

The European Research Council



European Research Council

Established by the European Commission



ERC – Mission, Achievements and Funding Opportunities

Elena-Simona Toma
ERC Executive Agency

ERC in Horizon Europe



European Research Council

Established by the European Commission



Pillar 1 Excellent Science

European Research Council

Marie Skłodowska-Curie Actions

Infrastructures



Pillar 2 Global Challenges and Industrial Competitiveness

Clusters

- Health
- Culture, creativity and inclusive society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre



Pillar 3 Innovative Europe

European Innovation Council

European innovation ecosystems

European Institute of Innovation
and Technology

Widening participation and strengthening the European Research Area

Widening Participation and Spreading Excellence

Reforming and Enhancing the European R&I system

What is ERC?



European Research Council

Established by the European Commission

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

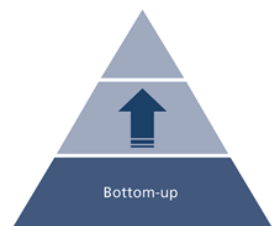
Budget: € 16 billion (2021-2027) – 2.3 billion €/year
€ 13 billion (2014-2020) - 1.9 billion €/year
€ 7.5 billion (2007-2013) - 1.1 billion €/year

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



Scientific Governance by the ERC Scientific Council



European Research Council

Established by the European Commission

- Prof. Geneviève ALMOUZNI (Biology)
- Prof. Paola BOVOLENTA (Neurobiology)
- Prof. Margaret BUCKINGHAM (Biology)
- Prof. Eveline CRONE (Psychology), **ERC Vice-President**
- Prof. Ben L. FERINGA (Organic Chemistry)
- Prof. Mercedes GARCIA-ARENAL (History)
- Prof. Gerd GIGERENZER (Psychology)
- Prof. Maria LEPTIN (Biology), **ERC President**
- Prof. Liselotte HØJGAARD (Medicine)
- Prof. Dirk INZÉ (Plant Biology)
- Prof. Andrzej JAJSZCZYK (Electronics and Communication Engineering), **ERC Vice-President**
- Prof. Eystein JANSEN (Earth Science)
- Prof. Michael KRAMER (Astrophysics)
- Prof. Rodrigo MARTINS (Materials, Nanotechnologies, Electronics)
- Prof. Kurt MEHLHORN (Computer Science)
- Prof. Barbara ROMANOWICZ (Geophysics)
- Prof. Nicola SPALDIN (Materials Theory)
- Prof. Jesper SVEJSTRUP (Biology)
- Prof. Nektarios TAVERNARAKIS (Molecular Systems Biology), **ERC Vice-President**
- Prof. Alice VALKÁROVÁ (Nuclear and Particle Physics)
- Prof. Milena ŽIC FUCHS (Linguistics)

After More than 14 Years, a Success Story



Over **10,000**
top researchers funded since
the ERC's creation in 2007



Over **200,000**
articles from ERC projects published
in prestigious scientific journals



Over **75,000**
researchers and other professionals
employed in ERC research teams



> 850 research institutions
hosting ERC grantees – universities,
public or private research centres in
the EU or associated countries



€ 16 billion

ERC budget for 2021-2027 under
Horizon Europe



85
nationalities of
grant holders

Nobel Prizes to ERC Grantees



European Research Council
Established by the European Commission



Benjamin List
Nobel 2021

ERC Grantee
AdG 2010

ERC Grantee
AdG 2015

The Nobel Prize in Chemistry 2021 was awarded jointly to Benjamin List and David W.C. MacMillan “for the development of asymmetric organocatalysis”.



Giorgio Parisi
Nobel 2021

ERC Grantee
AdG 2009

ERC Grantee
AdG 2015

The Nobel Prize in Physics 2021 was awarded jointly to Syukuro Manabe, Klaus Hasselmann and Giorgio Parisi “for ground-breaking contributions to our understanding of complex physical systems”.



Sir Peter J. Ratcliffe
Nobel 2019

ERC Grantee
AdG 2008



Bernard Feringa
Nobel 2016

ERC Grantee
AdG 2008

ERC Grantee
AdG 2015



May-Britt Moser
Nobel 2014

ERC Grantee
AdG 2010



Edvard Moser
Nobel 2014

ERC Grantee
AdG 2008

ERC Grantee
AdG 2013



Jean Tirole
Nobel 2014

ERC Grantee
AdG 2009



Serge Haroche
Nobel 2012

ERC Grantee
AdG 2009



Konstantin Novoselov
Nobel 2010

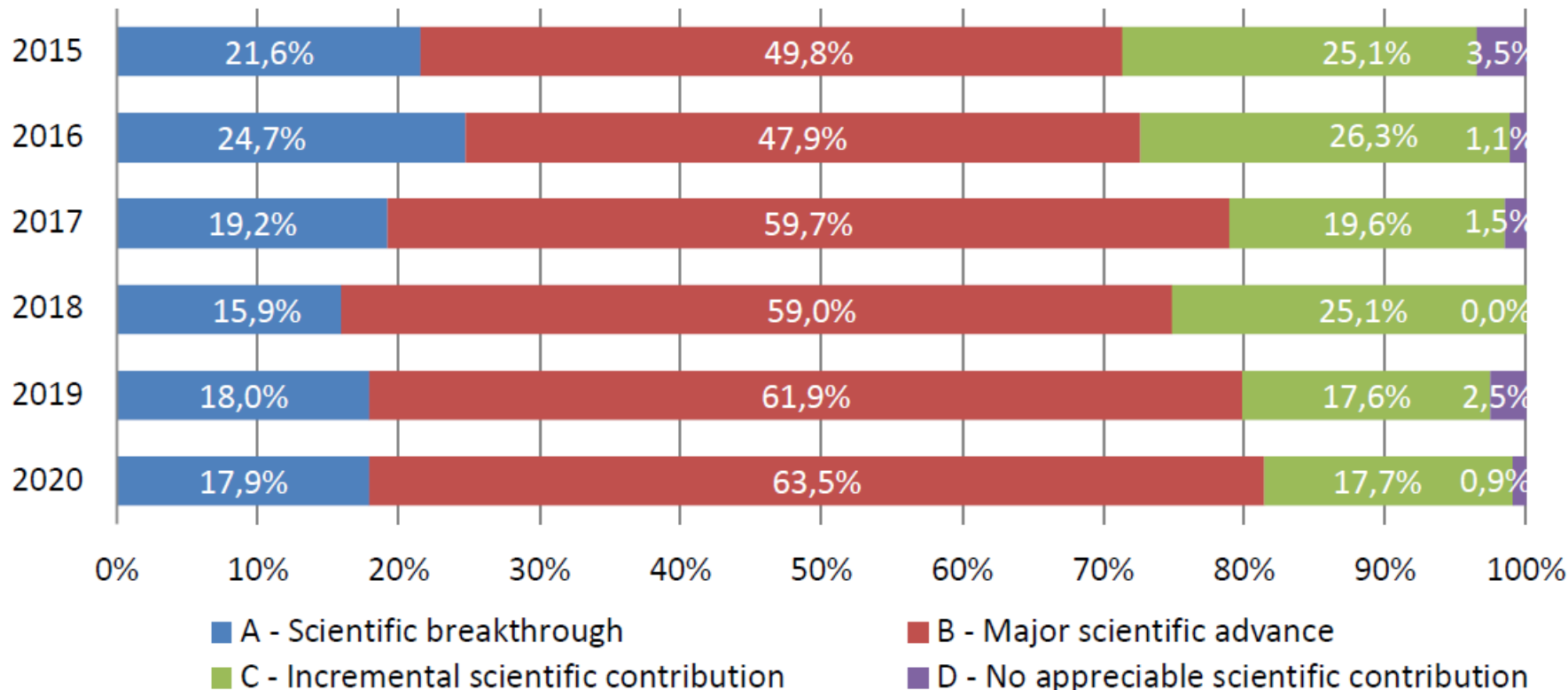
ERC Grantee
StG 2007

ERC Grantee
SyG 2012

- 7 other ERC grantees received the Nobel prize in 2010, 2012, 2014, 2016 and 2019
- Other 7 ERC grantees were already Nobel laureates at the moment they received the ERC grant

20% of the ERC-funded Projects Deliver Scientific Breakthroughs

Qualitative evaluation of completed ERC projects Overall results for the organized exercises



ERC Funds the Best Research of All Major Funders in the World

*"The ERC had the highest category normalised citation impact, the highest percentage of papers in the world's top 1% and the highest percentage of papers involving international co-authorship of the 50 funders most frequently acknowledged by authors in the Web of Science between 2007 and 2016. Of the 100 most frequently acknowledged funders, only three (all large pharmaceutical companies) have a higher citation impact – though not substantially higher."
(Clarivate Analytics - "The European Research Council – The first 10 years")*

Table 2. The 50 most frequently acknowledged funders in the Web of Science sorted by category normalised citation impact, 2007-16⁶

Name	Papers	Category normalized citation impact	Percentage top 1% papers	Percentage internationally collaborative papers
European Research Council (ERC)	40,422	2.46	4.84%	59.24%
Wellcome Trust	41,040	2.10	3.60%	55.62%
United States Department of Energy (DOE)	123,864	2.09	3.92%	39.39%
NIH National Cancer Institute (NCI)	55,496	2.08	3.68%	29.69%
Medical Research Council UK	38,442	2.08	3.76%	48.81%
NIH National Heart Lung & Blood Institute (NHLBI)	30,092	1.95	3.27%	28.81%
Swiss National Science Foundation	50,598	1.90	3.01%	59.03%
Federal Ministry of Education & Research (BMBF)	43,462	1.75	2.68%	48.12%
National Institutes of Health (NIH) – USA ⁷	617,950	1.73	2.61%	28.37%
National Science Foundation (NSF)	380,893	1.73	2.76%	36.36%
National Health and Medical Research Council of Australia	40,898	1.70	2.31%	42.24%
Australian Research Council	65,631	1.65	2.26%	50.65%
French National Research Agency	41,385	1.62	2.04%	47.65%
Ministry of Science and Technology, China	32,098	1.61	2.49%	28.98%
Swedish Research Council	41,161	1.60	2.09%	57.87%
Engineering & Physical Sciences Research Council (EPSRC)	60,697	1.58	2.07%	43.01%

ERC Grant Schemes



European Research Council

Established by the European Commission

Starting Grants

starters
(2-7 years after PhD)
up to € 1.5 Mio
for 5 years

Consolidator Grants

consolidators
(7-12 years after PhD)
up to € 2 Mio
for 5 years

Advanced Grants

track-record of
significant research
achievements in the
last 10 years
up to € 2.5 Mio
for 5 years

Proof-of-Concept

bridging gap between research - earliest stage
of marketable innovation
lump sum €150,000 for ERC grant holders

Synergy Grants (re-launched 2018)

2 – 4 Principal Investigators
up to € 10.0 Mio for 6 years
1 PI can be based outside EU/AC

Creative Freedom to Individual Grantee



European Research Council

Established by the European Commission

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

Evaluation Panel Structure (2021-2022)



European Research Council

Life Sciences

- LS1 Molecules of Life: Biological Mechanisms, Structures and Functions
- LS2 Integrative Biology: From Genes and Genomes to Systems
- LS3 Cellular, Developmental and Regenerative Biology
- LS4 Physiology in Health, Disease and Ageing
- LS5 Neuroscience and Disorders of the Nervous System
- LS6 Immunity, Infection and Immunotherapy
- LS7 Prevention, Diagnosis and Treatment of Human Diseases
- LS8 Environmental Biology, Ecology and Evolution
- LS9 Biotechnology and Biosystems Engineering

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
- **PE11 Materials Engineering**

Social Sciences and Humanities

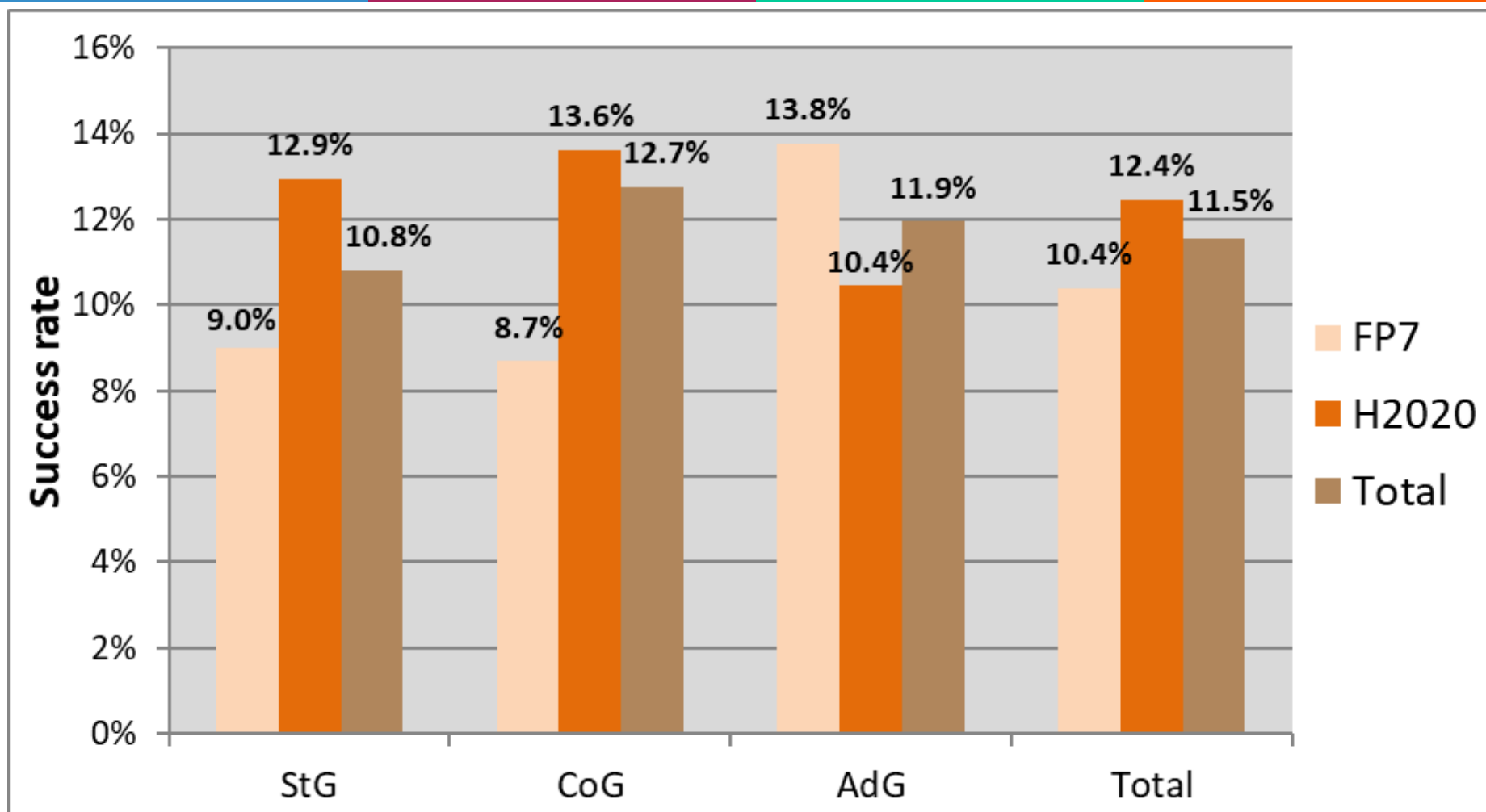
- SH1 Individuals, Markets and Organisations
- SH2 Institutions, Governance and Legal Systems
- SH3 The Social World and Its Diversity
- SH4 The Human Mind and Its Complexity
- SH5 Cultures and Cultural Production
- SH6 The Study of the Human Past
- **SH7 Human Mobility, Environment, and Space**



European Research Council

Established by the European Commission

Success Rate by Scheme and Programme



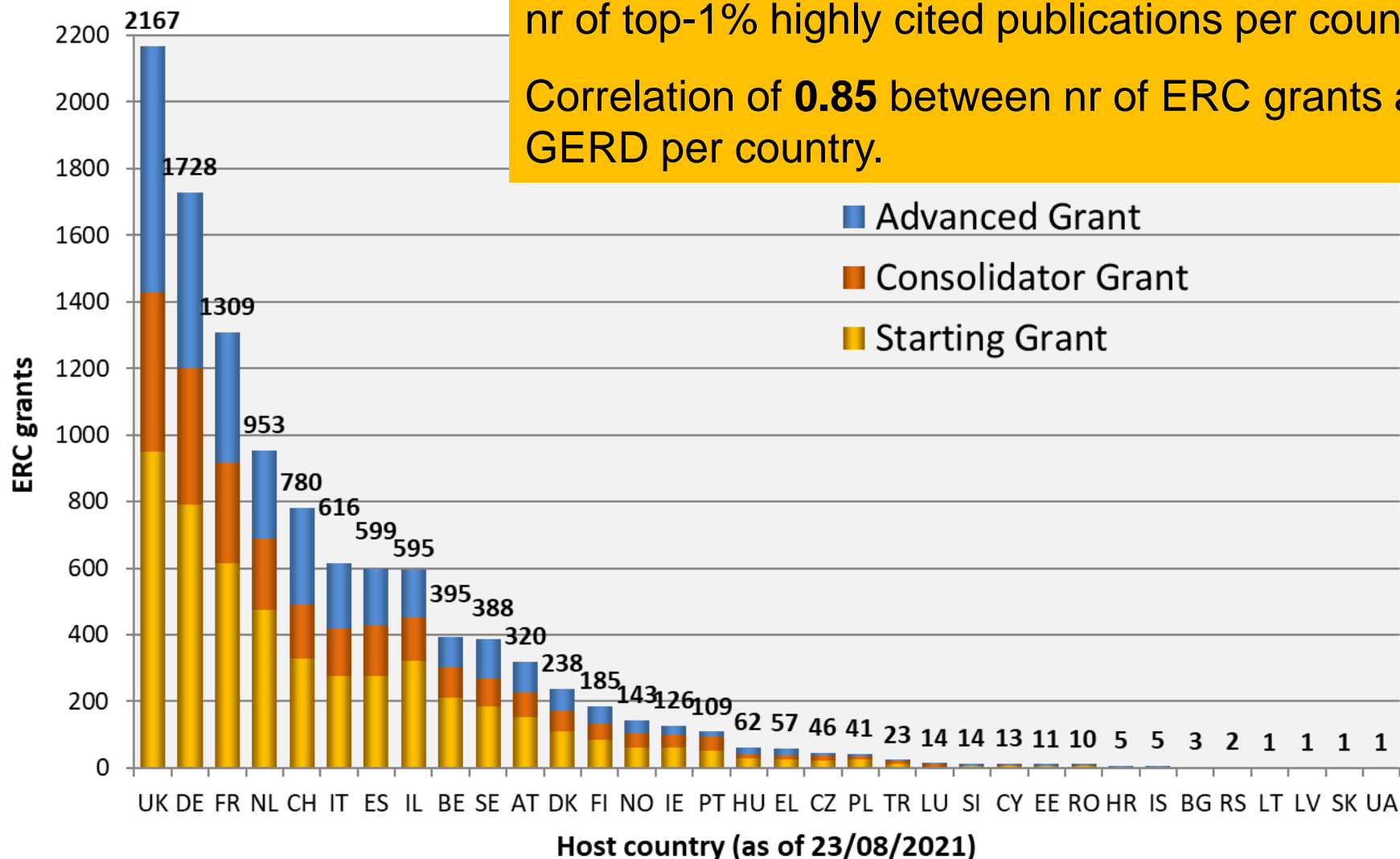
ERC Funded Projects by Country of HI



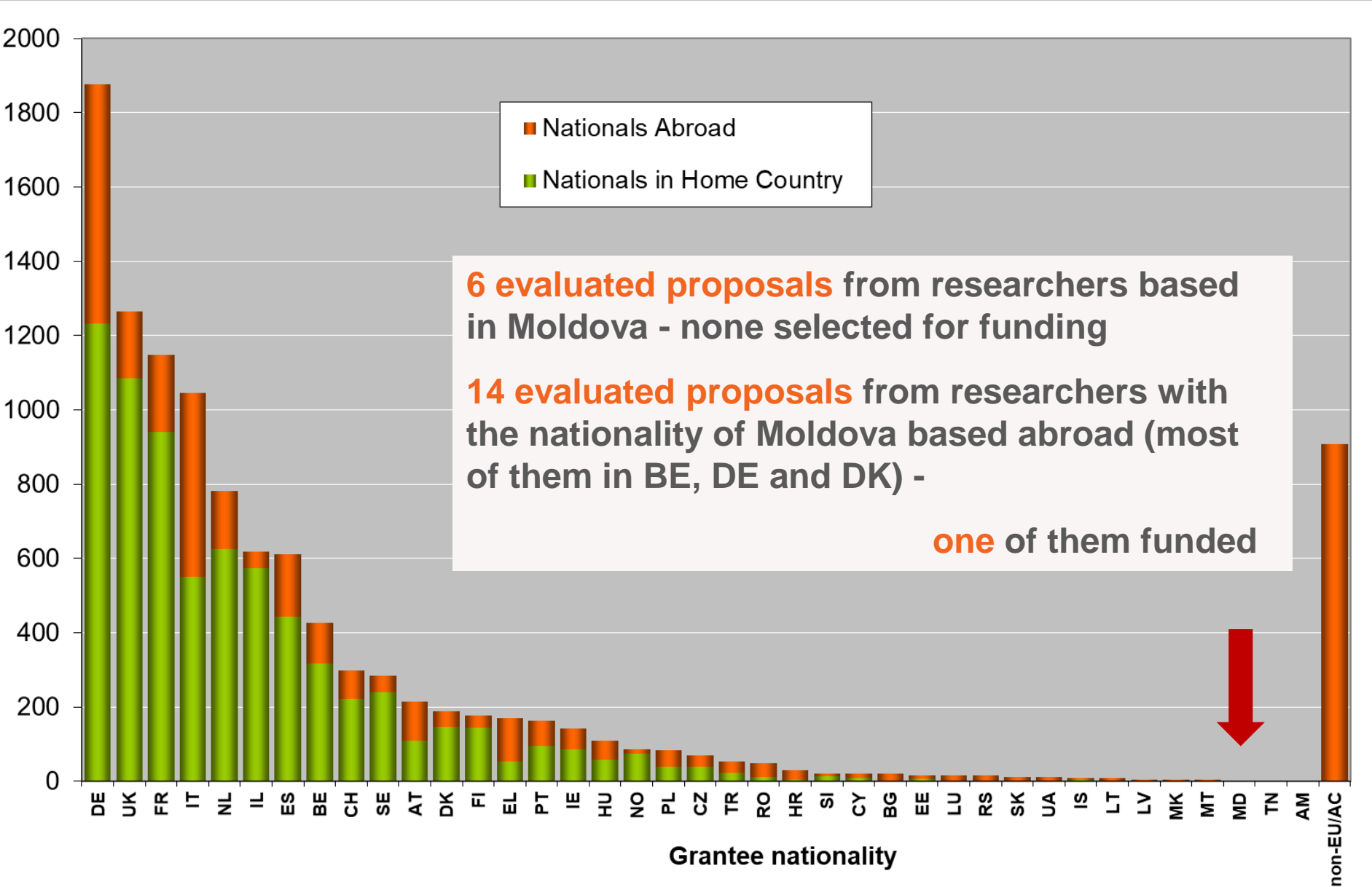
European Research Council

Correlation of **0.97** between nr of ERC grants and nr of top-1% highly cited publications per country.

Correlation of **0.85** between nr of ERC grants and GERD per country.



Researchers from Moldova at ERC



The European Research Council



European Research Council

Established by the European Commission

- More information: erc.europa.eu
- National Contact Point: erc.europa.eu/national-contact-points
- Sign up for news alerts: erc.europa.eu/keep-updated-erc
- Follow us on



www.facebook.com/EuropeanResearchCouncil



twitter.com/ERC_Research



www.linkedin.com/company/european-research-council



European Research Council

Established by the European Commission

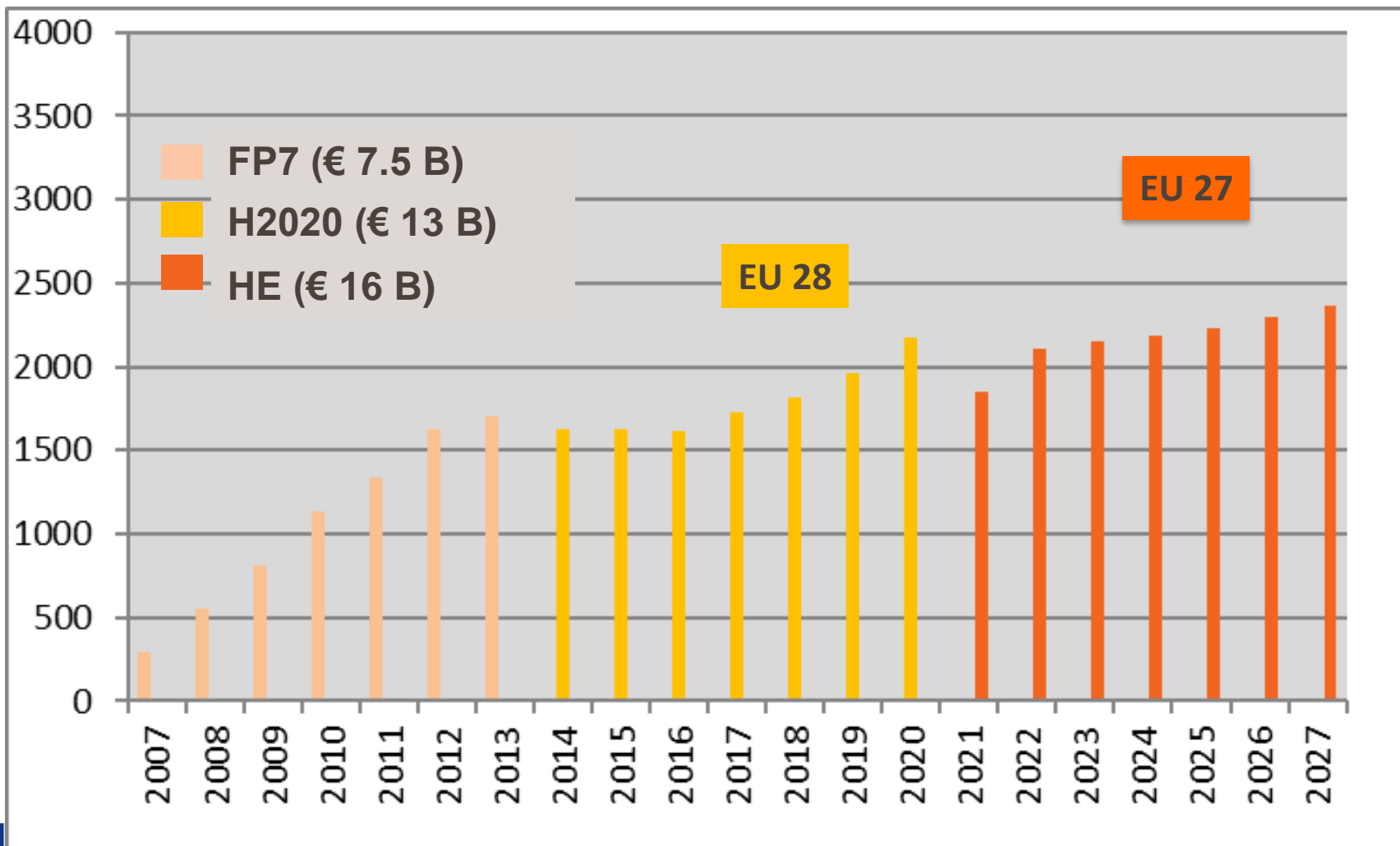
ANNEX

ERC Budget



European Research Council

Established by the European Commission



ERC Funding Schemes

Evaluation Criteria



European Research Council

Established by the European Commission



Scientific Excellence

is the sole evaluation criterion

Excellence of the Research Project

- Ground breaking nature
- Potential impact
- Scientific Approach

Excellence of the Principal Investigator

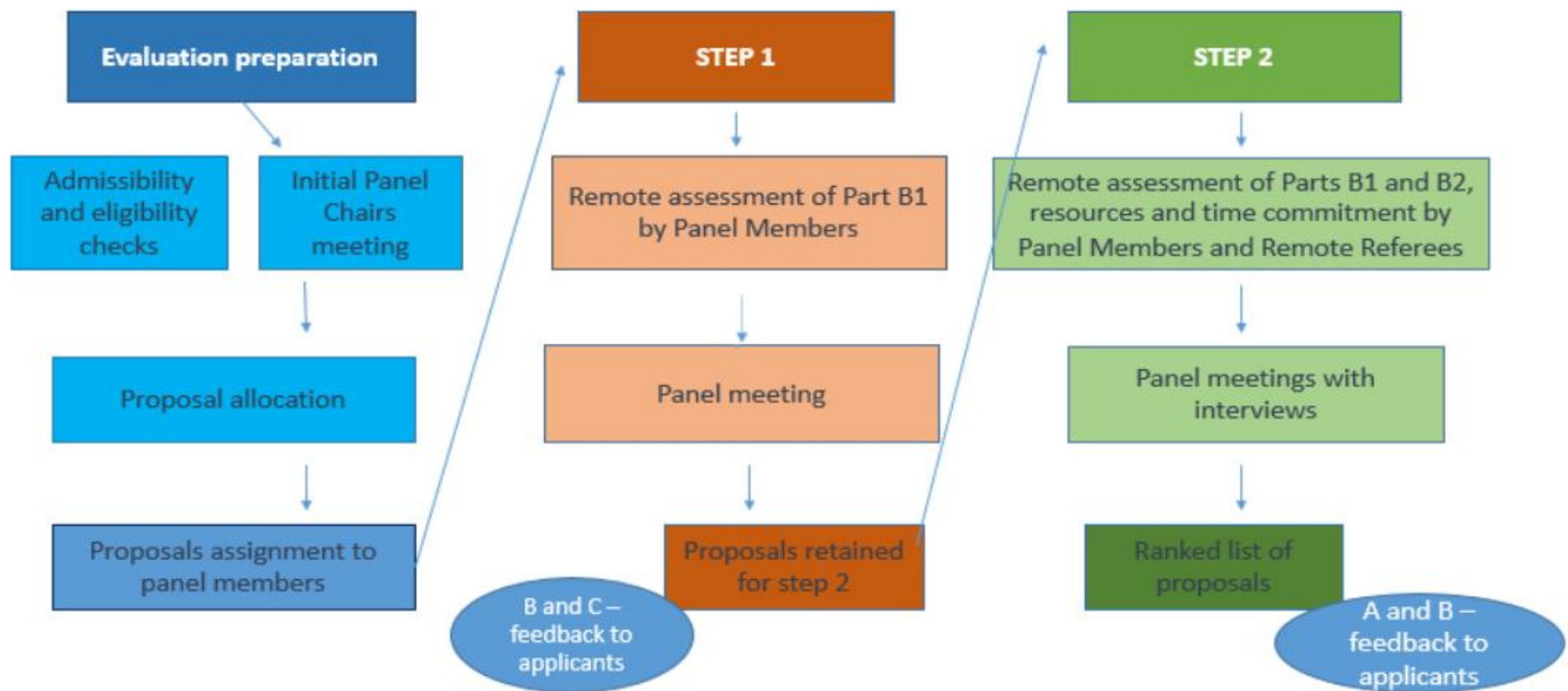
- Intellectual capacity
- Creativity
- Commitment

ERC Evaluation Process (StG/CoG/AdG)



European Research Council

Established by the European Commission



Where to Find More Information



European Research Council

Established by the European Commission



Videos - ERC Classes

- What to consider before applying
- How to fill in the application
(Part B1 and B2)
- The interview
- How the evaluation works

https://www.youtube.com/watch?v=xbFbzkVWgCU&list=P_Ltv6FnsXqnXAYRk6HCErwMxwML0ZKoMcy