



European Research Council

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Training

ERC grant writing

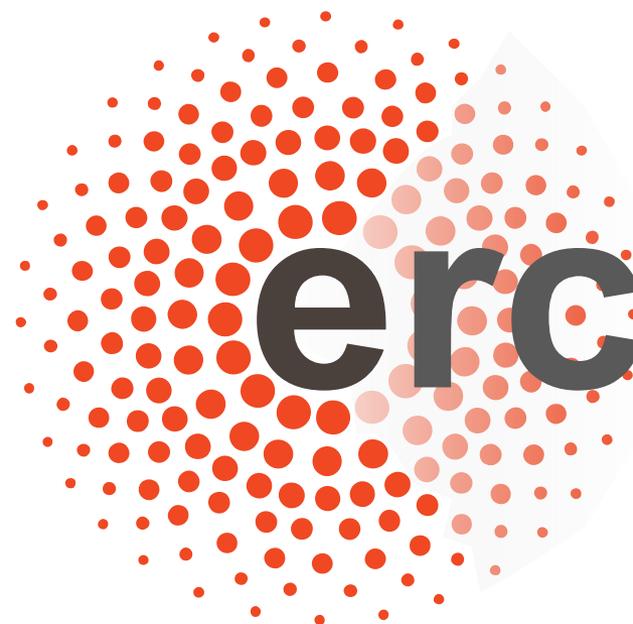
8 July 2019

Vienna

Inge RUIGROK

Scientific Officer, Social Sciences and Humanities

European Research Council (ERCEA)



Topics of presentation

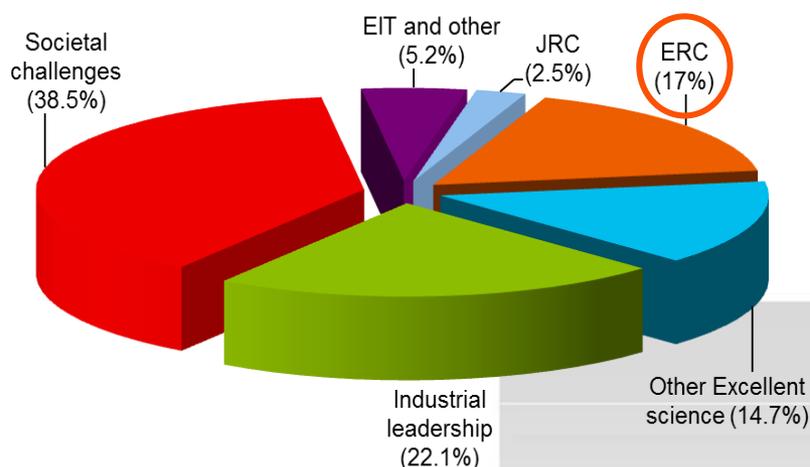
- ❖ What is the ERC?
- ❖ Austria and the ERC
- ❖ The ERC's peer-reviewed evaluation process
- ❖ Some points of advice for applications
- ❖ Q&A

The European Research Council in short:

- **Science-led:** autonomous funding body set up by the European Commission in 2007, led by the ERC Scientific Council
- **Everyone:** Funding excellent researchers of any nationality (project to be hosted within the EU or Associate Country)
- **All scientific areas:** Frontier research in all fields of science and humanities
- **Individual funding:** 1 principal researcher, 1 project, moveable grant
- **Evaluation panels:** International, top-level peer-review

... Substantial grants and a recognised label of excellence

The ERC within Horizon 2020



**ERC Budget
€ 13 billion**

For 2019, the budget is more than 2 billion euros, the highest ever since the beginning of the ERC.



ERC Grant Schemes



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Starting Grant

2-7 years after PhD

€1.5M for 5 years

Consolidator Grant

7-12 years after PhD

€2 M for 5 years

Advanced Grant

Track-record of 10 years

€ 2.5 M for 5 years

Synergy Grant

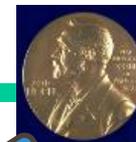
2-4 PIs at any career stage

Grant up to €10 M for 6 years

Proof-of-Concept

Bridging gap between research and earliest stage of marketable innovation, up to €150,000 for ERC grant holders only

Nobel Prize to ERC grantees



The Nobel Prize in Chemistry 2016 was awarded jointly to Jean-Pierre Sauvage, Sir J. Fraser Stoddart and Bernard L. Feringa *"for the design and synthesis of molecular machines"*.



Bernard Feringa
Nobel 2016

ERC Grantee AdG 2008
ERC Grantee AdG 2015

The Nobel Prize in Economic Sciences 2014 was awarded to Jean Tirole *"for his analysis of market power and regulation"*.



Jean Tirole
Nobel 2014

ERC Grantee AdG 2009



May-Britt Moser
Nobel 2014

ERC Grantee AdG 2010



Edvard Moser
Nobel 2014

ERC Grantee AdG 2008
ERC Grantee AdG 2013

The Nobel Prize in Physiology or Medicine 2014 was awarded to May-Britt Moser and Edvard Moser, together with John O'Keefe, *"for their discoveries of cells that constitute a positioning system in the brain"*.



Serge Haroche
Nobel 2012

ERC Grantee AdG 2009



Dan Shechtman
Nobel 2010

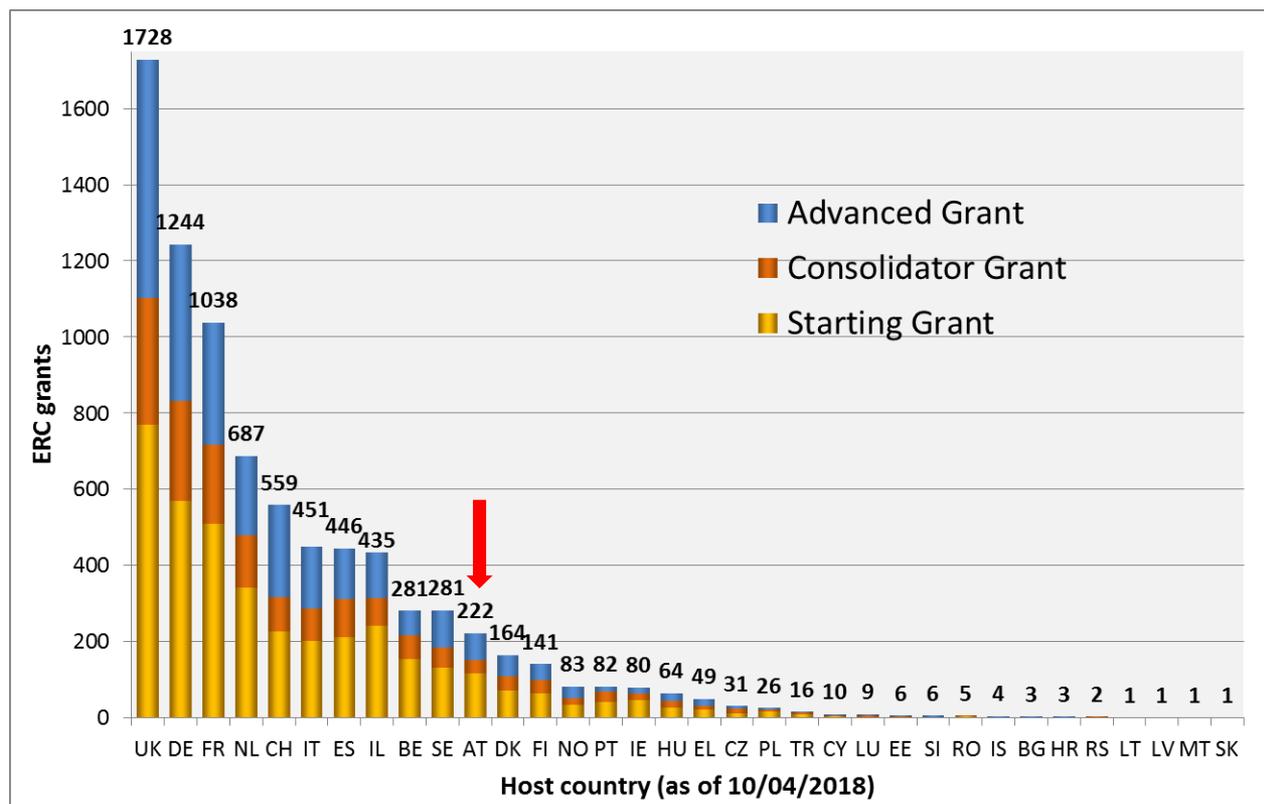
ERC Grantee StG 2007
ERC Grantee SyG 2012

- **2** other ERC grantees received the Nobel prize in **2010** and **2012**
- Other **7** ERC grantees were already Nobel laureates at the moment they received the ERC grant

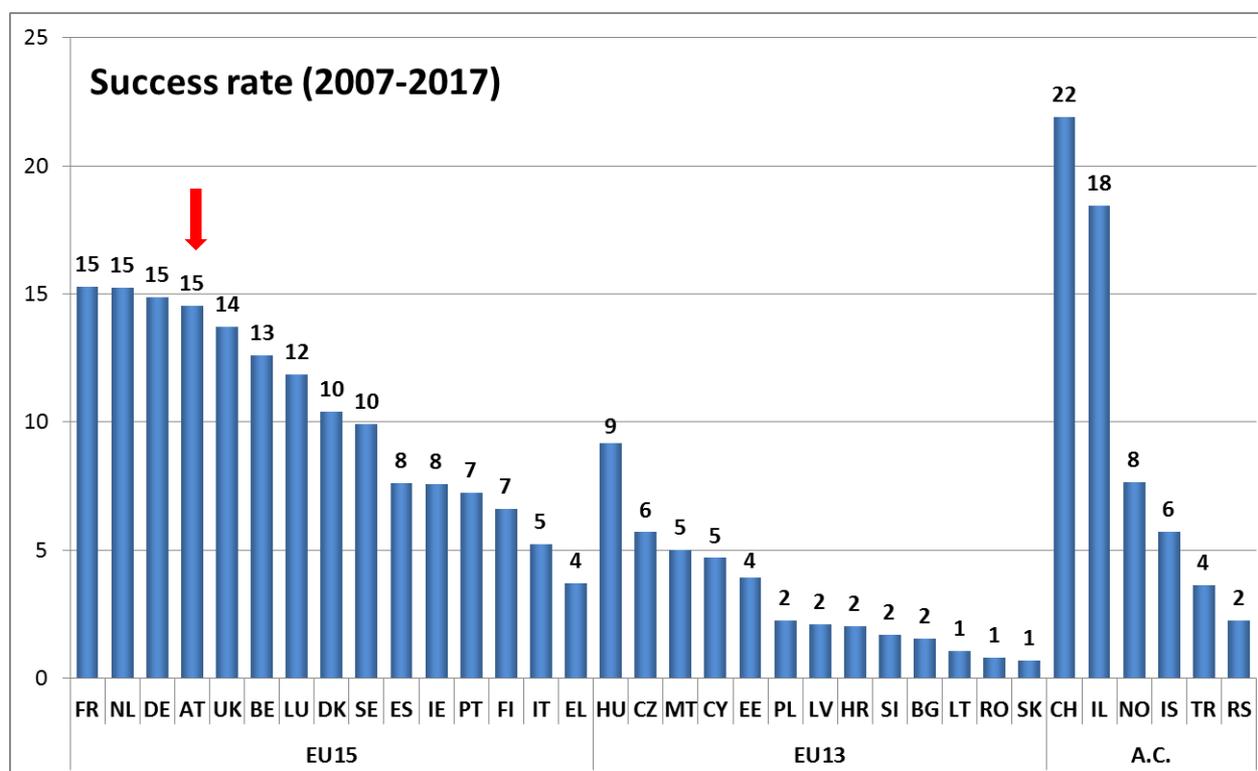


Austria and the ERC

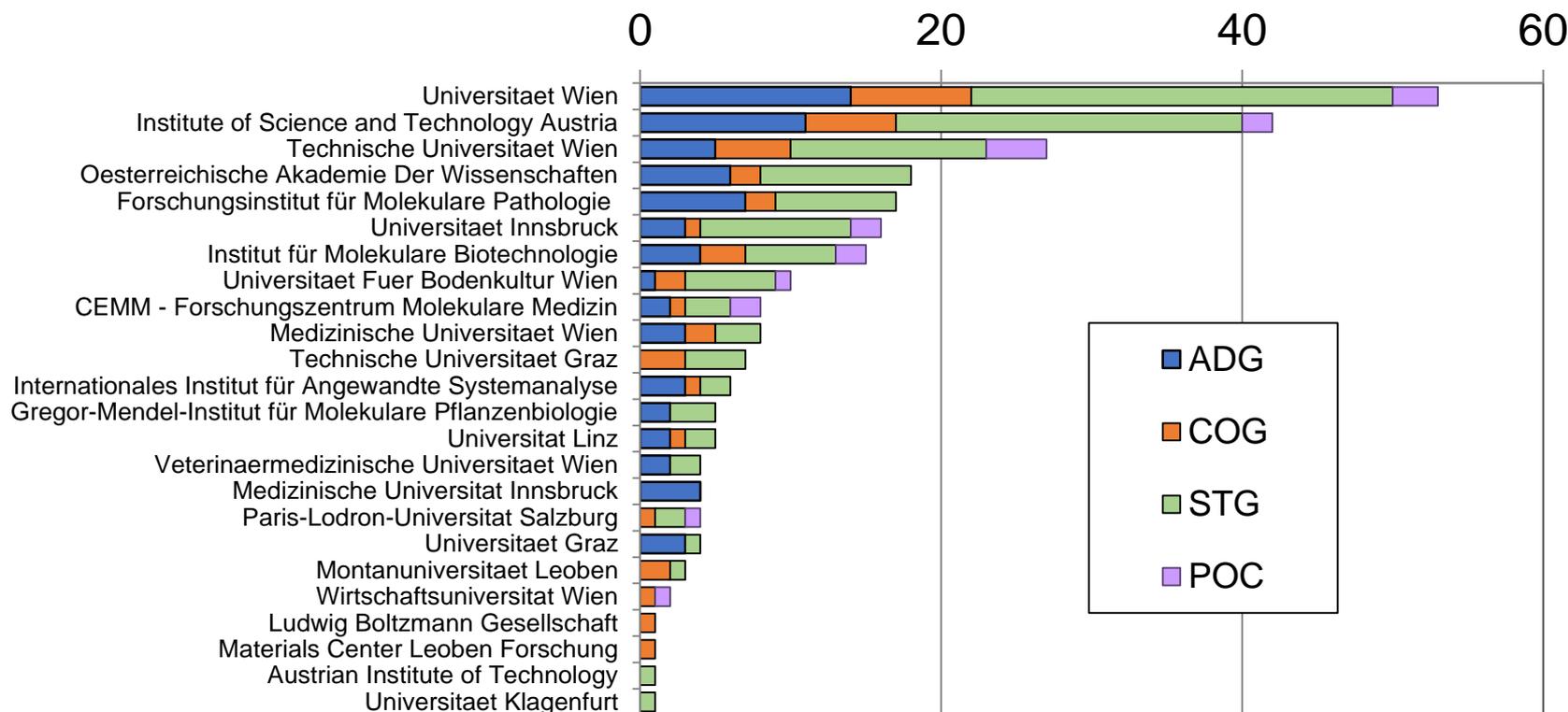
ERC Funded Projects by Country of HI



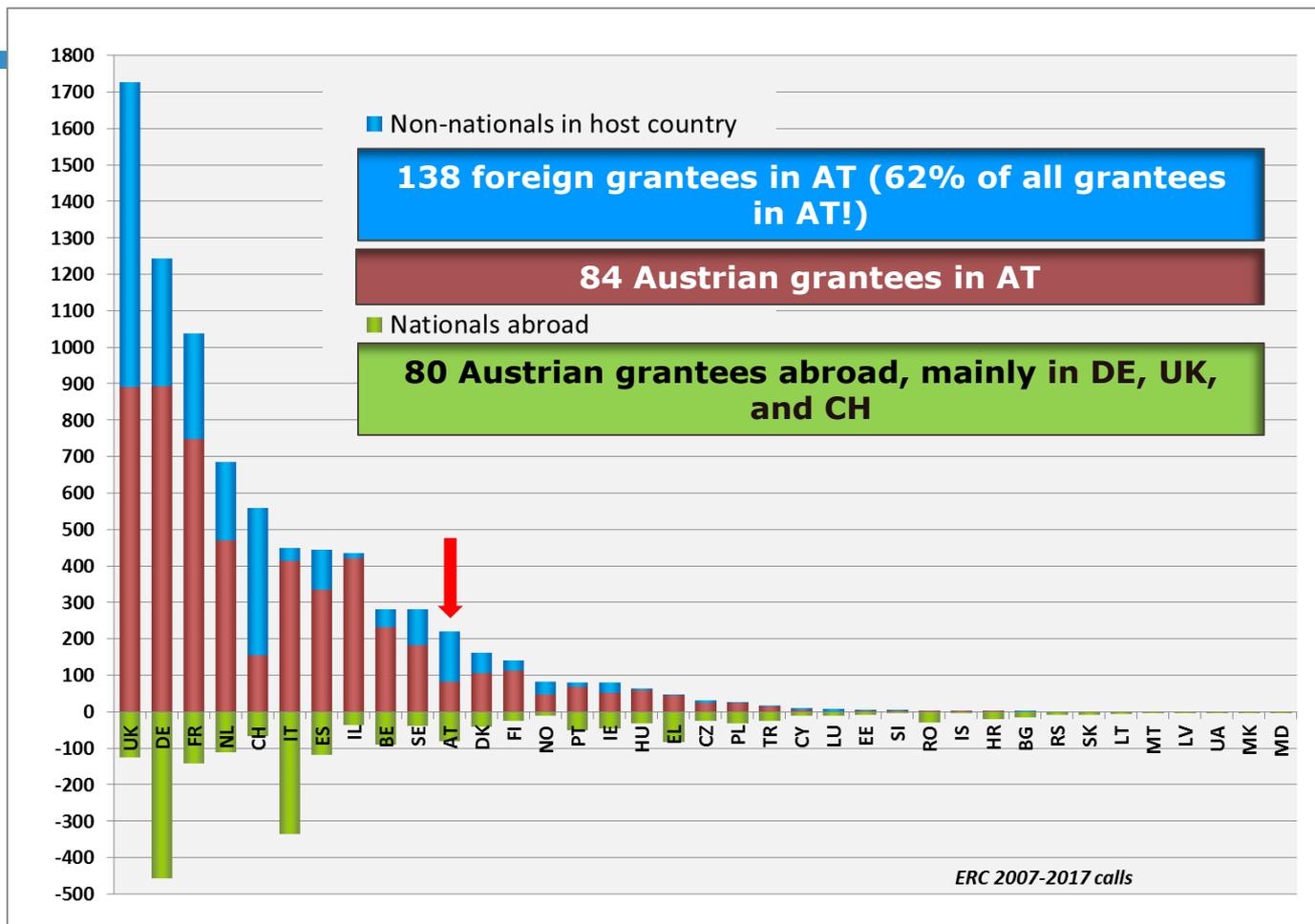
Success Rate by Country of HI



Signed grants in Austria



High Proportion of Foreign Grantees in Austria





The ERC's evaluation process

ERC evaluation panels



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Each panel:
Panel Chair and 12-16 Panel Members

Life Sciences

- **LS1** Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics
- **LS2** Genetics, 'Omics', Bioinformatics and Systems Biology
- **LS3** Cellular and Developmental Biology
- **LS4** Physiology, Pathophysiology and Endocrinology
- **LS5** Neuroscience and Neural Disorders
- **LS6** Immunity and Infection
- **LS7** Applied Medical Technologies, Diagnostics, Therapies, and Public Health
- **LS8** Ecology, Evolution and Environmental Biology
- **LS9** Applied Life Sciences, Biotechnology and Molecular and Biosystems Engineering

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 and Informatics
- **PE7** Systems and Communication Engineering
- **PE8** Products and Processes Engineering
- **PE9** Universe Sciences
- **PE10** Earth System Science

Advise # 1: Choose the right panel, panel descriptors and key words for your proposal



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- Descriptors and free keywords may influence:
 - ➔ Evaluation Panel
 - ➔ Panel members who will evaluate your proposal
 - ➔ Whether a cross-panel evaluation is necessary

Rumour: some panels are more successful than others

✗ **NOT true:** budget is allocated based on submitted proposals to each panel, so success rate is ~constant across different panels.

Rumour: The more cross-panel descriptors I indicate, the higher the funding chances (since I herewith emphasize that my proposal is interdisciplinary).

✗ **NOT true:** Descriptors are used to allocate proposals to panel members. Once this is done, panel members do not see the keywords and descriptors used.



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Advise # 2: Check past panel members

European Research Council

ABOUT ERC | FUNDING | PROJECTS & FIGURES | NEWS | EVENTS | MANAGING YOUR PROJECT

European Commission | Horizon 2020 European Union funding for Research & Innovation

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STARTING GRANTS



erc How I got my ERC grant - Dr Ágnes Melinda Kovács from European Research Council

02:52

vimeo

OPEN CALL

There are currently no open calls for Starting Grants

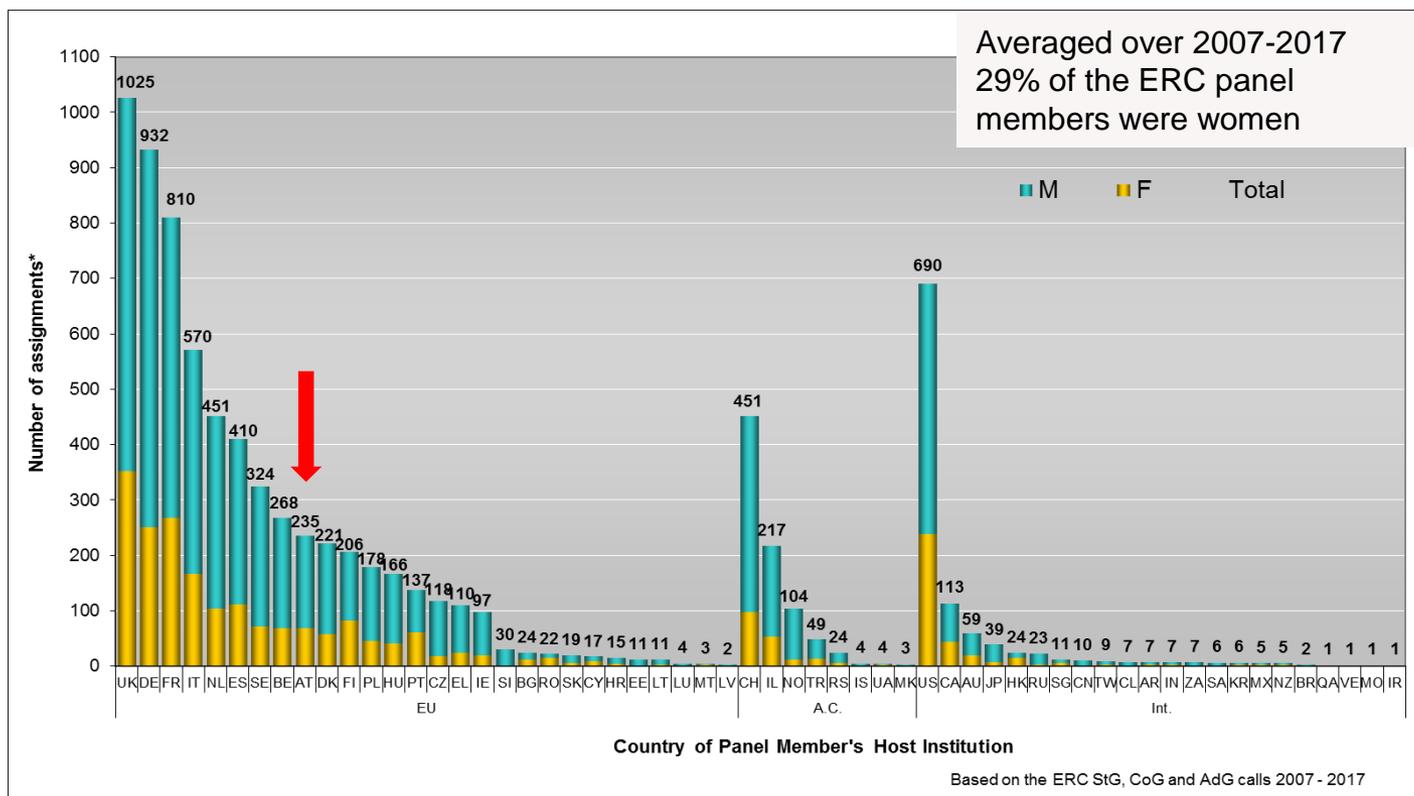
ON-GOING EVALUATIONS

[Timeframe Starting Grant 2018](#)

UPCOMING CALL

The next call for ERC Starting Grants should be announced under the Work Programme 2019 (published summer 2019)

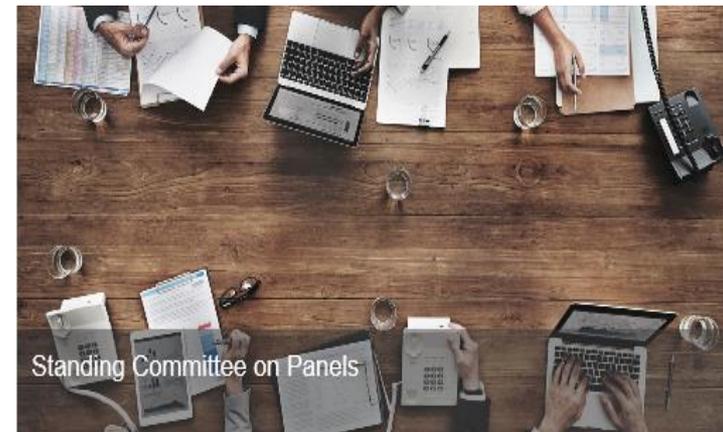
ERC Panel Members by country and gender



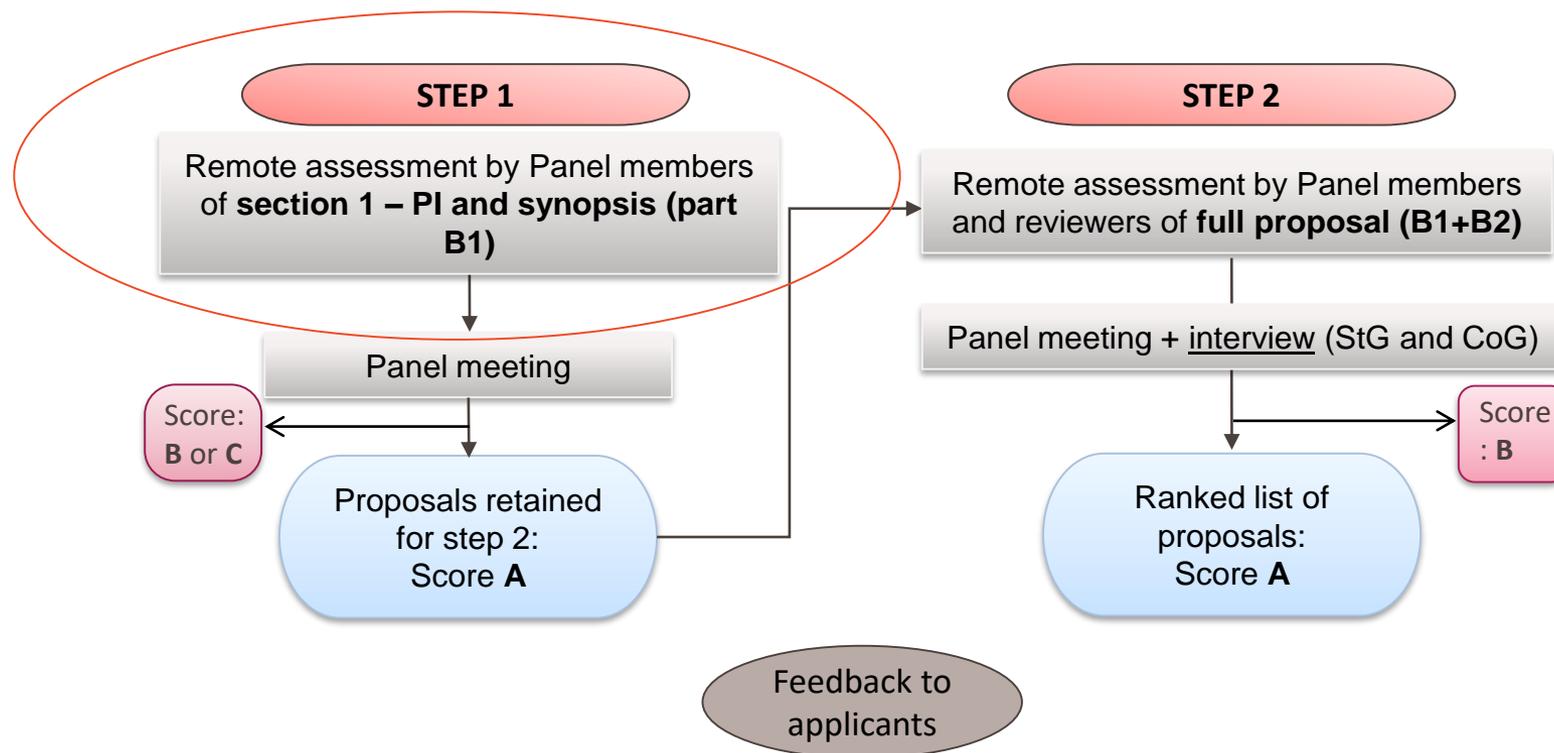
* Number of instances that experts of a certain country of origin are contributing to the ERC peer review | 16

Key Messages to experts

- ❖ Conflict of Interest
- ❖ Equal treatment
 - Pay attention to career breaks
 - Gender
 - Cross-panel proposals
 - HI not an evaluation criterion
- ❖ Feedback to Applicants
- ❖ Confidentiality



Evaluation of Proposals: Review procedure for StG, CoG and AdG





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Individual Evaluation Report - step 1

Help

Threshold: 0 Evaluation progress: 0.00%

[Expand](#) / [Collapse all criteria](#)

- 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 or across disciplines)?

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-normal risk that the research project does not entirely fulfil its aims)?

Comments: *

0 / 5000 characters

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 (based on the Extended Synopsis)?

Comments: *

0 / 5000 characters



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- 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:

0 / 2000 characters

- SUGGESTED REMOTE REFEREE FOR STEP 2 EVALUATION

[Add Remote Referee](#)

[Expand](#) / [Collapse](#) all criteria



Individual Evaluation Report – step 2

Help

Threshold: 0 Evaluation progress: 0.00%

[Expand](#) / [Collapse all criteria](#)

– 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

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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-normal risk that the research project does not entirely fulfil its aims)?

Comments: *

0 / 5000 characters

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?

To what extent are the proposed research methodology and working arrangements appropriate to achieve the goals of the project?

To what extent does the proposal involve the development of novel methodology?

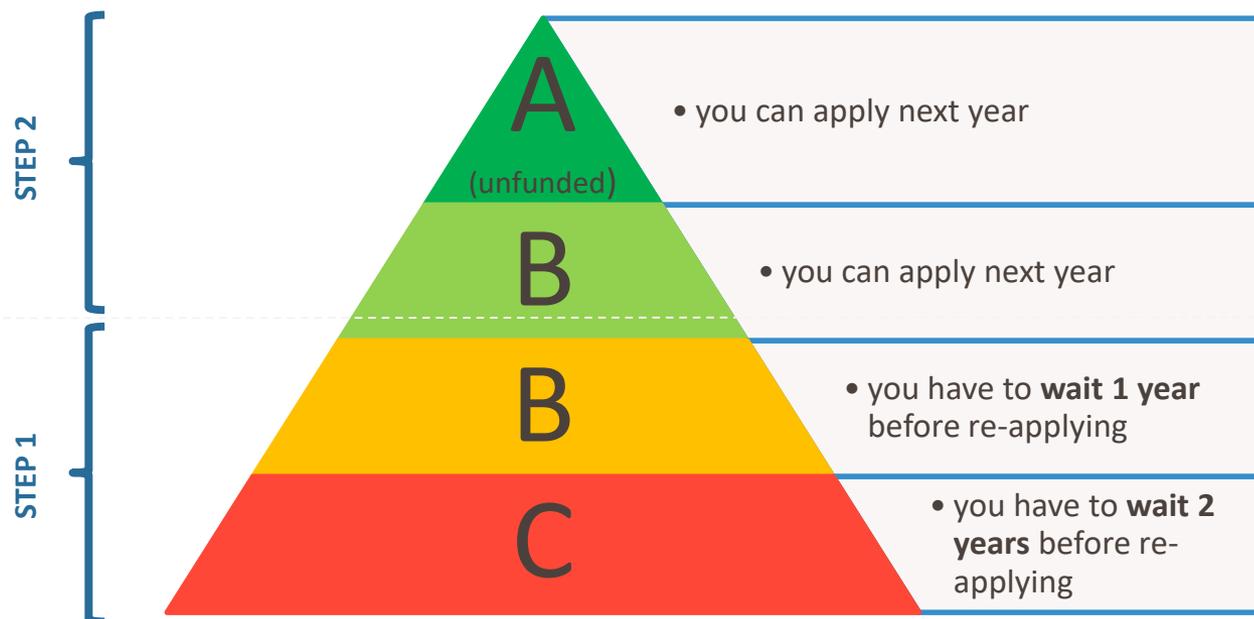
To what extent are the proposed timescales, resources and PI commitment adequate and properly justified?

Comments: *

0 / 5000 characters

I did not get the grant, can I apply next year?

In order to make the evaluation process more effective, the Scientific Council has introduced **re-submission restrictions**.





How to write a winning proposal?

Advice # 3: Filling in Part B1 (synopsis)



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- Is my project new, **innovative**, bringing in new solutions/theories?
- Does it promise to go **substantially beyond the state of the art?** – no incremental research.
- How can I **prove/support** my case? Is the project **feasible**? Are my goals **realistic**?
- Interdisciplinary proposals are attractive as novelty may stem from the combination of two disciplines. But be careful: expertise in all disciplines should be guaranteed (by PI or team)
- Is there an element of '**high risk high gain**'? Meaning: *scientific* risk is welcome. There is something the world does not know and you will find out, despite a risk that this might not be possible. But there should be *great value* in finding out.

Make sure your Part B1 is written with both the true expert and the not-so-expert in mind. Panel members evaluate this stage as 'generalists'.

Advice # 4: Important points for CV of the PI



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- **Intellectual capacity:** Track-record; capacity to go significantly beyond the state of the art, creativity. Funding ID.
- **Independence:** as researcher (e.g. sole authored publications) and as project manager (e.g. previous experience in project management).
- **mentorship** of young researchers and **consolidation** of research team and scientific reputation (especially important for CoG and AdG).
- **International experience** and participation in networks.
- **Commitment** : Willing to devote a significant part of working time

Advice # 5: Filling in Part B2



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In Step 2, both part B1 and B2 are read by panel members and by specialists around the world (external referees).

Therefore, in Part B2:

- Do not repeat the synopsis, but **detail the methodology** and work plan.
- Make sure that the **state of the art is clear, well-written and referenced** - show you did your homework.
- Provide alternative **strategies to mitigate the main risks**.
- **Justify requested resources** – explain the budget properly.

Preparing an application

Check the already funded projects

Menu allows searching by Funding Scheme, Research Area, Country of Host Institution.



ERC Funded Projects

The ERC operates according to an "investigator-driven", or "bottom-up", approach, allowing researchers to identify new opportunities in any field of research. Accordingly the portfolio of ERC funded projects spans a wide range of topics and research questions.

Since 2007, more than **4,500 projects** have been selected to receive ERC funding throughout the EU Member States and the associated countries. The ERC has received over **43,000 project proposals** for its calls.

You can use the menu on the left to search quickly and easy ERC funded projects.

Projects can be filtered according to: [Funding scheme](#), [Research area \(Panels/Domains\)](#), [Country of Host Institution](#) and/or free keyword(s).

Information displayed is automatically updated through the information available on the [CORDIS](#) platform.

Please note that only funded projects, whose grant agreements have been signed, appear in this database. For this reason, the total number of projects in this database may differ from the figures provided in the statistics section which include also projects selected for funding whose grant agreements have not been signed yet.

For specific queries, please use this [contact form](#) and select the category 'Web'.



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In StG and CoG: Interview in Step 2

How to prepare ?

- Again: check who was on the panel two years ago – very likely that some will be present this time around too
- Prepare a powerful pitch of your project – *why should this research be funded? Why is the proposal excellent* - but don't overdo it!
- Anticipate the main questions and prepare comprehensive answers – but be to-the-point
- Organise mock interviews – practice, practice, practice

Will a prestige Host Institution increase my changes/scores?



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NOT true: the Host Institution is not an evaluation criterion...

- You **can change** HI during the project's life time; this requires an amendment to original contract.
- **Negotiate** with the HI (about your position, equipment, administrative support, access to infrastructure, etc.)
- Make sure to have the HI support letter ready in time for the submission deadline

What are the typical reasons for rejection?

Research Project:

- **Scope:** Too narrow \leftrightarrow too broad/unfocussed
- Incremental research
- **Work plan** not detailed enough/unclear
- **State of the art** not sufficiently taken into account

Principle Investigator (PI):

- Insufficient **track-record**
- Insufficient (potential for) **independence**

Some encouragement: success rates from re-applicants are typically 1,5 times higher...

Some last points of advice...



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- ❖ Be ambitious and "daring"; panels instructed to seek out high-risk research
- ❖ Grab interest and attention of readers/ reviewers
- ❖ Remember that Part B1 will be seen by "generalists" (panel members)
- ❖ If you make it to Step 2, reviewers see both B1 and B2, so do not repeat / duplicate part B1 in part B2
- ❖ Do not include unnecessary partners and collaborators; it is not supposed to be a "consortium"
- ❖ Justify requested resources – explain your budget properly






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Creative ideas have no limits
ERC, funding blue sky research

© iStockphoto

Thank you!



Key figures

7,000

top researchers funded

50,000

researchers & other professionals
hired in ERC teams

with **€12 billion**



Breakthroughs

73%

of completed projects
led to breakthroughs/major
advances



Scientific impact

> 5,500

articles among
1% most cited
scientific journals



Open to the World

9

international initiatives
for non-EU talent
to join ERC teams



Prestigious prizes, e.g.

6

Nobel
Prizes

5

Wolf
Prizes

4

Fields
Medals



ERC as model

15

EU countries set up
ERC-like structures/funding
schemes