ERC 2016/2017: Achievements and new calls

Massimo Gaudina
Head of Unit Communication
Outline

- What have we achieved
- What do we offer
- Who can apply
- How to apply
- Some useful tools
After 9 Years, a Success Story

- **Key figures**
  - 6,000 projects funded
  - 40,000 researchers and experts employed in ERC teams
  - €10 billion

- **Scientific breakthroughs**
  - 70% of completed projects led to key scientific advancements

- **Scientific impact**
  - 95,000 articles in top scientific journals

- **European Research Council**
  - Established by the European Commission
  - Funding top talent from anywhere in the world

- **Supporting young talent**
  - 64% of grants for early-career researchers

- **Prestigious prizes including**
  - 5 Nobel Prizes
  - 5 Wolf Prizes
  - 3 Field Medals

- **ERC as a model in Member States**
  - 15 EU countries set up ERC-like structures/funding schemes
All grants, all schemes

<table>
<thead>
<tr>
<th>Funding Scheme</th>
<th>Submitted applications</th>
<th>Funded projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting Grants</td>
<td>35,821</td>
<td>3,323</td>
</tr>
<tr>
<td>Consolidator Grants</td>
<td>8,252</td>
<td>987</td>
</tr>
<tr>
<td>Advanced Grants</td>
<td>16,996</td>
<td>2,178</td>
</tr>
<tr>
<td>Proof of Concept</td>
<td>1,232</td>
<td>387</td>
</tr>
<tr>
<td>Synergy Grants</td>
<td>1,159</td>
<td>24</td>
</tr>
<tr>
<td>All Grants</td>
<td>63,460</td>
<td>6,899</td>
</tr>
</tbody>
</table>
Scientific impact

- **Over 40,000 articles** acknowledging ERC support in international, peer reviewed journals to the end of 2015
- **7%** of these publications were in the top **1%** most cited in their scientific field and year of publication
- **20%** of completed LS and PE projects reported at least one patent (on average **2** patents reported per project)
Impact of ERC Funding
Publication activities

Mean Annual Number of Papers per ERC-Funded Researcher Before and After the Grant Start Year by Seniority and Competition Year

**All Researchers**

<table>
<thead>
<tr>
<th>Year</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>3.7</td>
<td>4.8</td>
</tr>
<tr>
<td>2008</td>
<td>6.2</td>
<td>7.3</td>
</tr>
<tr>
<td>2009</td>
<td>5.9</td>
<td>6.6</td>
</tr>
<tr>
<td>2010</td>
<td>5.8</td>
<td>6.2</td>
</tr>
<tr>
<td>2011</td>
<td>5.9</td>
<td>6.7</td>
</tr>
</tbody>
</table>

**Juniors (StG)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>3.7</td>
<td>4.8</td>
</tr>
<tr>
<td>2008</td>
<td>3.9</td>
<td>5.0</td>
</tr>
<tr>
<td>2009</td>
<td>4.1</td>
<td>4.8</td>
</tr>
<tr>
<td>2010</td>
<td>4.8</td>
<td>5.3</td>
</tr>
</tbody>
</table>

**Seniors (AdG)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>8.3</td>
<td>9.4</td>
</tr>
<tr>
<td>2008</td>
<td>8.4</td>
<td>9.5</td>
</tr>
<tr>
<td>2009</td>
<td>8.8</td>
<td>9.5</td>
</tr>
<tr>
<td>2010</td>
<td>7.3</td>
<td>7.9</td>
</tr>
</tbody>
</table>

ERCEA study, 2015: Comparative scientometric assessment of the results of ERC funded projects.
Scientific Assessment of Projects
On a sample of 199 projects

<table>
<thead>
<tr>
<th>Overall grades assigned to the projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific breakthrough</td>
</tr>
<tr>
<td>Major scientific advance</td>
</tr>
<tr>
<td>Incremental scientific contribution</td>
</tr>
<tr>
<td>No appreciable scientific contribution</td>
</tr>
</tbody>
</table>

[Graph showing the distribution of overall grades among the 199 projects.]
The Nobel Prize in Economic Sciences 2014 was awarded to Jean Tirole for his analysis of market power and regulation.

The Nobel Prize in Physiology/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 research leading to these discoveries* was supported by FP5.

* "Spatial Representation in the Entorhinal Cortex" – *Science* 2004
Distinctions to ERC Grantees

ERC grantees who won Fields Medals during their project
Stanislav Smirnov for his work in mathematical physics
Artur Avila for his work in dynamical systems
Martin Hairer for his work on stochastic singularities

Prizes and Awards: 2016

The European Research Council (ERC) funds top researchers who engage in pioneering research, at the frontier of knowledge in their field. Congratulations to ERC grantees who received international scientific prizes and awards in 2016. Some of them are listed here.

Graham COLLINGRIDGE
University of Bristol, UK
THE BRAIN PRIZE (GRETE LUNDBECK EUROPEAN BRAIN RESEARCH FOUNDATION)

Richard MORRIS
University of Edinburgh, UK
THE BRAIN PRIZE (GRETE LUNDBECK EUROPEAN BRAIN RESEARCH FOUNDATION)

And also
European Mathematical Society EMS Prize 2016
Vincent Calvez, ERC StG 2014 MESOPROBIO
Thomas Willwacher, ERC StG 2015 GRAPHOPX

Wittgenstein Prize 2016
Peter Jonas, ERC AdG 2010 NANOPHYS

NWO-SPinoza Prize 2016
W.T.S. (Wilhelm) Huck, ERC AdG 2009 INTERCOM; M.G. (Miha) Netea, ERC StG 2012 SysBioFun

Vedec roko SR 2015, ”Scientist of the Year 2015“ (Slovakia)
Jan Tkáč, ERC StG 2012 ELENA

Gottfried Wilhelm Leibniz Prize 2016
Daniel Cremer, ERC StG 2009 CONVEXVISION & CoG 2014 3D Reloaded; Daniel James Frost, ERC AdG 2008 DEEP; Benjamin List, ERC AdG 2010 HIPOCAT

CNR S. ‘Medailles d’Argent’ 2016
Aureli Boudaoud, ERC StG 2012 PHYMORPH; Catherine Picart, ERC StG 2010 BIOMIM; Philippe Dagaut, ERC AdG 2011 2G-CSAFE; Wolfgang Wensdorfer, ERC AdG 2009 MOLNANOESPIN
Impact of ERC Funding
Career progress

Share of StG applicants promoted between different points of time

<table>
<thead>
<tr>
<th>StG application and 1st wave survey</th>
<th>Assistant professorship/group leader position</th>
<th>Full/associate professorship</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>16%</td>
<td>10%</td>
</tr>
<tr>
<td>2011</td>
<td>29%</td>
<td>12%</td>
</tr>
<tr>
<td>2012</td>
<td>34%</td>
<td>36%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>StG application and 2nd wave survey</th>
<th>Assistant professorship/group leader position</th>
<th>Full/associate professorship</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>36%</td>
<td>46%</td>
</tr>
<tr>
<td>2013</td>
<td>70%</td>
<td></td>
</tr>
</tbody>
</table>

Receiving a StG has strong positive effects on the individual career development of postdocs.

Substantial vertical mobility on the career ladder

Source: MERCI online survey,
a = only StG 2009 and 2010 cohort
b = reference is number of persons who did not hold full or associate professorship at beginning of considered time period
c = reference is number of persons who did not neither hold full/associate professorship nor assistant professorship/group leader position at beginning of considered time period
National initiatives in support of finalist projects in the ERC calls

A new partnership between National Funding Councils and ERC

Established by the European Commission

BE Flanders: FWO supports the best ranked PIs on the StG reserve list (until 2014)

CY: Research Promotion Foundation supported StG 2009 finalists

FI: support scheme for finalists in reserve lists since 2009 calls

FR: ANR launched an initiative to support unfunded StG2007 finalists

HU: Call for unfunded ERC finalists of StG2007 and StG2009

IE: New scheme open since 2012 for proposals that obtained A in step 2 in ERC calls. Previous scheme for StG2007 finalists

IT: New initiatives to support applicants shortlisted and grantees

LU: FNR supports unfunded StG and AdG finalists since 2009 calls

NO: The Research Council supports unfunded StG finalists (until 2014)

PL: Support scheme for finalists since 2009 calls

RO: opened support scheme for finalists of 2011 calls

SI: Scheme for unfunded finalists in step 2 since 2010 calls

SE: support for unfunded finalists of StG calls since 2007 until 2012

CH: SNSF launched an initiative to back unfunded StG2007 finalists

TR: Considers a scheme to support unfunded ERC finalists

PT: New national initiative in support of ERC finalists being developed

BG: Considers a scheme to financially support projects in the ERC reserve list

ES: support for unfunded finalists of StG calls since 2007 until 2012

EL: support for unfunded StG and AdG finalists in 2010, 2011 and 2012 calls

CY: Research Promotion Foundation supported StG 2009 finalists
Implementing arrangements

Key Facts

- Opportunity for **non-European researchers** supported by foreign agencies to visit ERC research teams (unilateral approach)
- The foreign researchers are supposed to be **excellent** ("national version" of the ERC grantee)
- The **foreign scientist** is the one taking the **initiative** in the "matchmaking" (it is not the ERC/the ERC PI/the foreign agency…)
- The **ERC does not intervene** in the selection of the foreign visitors
- In general terms, costs of the visit are **mostly covered** by the foreign agency

Implementing arrangements signed with the following countries:
- USA (2012)
- Republic of Korea (2013)
- Argentina (2015)
- China (2015)
- Japan (2015)
- South Africa (2015)
- Mexico (2016)
Outline

- What have we achieved
- What do we offer
- Who can apply
- How to apply
- Some useful tools
What do we offer?

- Work on a topic of **own choice**, with a team of **own choice**
- Gain true **financial autonomy** for 5 years
- Negotiate **best work conditions** with the host institution
- Attract **top team members** (EU & non-EU)
- Move with the grant to any place in Europe (**portability of grants**)
- **Attract additional funding** and gain recognition: ERC is a quality label
Features of ERC grants

- **No constraints on eligible costs** as long as they are for the execution of the project
- **High flexibility**: aims of the project can be modified through amendments to the grant agreement
- The PI should spend **50% in the EU or Associated Country**
- The PI should **dedicate 50% (StG), 40% (CoG) and 30% (AdG)** of his/her time to the project
- Grants have a **light reporting** along the project life-time: financial report every 18 months, scientific report at mid-term and end of the project
- Grants have 25-40% pre-financing
# Indicative summary main calls 2017

<table>
<thead>
<tr>
<th>Call identifier</th>
<th>Starting Grant</th>
<th>Consolidator Grant</th>
<th>Advanced Grant</th>
<th>Proof of Concept Grant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Opens</td>
<td>26 July 2016</td>
<td>20 October 2016</td>
<td>16 May 2017</td>
<td>2 August 2016</td>
</tr>
<tr>
<td>Deadline</td>
<td>18 October 2016</td>
<td>9 February 2017</td>
<td>31 August 2017</td>
<td>19 January 2017</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25 April 2017</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 September 2017</td>
</tr>
<tr>
<td>Budget million EUR (estimated number of grants)</td>
<td>605 (415)</td>
<td>575 (320)</td>
<td>567 (245)</td>
<td>20 (130)</td>
</tr>
</tbody>
</table>
What is new in Work Programme 2017

- Open data
- Gender balance
- Evaluation of ERC-funded research
Outline

- What have we achieved
- What do we offer
- Who can apply
- How to apply
- Some useful tools
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
  - At least 50% of the time spent in Europe
ERC Starting Grants
The applicant’s profile

Potential to become a leader in the field

“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

“Don’t Think Outside The Box. Think Like There Is NO BOX!”
ERC Consolidator Grants
The applicant’s profile

Potential to become a leader in the field

“Am I competitive enough?”

- Research **independence**
- Able to develop ground-breaking ideas, think out of the box
- Evidence of scientific maturity & **creativity**
- Several publications 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
ERC Advanced Grants
The applicant’s profile

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
Outline

- What have we achieved
- What do we offer
- Who can apply
- How to apply
- Some useful tools
Main features evaluation of proposals

- Goal of the evaluation: select the best frontier research proposals
- Only evaluation criteria: excellence of the Principal Investigator and the Project
- Method: Two steps, peer review
- Structure: 25 panels (12-16 experts/panel)
Outline

- What have we achieved
- What do we offer
- Who can apply
- How to apply
- Some useful tools
Step by step to ERC grants

- Animated infographics clip
- Entertaining introduction to application process, including tips & tricks for the interview

Video: https://vimeo.com/94179654
Browse ERC projects

- **Searchable** repository of ERC signed projects
- Menu allows searching by
  - Funding Scheme
  - Call Year
  - Domain/panel
  - Country of Host Institution

[ ERC Funded Projects ]

The ERC operates according to a "curiosity-driven", or "bottom-up", approach, allowing researchers to identify new opportunities in any field of research. Accordingly the portfolio ERC funded projects spans a wide range of topics and research questions.

Since 2007, more than 6,500 projects have been selected to receive ERC funding throughout the EU Member States and the associated countries. The ERC has received over 62,000 project proposals for its calls.

Use the search facility to quickly and easily find examples of ERC funded projects.

**How can you search?**

Projects can be filtered according to funding scheme, call year, research area (panel/Domain) and/or country of host institution.

You can also use the search box and enter free text words, for instance names of universities or principal investigators.

**Where does the data come from?**

Information displayed is automatically updated through the information available on the CORDIS platform and can partially be exported in PDF format.

Only funded projects, whose grant agreements have been signed, appear in this section.

Please note that the structure and descriptions of ERC panels have changed over the years. The panel/Domain structures for each year can be found in ERC annual work programmes. Panels displayed in this tool are the panels the projects were selected in.

**More Information**

Check also the Statistics page for data on all evaluated proposals and projects selected for funding, including when grant agreements are not signed yet.

For specific queries, you can use the contact form (select 'Web').

**Data Protection**

Individuals’ personal information contained in this database is published for information concerning their involvement in an ERC project. It shall only be used to contact them for matters related to their function. Processing this information for other purposes (such as further transmission, further publication, direct marketing and requests for information, which differ from the matters indicated) is illegal and liable to consequences according to applicable legislation.

Evaluation panels

erc.europa.eu/funding-and-grants/apply-funding/evaluation-panels
More information

- ERC website: [erc.europa.eu](http://erc.europa.eu)
- National Contact Point: [www.apre.it](http://www.apre.it)
- Sign up for news alerts: [erc.europa.eu/keep-updated-erc](http://erc.europa.eu/keep-updated-erc)
- Follow us on
  - [www.facebook.com/EuropeanResearchCouncil](http://www.facebook.com/EuropeanResearchCouncil)
  - [twitter.com/ERC_Research](http://twitter.com/ERC_Research)
  - [www.linkedin.com/company/european-research-council](http://www.linkedin.com/company/european-research-council)
GRAZIE!

massimo.gaudina@ec.europa.eu