

The European Research Council

Funding opportunities for frontier science
Ensuring equal treatment of applicants

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20.07.2024

ICHEP 2024 | PRAGUE



European Research Council

Established by the European Commission

ERC funding - Individual grants

Starting Grants

starters

(2-7 years after PhD)

up to € 2.5 Mio
for 5 years

Consolidator Grants

consolidators

(7-12 years after PhD)

up to € 3 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

**Extensions of the eligibility track-record period
are possible for several circumstances**



ERC **bigger** and smaller grants



Synergy grant

Size of the grant: €10 million + up to €4 million

Duration: up to 6 years

Team composed of 2 to 4 researchers and their research groups
(one researcher can be based outside EU+AC)



Proof of Concept

Size of the grant: €150 000

Duration: up to 18 months

Linked to an individual ERC grant, must show that the initial idea funded has innovation potential and significant economic or societal benefits

Open calls and 2025 Call Calendar

<https://erc.europa.eu/news-events/news/erc-work-programme-2025-adopted>

ERC calls	Call Opening	Submission Deadline
Starting Grants ERC-2025-StG	10/07/2024	15/10/2024
Consolidator Grants ERC-2025-CoG	(26/09/2024)	14/02/2025
Advanced Grants ERC-2024-AdG	(2025: 22/05/2025)	29/08/2024 (28/08/2025)
Synergy Grants ERC-2025-SyG	11/07/2024	06/11/2024
Proof of Concept ERC-2023-PoC	(13/11/2024)	13/03/2025, 18/09/2025



PE2: Fundamental Constituents of matter

Particle, nuclear, plasma, atomic, molecular, gas, and optical physics

- PE2_1 Theory of fundamental interactions
- PE2_2 Phenomenology of fundamental interactions
- PE2_3 Experimental particle physics with accelerators
- PE2_4 Experimental particle physics without accelerators
- PE2_5 Classical and quantum physics of gravitational interactions
- PE2_6 Nuclear, hadron and heavy ion physics
- PE2_7 Nuclear and particle astrophysics
- PE2_8 Gas and plasma physics
- PE2_9 Electromagnetism
- PE2_10 Atomic, molecular physics
- PE2_11 Ultra-cold atoms and molecules
- PE2_12 Optics, non-linear optics and nano-optics
- PE2_13 Quantum optics and quantum information
- PE2_14 Lasers, ultra-short lasers and laser physics
- PE2_15 Thermodynamics
- PE2_16 Non-linear physics
- PE2_17 Metrology and measurement
- PE2_18 Equilibrium and non-equilibrium statistical mechanics: steady states and dynamics

**Over 40
new grants
every year,
worth ~
100 MEuro**



A few words on the evaluation (i)

“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**

A few words on the evaluation (ii): general

Read the Work Programme and related documents (erc.europa.eu).

Contact your National Contact Point for their views and support.

Read granted projects (cordis.europa.eu), consult grantees.

Write a relevant and informative abstract – help the evaluators!

Avoid hyping.

Be concrete: describe specific activities and how they lead to the objectives.

Look for a good balance in providing details.

Do not be discouraged: reapply!

A few words on the evaluation (iii): the project

The originality and potential of the proposal must be convincing.

Be your fiercest critic: Is it really an innovative idea? Does it go beyond the state of heart? Does it have the potential to open new ways and new ground? Can you argue why to expect success, despite the risks? Is it feasible with the expected means and the time available?

You need to excite at least one panel member to be a champion fighting for your proposal. Explain clearly the “whys” and the “hows” supporting your project. **You need to convince other physicists of its relevance.**

Finally, will you be able to convince the world experts in the area?

Well, then, go for it!



A few words on the evaluation (iv): the PI

The individual role of the PI must be clear.

You do not need to be the only one, nor even perhaps the best one.

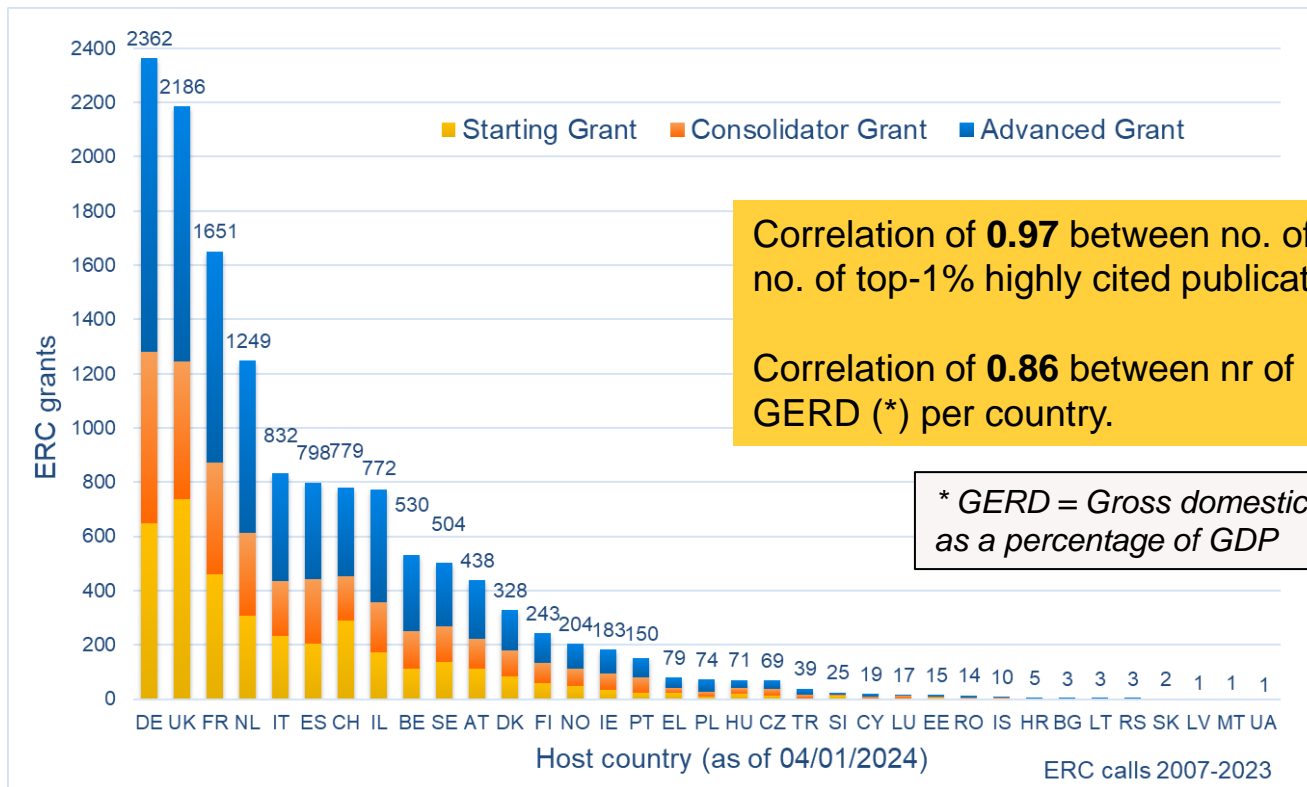
But you need to convince that it is your idea, your project, that you are self-propelled and that you have the competence to carry it out.

Your autonomous capacity will be put to the test. In the cv, explain why you have the competences needed for the project, and describe honestly your contributions to the works you mention.

Do not force the panel to speculate: tell them what they should know in order to be convinced, about you and the *mores* of your community.



ERC-funded projects by country of Host Institution



Correlation of **0.97** between no. of ERC grants and no. of top-1% highly cited publications per country.

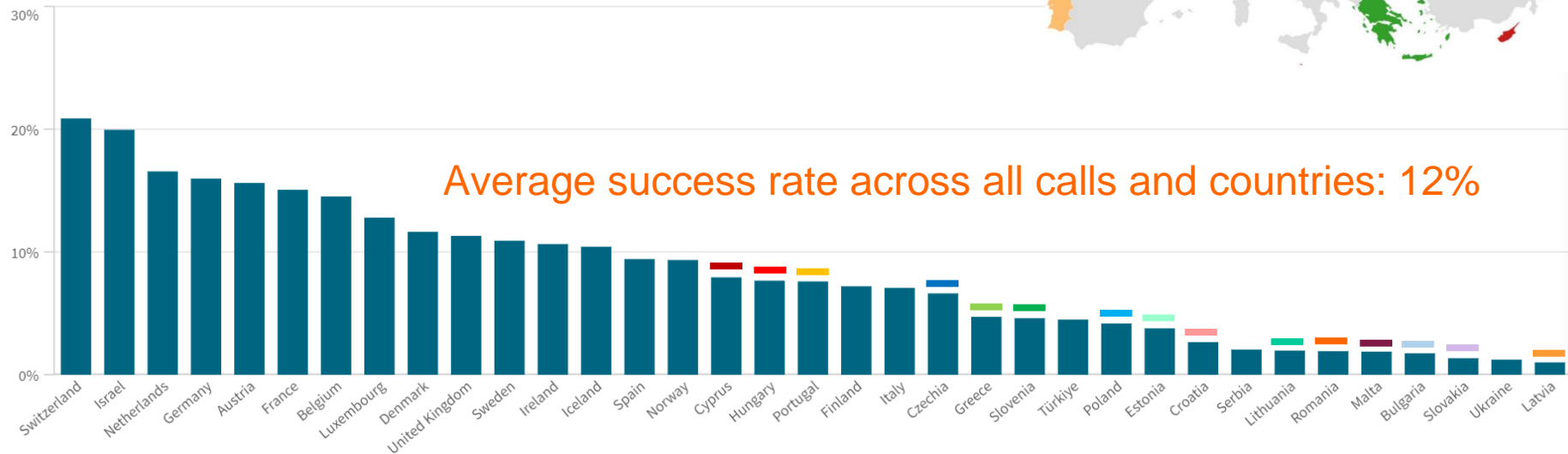
Correlation of **0.86** between nr of ERC grants and GERD (*) per country.

* GERD = Gross domestic expenditure on R&D as a percentage of GDP

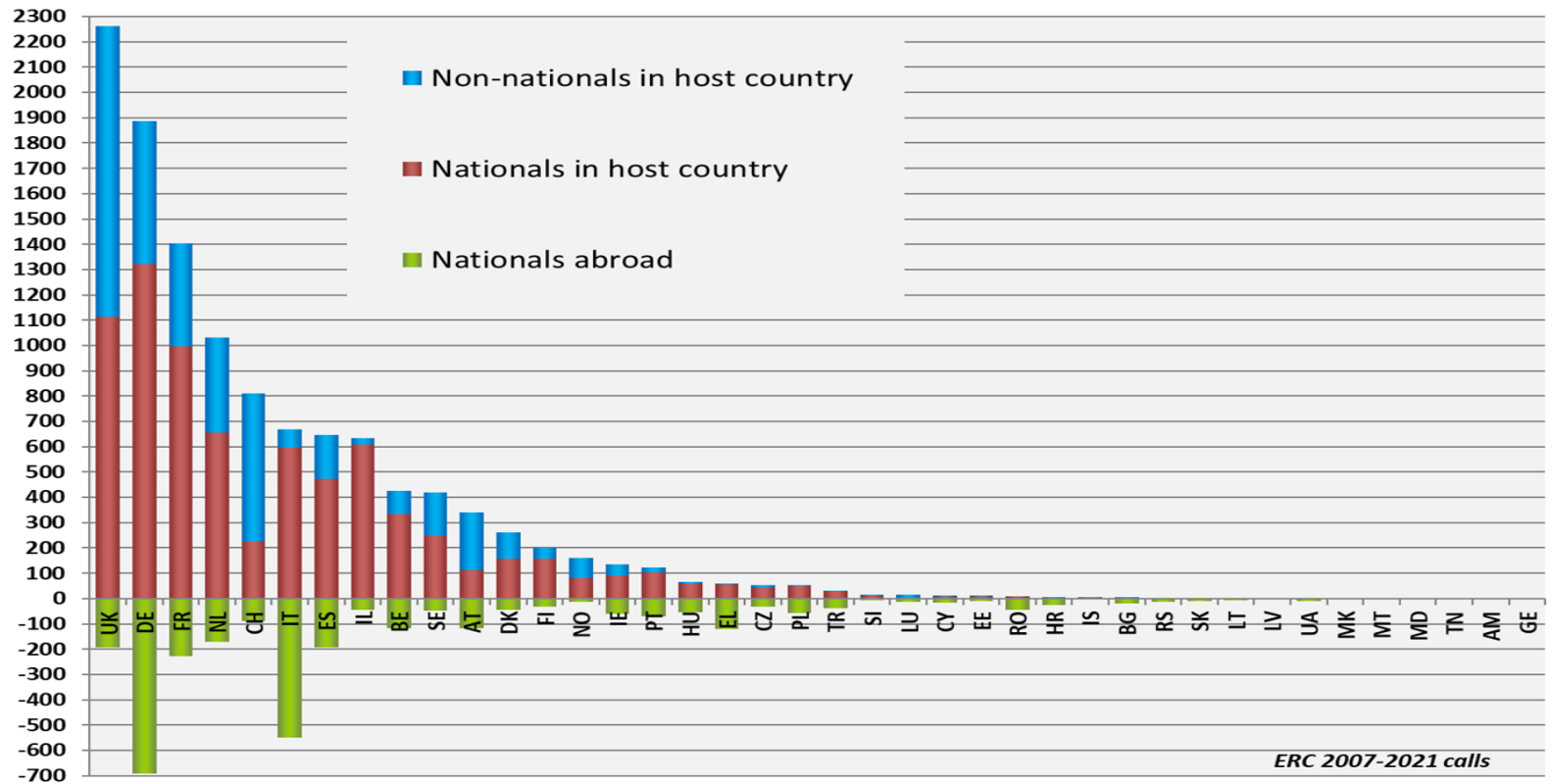
Success rate by country of Host Institution



Success rate by country



International distribution of ERC grantees



ERC 2007-2021 calls



ERC Visiting Fellowship Programmes (VFP)

ERC promotes the efforts of national and regional authorities that set up and fund mobility programmes to allow potential ERC candidates to visit and gain experience with ERC-funded teams.

VFP in few points:

- Duration of visits 1-6 months (*up to 2019 the minimum duration was 3 month*).
- Visiting fellows commit to apply for an ERC grant in specified timeframe.
- Visiting fellows need to have a letter of support of the proposed host researcher and institution when applying.
- National/regional funding agencies cover the travel and salary costs of the fellows for the duration of the visit.



ERC VFP participation

Nine countries/regions participate in the scheme:

- Czech Republic (not participating since 2021)
- Estonia
- Poland (not participating since 2020)
- Slovenia
- Belgium (Flanders region)
- Slovak Republic - SAS & Pavol Jozef Safarik University in Kosice – UPJS (since 2020)
- Croatia
- Georgia (new in 2018)
- Hungary (not participating since 2018)
- Politehnica University of Bucharest (new in 2019)
- Republic of Serbia (new in 2020)
- Italy – CNR (new in 2021) & University of Venice - Ca' Foscari (will join in 2022)



ERC Mentoring Initiative

ERC wishes to contribute to national programmes that support ERC applicants in less performing countries.

These national programmes often lack access to international expertise to mentor ERC applicants.

To address the problem, ERC identifies a pool of mentors among its grantees and former evaluators, available to provide training, scientific feedback, and other forms of mentoring to ERC applicants in less performing countries.

How: ERC launches yearly calls for interest among its grantees and former evaluators. The list is provided to target countries via the National Contact Points.



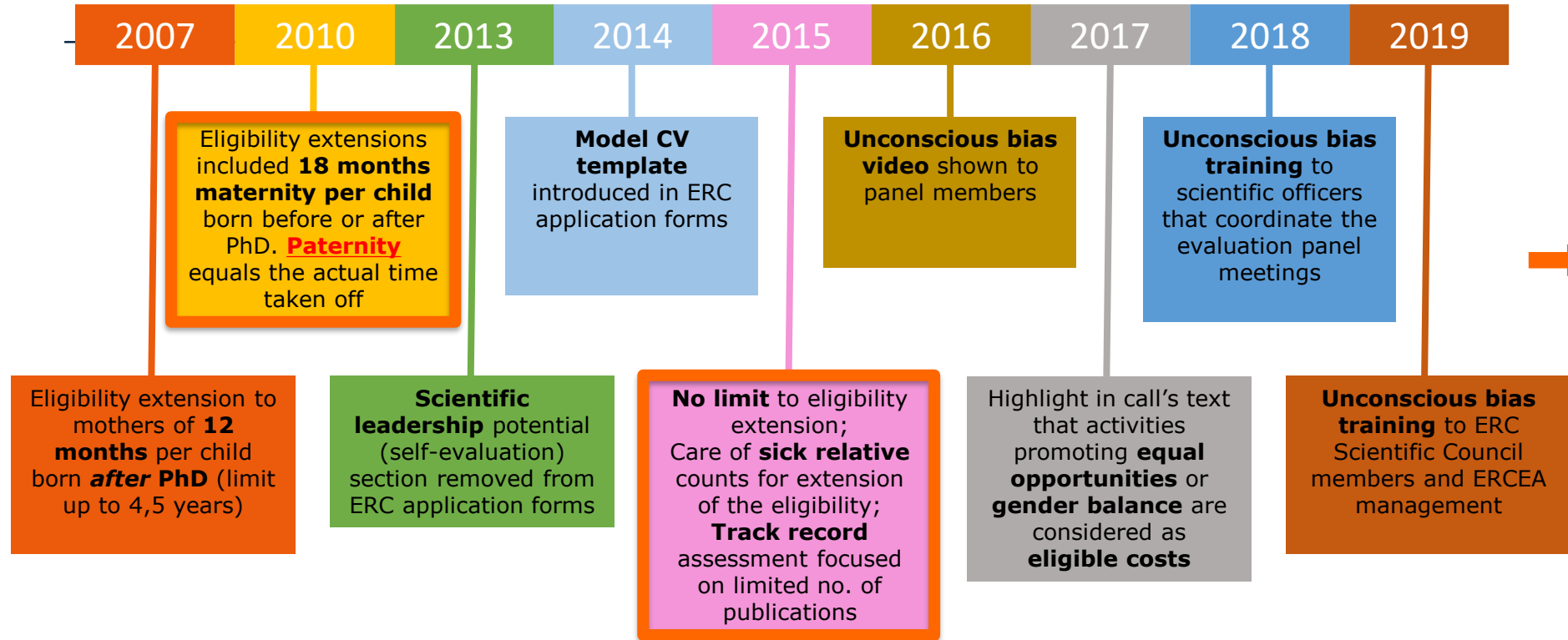
ERC Mentoring Initiative

Participant countries in 2024:

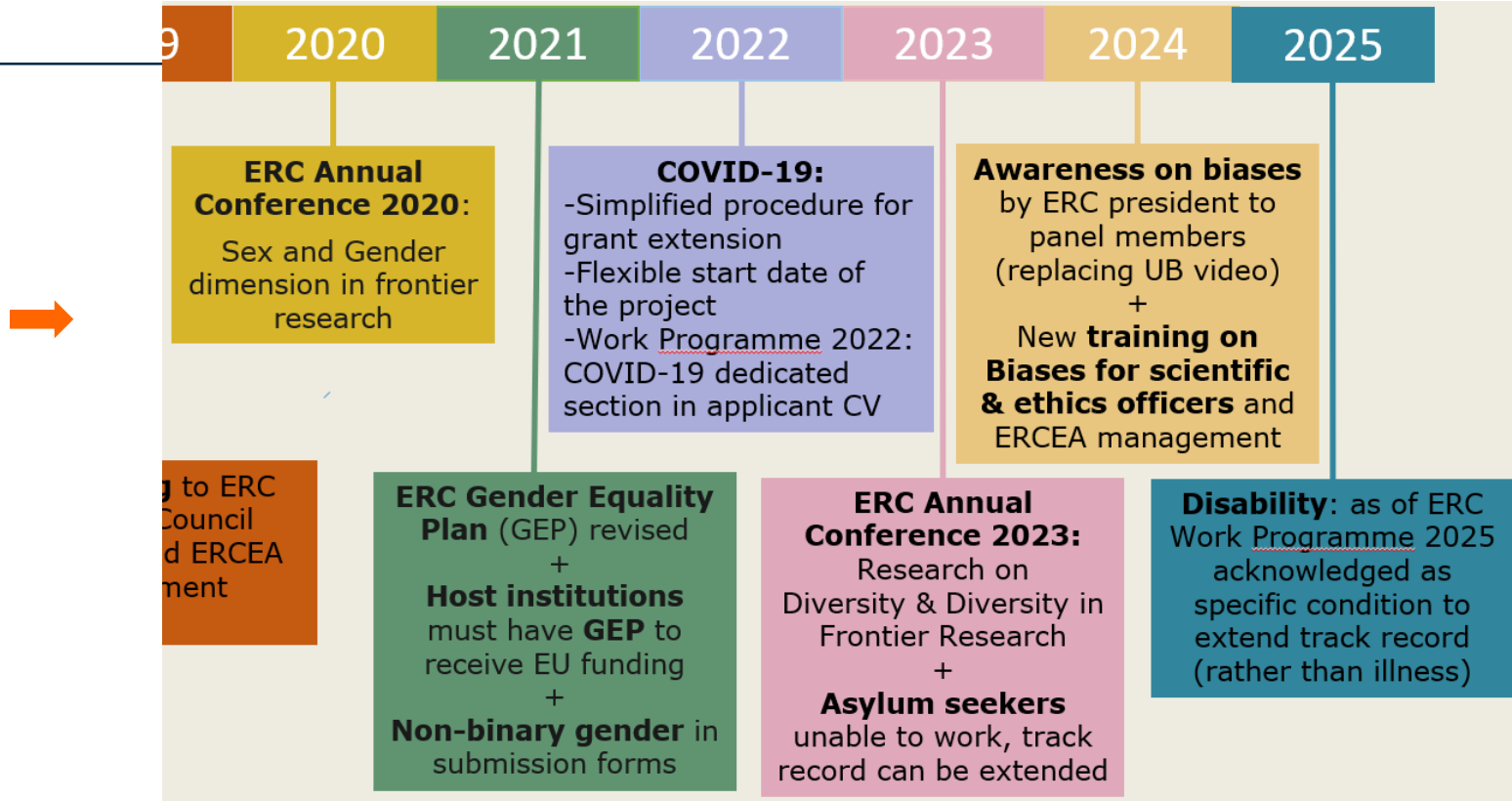
- Cyprus
- Czech Republic
- Estonia
- Hungary
- Italy
- Malta
- Poland
- Slovakia
- Turkey
- Ukraine (from 2024)
- Luxembourg
- Georgia (from 2024)
- Latvia

The programme involved a total of
400 ERC mentors and 100 mentees

Working for equal treatment (i)



Working for equal treatment (ii)



Gender Equality Plan in HE

(this is just a tool, not a magic wand)

For calls with deadlines in 2022 and onwards, having a **Gender Equality Plan** (GEP) is an **eligibility criterion** for all public bodies, higher education institutions and research organisations wishing to participate in Horizon Europe.

A valid **Gender Equality Plan** must:

- Be a formal document endorsed by the institution head and publically available
- Have dedicated resources
- Include arrangements for data collection and monitoring
- Be supported by training and capacity-building

https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/democracy-and-rights/gender-equality-research-and-innovation_en#gender-equality-plans-as-an-eligibility-criterion-in-horizon-europe

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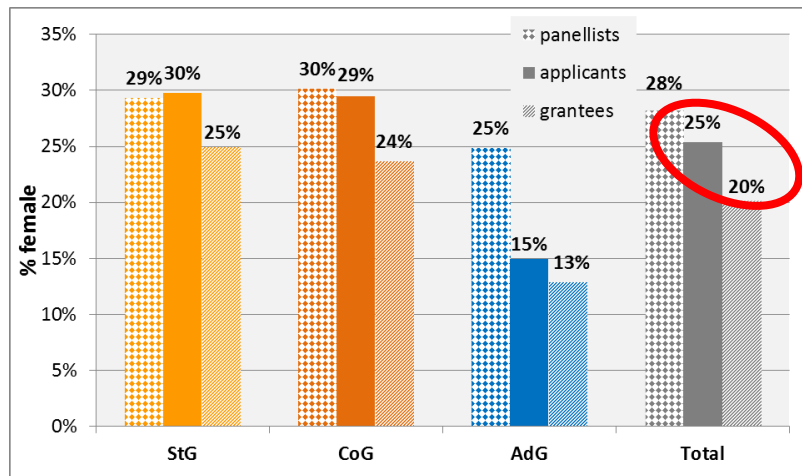
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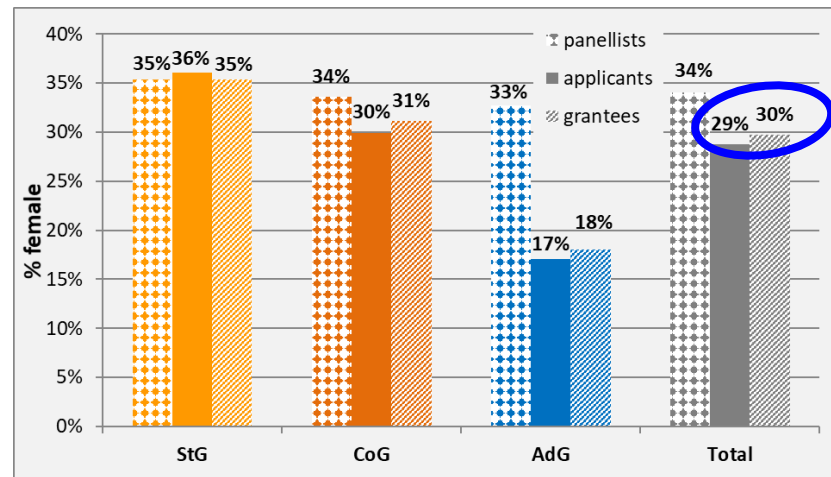
Women participation by call

Data kindly provided by Department A

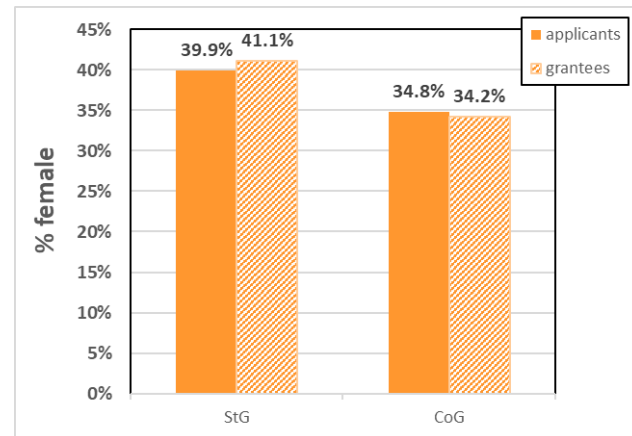
ERC Calls FP7 2007-2013



ERC calls H2020 (2014-2020)



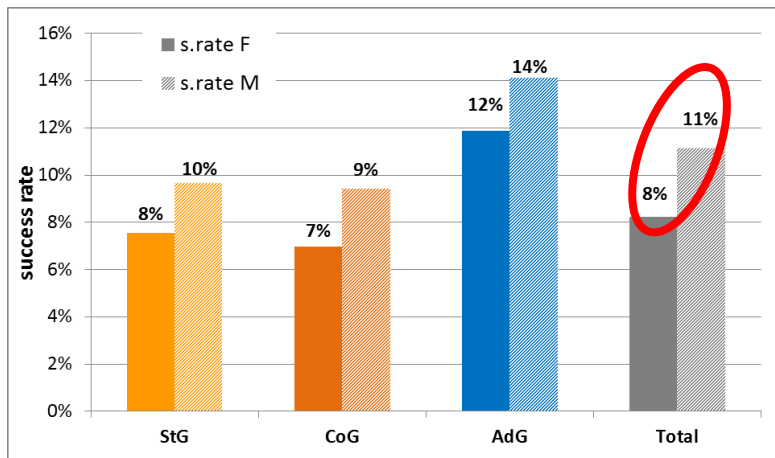
ERC Horizon Europe calls 2021, 2022



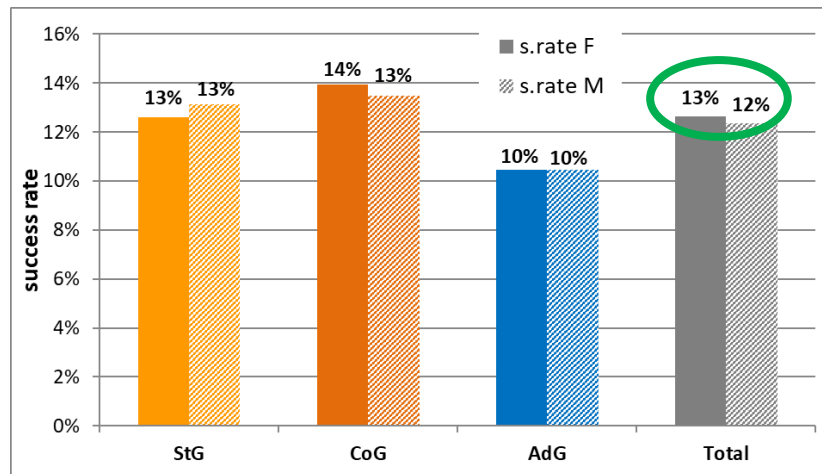
Success Rate by call type

Data kindly provided by Department A

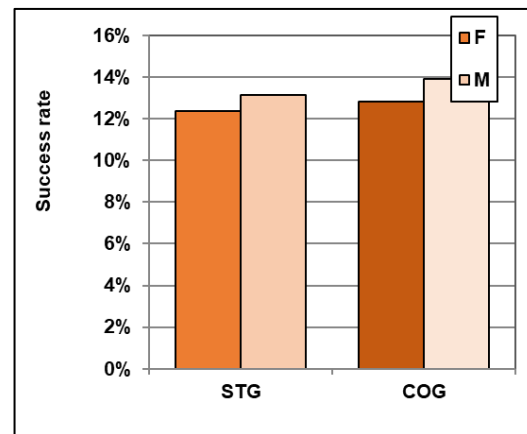
ERC Calls FP7 2007-2013



ERC calls H2020 (2014-2020)



ERC Horizon Europe calls 2021, 2022



In summary

ERC strives to

- * really make scientific excellence our only criterion and*
- * maintain fairness to all applicants as a fundamental guiding principle*



Děkuji ! Thank You!

More information: erc.europa.eu



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