

# The European Research Council



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**ERC:**  
**An opportunity for researchers in  
Europe and Georgia**

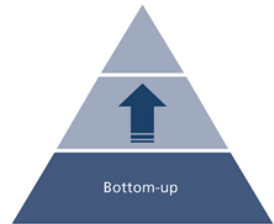
**Horizon 2020 Information Day  
Tbilisi, 30 May 2016**

**Alice Rajewsky  
ERC Executive Agency  
Head of Sector Humanities**

# 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

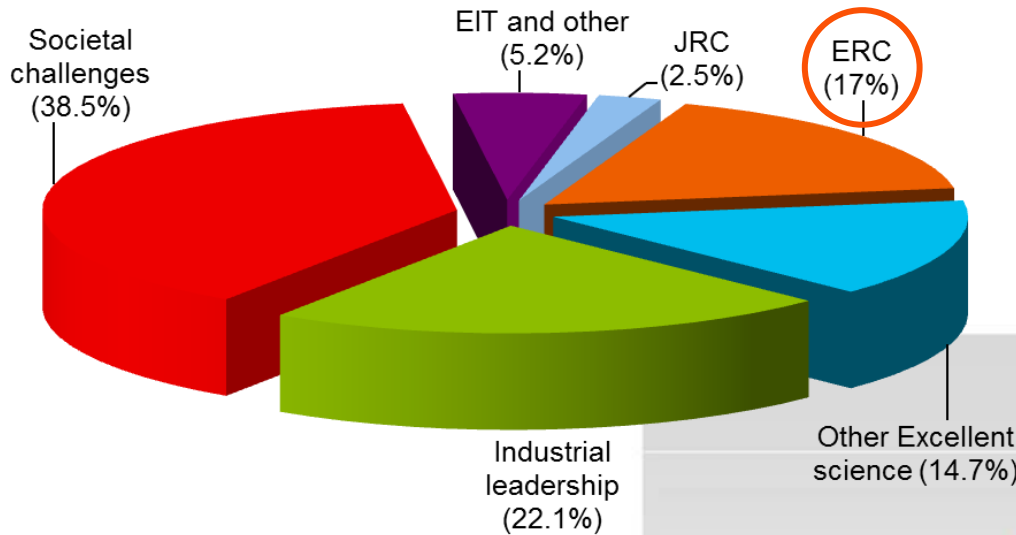
- Scientific governance: independent Scientific Council with 22 members including the ERC President; full authority over funding strategy
- Support by the ERC Executive Agency (autonomous)
- Excellence as the only criterion

## Strategy

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

# ERC Horizon 2020 Budget

**ERC Budget  
€ 13 billion**



# 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

# Creative Freedom to Individual Grantee



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## 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/associated countries (**portability of grants**)
- **to attract additional funding and gain recognition**; ERC is a quality label

# ERC evaluation criterion



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- **Excellence** of the Research Project
  - ✓ Ground breaking nature
  - ✓ Potential impact on the field
  - ✓ Scientific Approach
  
- **Excellence** of the Principal Investigator
  - ✓ Intellectual capacity
  - ✓ Creativity
  - ✓ Commitment

# Evaluation Panel Structure (2016 calls)



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## 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

## 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

## Social Sciences and Humanities

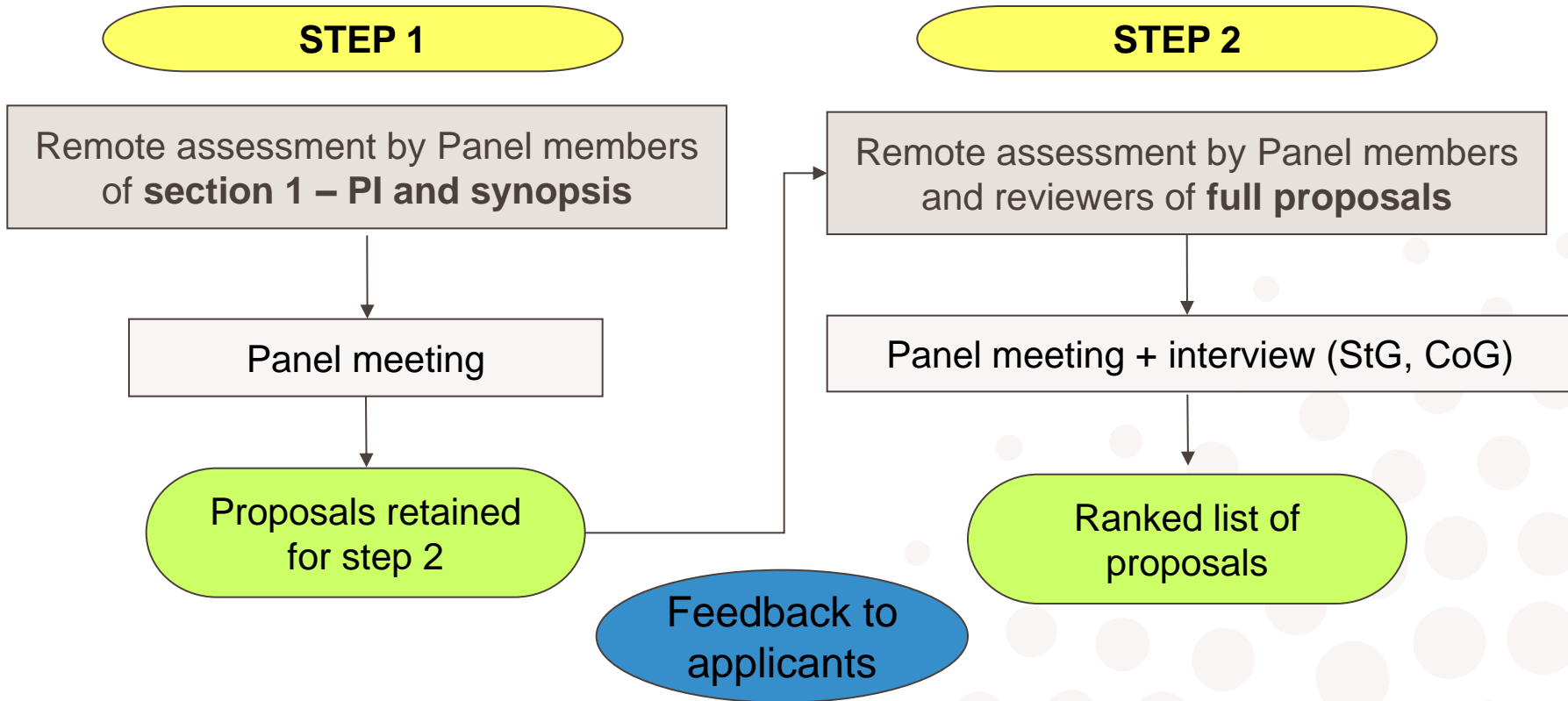
- SH1 Individuals, Markets and Organisations
- SH2 Institutions, Values, Environment and Space
- SH3 The Social World, Diversity, Population
- SH4 The Human Mind and Its Complexity
- SH5 Cultures and Cultural Production
- SH6 The Study of the Human Past

# ERC Evaluation process



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- Balance between generalist + specialized reviews
- Appropriate treatment of interdisciplinary proposals



# After 9 Years



Scientific breakthroughs

**70%**

of completed projects led to key scientific advancements



Key figures

**6,000**

projects funded

**40,000**

researchers and experts employed in ERC teams

**€10 billion**



Scientific impact

**95,000**

articles in top scientific journals



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Funding top talent  
from anywhere  
in the world



Supporting young talent

**64%**

of grants for early-career researchers



ERC as a model in Member States

**15**

EU countries set up ERC-like structures/funding schemes



Prestigious prizes including

**5**

Nobel Prizes

**5**

Wolf Prizes

**3**

Field Medals



Horizon 2020  
European Union Funding  
for Research & Innovation

# International Researchers



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## Researchers from anywhere in the world can apply for ERC grants

(any nationality, any age, any current place of work)

### ERC offers flexibility and support:

- Additional “start-up” funding for scientists moving to Europe and countries associated to H2020 – **like Georgia**
- Grantee can keep affiliation with home institute outside Europe  
**'brain circulation' rather than 'brain drain'**
- Team members can be based outside Europe/associated countries
- Grant is portable across Europe/associated countries
- Some European countries/host institutions offer top-up funds

# 32 Non-ERA Nationalities (PIs)

Almost 8% of all ERC grants to principal investigators of non-ERA nationality

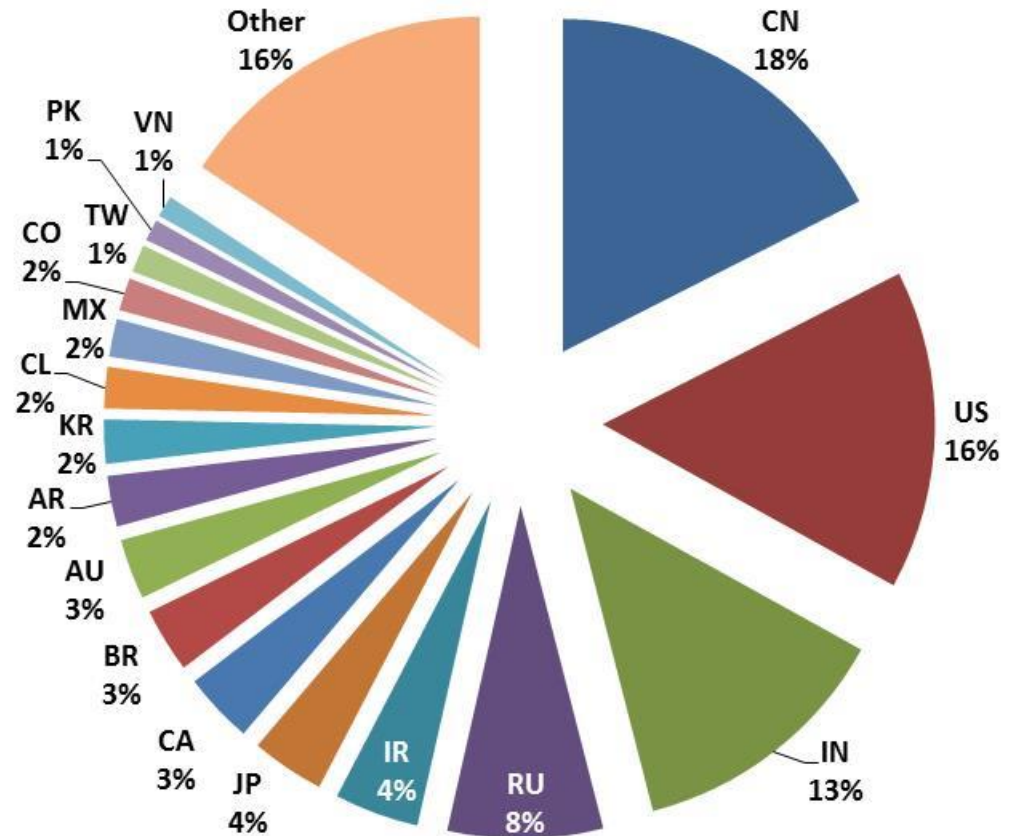
Non-ERA Principal Investigators	Starting and Consolidator grants	Advanced grants	Total grants
USA	121	78	199
Canada	43	9	52
Russia	29	8	37
Australia	29	4	33
India	31	2	33
Japan	18	1	19
China	16	0	16
New Zealand	9	4	13
Argentina	9	0	9
Other	42	7	49
<b>Total</b>	<b>347</b>	<b>113</b>	<b>460</b>

# Attracting Researchers to Europe

Nationality of ERC project teams (PIs not included)  
 Analysis of 1,901 Starting and Advanced Grants

**EU: 71%**  
**Assoc. Countries: 10%**  
**non-ERA: 17%**  
 unknown: 2%

**+ 6,500 non-ERA team members**  
 most from  
**China, US, India, and Russia**



# Implementing arrangements

## Key Facts



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- Opportunity for researchers based outside Europe and supported by foreign agencies to visit ERC research teams.
- The foreign researchers must be **excellent** (already receiving competitive funding)
- 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 visitors.
- Cost of the visit are covered by the foreign agency and the grant of the receiving PI.

- USA (2012)
- Republic of Korea (2013)
- Argentina (2015)
- China (2015)
- Japan (2015)
- South Africa (2015)
- Mexico (2015)

**Expected next ERC call  
for expression of  
interest:**

**October 2016**

# How to prepare an ERC proposal?

- Have a bright, original and exciting idea
- Design a project and team structure to implement the idea
- Be ambitious – "think big"...but demonstrate feasibility
- Write proposal for generalists *and* specialists
- Choose the best location for your project
- Practice for the interview at step 2 (StG, CoG)
- Read carefully the "Information for Applicants"

# Testimonial



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## Professor Georgi Dvali

Born in Tbilisi, PhD: Tbilisi State University

Professor of Physics at New York University and at Ludwig-Maximilians-University, Munich, Germany;  
Director at Max Planck Institute for Physics

### **Awarded an ERC Advanced Grant in 2013:**

*"UV-Completion through Bose-Einstein-Condensation: A Quantum Model for Black Holes"*

1,2 Mio € for 5 years, running since 1 February 2014

Host institution: LMU Munich, Germany

Works on the physics of black holes and quantum gravity

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- More information: [erc.europa.eu](http://erc.europa.eu)
- National Contact Point: [erc.europa.eu/national-contact-points](http://erc.europa.eu/national-contact-points)
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# Thank you for your attention!

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