The ERC: Funding Investigator Driven Frontier Research

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What is ERC?

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

### Legislation
- 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

### Strategy
- Support for the individual scientist – no networks!
- No predetermined subjects (bottom-up)
- Support of frontier research in all fields of science and humanities
- Global peer-review
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
ERC H2020 Budget

ERC Budget € 13 billion

FP7 (2007-2013): € 7.5 billion
What are the main ERC principles?

1 Principal Investigator (PI)
Independent researchers from anywhere in the world, of any age and career stage can apply

1 Host Institution
No consortia, no networks, no co-financing
Host institutions in one of the EU Member States or Associated countries

1 Research project
Applications can be made in any field of research, Life Sciences, Physical Sciences and Engineering and Social Sciences and Humanities

1 selection criteria: Excellence
ERC Research project
Evaluation of proposals: main features

- All fields of fundamental research: Physical Sciences & Engineering, Life Sciences, Social Sciences & Humanities
- Bottom-up: no predetermined subjects, no priorities
- High risk/high gain
- Goal of the evaluation: select the best frontier research proposals
- Only evaluation criteria: excellence
- Method: peer review

What makes ERC evaluation exceptional?
ERC Grant Schemes

Starting Grants
starters
(2-7 years after PhD)
up to € 2.0 Mio
for 5 years

Consolidator Grants
consolidators
(7-12 years after PhD)
up to € 2.75 Mio
for 5 years

Advanced Grants
track-record of
significant research
achievements in the
last 10 years
up to € 3.5 Mio
for 5 years

Proof-of-Concept
bridging gap between research - earliest
stage of marketable innovation
up to €150,000 for ERC grant holders
ERC Research project Evaluation Panel Structure (WP2017)

Physical Sciences & Engineering
- PE1 Mathematics
- PE2 Fundamental Constituents of Matter
- PE3 Condensed Matter Physics
- PE4 Physical and Analytical Chemical Sciences
- PE5 Synthetic Chemistry and Materials
- PE6 Computer Science and Informatics
- PE7 Systems and Communication Engineering
- PE8 Products and Process Engineering
- PE9 Universe Sciences
- PE10 Earth System Science

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 Diagnostics, Therapies, Applied Medical Technology and Public Health
- LS8 Evolutionary, Population and Environmental Biology
- LS9 Applied Life Sciences and Non-Medical Biotechnology

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
ERC Research project
Distribution of ERC Grants by Panel

6,907 Projects Funded in All Panels

- LS01: 255
- LS02: 262
- LS03: 241
- LS04: 279
- LS05: 344
- LS06: 357
- LS07: 251
- LS08: 265
- LS09: 191
- PE01: 335
- PE02: 379
- PE03: 338
- PE04: 369
- PE05: 359
- PE06: 320
- PE07: 230
- PE08: 241
- PE09: 261
- PE10: 218
- SH01: 291
- SH02: 303
- SH03: 138
- SH04: 176
- SH05: 223
The Researcher (PI : Principal Investigator)
- ERC funds individual scientists
- Any nationality, age or current place of work in the world
- Starting, consolidator or advanced grant (depending on work experience and scientific achievements)

Research team
- The PI can choose national or trans-national team members if scientific added value proven
- The grant covers the salary of team members
Principal Investigator 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.
ERC Starting Grants
The Applicant’s Profile

"Am I competitive enough?"

- **Potential** for research independence
- Able to develop ground-breaking idea, think out of the box
- Evidence of scientific maturity & creativity
- At least one publication without participation of PhD supervisor

_Promising track-record of early achievements_

- Significant publications, contribution to the field
- Invited presentations in conferences
- Funding, patents, awards, prizes
Already a leader in the field?

- Track-record of significant research achievements in the last 10 years
- Exceptional leaders and mentors
- 10 publications as senior author in major scientific journals
- 5 granted patents
- 10 invited presentations at international conferences
- 3 international conferences where PI was an organiser
- International prizes/awards
Host Institution
Substantial grants to fund frontier research

- Host Institution (HI) in Europe and Associated Countries
  - The one where the researcher already works, or any other institution based in EU or associated countries
  - Universities, research centres; public or private
  - Grantee must spend at least 50% of the work time in the HI … but can keep affiliation with home institute outside Europe
  - Grants are portable (= the PI can change Host Institution)
  - No consortia, no co-funding
  - 5 years projects
Role of the Host Institution

- Is committed to ensure that the PI may:
  - Apply for funding independently
  - Manage research and funding project
  - Publish independently as senior author
  - Have access to reasonable space and facilities
- Signs Grant Agreement
- Overhead: 25%
How to Apply

- Read **Information for Applicants** and Work Programme
- Animated infographics clip
- Entertaining introduction to application process, including tips & tricks for the interview

Video: [https://vimeo.com/94179654](https://vimeo.com/94179654)
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