The European Research Council: Funding opportunities for top scientists from anywhere in the world

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The 21st Particles & Nuclei International Conference
1-5 September 2017, IHEP, Beijing, China
Outline

• What is the ERC?

• What does ERC offer?

• How are ERC research proposals evaluated and by whom?
What is the ERC?

- An autonomous funding body set up by the EU in 2007 and led by scientists
- Funding excellent researchers of any nationality
- To carry out frontier research in all fields of science and humanities
- 1 researcher, 1 Host Institution, 1 project, 1 selection criterion
- Substantial grants and a recognised label of excellence
- International, top level peer-review

erc.europa.eu
ERC in H2020
Budget 2014 - 2020

H2020 budget
€77 billion ~ RMB 600 billion

ERC budget
€13 billion ~ RMB 100 billion

Almost €2 billion ~ RMB 16 billion for calls in 2018
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
What does ERC offer?

Creative Freedom of the Individual Grantee

ERC offers selective and generous grants, independence, recognition & visibility

- Work on any research topic: **completely 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
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 H2020 associated countries

*We want you to come to Europe for a significant period of time!*
Researchers career development and complementary funding schemes

- Students
- Post Graduates
- Post-docs
- Junior Professor/Junior Researcher/Associated Professor
- Full Professor
- Associated Professor
- ERC CoG – Consolidators
- ERC StG - Starters
- ERC AdG - Advanced
- Marie Skłodowska Curie
- Erasmus
Priority to Young Scientists

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

> 40 000 PhD and post-doc researchers working in ERC teams.
What does ERC offer?

**ERC Grant Schemes**

### Starting Grants
- **Starters**
  - 2-7 years after PhD
  - (≥ 50% commitment)
  - up to €1.5 Million
  - (+ €0.5 Million)
  - for 5 years

### Consolidator Grants
- **Consolidators**
  - 7-12 years after PhD
  - (≥ 40% commitment)
  - up to €2 Million
  - (+ €0.75 Million)
  - for 5 years

### Advanced Grants
- **Track-record** of significant research achievements in the last 10 years
- (≥ 30% commitment)
- up to €2.5 Million
- (+ €1 Million)
- for 5 years

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

### Synergy Grants
- 2 – 4 Principal Investigators
- up to €10 (+ 4) Mio for 6 years
Additional funding

- Additional funding:
  - 'Start-Up' costs for scientists moving to EU / Associated Countries
  - Purchase of major equipment
  - Access to large facilities

- Up to € 500 000 for Starting
- Up to € 750 000 for Consolidator
- Up to € 1 Million for Advanced grantees
- Up to € 4 Million for Synergy Grants
Extensions of eligibility window possible for StG and CoG for documented cases of:

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

No limit to the total extension
**Objective:** support excellent PIs at the stage at which they are starting their own independent research team or programme

**Grant size:** €1.5M (possibility of additional €0.5M)

**PI Profile:**
- Potential for research independence
- At least one publication as main author or without PhD supervisor
- Invited presentations in conferences
- Funding, patents, awards, prizes
- 50% of PI's time in the project + 50% in the EU or AC
ERC Consolidator Grants (7-12 y past PhD)

- **Objective:** support excellent PIs at the stage at which they may still be consolidating their own independent research team or programme
- **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 in the project + 50% in the EU or AC
ERC Advanced Grants

- **Objective:** established research leaders with a recognised track-record of research achievements in the last 10 years
- **Grant size:** €2.5M (possibility of additional €1.0M)
- **PI Profile**
  - Active researchers with a significant track record in the last 10 years
  - 10 top publications/3 research monographs as main author
  - Invited presentations, organisation of major conferences
  - Funding, patents, awards, prizes, mentoring
  - 30% of PI's time in the project + 50% in the EU or AC
How are ERC proposals evaluated?

*Excellence* is the *sole* evaluation criterion

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
All topics are eligible, but the evaluation needs a concrete ERC panel structure.

Each panel:
Panel Chair and 10-16 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 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 & Public Health
- **LS8** Evolutionary, Population and Environmental Biology
- **LS9** Applied Life Sciences and 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
Who evaluates ERC proposals?

- **At step 1**
  - Panel members who discuss over several days
  - E.g. there is an ERC 2017 AdG panel with 12 members
    - **Balance between generalist + specialised reviews**
    - **Careful treatment of interdisciplinary proposals**

- **At step 2**
  - Panel members plus
  - Typically 3 external (close) experts per proposal

*Some 200 external reviewers per call per panel*

We need you!
Submission, evaluation and selection
Starting, Consolidator and Advanced Grants

**STEP 1**
Remote assessment by Panel members of section 1 – PI and synopsis

Panel meeting

Proposals retained for step 2

Feedback to applicants

**STEP 2**
Remote assessment by Panel members and reviewers of full proposals

Panel meeting + interview (StG and CoG)

Proposals for funding

Feedback to applicants
Averaged over the first 19 ERC calls 27% of the ERC panel members were women.
## Overview of 2018 ERC Calls

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<th>ERC calls</th>
<th>Budget</th>
<th>Call Opening</th>
<th>Submission Deadline(s)</th>
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<tr>
<td><strong>Starting Grant</strong></td>
<td><strong>581 M€ (391 grants)</strong></td>
<td>3 August 2017</td>
<td>17 October 2017</td>
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<td>ERC-2018-StG</td>
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<tr>
<td><strong>Consolidator Grant</strong></td>
<td><strong>550 M€ (287 grants)</strong></td>
<td>24 October 2017</td>
<td>15 February 2018</td>
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<td>ERC-2018-CoG</td>
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<tr>
<td><strong>Advanced Grant</strong></td>
<td><strong>450 M€ (194 grants)</strong></td>
<td>15 May 2018</td>
<td>30 August 2018</td>
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<tr>
<td>ERC-2018-AdG</td>
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<tr>
<td><strong>Synergy Grant</strong></td>
<td><strong>250 M€ (30 grants)</strong></td>
<td>3 August 2017</td>
<td>14 November 2017</td>
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<tr>
<td>ERC-2018-SyG</td>
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For Work Programme see [erc.europa.eu](http://erc.europa.eu)
International collaboration

- ERC promotes international participation to its grants through special agreements with sister institutions.
- One such "implementing agreement" was signed with NSFC in 2015.
- Calls are launched in October.
- [https://erc.europa.eu/managing-your-project/set-and-develop-your-team](https://erc.europa.eu/managing-your-project/set-and-develop-your-team)
Some useful tools and links

- Read the **Work Programme** and **Information for Applicants**
- Contact your **National Contact Point** if you have questions
- View the **step-by-step video** Introduction to application process, including tips & tricks for the interview [https://erc.europa.eu/get_video/4009](https://erc.europa.eu/get_video/4009)
- Consult **ERC website** for latest funding opportunities, view ERC funded projects
The European Research Council

- More information: erc.europa.eu
  or watch: https://player.vimeo.com/video/154715819

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Thank you!

谢谢
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Scientific Governance by the Scientific Council