What is the ERC?

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

**Budget (past):** € 7.5 billion (2007-2013) - ~1.1 billion €/year

**Future:** € 13 billion (2014-2020) - ~1.9 billion €/year

### Legislation
- Scientific governance: independent Scientific Council with 22 members; 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!
- Global peer-review
- No predetermined subjects (bottom-up)
- Support of frontier research in all fields of science and humanities
Creative freedom of the individual grantee

ERC offers independence, recognition & visibility

- to work on a research topic of **own choice**, with a team of **own choice**
- to gain true **financial autonomy** for 5 years
- to negotiate with the host institution the **best conditions** of work
- to attract **top team members** (EU and non-EU) and **collaborators**
- to move with the grant to any place in Europe if necessary (**portability of grants**)
- to attract **additional funding** and gain **recognition**; ERC is a quality **label**
ERC Funding schemes
Who can apply? – General requirements

• Researcher
  ➢ *Any* nationality, age or current place of work

• In conjunction with a Host Institution
  ➢ Based in EU or associated countries

• Individual research team
  ➢ Researcher has freedom to choose national or trans-national team, if scientific added value proven

• ERC grants are portable
Attractive features for researchers from outside Europe

Flexibility:
- Additional “start-up” funding for scientists moving to Europe
- Grantee can keep affiliation with home institute outside Europe ("significant part" of work time in Europe, at least 50%)
- Team members can be based outside Europe
- Grantee can move within Europe with the grant

Negotiation:
- Several European countries/host institutions assist applicants and reward grantees with top-up funds or long-term professorships
ERC Grant schemes in 2014

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
“… to support researchers (Principal Investigators) at the stage at which they are starting their own independent research team or programme.”
Starting Grants
PI profile

- Potential for research independence

- At least one publication without PhD supervisor
- invited presentations in conferences
- funding, patents, awards, prizes
ERC Starting Grants
Eligibility & Maximum funding

- 2 years ≤ PhD date ≤ 7 years
  - Extensions to this period are possible (paternity or maternity leave, long-term illness, military service)

- €1.5M for 5 years

- extra €0.5M
  - "start-up" costs PI moving from outside Europe
  - purchase of major equipment
  - access to large facilities
ERC Consolidator Grants

Objective

“…to support researchers (Principal Investigators) at the stage at which they are consolidating their own independent research team or programme.”

ERC Work Programme 2014
ERC Consolidator Grants

PI profile

• Has already achieved certain degree of research independence (very often already working with own group)

• Promising track-record of early achievements:
  • Some publications with significant impact
  • invited presentations in conferences
  • funding, patents, awards, prizes
ERC Consolidator Grants

Eligibility & Maximum funding

7 years ≤ PhD date ≤ 12 years
- Extensions to this period are possible (paternity or maternity leave, long-term illness, military service)

€2M for 5 years

extra €0.75M
- "start-up" costs PI moving from outside Europe
- purchase of major equipment
- access to large facilities
ERC Advanced Grants

PI profile

- established researcher
- Strong leadership profile (impact, recognition,…)
- Excellent track record in recent years (achievements during the last 10 years)
ERC Advanced Grants

Maximum funding

- €2.5 M for 5 years
- extra €1M
  - "start-up" costs PI moving from outside Europe
  - purchase of major equipment
  - access to large facilities
Evaluation Criteria

Excellence as sole criterion, to apply to:

1. Quality of the research project
   - Ground-breaking nature of the research: Important challenge? Substantially beyond the current state of art?
   - Potential impact: Possibility of a major break-through?
   - Methodology: Feasibility, high-gain/high-risk balance

2. Principal Investigator
   - Intellectual capacity and creativity: Track-record, capacity to go significantly beyond the state of the art.
   - Commitment: Willing to devote a significant part of PI's working time (minimum of 50% for Starting and Consolidator Grant and 30% Advanced Grant)
Peer Review Evaluation Panels

- **25 Panels** covering all fields of science, technology and scholarship
- **3 sets of Panels**: StG, CoG, AdG Panels
- Each Panel consists of the **Panel Chair** and **10-15 Panel Members**
- Panel Members are appointed by the ERC Scientific Council
Panel Structure
Physical Sciences and 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
Panel Structure
Social Sciences and Humanities

• **SH1 – Markets, individuals, and institutions**: economics, finance and management
• **SH2 - The social world, diversity and common ground**: sociology, social anthropology, political science, law, communication, science and technology studies
• **SH3 – Environment, space and population**: sustainability science, demography, geography, regional studies and planning
• **SH4 - The Human Mind and its complexity**: cognitive science, psychology, linguistics, philosophy of mind, education
• **SH5 - Cultures and cultural production**: literature, philology, cultural studies, arts, philosophy
• **SH6 - The study of the human past**: archaeology and history
Panel Structure
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 and public health
- LS8 - Evolutionary, population and environmental biology
- LS9 - Applied life sciences and non-medical biotechnology
Submission

Please do consult the latest Guide for Applicants

PART A - online forms
A1 Proposal and PI info
A2 Host institution info
A3 Budget

PART B1 – submitted as .pdf
Section 1: Extended synopsis and PI
Extended synopsis of project 5 p.
CV (including “funding ID”) 2 p.
Track record 2 p.

PART B2 – submitted as .pdf
Section 2: Scientific proposal 15 p.
(incl. ethical review table)
Proposal evaluation

Submission of full proposals

Eligibility check

Step 1 (remote) evaluation on the basis of part B, section 1 of proposal* by panel members

1st Panel meeting

Proposals passing to step 2

Individual assessment of full proposals by panel members & remote referees

2nd Panel meeting (including interviews for StG and CoG)

Proposals selected for funding
After 6 years of existence…
A success story

- more than 4,000 funded proposals; over €6.5 billion awarded
- “excellence attracts excellence”: 50% of PIs in 50 institutions, but more than 500 different host institutions in 29 countries host the other 50% of the projects
- highly competitive: average success rate 12%
Guust Nolet:

GLOBALSEIS Advanced Grant 2008

New Goals And Directions For Observational Global Seismology

• Mantle tomography using float based seismometers

MULTIMERMAID Proof of Concept 2011

• Development of a general-purpose deep ocean float that can dive much deeper than existing floats (5000 m instead of 2000 m), carry four times more battery capacity, and perform multiple observations at the same time
Elvira Astafyeva:

**SIREAL** Starting Grant 2012:

- Ionosphere as a natural indicator of numerous geophysical events.
- Ionosphere-related research, from ionosphere seismology to ionospheric storms and GNSS/GPS performance during extreme ionospheric and space weather events.
Developing a new generation of excellent scientists
Even if you're not a PI, you can still participate in ERC funded research

Reported ERC team members (May 2013)
*simple head count (995 projects; 6800 team members)
The ERC-NSF agreement

- Provides opportunities for US-based scientists and engineers for research visits to ERC funded projects

**NSF CAREER Awardees:**
- Single and long-term (6-12 months) or
- Multiple short-term visits

**NSF Postdoctoral Fellows:**
- Single and long-term research visits (6-12 months).
- Time spent in Europe will be in addition to (rather than in lieu of) their NSF-funded postdoctoral fellowship.
 ERC in 2014

Timeline

- Publication date of first calls: December 11, 2013
- Three ERC frontier research grants will be available under Work Programme 2014: Starting; Consolidator; and Advanced Grants
- Deadlines:
  - Starting Grants: 25 March 2014
  - Consolidator Grants: 20 May 2014
  - Advanced Grants: 21 October 2014
Information/Questions:

Our website: 
http://erc.europa.eu

National contact points in each EU member state (details can be found on our website)

E-mail: 
david.krasa@ec.europa.eu
annekathrin.jaeger@ec.europa.eu
Questions?
ERC Proof of Concept

Main features

What for:
Establish the innovation potential of an ERC-funded idea a: technical validation, market research, clarifying IPR strategy, investigating business opportunities

Eligibility:
Holders of an ERC grant with an idea substantially drawn from an ERC-funded project

Size:
Up to €150,000 over 12 months (Total budget for 2013: €10 million)

Outcome:
A "package" to be presented to venture capitalists
Researchers career development and complementary funding schemes

- Students
- Erasmus
- Marie Curie
- Post-graduates
- Post-docs
- Junior Professor / Junior Researcher / Associated Professor
- ERC StG - Starters
- ERC StG - Consolidators
- ERC Advanced
- Senior Professor

Established by the European Commission
ERC in H2020
Changes and continuity

- **Essential features maintained:**
  - Same schemes, same principles, same selection procedures/criteria
  - Independent Scientific Council with full authority over funding strategy
  - Executive Agency with autonomous operation

- **Increased budget (13 Bio € in current prizes for 2014-2020):**
  - More opportunities than ever for top research talents

- **Ever increasing applicant numbers:**
  - Re-application rules tightened
  - Make sure that you assess your chances realistically
ERCI n 2014
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  - Advanced Grants: 21 October 2014
  - ERC Proof of Concept: 1 April and 1 October 2014
More information on ERC

- Ideas NCPs http://erc.europa.eu/national-contact-points
- ERC Website http://erc.europa.eu
- ERC Helpdesk http://erc.europa.eu/about-erc/links
- Quarterly ERC e-newsletter and e-News Alerts
- Euraxess-Jobs http://ec.europa.eu/euraxess/index.cfm/jobs/index

Thank you for your attention
The ERC: Some take-home messages

- The ERC's strategy is made BY scientists FOR scientists

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
The ERC: Some take-home messages

The ERC Executive Agency:

- Is implementing lean procedures for proposal evaluation and grant management
- To keep away from you administrative hassle
- To let you do what you do best:

Excellent Research!
The ERC: Some take-home messages

ERC Grants can make all the difference:

Long-term grants

Generous funding

Available for high-risk/high-gain projects
The ERC-NSF agreement

- Provides opportunities for US-based scientists and engineers for research visits to ERC funded projects

- **NSF CAREER Awardees:**
  - Single and long-term (6-12 months) or
  - Multiple short-term visits

- **NSF Postdoctoral Fellows:**
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The ERC in San Francisco: Further events

- Career Advice Workshop: Destination Europe:
  - Tomorrow, 10 December, ERC presentation 10:25-11:05, Mezzanine 270-274 (Moscone South)

- Destination Europe Event: showcasing research opportunities throughout Europe:
  - Thursday/Friday, 12-13 December, Intercontinental San Francisco (Ballroom 5th floor)