The European Research Council

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ERC Executive Agency

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What is the European Research Council?

- An autonomous funding body set up by the EU in 2007 and **led by scientists**
- Funding **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** (no consortia)
- **Substantial grants** and a recognised label of excellence
ERC in H2020
Budget Horizon 2020

H2020 budget €77 billion
ERC budget €13 billion
ERC is....

1. the Scientific Council

The ERC Scientific Council

- 22 prominent researchers appointed by the Commission
- Establishes overall scientific strategy
- Controls quality of operations and management
- Ensures communication with the scientific community

Panel Members

- Appointed by the Scientific Council
- Full independence in the evaluation and ranking of the proposal
  - Beware of Conflicts of Interest!
- Appoint remote referees
ERC is...

2. the ERCEA

The ERC Executive Agency
• Implements calls for proposals
• Organises peer review evaluation
• Establishes and manages grant agreements
• Administers scientific and financial aspects
• Carries out communications activities

ERC Scientific officers
• Work closely with the panel members
• Manage all practical aspects of the evaluations
• Carry out scientific follow-up
ERC's Fundamental Activity

“... to provide attractive, long-term funding to support excellent researchers and their research teams to pursue ground-breaking, high-gain/high-risk research.”

“... Research funded by the ERC is expected to lead the advances at the frontiers of knowledge and to set a clear and inspirational target for frontier research across Europe.”
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
What does ERC offer?
ERC Individual Grant Schemes

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

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

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

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

ERC Synergy Scheme 2018

- Small group of principal investigators with complementary skills
- Total budget ~250 M€
- To be launched with Work programme 2018
Priority to Young Scientists

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

+ 30 000 PhD and post-doc researchers working in ERC teams.
Starting Grants (1/3)

Objective

“... to support excellent Principal Investigators at the career stage at which they are starting their own independent research team or programme.”

- minimum of 50% time in Europe (MS + AC)
- minimum of 50% working time on ERC project

ERC Work Programme 2017
Starting Grant (2/3)

Profile

- Must already have shown the potential for research independence and evidence of maturity.

- Example – at least one important publication as main author or without the PhD supervisor.

- Promising track record appropriate to their career stage such as significant publications, invited presentations, awards, prizes, etc.
Starting Grant (3/3)

Eligibility

• 2 years ≤ PhD date ≤ 7 years
  ➢ 1 January 2011 to 1 January 2016
  ➢ Counted from 1 January 2018 (call year)

• Extensions to this period are possible
  ➢ paternity leave, maternity leave, long-term illness, national military service
  ➢ no limit to the extension
Consolidator Grants (1/3)

Objective

“...to support excellent Principal Investigators at the career stage at which they may still be consolidating their own independent research team or programme.”

- minimum of 50% time in Europe (MS + AC)
- minimum of **40%** working time on ERC project
Consolidator Grant (2/3)

Profile

- Must already have shown the research independence and evidence of maturity.

- Example – several important publications as main author or without their PhD supervisor.

- Promising track record appropriate to their career stage such as significant publications, invited presentations, awards, prizes, etc.
Consolidator Grant (3/3)

Eligibility

• 7 years ≤ PhD date ≤ 12 years
  ➢ 1 January 2006 to 31 December 2010
  ➢ Counted from 1 January 2018 (call year)

• Extensions to this period are possible
  ➢ paternity leave, maternity leave, long-term illness, national military service
  ➢ no limit to the extension
Advanced Grants (1/2)
Objective

“... Advanced Grants are designed to support excellent Principal Investigators at the career stage at which they are already established research leaders with a recognised track record of research achievements.”

- minimum of 50% time in Europe (MS + AC)
- minimum of 30% working time on ERC project

ERC Work Programme 2017
Advanced Grant (2/2)

Profile

• Active researchers of any age, nationality or place of work.

• Exceptional leaders in terms of originality and significance of their research contributions.

• Track record of significant research achievements in the last 10 years, such as 10 publications as main author, 3 research monographs, presentations, awards, prizes, patents, etc.
Grant Amounts & Additional Funding

• For five years up to:
  o 1.5M€ for StG (top-up 0.5 M€)
  o 2.0M€ for CoG (top-up 0.75 M€)
  o 2.5M€ for AdG (top-up 1M€)

• Additional Funding
  – Start-up costs for researchers moving to EU or AC
  – Purchase of major equipment
  – Access to large facilities
  
  100% eligible direct costs (salaries, equipment, etc.)
How to prepare for an ERC research proposal?

- Design a research project to implement your idea
- Get all the information before starting
- Get a letter of support from a Host Institution where the project is to be carried out (in EU or any of the H2020 associated countries)
- Make sure to be 'visible'
- Write your research proposal
- Get feedback
- Fully electronic/web based submission system
How to prepare for an ERC research proposal?

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- Is your idea new and beyond the state of the art?
- Do you have the right expertise?
- Do you need collaborators?
- Which resources are needed?
- Is it feasible?
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**- Get in contact with the HI research office early**
- Get in contact with the ERC National Contact Point
How to prepare for an ERC research proposal?

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

- Make sure to be 'visible'
  - Make your profile and expertise accessible
    - Personal/Group website
  - Work on your publication record

- Write your research proposal
- Get feedback
- Fully electronic/web based submission system
How to prepare for an ERC research proposal?

- Design a research project to implement your idea
- Get a letter of support from a Host Institution where the project is to be carried out (in EU or any of the H2020 associated countries)
- Make sure to be ‘visible’

Write your research proposal

Get feedback

- Read the Guide for Applicants before writing
- Start early!
- Request feedback from international collaborators or colleagues (within and outside your area of expertise)

Fully electronic/web based submission system
How does it work?
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 your proposal?

- **Panel members**: typically 600 PMs involved per call
  - High-level scientists
  - Nominated by the Scientific Council worldwide
  - About 11-16 members
  - Steps 1 and 2

- **Remote Referees**: typically 2000 / call
  - Step 2
How ERC research proposals are evaluated?

The evaluation form- Step 1

Criterion 1: Research Project

a) 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 across disciplines)?
To what extent is the proposed research high risk/high gain?

b) 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)?
How ERC research proposals are evaluated?

The evaluation form- Step 1

Criterion 2: The Principal investigator

Intellectual capacity, creativity and commitment
To what extent has the PI demonstrated the ability to propose and conduct groundbreaking research?
To what extent does the PI provide evidence of creative independent thinking?
To what extent have the achievements of the PI typically gone beyond the state of the art?
How ERC research proposals are 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

But: To be interpreted by each panel according to what makes sense in that specific field...
Preparing your proposal
# 1: Get information!

- Check the ERC website for latest funding opportunities: [https://erc.europa.eu/](https://erc.europa.eu/)
- **Register early**, get familiar with the European Commission's Participant Portal system, download the templates and start filling in the forms
- View the **step-by-step video** Introduction to application process, including tips & tricks for the interview: [https://vimeo.com/94179654](https://vimeo.com/94179654)
- Use the **help tools and call documents** (Information for Applicants, Work Programme, Frequently Asked Questions) to prepare your proposal
  - ✴️ Read the guidelines carefully!
  - ✴️ Find out about the formatting rules and page limits to respect!
- **Talk to your Institution's grant office and other ERC grantees**
- **Contact your National Contact Point if you have questions**
Preparing your proposal

# 1: Get information: check statistics on ERC website

STATISTICS

This page is under revision. We’re currently working on updates to enable to extract data on granted and evaluated projects.

This page provides basic statistics for ERC funding activities.

Please note that the data reflects the current status of the granting process. Therefore the total number of grants and grant distribution might differ from the indicative statistics, published at the release of the results, which are based on the outcome of the evaluation process.

<table>
<thead>
<tr>
<th>ERC Call</th>
<th>Applications received</th>
<th>Of which</th>
<th>Success rates (%)**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Evaluated*</td>
<td>Funded</td>
</tr>
<tr>
<td>Starting Grant 2007</td>
<td>9,167</td>
<td>8,787</td>
<td>299</td>
</tr>
<tr>
<td>Starting Grant 2009</td>
<td>2,503</td>
<td>2,392</td>
<td>245</td>
</tr>
<tr>
<td>Starting Grant 2010</td>
<td>2,873</td>
<td>2,757</td>
<td>436</td>
</tr>
<tr>
<td>Starting Grant 2011</td>
<td>4,080</td>
<td>4,005</td>
<td>486</td>
</tr>
<tr>
<td>Starting Grant 2012</td>
<td>4,741</td>
<td>4,652</td>
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</tr>
<tr>
<td>Starting Grant 2013</td>
<td>3,329</td>
<td>3,256</td>
<td>300</td>
</tr>
</tbody>
</table>
Shall I apply now or wait another year?
Choose your descriptors and free keywords carefully in Part A!

Descriptors and free keywords
- influence which Panel will evaluate your proposal
- are the basis of allocation to the panel members
- will determine whether a cross-panel evaluation is necessary

Rumour: The more cross-panel descriptors I indicate, 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, the Panel Members do not see the keywords and descriptors used.
Part B1

Since Panel Members see only Part B1 in Step 1:

- Panel Members evaluate this part as generalist: make sure it is accessible to a broad audience.

- Make sure that all parts of the B1 are carefully drafted, since B1 will give the **first impression of your project/yourself** and will determine if you pass to Step 2.
  - No excessive highlighting
    - This is a **ground-breaking idea**. It is the **first** time that this **type of experiment** has been tried. This represents **high risk/high gain** research.
  - Avoid jargon
  - Do not oversell it

- Panel Members are asked to assess the **feasibility** of the project. Do you provide elements on the scientific approach used?
Questions to ask yourself when writing part B1

a) Research Project

- 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? Have I proven the project's **feasibility**? Are my goals **realistic**?
- Is it **timely**? (Why wasn't it done in the past?)
- What's the **risk**?
- Have I given a realistic picture of my **collaborations**?
Questions to ask yourself when writing part B1

b) Principal Investigator

Why am I the **best/only person** to carry it out? Know your competitors – what is the state of play and why is your idea and scientific approach outstanding compared to them?

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

Am I **internationally competitive**?

Have I shown my **scientific leadership** in my CV?
When writing your CV

- Remember that the CV/Track Record are as important as your project!
- 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 (e.g. co-authored publications), explain them.
- Describe activities which can indicate scientific maturity.

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

**NOT true**: however, publishing with senior scientists (former supervisors) raises doubts about maturity/scientific independence.
In Step 2, both part B1 and B2 are read by Panel Members and specialists around the world (specialised external referees) so in Part B2:

- Do not repeat the synopsis, go into details on your methodology and work plan
- Explain hypothesis or provide preliminary data (if they exist)
- 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
- Make sure that there is an obvious link between B1 and B2 – Panel Members do not want surprises!

**Rumour**: I need preliminary results.

**NOT true**: however explain how the literature supports your "hypothesis".
In Step 2, both part B1 and B2 are read by Panel Members and specialists around the world (specialised external referees) so in Part B2:

- Make the project "easy to read" – use paragraphs and correct typos!
- Make sure you give full references (these are excluded from page count)
- Add some sort of timeline
- Explain involvement of team members and collaborators (ERC proposals are NOT collaborative)
- Justify requested resources – explain your budget properly
☀ Explain your budget properly!

- Budget analysis carried out in Step 2 evaluation.
- 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).
  - **Not explained costs are often cut!**
- Panels 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.

🌙 Ask for funding for Open Access – this is obligatory in Horizon2020!

**Rumour**: Ask for more money, the reviewers will anyhow cut it down.

✗ **NOT true**: unexplained or non-motivated requests can be cut down, so if you artificially inflate your budget, the extra funding will be indeed cut.
Typical reasons for rejection

Research Project
- **Scope**: Too narrow ↔ too broad/unfocussed
- Incremental research
- Collaborative project, **several PIs**
- **Work plan** not detailed enough/unclear
- Insufficient **risk** management

Principle Investigator (PI)
- Insufficient **track-record**
- Insufficient (potential for) **independence**

Before Redressing: see what you could you have done/explained/presented better before blaming the process!
- Diverting scientific opinion is **not** a motivation for redress
- An obvious mistake however might result in a re-evaluation
The Scientific Council needs eminent researchers to be Panel Members

- >1000 experts every year

- No possibility to register to be an ERC Panel Member

- The Scientific Council looks for women and men with outstanding profiles from any country in the world:
  - Make yourself visible online
  - Engage in international collaborations
  - Accept if invited to be an external reviewer
Thank you!
Evaluation process
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

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

Panel meeting + interview (StG and CoG)

Ranked list of proposals
Evaluation process
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Feedback to applicants
Beware of Open Access!

- The ERC supports the principle of open access to
  - the published output of research, including in particular peer-reviewed articles and monographs
  - research data and data related products such as computer code.

- Under Horizon 2020, **beneficiaries of ERC grants must ensure open access to all peer-reviewed scientific publications relating to their results** as set out in **Article 29.2** of the ERC Model Grant Agreement.

- In 2017, for the first time under Horizon 2020, **beneficiaries of ERC grants will automatically be covered by the provisions on research data sharing** as set out in **Article 29.3** of the ERC Model Grant Agreement **unless they specifically decide to opt-out**.
  - Beneficiaries that do not opt-out should also ensure appropriate management (including preservation and curation) of the research data they generate in order to ensure its sustainability.
ERC panel members by country of HI and gender
ERC Starting, Consolidator and Advanced grant calls 2007 - 2014

ERC STG COG ADG panel members 2007-2014 by host institution country

M (71 %)
F (29 %)
Distribution of ERC Grants by Panel

6,594 Projects Funded in All Panels

<table>
<thead>
<tr>
<th>Panel</th>
<th>Funded Projects</th>
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<tr>
<td>LS1</td>
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