The European Research Council: ERC StG & CoG Grants – Continuity in a changing Horizon

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Panel coordinator
Social Sciences and Humanities Unit
ERC Scientific Management Department
Info Day NCP Belgium, 16 May 2019
Outline

- What is the ERC? What does the ERC offer for StG & CoG PIs and their teams?
- How is Belgium doing at the ERC?
- How are ERC research proposals evaluated?
- Some tips on preparing an ERC proposal
To encourage the highest quality research in Europe through competitive funding and to support investigator-driven frontier research across all fields, on the basis of scientific excellence.
ERC Basics

INDIVIDUAL RESEARCHERS FROM ALL OVER THE WORLD
LONG TERM GRANTS
TO HIGH-RISK/HIGH-GAIN PIONEERING PROJECTS
IN ANY FIELD OF FRONTIER RESEARCH

Life Sciences

Physical Sciences and Engineering

Social Sciences and Humanities

European Research Council
Established by the European Commission

Horizon 2020
European Union funding for Research & Innovation
What is the European Research Council?

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

**Budget:** € 13 billion (2014-2020) - 1.9 billion €/year
€ 7.5 billion (2007-2013) - 1.1 billion €/year

- **Scientific governance:** independent Scientific Council with 22 members including the ERC President; full authority over funding strategy
- **Support by the ERC Executive Agency** (autonomous)
- **Excellence as the only criterion**

- **Support for the individual scientist** – no networks!
- **Global peer-review**
- **No predetermined subjects** (bottom-up)
- **Support of frontier research in all fields of science and humanities**
Scientific Governance by the Scientific Council
The New ScC President from 1st January 2020 on Prof. Mauro FERRARI

Scientific Governance by the Scientific Council
ERC in the H2020 Structure

The HORIZON 2020 main components:

- Excellent Science
  - World class science is foundation of technologies, jobs, well-being
  - Europe needs to develop, attract, retain research talent
  - Researchers need access to the best infrastructures
- Industrial leadership
- Societal challenges

Excellent Science:
- European Research Council (budget under H2020: € 13 billion)
- Future and Emerging Technologies
- Marie Skłodowska Curie Actions
- Research Infrastructures
For 2019, the budget is more than 2 billion euros, the highest ever since the beginning of the ERC.
**ERC Grant Schemes**

**Starting Grants**
- *starters* (2-7 years after PhD)
- up to €1.5 Mio for 5 years

**Consolidator Grants**
- *consolidators* (7-12 years after PhD)
- up to €2 Mio for 5 years

**Advanced Grants**
- track-record of significant research achievements in the last 10 years
- up to €2.5 Mio for 5 years

**Synergy Grants** (re-launched 2018)
- 2 – 4 Principal Investigators
- up to €10.0 Mio for 6 years

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

Creative freedom to individual grantee

ERC offers independence, recognition & visibility

- Work on any research topic: **bottom-up**
- Gain **financial autonomy** for 5 years
- Negotiate the **best work conditions** with the host institution
- Attract **top team members and collaborators** (EU and non-EU)
- **Portability of grants**
- Attract additional funding and gain recognition: ERC is a quality label
What does ERC offer?

- Creative freedom to individual grantee

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European Commission
Horizon 2020
European Union funding for Research & Innovation
Who can apply?

- **Excellent** Researchers
- **Any nationality, any age** or any current place of work
- In conjunction with a Host Institution based in Europe EU or associated countries
- If granted, you need to spend at least 50% of your working time in the EU or associated countries
Frontier of science, scholarship and engineering, e.g.

- Multi- or interdisciplinary proposals which cross boundaries between different fields of research, or
- Pioneering proposals addressing new and emerging fields of research, or
- Proposals introducing unconventional, innovative approaches and scientific inventions.
2019 Panel Structure

Each panel:
Panel Chair and 12-17 Panel Members

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

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

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
ERC funds "frontier research", including applied research.
The budget is distributed among the scientific panels as a function of demand.
The panel descriptors do not represent ERC scientific priorities.
The success rate is virtually flat across the eligibility window (StG, CoG).
The Host Institution is not an evaluation criterion.
Contrary to what you may think.....
Shall I apply now or wait another year?
2018 StG/CoG/AdG Calls
Age of Grantees

2018 Grantees by age and success rate

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<th>Age on 1 Jan 2018</th>
<th>2018 Grantees by age and success rate</th>
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Success rate

# funded proposals

STG
COG
ADG
SR by age
2018 StG/CoG/AdG Calls
"Academic age" of grantees

All calls 2018 Grantees by years since PhD

Years since PhD on 1 Jan 2018

# grantees

0 10 20 30 40 50 60 70 80 90 100

0 20 40 60 80 100

STG Grantees
COG Grantees
ADG Grantees
Success rate
ERC Starting and Consolidator Grants
The applicant’s profile

Condition StG: PhD at least 2 and up to 7 years before 1 Jan 2019 (2019 call, now closed)
Condition CoG: PhD over 7 and up to 12 years before 1 Jan 2019 (2019 call, now closed)

Extensions of the eligibility window for Starting and Consolidator Grant Calls for documented cases of:

- Maternity leave – 18 months per child (before or after PhD)
- Paternity leave – actual time taken off
- Military service
- Medical speciality training
- Serious illness or caring for seriously ill family members

No limit to the total extension
ERC Starting and Consolidator Grants
The applicant’s profile

“Am I competitive enough?”

- Potential for research independence
- Evidence of scientific maturity
  - For example, at least one (StG) /several (CoG) important publication as main author or without participation of PhD supervisor
- Promising track record of early achievements
  - Significant publications
  - Invited presentations in conferences
  - Funding, patents, awards, prizes

All these need to be shown in your proposal that will include your CV and an early achievements track record.
Design of the Synergy call in a nutshell

- **Grant size:**
  - Up to 10M€
  - + 4M€ for 6 years

- **2018 Call budget:** 250M€
- **2019 Call budget:** 400M€

- **2018: 27 projects funded**
- **2019: 40-45 projects**

- **HI in general** to be in EU or Associated Country (AC)
- **SyG2019:** possible for one PI to be outside of EU or AC

- **Principal Investigators**
  - 2-3-4

- **No restrictions on their location**

- **SyG2019 call closed for submission on 8/11/2018**

- **SyG2019:** 3 step evaluation to finish in September 2019

- **≥50% of working time in EU or AC and ≥30% of working time on the ERC project**

- **3 Step evaluation:** with interviews for all PIs in step 3

- **Deadline for SyG2019 proposal submission:** 8 November 2018
- **SyG2020:** submission opening planned for July 2019
EXAMPLE OF A GROUND-BREAKING SYNERGY PROJECT

Black hole breakthrough: a European success
by Helena Gonzalez-Sancho Bodero, ERC EA
11/04/2019 | 130 20

Since yesterday, it’s been all over the media: the first ever image of a massive black hole. ‘First-ever?’ some may wonder. Yes, despite the abundance of artistic simulations and pictures from science fiction, the truth is that astrophysicists know little about these mysterious places in space. It has taken several years of research and an unprecedented international cooperation to obtain the long-awaited image. The support of the EU has been key in this fascinating quest.

You cannot see black holes. By nature, they are out of sight. Gravity pulls so much inside them that they swallow nearby planets and stars, even light. Since Einstein described these cosmic objects in his Theory of General Relativity, they have intrigued and fascinated scientists and laymen alike. But their observations have been limited.

ERC Synergy Project: https://blackholecam.org/
ERC Proof-of-Concept (POC) Grants

- For Principal Investigators of existing grants
- Lump sum of EUR 150 000 for a period of 18 months
- To maximise the value-creation of the ERC-funded research

Provide funds to bring ERC-funded ideas to a pre-demonstration for:

- Generation of return for innovators (economic, reputation, prestige, influence, …)
- Generation of new value for users (socio-economic benefits)
Outline

- What is the ERC? What does the ERC offer?
- How is Belgium doing at the ERC?
- How are ERC research proposals evaluated?
- Some tips on preparing an ERC proposal
ERC & BELGIUM – State of Play April 2019

BELGIUM

[Map of Belgium with data]
Evaluated ERC Proposals by HI Country
Grantees at Home and 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
ERC Grants versus Top Publications

Host countries as of 27/07/2018

correlation = 0.97
ERC Grants versus GERD
(Gross domestic expenditure on R&D)

Host countries as of 27/07/2018

correlation = 0.86

GERD 2014 (million euro)

Linear fit

host countries as of 27/07/2018
Success Rate by Country of HI


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Success Rate by Country of HI and by Type of Grant

Overall Success Rates by Country of HI

- StG 2007-2018
- CoG 2013-2018
- AdG 2008-2017
Overall Success Rates by Type of Grant

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Success rate H2020 ERC calls

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### Top European Institutions Hosting ERC Grantees by Funding Schemes

**ERC calls 2007-2017 +StG2018+CoG2018**

**Current signatories of the grant agreement**

Data as of 06/12/2018

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<th>AdG</th>
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<th>PE</th>
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<td>Helmholtz Association of German Research Centres</td>
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<td>FR</td>
<td>National Institute of Health and Medical Research (INSERM)</td>
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<tr>
<td>FR</td>
<td>French Alternative Energies and Atomic Energy Commission</td>
<td>6</td>
<td>43</td>
<td>9</td>
<td>17</td>
<td>69</td>
<td>10</td>
<td>57</td>
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</tr>
</tbody>
</table>
ERC Grants by Belgian institutions
(provisional data)

University of Leuven: 39 (StG) 12 (CoG) 25 (AdG)
Ghent University: 32 (StG) 6 (CoG) 6 (AdG)
Flanders Institute for Biotechnology (VIB): 15 (StG) 16 (CoG) 8 (AdG)
University of Louvain: 20 (StG) 5 (CoG) 6 (AdG)
ULB - Free University of Brussels: 12 (StG) 5 (CoG) 7 (AdG)
University of Antwerp: 9 (StG) 4 (CoG) 4 (AdG)
VUB - Free University of Brussels: 9 (StG) 1 (CoG) 3 (AdG)
University of Liege: 8 (StG) 4 (CoG) 1 (AdG)
Interuniversity Microelectronics Centre (IMEC): 2 (StG) 1 (CoG) 2 (AdG)
University of Namur: 11 (StG) 2 (CoG) 12 (AdG)
University of Mons: 2 (StG) 2 (CoG) 1 (AdG)
Prince Leopold Institute of Tropical Medicine: 2 (StG) 2 (CoG) 1 (AdG)
Hasselt University: 11 (StG) 2 (CoG) 1 (AdG)
Von Karman Institute for Fluid Dynamics: 1 (StG) 1 (CoG) 1 (AdG)
Royal Observatory of Belgium: 1 (StG) 1 (CoG) 1 (AdG)
Orpheus Institute: 1 (StG) 1 (CoG) 1 (AdG)

Current Host Institutions (data as of 10/04/2018)
### ERC Grants by Belgian institutions in EU/AC

**ERC calls 2007-2017: 762 institutions**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Institution</th>
<th>Grants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>National Centre for Scientific Research (CNRS)</td>
<td>425</td>
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<tr>
<td>2</td>
<td>University of Cambridge</td>
<td>218</td>
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<td>University of Oxford</td>
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<td>4</td>
<td>Max Planck Society</td>
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<td>5</td>
<td>University College London</td>
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<td>6</td>
<td>Swiss Federal Institute of Technology Zurich (ETH Zurich)</td>
<td>136</td>
</tr>
<tr>
<td>7</td>
<td>Swiss Federal Institute of Technology Lausanne (EPFL)</td>
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<tr>
<td>8</td>
<td>Weizmann Institute</td>
<td>133</td>
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<tr>
<td>9</td>
<td>Hebrew University of Jerusalem</td>
<td>117</td>
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<tr>
<td>10</td>
<td>Nat. Institute of Health and Medical Research (INSERM)</td>
<td>101</td>
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<tr>
<td>11</td>
<td>Imperial College</td>
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<tr>
<td>12</td>
<td>University of Edinburgh</td>
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<td>13</td>
<td>University of Amsterdam</td>
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<tr>
<td>14</td>
<td>University of Copenhagen</td>
<td>80</td>
</tr>
<tr>
<td>15</td>
<td>University of Munich (LMU)</td>
<td>80</td>
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<tr>
<td>16</td>
<td>University of Leuven</td>
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<tr>
<td>17</td>
<td>Tel Aviv University</td>
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<td>Delft University of Technology</td>
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<td>19</td>
<td>French Alternative Energies and Atomic Energy Comm.</td>
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<td>20</td>
<td>Spanish National Research Council (CSIC)</td>
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<tr>
<td>34</td>
<td>Ghent University</td>
<td>50</td>
</tr>
<tr>
<td>45</td>
<td>Flanders Institute for Biotechnology (VIB)</td>
<td>39</td>
</tr>
<tr>
<td>62</td>
<td>University of Louvain la Neuve</td>
<td>31</td>
</tr>
<tr>
<td>79</td>
<td>ULB - Free University of Brussels</td>
<td>24</td>
</tr>
</tbody>
</table>
Outline

- What is the ERC? What does the ERC offer?
- How is Belgium doing at the ERC?
- How are ERC research proposals evaluated?
- Some tips on preparing an ERC proposal
Panel members: typically 425 / call (SyG:~90)
- High-level scientists
- Recruited by the ERC Scientific Council from all over the world: ~14% from outside Europe
- About 14-17 members, including one chair person

Referees: typically 2000 / call
- Evaluate only a small number of proposals
- Similar to normal practise in peer-reviewed journals

EU and Associated Countries (86%)
US (7%)
Other (7%)
ERC Panel Members by Country of HI and Gender

Averaged over 2007-2017
29% of the ERC panel members were women

Number of instances that experts of a certain country of origin are contributing to the ERC peer review
StG/CoG/AdG: Submission to Panels
(SyG: all proposals are submitted to a single panel)

- Proposals are submitted to a *targeted Panel* (of PI's choice)
  - Can flag one “*Secondary Review Panel*”
- Applicant chooses his/her panel, and this panel is “responsible” for the evaluation of the proposal
- Proposals can be moved to other panels in exceptional cases, e.g. if clear mistake on part of applicant, or due to the necessary expertise being available in a different panel
- In case of cross-panel or cross-domain proposals, evaluation by members of other panels possible
Online Submission
Proposal structure

Part B1 (submitted as pdf)
*Evaluated in Step 1 & Step 2*

- Text box - Cross-domain nature explanation
- a – Extended synopsis 5 pages
- b – Curriculum vitae 2 pages
  - Appendix – Funding ID
- c - 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
  - c – Resources

→ Read the Information for Applicants
Evaluation of *excellence* at two levels:

- **Excellence of the Research Project**
  - ✓ Ground breaking nature
  - ✓ Potential impact
  - ✓ Scientific Approach

- **Excellence of the Principal Investigator**
  - ✓ Intellectual capacity
  - ✓ Creativity
  - ✓ Commitment
### Evaluation

Review procedure (StG, CoG and AdG)

**STEP 1**
- Remote assessment by Panel members of section 1 – PI and synopsis
- Panel meeting
- Proposals retained for step 2

**STEP 2**
- Remote assessment by Panel members and reviewers of full proposals
- Panel meeting + interview (StG and CoG)
- Ranked list of proposals

- Right balance between generalist + specialized review
- Appropriate treatment of interdisciplinary proposals
How to prepare and submit a successful ERC research proposal?

- Have a **bright, original, exciting idea**
- Design a **research project** to implement the idea
- Get a letter of support from a **Host Institution** where the project is to be carried out (the HI must be located in the EU or any of the H2020 associated countries)
- Write your **research proposal**
- **Fully electronic/web based submission system**
- Submit your research proposal **before the deadline**
Outline

- What is the ERC? What does the ERC offer?
- How is Belgium doing at the ERC?
- How are ERC research proposals evaluated?
- Some tips on preparing an ERC proposal
Preparing your proposal (1)

- **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
- Make sure you are eligible
- 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)
- Talk to the National Contact Points and your Institution's grant office
You can change it during the project's life

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

Rumour 1: The quality/fame of the HI is increasing my chances/scores.

✗ NOT true: the HI is not an evaluation criterion!
Preparing your proposal (3): Choosing the Panel

Check out projects funded under panel

Check out past panel members

IMPORTANT: You are not allowed to contact panel members about the evaluation! Any such contact can lead to exclusion from the call.
Preparing your proposal (4): Choosing descriptors

- Descriptors and free keywords may influence:
  - Evaluation Panel
  - Panel members
  - Whether a cross-panel evaluation is necessary

Rumour 2: The more cross-panel descriptors indicated, the higher the funding chances, since I emphasize like this the interdisciplinarity of my proposal.

× NOT true: even though these are used to allocate proposals to Panel Members, once the proposals are allocated, Panel Members do not see the keywords and descriptors used.
Preparing your proposal (5): Part B1: the research project

• Is my project new, **innovative**, bringing new solutions/theories?
• Does it promise to go **substantially beyond the state of the art**? – no incremental research. **Think big!**
• Know your competitors – what is the **state of play** and why is your idea and scientific approach outstanding?
• **Only** the extended Synopsis is read at Step 1: **concise and clear presentation** is crucial (evaluators are not all experts in the field)
• How can I **prove/support** my case? Are my goals **realistic**? Explain your **scientific approach** in sufficient detail to convince the panel about the **feasibility** of your project
• What's the **risk**? Mitigating measures?
• Societal impact is **not** an evaluation criterion (which does not mean ERC-funded projects would not have such impact)
Preparing your proposal (6): Part B1: the principal investigator

- Why am I the **best/only person** to carry it out? Know your competitors

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

- Am I **competitive**?

- Have I shown my **scientific leadership** in my CV?

**Rumour 3:** One needs publications in Nature/Science/High Impact Factor journals to succeed.

❌ NOT true
Preparing your proposal (7): Part B2

In Step 2, both part B.1 and part B.2 are read by Panel Members and specialists from around the world

- Do not repeat the synopsis, provide sufficient details on your methodology and work plan
- Make sure that the quantitative and qualitative differences to the state of the art are clear and referenced - show you did your homework.
- Provide alternative strategies to mitigate risks
- Explain involvement of team members
- Justify requested resources – explain your budget properly
Preparing your proposal (8): Proposal budget considerations

- Budget analysis carried out in Step 2 evaluation (meeting)
- Panels have responsibility to ensure that resources requested are reasonable and well justified
- Budget cuts need to be justified on a proposal by proposal basis (no across-the-board cuts)
- Panels to recommend a final maximum budget based on the resources allocated/removed
- Panels do not “micro-manage” project finances
- Awards made on a “take-it-or-leave-it” basis: no negotiations
In Step 1 proposals are ranked by the panels on the basis of the individual reviews and the panels' overall appreciation of their strengths and weaknesses.

Proposals will be retained for Step 2 based on the ranked list and the determined budgetary cut-off level.

Applicants will be informed on the score attained by their proposal:
- A: is of sufficient quality to pass to Step 2 of the evaluation.
- B: is of high quality but not sufficient to pass to Step 2 of the evaluation. (if score = B at step 1: Restriction of resubmission of 1 year)
- C: is not of sufficient quality to pass to Step 2 of the evaluation. (if score = C at step 1: Restriction of resubmission of 2 years)

In addition, applicants will be told the ranking range of their proposal out of the proposals evaluated by the panel.
In step 2 proposals are ranked by the panels on the basis of the individual reviews, the interview of the applicant (for StG, CoG and SyG) and an overall appreciation of their strengths and weaknesses.

Proposals will be recommended for funding based on the ranked list and the funds available.

Applicants will be informed on the score attained by their proposal:

- A: fully meets the ERC's excellence criterion and is recommended for funding if sufficient funds are available.
- B: meets some but not all elements of the ERC's excellence criterion and will not be funded. (if score = B - NO restriction on resubmission at Step 2)

In addition, applicants will be told the ranking range of their proposal out of the proposals evaluated by the panel.
Typical reasons for not making it into Step 2

- Incremental in nature
- Hypothesis and objectives not sufficiently clear
- No realisation of risks & challenges, contingency
- For interdisciplinary proposals: expertise missing in one area

It does take a considerable effort to compose a good application!
I have been invited for an interview .. now what?

💡 Have **clear and representative slides** and focus on SCIENCE!

💡 Anticipate questions.

💡 Know the **details** of your proposal and methods, as well as your research area – who are your main competitors/collaborators?

💡 Your last slide is normally left on the screen during the questions/answers section of your interview
I have been invited for an interview .. now what?

💡 Bring **additional slides** on new supporting data, if you have, and for possible explanations.

💡 **Don't over-explain your CV!**

💡 When the panel asks questions, keep your reply clear and concise. The more questions they ask the more details you can clarify.

💡 Keep the time.

**PRACTISE, PRACTISE, PRACTISE, PRACTISE!!!!!**
Some useful tools and links

- Read **Information for Applicants** and Work Programme
- View the **step-by-step video** Introduction to application process, including tips & tricks for the interview [https://vimeo.com/94179654](https://vimeo.com/94179654)
- Consult **ERC website** for latest funding opportunities, view ERC funded projects
More information on  
[erc.europa.eu](http://erc.europa.eu)

National Contact Point in your country  
[erc.europa.eu/national-contact-points](http://erc.europa.eu/national-contact-points)

Follow us on  
- [EuropeanResearchCouncil](https://twitter.com/EuropeanResearchCouncil)  
- [ERC_Research](https://twitter.com/ERC_Research)

Read through the ERC Work Programme 2019 !
21% of the ERC-funded Projects Deliver Scientific Breakthroughs
Frontier Research Leads to Innovation

With 17% of the budget of the 7th Framework Programme (FP7), the ERC accounts for 29% of FP7-funded patent filings (>800)

Thematic concept map of ERC supported inventions
## Proposal submission

### ERC Work Programme 2019 calendar

<table>
<thead>
<tr>
<th>ERC calls</th>
<th>Budget</th>
<th>Call Opening</th>
<th>Submission Deadline(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Starting Grants</strong></td>
<td>580 M€ (390 grants)</td>
<td>1 August 2018</td>
<td>17 October 2018</td>
</tr>
<tr>
<td>ERC-2019-StG</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Synergy Grants</strong></td>
<td>400 M€ (48 grants)</td>
<td>2 August 2018</td>
<td>8 November 2018</td>
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<td>ERC-2019-SyG</td>
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<tr>
<td><strong>Consolidator Grants</strong></td>
<td>602 M€ (314 grants)</td>
<td>24 October 2018</td>
<td>7 February 2019</td>
</tr>
<tr>
<td>ERC-2019-CoG</td>
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<td></td>
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<tr>
<td><strong>Advanced Grants</strong></td>
<td>391 M€ (166 grants)</td>
<td>21 May 2019</td>
<td>29 August 2019</td>
</tr>
<tr>
<td>ERC-2019-AdG</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Proof of Concept</strong></td>
<td>25 M€ (167 grants)</td>
<td>6 October 2018</td>
<td>22 January 2019 25 April 2019 19 September 2019</td>
</tr>
<tr>
<td>ERC-2019-PoC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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)

• How to structure the budget: what % for travel, equipment, etc.
Questions

• Writing process: how did you build up your proposal? Right choice of panel? For ex. in which panel does Philosophy fit? SH3 The Social World, Diversity, Population or SH4 The Human Mind and its Complexity CV: how do you stand out?

• How important is it to have a team? (do I stand chances if I don't)

• Do I make any chance to get a grant if I never published in one of the high impact journals like Nature/Science?

• To which extent must the proposed research "deviate" from the former research of the PI? - How should one interpret "ground-breaking" research?
Questions

- How to structure the application in terms of 'work packages' for PhDs and Postdocs.
- Eligibility for foreign researchers, who built their careers outside of Europe but currently are postdoc in an European university.
- How precise/large should be the idea of research? I guess we should be precise in what we do but this is still a big project with several people working on it for 5 years.
- Is there an advice ratio between staff expenses and consumables/equipment expenses?
- How well seen would it be considered if my project would require the collaboration of other experts in the field? Shall I be totally independent on the realisation of the project?
What do they mean when they say that the impact and results are not so important in the proposal, that all that matters is the excellent idea? There needs to be SOME impact, so how to strike a good balance there.

For the consolidator grants: - How is research excellence of the PI evaluated? - How important are publications as first author and last author, as compared to co-authorship?
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 FNRS/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?
- What is the age-limit to apply for an advanced grant?
After More than 10 Years, a Success Story

- Over 8,800 top researchers funded since the ERC’s creation in 2007
- Over 60,000 researchers and other professionals employed in ERC research teams
- € 13 billion ERC budget for 2014-2020 under Horizon 2020
- Over 100,000 articles from ERC projects published in prestigious scientific journals
- > 760 research institutions hosting ERC grantees – universities, public or private research centres in the EU or associated countries
- 77 nationalities of grant holders

THANK YOU !
Additional back-up slides
The ERC international implementing agreements: Opportunities for researchers from outside Europe to collaborate with an ERC PI

Opportunities for:

- Canada Research Chair holders or Banting PostDoc Fellows (Canada)
- NSF CAREER Awardees or NSF Postdoc Fellows (USA)
- MSIP Career Awardees or NRF Young Researchers (Korea)
- CONICET Investigator with a PICT or PIP grant (Argentina)
- JSPS Fellows (Japan). NEW: Similar agreement with JST
- NSFC Grant holders (China)
- NRF Career Advancement or Postdoctoral Fellows (South Africa)
- CONACYT Research Fellows or Postdoc Fellows (Mexico)
- PostDoc grantees of FAPs, CAPES, CNPq (Brasil)
- Early-Career Researchers, National PostDoc Fellows or Doctoral Candidates funded by SERB (India)
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".

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".

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

- 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
40 Non-EU/AC Nationalities

Over 8% of all ERC grants to principal investigators of non-EU/AC nationality

<table>
<thead>
<tr>
<th>Non-EU/AC Principal Investigators</th>
<th>Starting and Consolidator grants</th>
<th>Advanced grants</th>
<th>Total grants</th>
</tr>
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<tbody>
<tr>
<td>USA</td>
<td>181</td>
<td>107</td>
<td>288</td>
</tr>
<tr>
<td>Canada</td>
<td>70</td>
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<td>Russia</td>
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<tr>
<td>India</td>
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<td>Australia</td>
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<td>China</td>
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<td>Japan</td>
<td>25</td>
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<td>New Zealand</td>
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<tr>
<td>Argentina</td>
<td>17</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Other</td>
<td>79</td>
<td>8</td>
<td>87</td>
</tr>
<tr>
<td>Total</td>
<td>555</td>
<td>161</td>
<td>716</td>
</tr>
</tbody>
</table>
Attracting Researchers to Europe

Nationality of ERC project teams (PIs not included)
Analysis of 1,901 Starting and Advanced Grants

EU: 71%
Assoc. Countries: 10%
non-EU/AC: 17%
unknown: 2%

In all ERC grants
+ 10,000 non-ERA team members
most from
China, US, India, and Russia
Outlook next Framework Programme
Specific objectives of the Programme

- Support the creation and diffusion of high-quality knowledge
- Strengthen the impact of R&I in supporting EU policies
- Foster all forms of innovation and strengthen market deployment

Optimise the Programme’s delivery for impact in a strengthened ERA

Pillar 1: Open Science
- European Research Council
- Marie Skłodowska-Curie Actions
- Infrastructures

Pillar 2: Global Challenges and Industrial Competitiveness
- Clusters
  - Health
  - Inclusive and Secure Society
  - Digital and Industry
  - Climate, Energy and Mobility
  - Food and natural resources
- Joint Research Centre

Pillar 3: Open Innovation
- European Innovation Council
- European innovation ecosystems
- European Institute of Innovation and Technology

Strengthening the European Research Area
- Sharing excellence
- Reforming and Enhancing the European R&I system
What Next? update

Parliament and Council negotiations on Union budget 2021-2027, including budget for Horizon Europe

**Parliament** agrees its position on Horizon Europe legislation

- 12.12.2018
- 19.02.2019
- April 2019

**Council** to agree its position on Horizon Europe legislation

- 1 January 2021

Parliament and Council start **trialogues** with a view to agreeing on Horizon Europe legislation

Envisaged start of Horizon Europe
ERC is Putting Europe Back on the Map

The first reported ERC publications began to appear in 2007 and since then publications acknowledging ERC funding have gone from contributing less than 0.1% of EU top 1% publications in 2007 (2) to nearly 7% in 2014 (973).

In 2014, for the first time authors based in the EU appeared on more top 1% cited publications (14,172) than authors based in US (14,093) in absolute numbers.

Diagramme until 2014 (1% most cited Publications)