

The European Research Council



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Established by the European Commission

The ERC: 10 years of supporting top researchers all across Europe

Prof. Eva Kondorosi
Vice President of ERC and Chair of the ERC
Scientific Council Working Group on Widening
European Participation
Tbilisi, Georgia, 20-21 April 2017



Celebrating ERC-10 in Europe and beyond



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- ✓ ERC Week: 13-19 March
- ✓ >100 events in 35 countries
- ✓ Twitter: **#ERC10yrs**
- ✓ More information:
erc.europa.eu/ERC10yrs/erc-week





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Beyond the first 10 years

The ERC in a Nutshell



Horizon 2020
European Union funding
for Research & Innovation

The ERC in a Nutshell



- Set up in 2007 by the EU, the ERC funds ambitious projects in frontier research. It aims at:
 - Supporting excellent frontier research throughout Europe in all scientific domains: Life Sciences (LS), Physical Sciences and Engineering (PE), and Social Sciences and Humanities (SH)
 - Retaining and attracting the best scientific talent to Europe, by offering very substantial grants for up to 5 years

ERC Governance



The European Commission

- **Provides financing** through the EU framework programmes
- **Guarantees autonomy of the ERC**
- **Assures the integrity and accountability of the ERC**
- **Adopts annual work programmes** as established by the Scientific Council

The ERC Scientific Council

- **22 prominent researchers** proposed by an independent identification committee
- **President** appointed following recommendation of an independent search committee
- **Appointed by the Commission** (4 years, renewable once)
- **Establishes overall scientific strategy**; annual work programmes; peer review methodology; selection and accreditation of experts
- **Controls quality of operations and management**
- **Ensures communication with the scientific community**

The ERC Executive Agency

- **Executes annual work programme** as established by the Scientific Council
- **Implements calls for proposals** and provides information and support to applicants
- **Organises peer review evaluation**
- **Establishes and manages grant agreements**
- **Administers scientific and financial aspects** and follow-up of grant agreements
- **Carries out communications activities** and ensures information dissemination to ERC stakeholders

The ERC Scientific Council



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Jean-Pierre



Vice
President

BOCK
Klaus



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Michel



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Fabio

The ERC in a Nutshell



- ✓ The ERC is a key component of Horizon 2020, the EU programme for Research and Innovation
- ✓ €13 billion budget for 2014-2020, i.e. 17% of the Horizon 2020 budget
- ✓ Over 60,000 applications received and around 7,000 projects funded
- ✓ Highly competitive calls: success rate is around 11%

The ERC in a Nutshell



- Three core funding schemes:

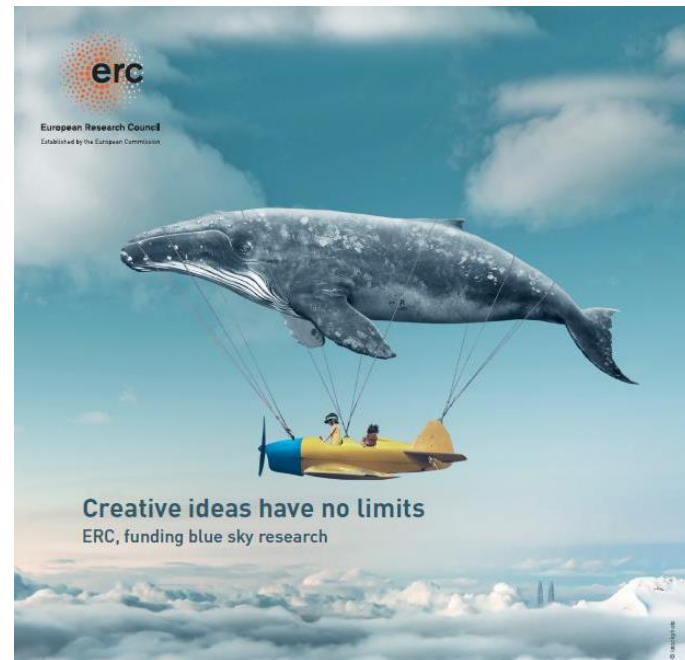
Starting Grants, Consolidator Grants and Advanced Grants

- For top researchers of any nationality and age who wish to carry out their frontier research in EU Member States or associated countries
- **1 Principal Investigator, 1 project, 1 Host Institution, 1 selection criterion (excellence)**
- Grants are portable: Grantee can **move within Europe** with the grant

From 2018: **Synergy grants: 2-4 PIs**

Attractive features for researchers from outside Europe

- **Additional funding** for scientists moving to Europe:
€500 000 for Starting,
€750 000 for Consolidator and
€1 Million for Advanced grantees
- Grantee can **keep affiliation** with home institute
outside Europe
- **Work time in Europe**, at least **50%**





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Beyond the first 10 years

10 Reasons to Celebrate



Horizon 2020
European Union funding
for Research & Innovation

1. Supporting Research Talent

- ✓ 7,000 "research champions" and their teams supported
- ✓ 50,000 team members, mostly PhDs and postdocs, working on ERC projects



2. Advancing the Frontiers of Knowledge

- ✓ 73% of a sample of completed ERC projects resulted in scientific breakthroughs or major advances
- ✓ ERC grantees won prestigious awards:
6 Nobel Prizes, 4 Fields Medals, 5 Wolf Prizes...



3. Enhancing Visibility of European Research Results

- ✓ 100,000 publications resulting from ERC projects
- ✓ 7% of these publications rank in the top 1% most cited worldwide. Also thanks to this, in 2014 Europe surpassed the US for the first time in this top 1%.

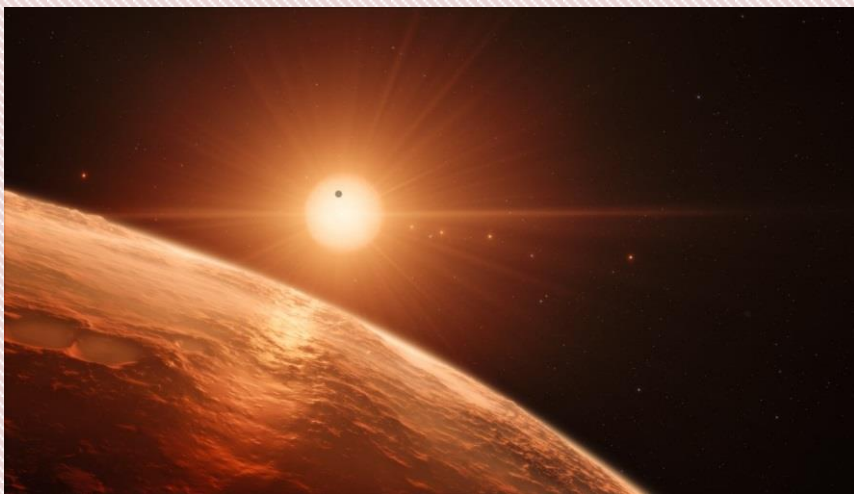


Earth-like Exoplanets Discovered



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Credit: ESO/N. Bartmann/spaceengine.org



"Without the EU funding it would not have been possible to arrive at this discovery. I'm grateful that the European Research Council invested in our idea and believed in our intuition back in 2013."

Method: A network of telescopes to detect exoplanets orbiting dwarf stars.

Result: Pilot project discovered a system of 7 potentially inhabitable exoplanets

Prof Michaël GILLON, Université de Liège (Belgium)

SPECULOOS (searching for habitable planets amenable for biosignatures detection around the nearest ultra-cool stars), ERC Starting Grant 2013

4. Attracting Scientific Talent

- ✓ Making Europe an attractive place for bright minds
- ✓ Around 17% of the ERC team members are from non-EU countries
- ✓ 9 countries (including US, China, Korea, Brazil) have signed specific agreements with the EU that allow ERC grantees to cooperate with young scientists from around the world



5. Promoting Innovation



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- ✓ There is no innovation without frontier research!
ERC grants: High risk, high gain projects
- ✓ Almost 600 Proof of Concept Grants awarded
- ✓ ERC projects have led to 800 patent applications and setting up 75 new ventures (2007-2013)



ERC Research Turns into A.I. Spin-Off



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- ❖ Breakthrough technology to automate data extraction from content on the web developed thanks to ERC funding
- ❖ February 2017: spin-off **Wrapidity** was purchased by Meltwater, a leader in data intelligence.

Prof. Georg GOTTLOB, *University of Oxford*

DIADEM (Domain-centric Intelligent Automated Data Extraction Methodology) ERC Advanced Grant 2009
+ **ExtraLytics**, 2014 Proof of Concept



[Yahoo Finance](#), 22 February 2017

Meltwater acquires Oxford University data extraction spinout *Wrapidity*

6. Addressing Societal Challenges

- ✓ The ERC funds projects related to major health challenges, energy efficiency, demographic changes, etc.
- ✓ ERC-funded research contributes to economic growth and benefits the society at large



Catalysts and Ultra-Clean Fuels



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- ❖ The ERC research team developed a technique to produce high-quality diesel fuel that uses feedstock more efficiently, generates fewer by-products and results in much lower emissions.

Prof Krijn Pieter DE JONG, Utrecht University

NanoPartCat (Supported Nanoparticles for Catalysis: Genesis and Dynamics in the Liquid Phase), ERC Advanced Grant 2013



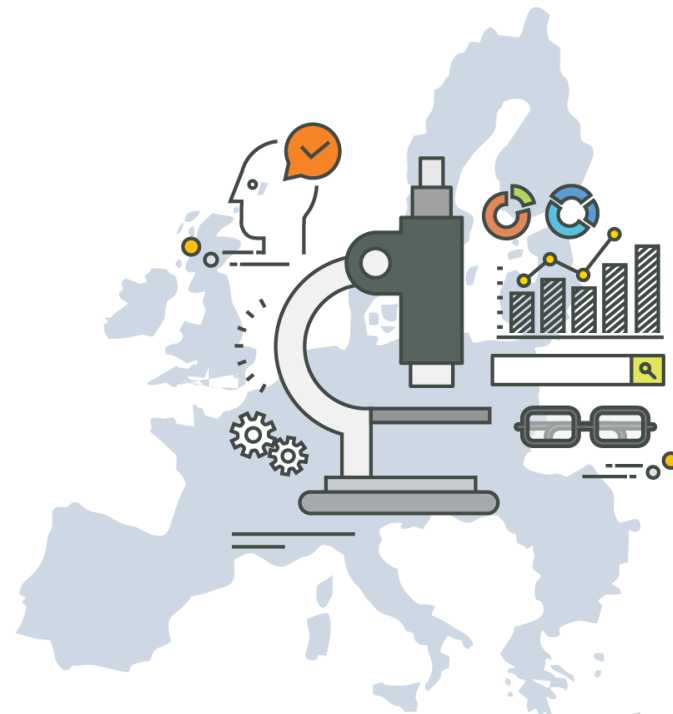
ERC story:
Controlled Catalysis for ultra-clean fuels

7. Inspiring Reforms in Europe



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- The ERC has set the benchmark of competitive funding of basic research
- New scientific councils and funding schemes launched in EU Member States
- 17 countries have introduced initiatives to finance their best unfunded applicants



8. Engaging with the Scientific Community



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- ✓ *Research integrity*
- ✓ *Open access*
- ✓ *Gender balance*
- ✓ *Widening European participation*



9. Boosting Research Careers



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- ✓ 2/3 of ERC grants go to early career researchers
- ✓ ERC grants have a strong, positive effect on grantees' careers
- ✓ They contribute to the consolidation of research teams
- ✓ Key role in training and developing a new generation of top scientists



10. Raising an International Visibility



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Wide media coverage



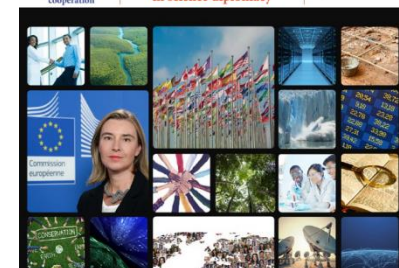
10.000 articles in the media every year



Events around the world



> 500.000 visitors of the ERC website per year





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The Secrets of the ERC Success



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The secrets of a success

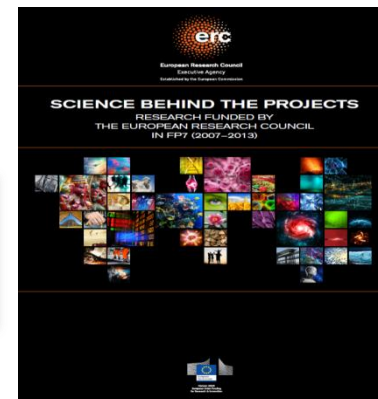
- ✓ The Scientific Council: 22 renowned scientists as decision makers
- ✓ The evaluators: high-level scientists from all over the world
- ✓ Strict bottom-up approach: no thematic priorities, all disciplines eligible
- ✓ Scientific and financial independence of the grantees
- ✓ The size of the grants: €1.5 million for Starting Grants, €2 million for Consolidator Grants, €2.5 million for Advanced Grants
- ✓ The simplicity of the schemes and of the procedures
- ✓ A very efficient management by the executive agency (ERCEA)

More Information

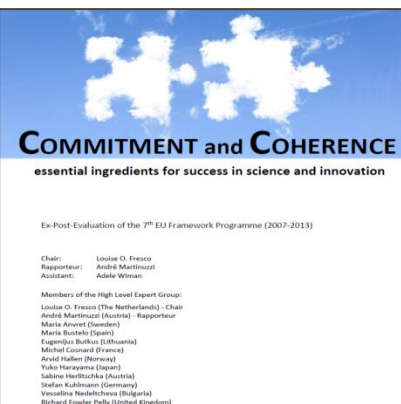


ERC funding activities 2007 – 2013

Science Behind The Projects



Ex-post evaluation of FP7



https://erc.europa.eu/sites/default/files/publication/files/ERC_funding_activities_2007_2013.pdf
[https://erc.europa.eu/sites/default/files/publication/files/ERC_Science behind the projects FP7-2007-2013.pdf](https://erc.europa.eu/sites/default/files/publication/files/ERC_Science_behind_the_projects_FP7-2007-2013.pdf)
https://ec.europa.eu/research/evaluations/index_en.cfm

Thank you!



Key figures

7,000

top researchers funded

50,000

researchers & other professionals
hired in ERC teams

with **€12 billion**



Breakthroughs

73%

of completed projects
led to breakthroughs/major
advances



Scientific impact

> 5,500

articles among
1% most cited
scientific journals



Open to the World

9

international initiatives
for non-EU talent
to join ERC teams



Prestigious prizes, e.g.

6

Nobel
Prizes

5

Wolf
Prizes

4

Fields
Medals



ERC as model

15

EU countries set up
ERC-like structures/funding
schemes