## The European Research Council

Funding Frontier Research

Maria Leptin ERC President Ljubljana, 8 June 2023





#### **ERC** mission

Established by the EU in 2007 "to reinforce excellence, dynamism and creativity in

European research", 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

#### Scientific freedom

- Scientific excellence as the sole criterion
- Support to the individual scientist no consortia!
- No predetermined subjects "bottom-up"
- Support for frontier research in all fields of science and humanities
- International peer-review







### **ERC Scientific Council**



Maria LEPTIN (Biology) **ERC President** 



Eystein JANSEN (Earth Science) Vice-President



Jesper SVEJSTRUP (Biology) Vice-President



Geneviève ALMOUZNI (Biology)



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Gerd GIGERENZER (Psychology)



Tom HENZINGER (Computer Science)



Liselotte HØJGAARD (Medicine)



Dirk INZÉ (Plant Biology)



László LOVÁSZ (Mathematics)



Chryssa KOUVELIOTOU



Sylvie LORENTE (High-Energy Astrophysics) (Mechanical Engineering)



Eveline CRONE (Psychology)

Luke O'NEILL (Biochemistry & Immunology)



Björn OTTERSTEN (Electric Engineering)



Giovanni SARTOR (Law)



Nicola SPALDIN (Materials Theory)



Alice VALKÁROVÁ (Physics)



Milena ŽIC FUCHS (Linguistics)









## ERC in figures



Over **13,000** top researchers funded since the ERC creation in 2007



Over **90,000** researchers and other professionals employed in ERC research teams



Over **2,400**patents and other IPR applications generated by ERC funding



Over **400** start-ups identified as founded or co-founded by ERC grantees



Over **220,000** articles from ERC projects published in scientific journals



Over 900 research institutions hosting ERC grantees – universities, public or private research centres in the EU or Associated Countries



89 nationalities of grant holders



12 Nobel Prizes, 6 Fields Medals, 11 Wolf Prizes and other prizes awarded to ERC grantees





# In the top league of 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 coauthorship of the 50 funders most frequently acknowledged by authors in the Web of Science between 2007 and 2016."

(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 citationimpact	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 <sup>7</sup>	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%

## Impact beyond science

- 44% of ERC grants generated research subsequently cited in patent applications
- Proportion by domain:

Life sciences 61%

Physical sciences and engineering 46%

Social sciences and humanities 7%

- predominance in: biotechnology, pharmaceuticals, computer technology, organic fine chemistry, measurement, and semiconductors
- 11% of ERC grantees created companies or transferred results of their research to pre-existing companies

https://erc.europa.eu/sites/default/files/2023-01/Assessing\_the\_Influence\_ERC-funded\_Research\_Patented\_Inventions.pdf



# Novelties in the ERC Work Programme 2024 (I) Research assessment

#### Focus on the research project



- ERC panels will primarily evaluate the ground-breaking nature, ambition, and feasibility of the project.
- They will also evaluate the intellectual capacity, creativity, and commitment of the applicant, with a focus on the extent to which she/he has the excellence and required scientific expertise to successfully execute the proposed project.

#### Broad assessment of the applicant





- Curriculum Vitae and Track Record: one document, structured
- Up to 10 research outputs that demonstrate how the applicant has advanced knowledge
- Selected examples of significant peer recognition
- Noteworthy contributions to the research community, career breaks or unusual career paths. These will not in themselves be evaluated but are important to provide context.

## Novelties in the ERC Work Programme 2024 (II)

#### Evaluation procedure



- At most 44 proposals to step 2
- Proposals scored A at step 1 but not taken to interview may be re-submitted the following year.

#### Lump-sum funding for Advanced grants

- 2024 Advanced grants: awarded as a **single lump sum**
- Final payment will be based on the work carried out and reported, irrespective of the "successful" outcome of the project activities.



- Additional funding (equipment, access to research facilities) remains available and will be made part of the lump sum.
- Portability of grant maintained.





## ERC-funded projects by country of Host Institution

21 ERC main grants based in Slovenia

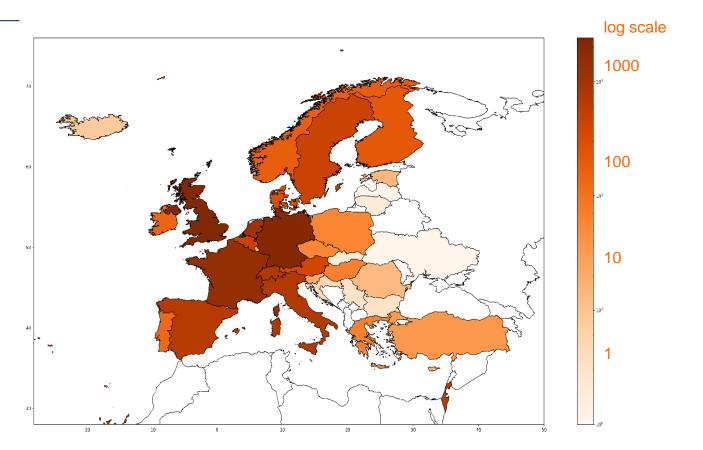
Total value over 40 million euro

Success rate: 1% in FP7 5% in H2020 8% in Horizon Europe

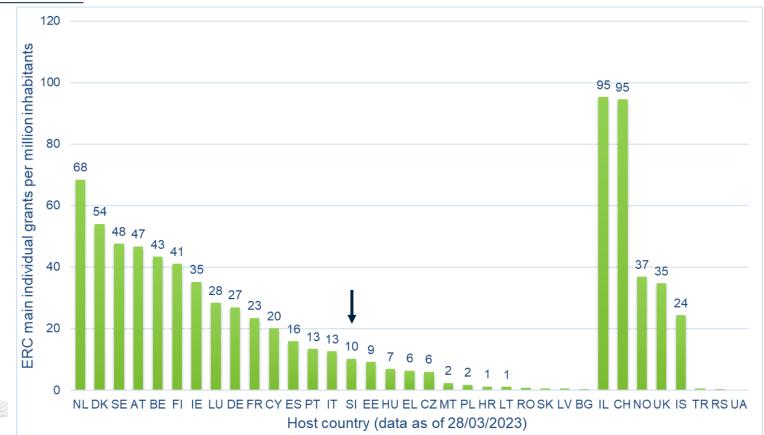
Host countries as of 28/03/2023







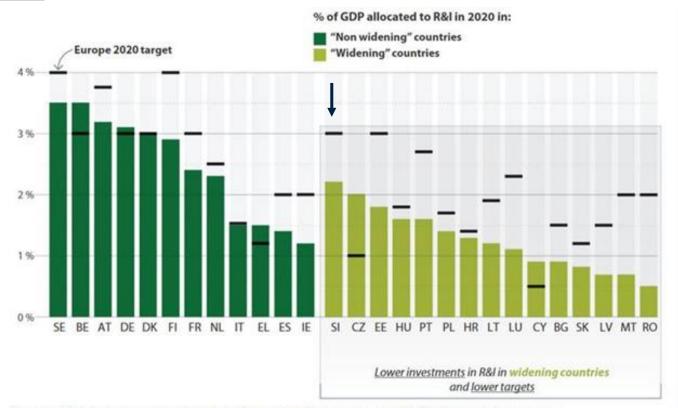
## ERC main grants per population







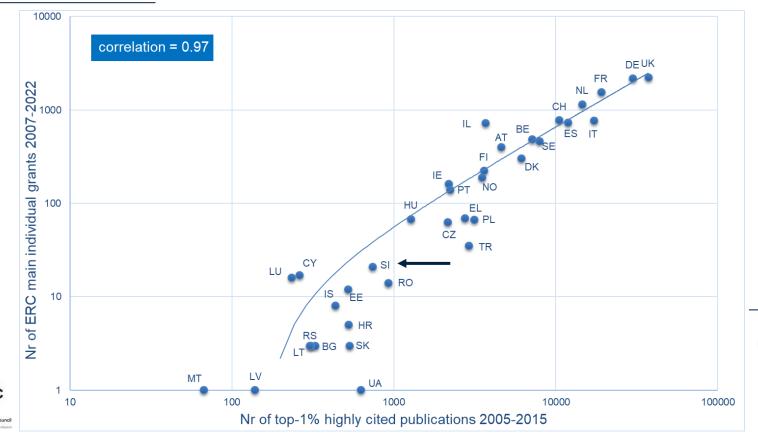
## % of GDP allocated to R&I in 2020 (EU countries)







## ERC main grants versus top publications



Linear fit

Host countries as of 28/03/2023

## Summary of ERC grants in Slovenia

Host Institution (data as of 28/03/2023)	StG	CoG	AdG	Total	PoC	Synergy grantees
University of Ljubljana	3	1	5	9	1	1
Jozef Stefan Institute	3		3	6	2	
National Institute of Chemistry	1		3	4	2	
InnoRenew CoE Izola		1		1		
Science and Research Centre Koper (ZRS Koper)			1	1		
Total	7	2	12	21	5	1

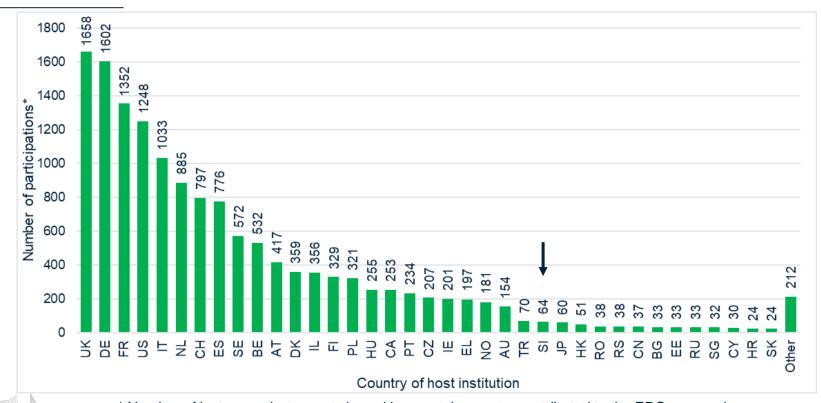
• In addition, 10 nationals of Slovenia are based with their ERC main grants abroad (all of them already abroad at the time of application).





## ERC panel members by country of host institution

erc



<sup>\*</sup> Number of instances that experts based in a certain country contributed to the ERC peer review (based on the ERC calls StG, CoG, AdG and SyG 2007-2022) – total number of participations:14,698

## ERC measures for widening European participation

#### **ERC Visiting Fellowship Programmes**

- for potential ERC applicants to visit and gain experience with ERC-funded teams
- duration of the visits: 1-6 months
- visiting fellows must apply for an ERC grant in a specified timeframe
- national/regional agencies cover the travel and salary costs of the fellows for the duration of the visit

Slovenia: 18 researchers visited ERC teams 15 applied to ERC calls 2 won an ERC gran

#### **ERC Mentoring Initiative**

- ERC Grantees and former expert evaluators to provide training, scientific feedback, and other forms of mentoring to ERC applicants
- Yearly calls for interest among its grantees and former expert evaluators => list provided to target countries via the National Contact Points (NCPs)



### Thank You!

More information: erc.europa.eu



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