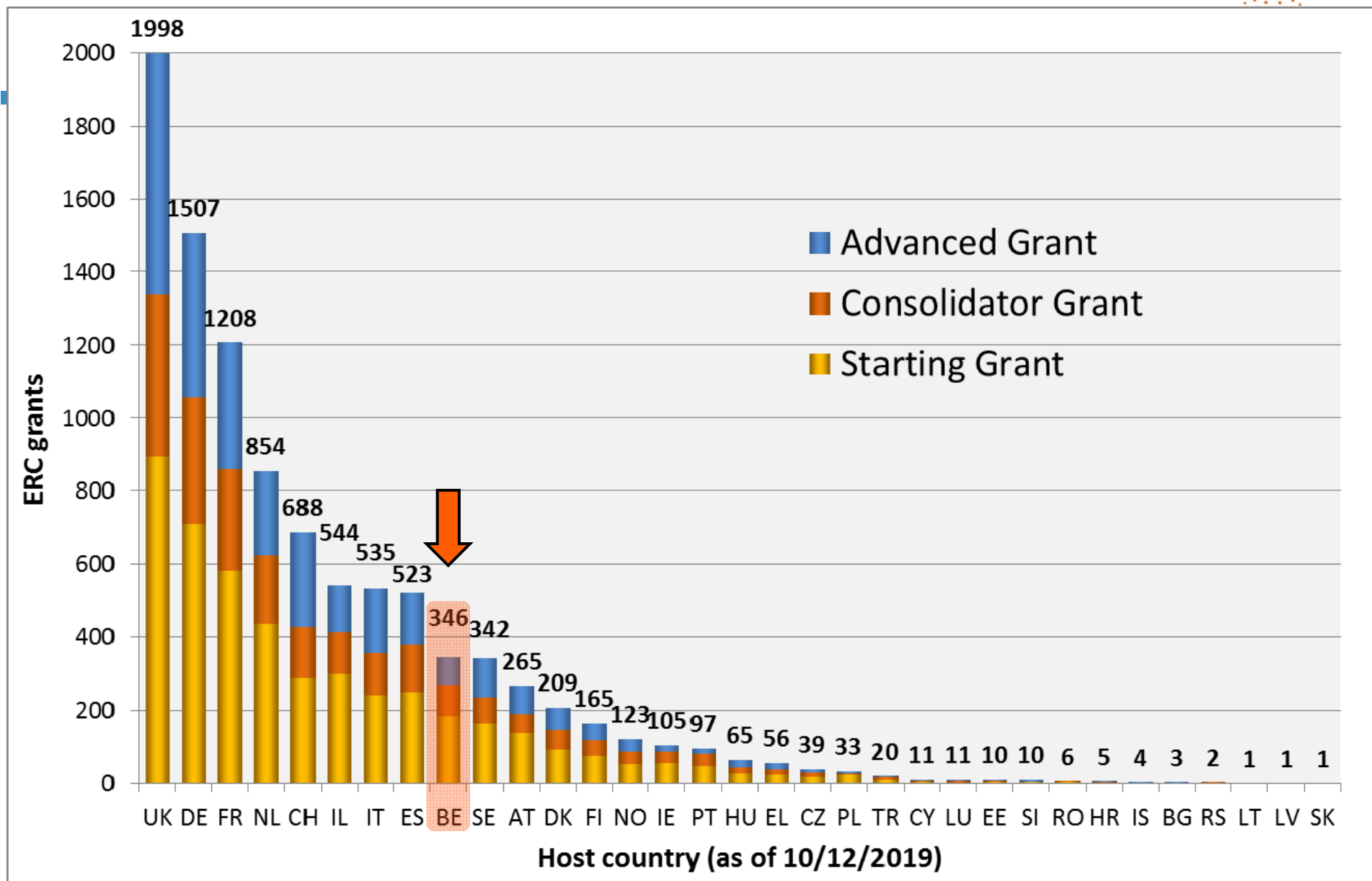
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## 2017 Grantees by age and success rate





# ERC Funded Projects by Country

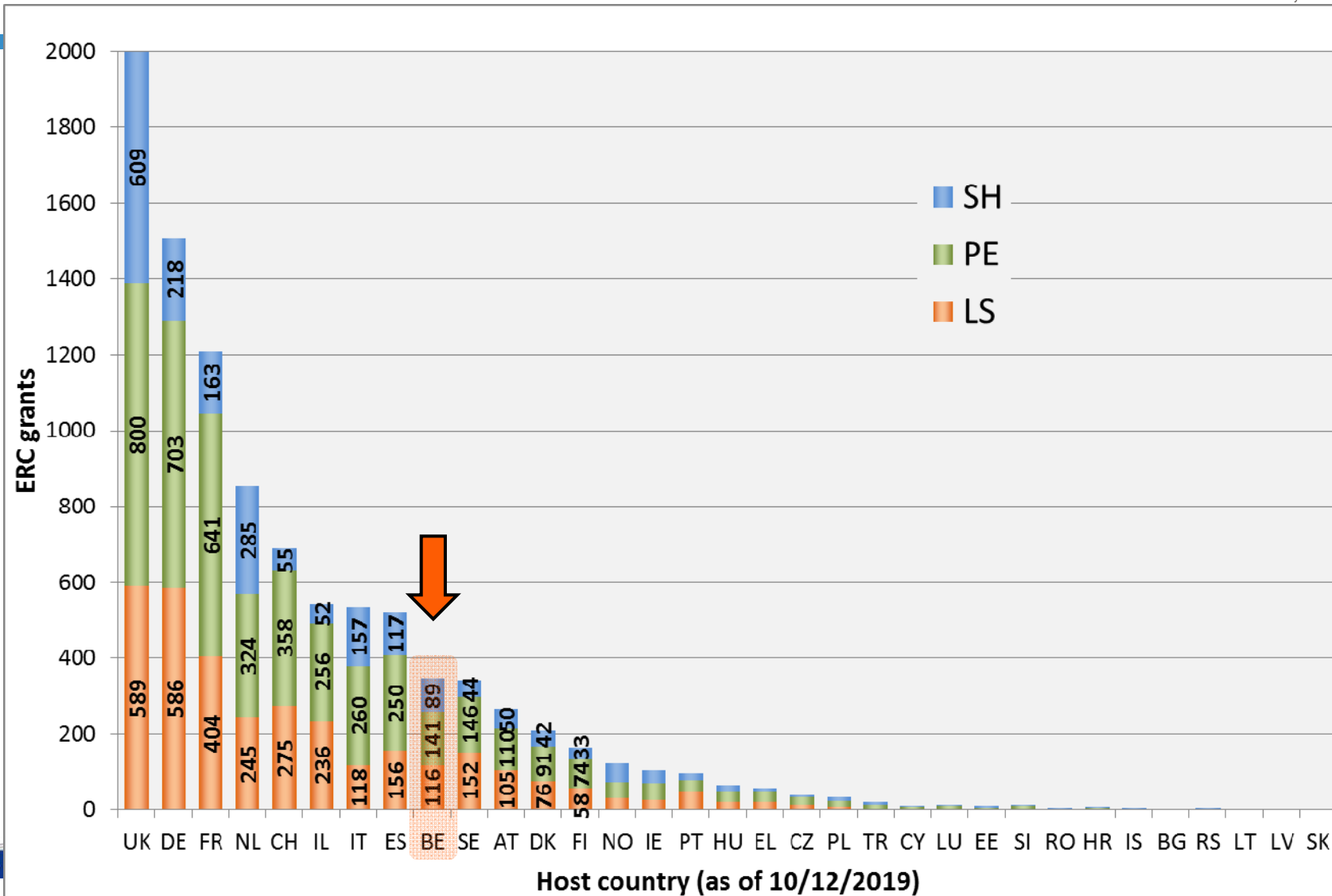


# ERC Funded Projects by Domain



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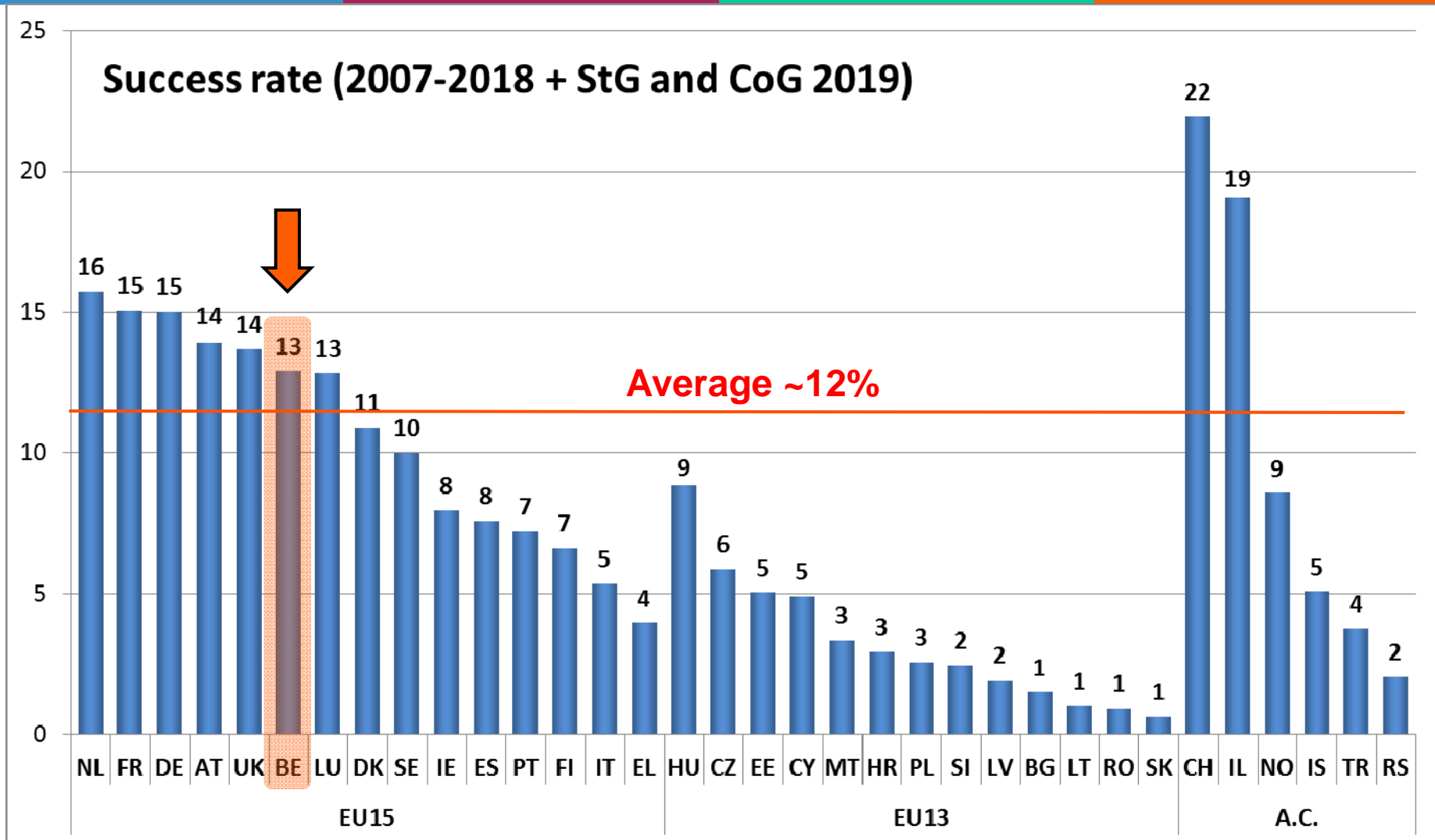
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# Success Rate by Country



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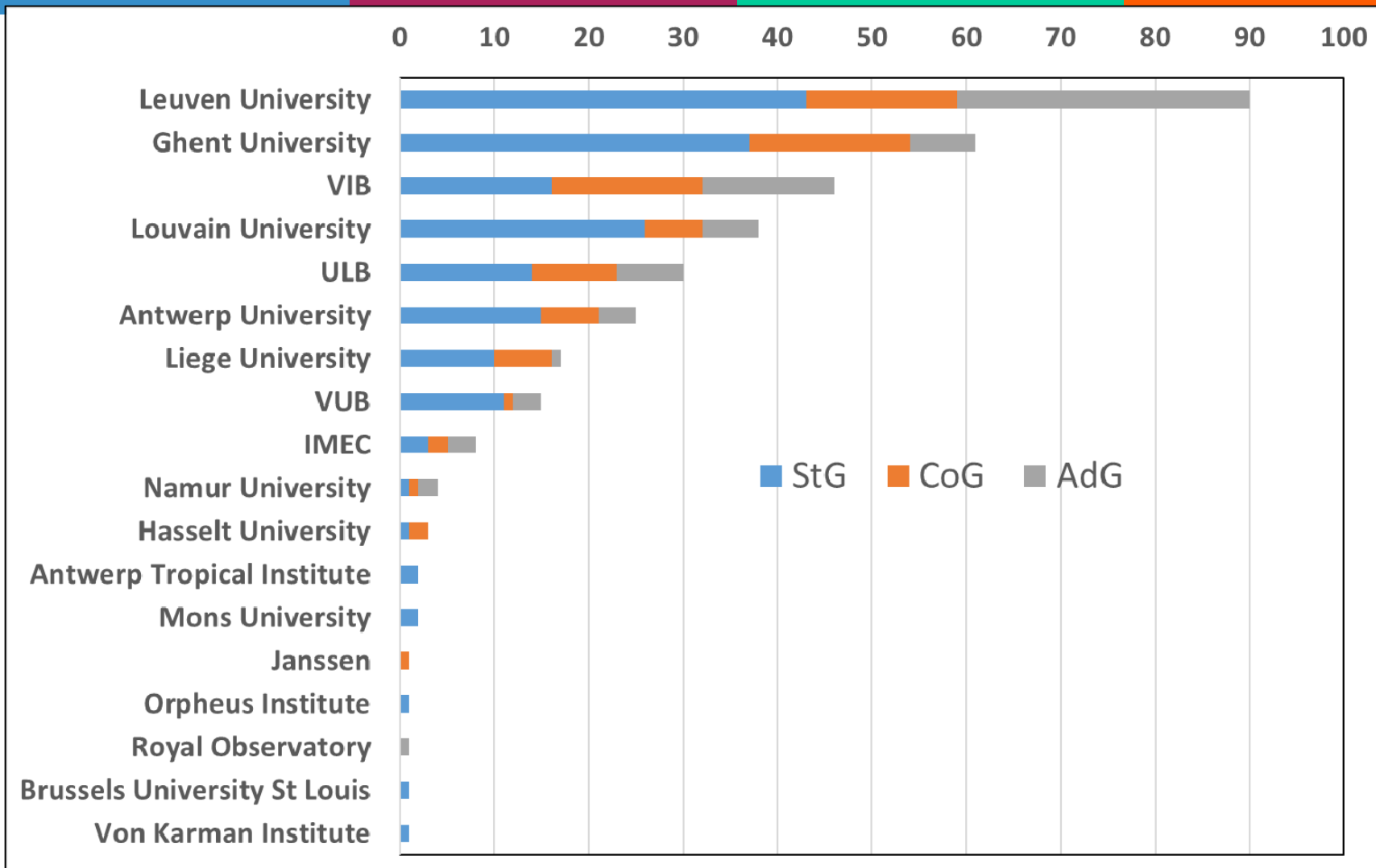


# ERC Grants by Belgian institutions



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# ERC Grants by Belgian institutions



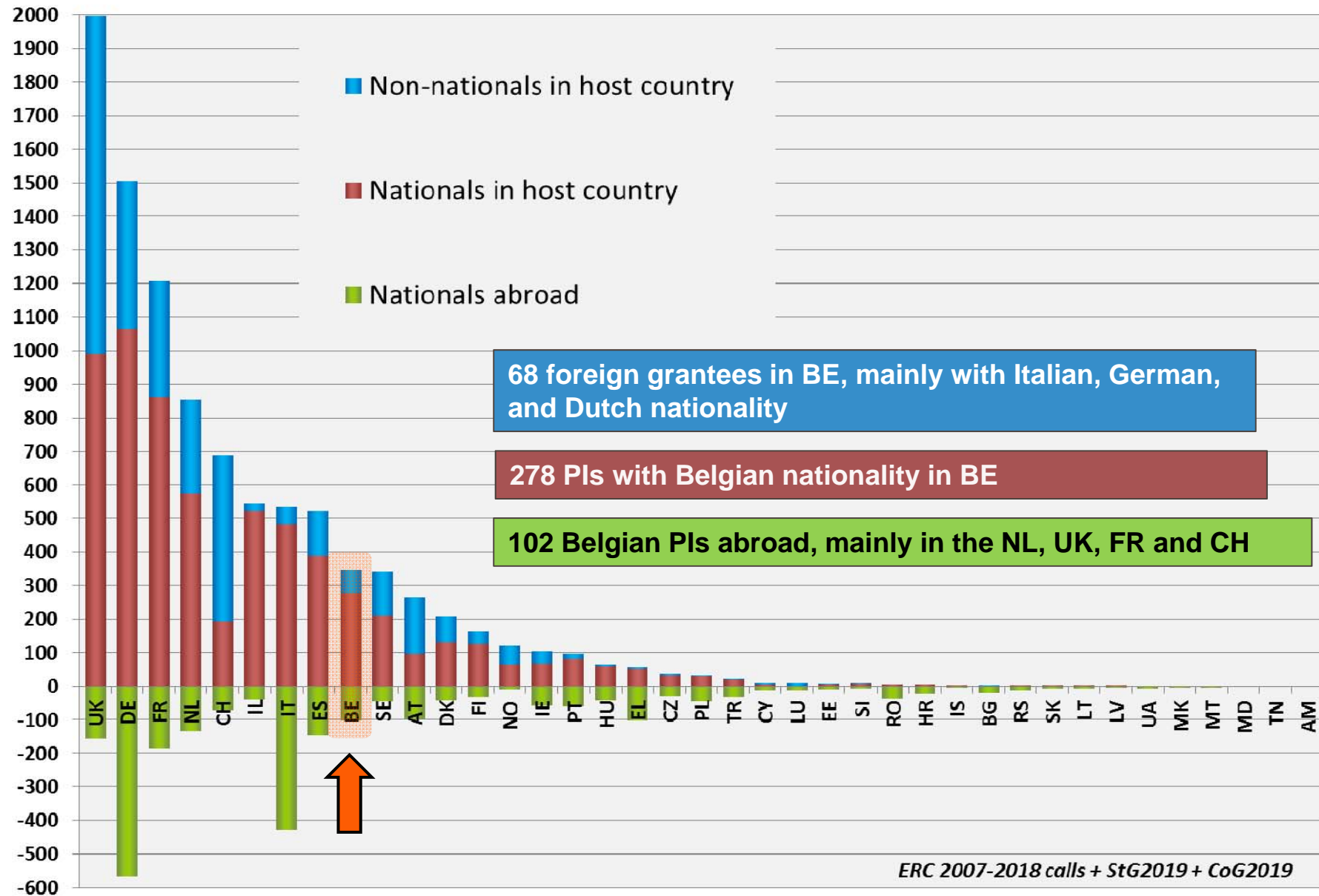
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ERC calls  
2007-2019:  
800 institutions

1	FR	CNRS	563
2	UK	Oxford University	282
3	UK	Cambridge University	278
4	DE	Max Planck Society	253
5	IL	Weizmann Institute	205
6	UK	University College London	201
7	CH	ETH Zurich	195
8	CH	EPFL Lausanne	182
9	IL	Hebrew University of Jerusalem	147
10	UK	Imperial College	133
11	FR	INSERM	128
12	UK	Edinburgh University	118
13	DE	Munich University (LMU)	112
14	NL	Amsterdam University	109
15	DK	Copenhagen University	107
16	IL	Tel Aviv University	107
17	BE	Leuven University	97
18	IL	Technion - Israel Institute of Technology	96
19	NL	Delft University of Technology	92
20	ES	Spanish National Research Council (CSIC)	91
29	BE	Ghent University	74
44	BE	VIB - Flanders Institute for Biotechnology	53
60	BE	Louvain University	39
85	BE	ULB - Free University of Brussels	30
95	BE	Antwerp University	27

# Grantees at home and abroad



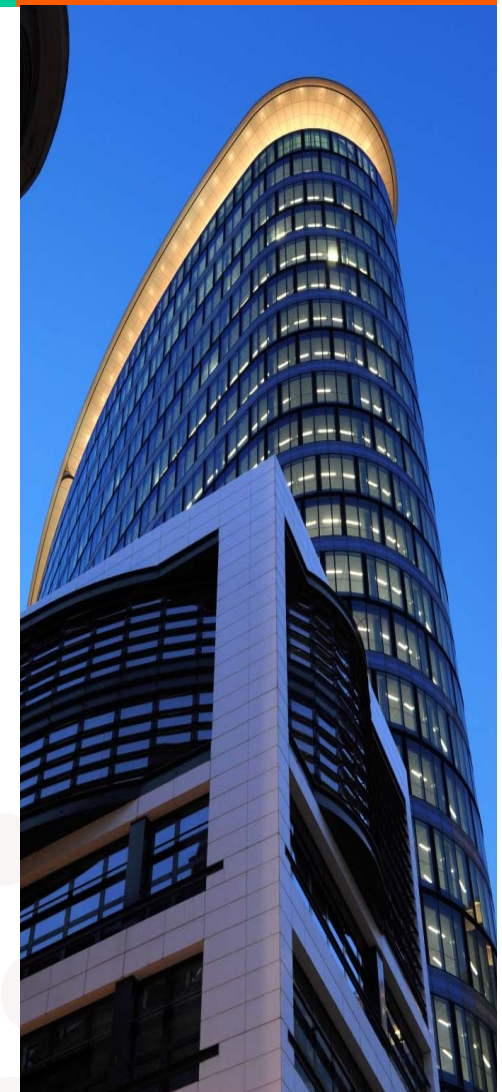
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# Questions



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- Does a successful proposal require collaboration with international groups or should all expertise be available in house?
- What is the need for preliminary data in a proposal. Can we suggest broad ideas without pilot experiments?
- Compatibility of the ERC Advanced Grant and other grants
- What to do if the comments do not reflect a reason to reject funding, as has typically been the case in the past?

# Questions: CV



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- Are candidates evaluated at the same level of seniority?
- Is the CV evaluated in the context of the research field?
- Are there restrictions regarding the nationality of an applicant?

# Questions: Multidisciplinary proposals



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- 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?

# The European Research Council



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- More information: [erc.europa.eu](http://erc.europa.eu)
- National Contact Point: [erc.europa.eu/national-contact-points](http://erc.europa.eu/national-contact-points)
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**Thank you**

## 2018 Grantees by age and success rate

