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Features of the ERC calls 2019-2020

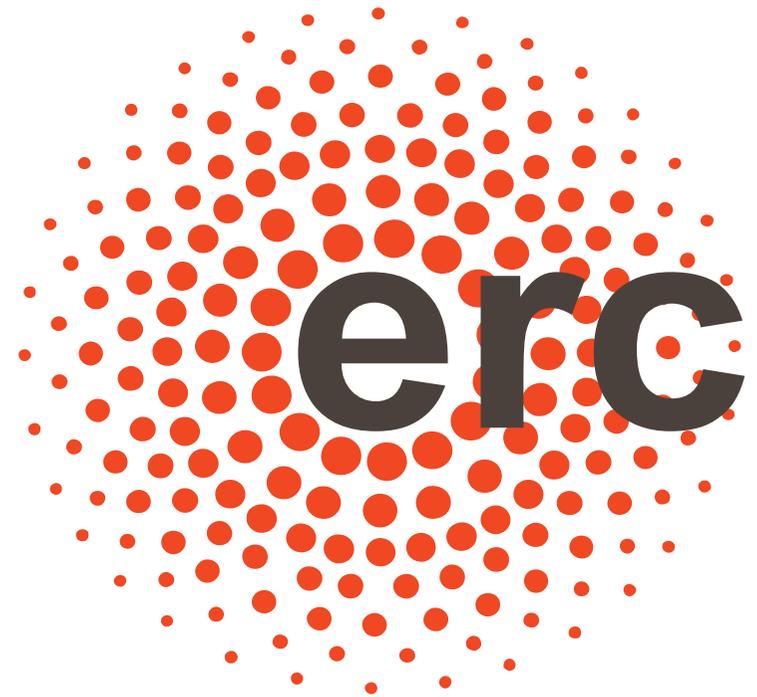
11 January 2019

Janne Salo

Scientific officer

ERC Executive Agency

Scientific Management Department



The way we fund research makes a big difference



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the NATIONAL BUREAU *of* ECONOMIC RESEARCH

"Despite its presumed role as an engine of economic growth, we know surprisingly little about the drivers of scientific creativity. In this paper, we exploit key differences across funding streams within the academic life sciences to estimate the impact of incentives on the rate and direction of scientific exploration. Specifically, we study the careers of investigators of the Howard Hughes Medical Institute (HHMI), which tolerates early failure, rewards long-term success, and gives its appointees great freedom to experiment; and grantees from the National Institute of Health, which are subject to short review cycles, pre-defined deliverables, and renewal policies unforgiving of failure. Using a combination of propensity-score weighting and difference-in-differences estimation strategies, we find that HHMI investigators produce high-impact papers at a much higher rate than a control group of similarly-accomplished NIH-funded scientists. Moreover, the direction of their research changes in ways that suggest the program induces them to explore novel lines of inquiry."

Incentives and Creativity: Evidence from the Academic Life Sciences
Pierre Azoulay, Joshua S. Graff Zivin, Gustavo Manso
NBER Working Paper No. 15466
Issued in October 2009

ERC Grant Schemes

Starting Grants

- PI 2-7 years after PhD
- Up to 1.5 (2.0*) M€
- Up to 5 years

Consolidator Grants

- 7-12 years after PhD
- Up to 2 (2.75*) M€
- Up to 5 years

Advanced Grants

- 10-year track-record of significant achievements
- Up to 2.5 (3.5*) M€
- Up to 5 years

Proof-of-Concept

Earliest stage of marketable innovation
€150,000 for ERC grant holders

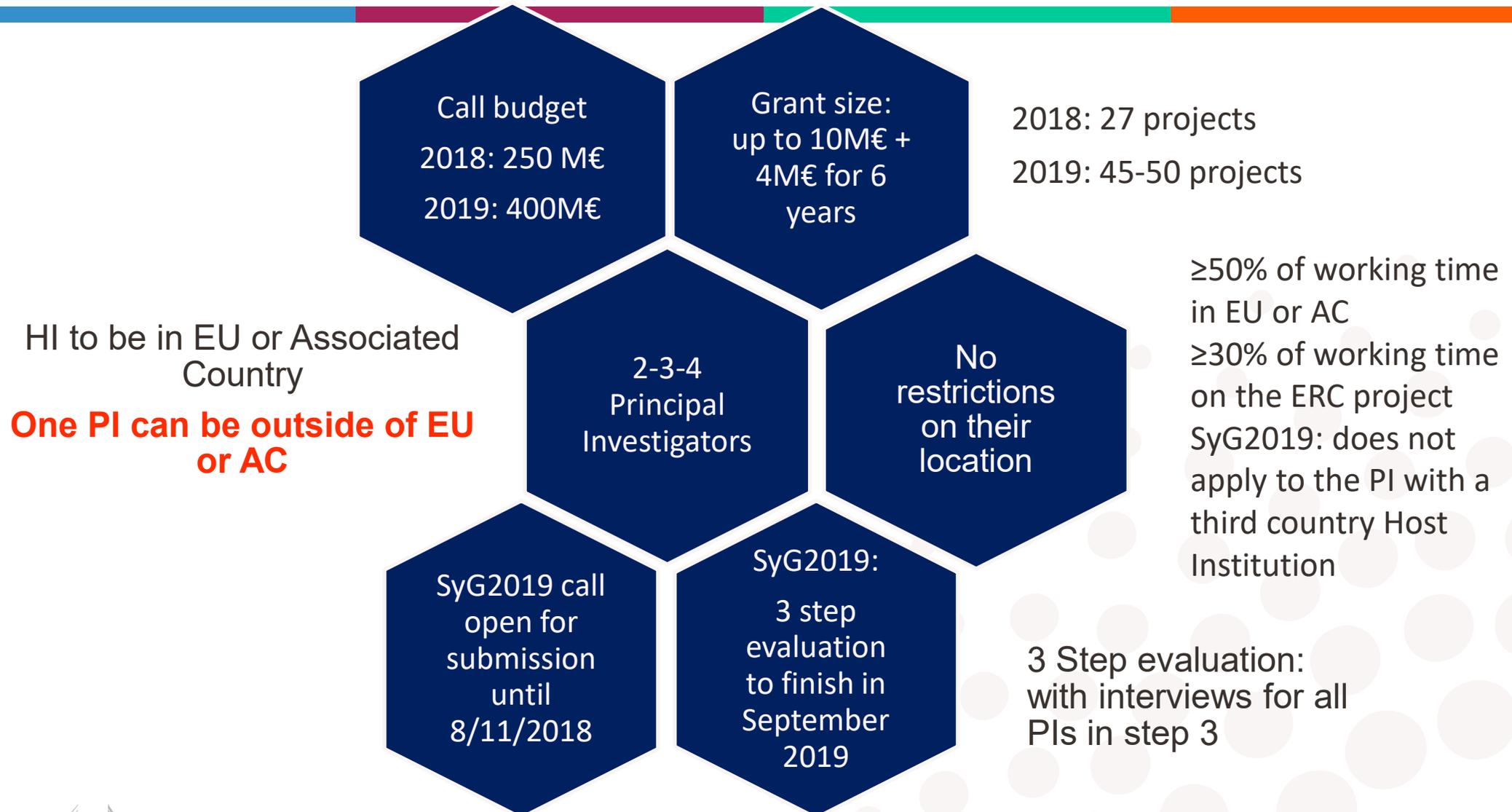
Synergy Grants

Jointly for 2-4 principal investigators
Up to 10 (14*) M€, 6 years

Starting / Consolidator / Advanced Grants

- Funding for a single research group led by the principal investigator
- But can have two or more participating institutions if necessary for the project
 - Eligible costs: salaries (PI, postdocs, students, technical staff), equipment, consumables, travel, publication costs etc. +25% overheads
- The host institution is NOT an evaluation criteria
- The PI can move the grant to another host institution during the project
- The PI can be of any nationality; the host institution must be in a EU member state or an associated country

Synergy call in a nutshell



Proof of Concept grants

Proof of
Concept
Grants

Synergy
Grants

Advanced
Grants

Consolidator
Grants

Starting
Grants

Frontier research

- **Who can apply:** Holders of an ERC grant with an idea substantially drawn from an ERC-funded project
- **What for:** establish the innovation potential of the idea: technical validation, market research, clarifying IPR strategy, investigating business opportunities
- **Amount:** €150,000 per grant (18 months)
Total budget for 2019: € 25million
- **Evaluation:** Experts in technology transfer check the innovation potential and that the plan is reasonable

Eligibility of the principal investigator

	Starting Grant	Consolidator Grant	Advanced Grant and Synergy Grant
Specific Eligibility Criteria	<p>Principal Investigator shall have been awarded his or her first PhD</p> <p>> 2 and ≤ 7 years</p> <p>prior to 1 January 2020 (for 2020 StG call - PhD awarded from 1 January 2013 to 31 December 2017)</p>	<p>Principal Investigator shall have been awarded his or her first PhD</p> <p>> 7 and ≤ 12 years</p> <p>prior to 1 January 2019 (for 2019 CoG call)</p>	<p>none</p>

Eligibility of the principal investigator

	Starting Grant	Consolidator Grant	Advanced Grant and Synergy Grant
Specific Eligibility Criteria	<p>Eligibility window can be extended in case of career breaks (maternity, parental leave, long-term illness, national service etc. See the work programme for details)</p> <p>> 2 and ≤ 7 years prior to 1 January 2020 (for 2020 StG call)</p> <p>Special case for medical doctors without PhD</p> <p>Documents must be included in the submission</p>		<p>none</p>

Submission of Proposals

Differences in Part B1 and Part B2



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Step 1: Panel members and cross-panel reviewers (if needed)

- Only Part B1 is evaluated!

Project

- Focus on the ground-breaking nature – no incremental research. Think big!
- Know your competitors – what is the state of play and why is your idea and scientific approach outstanding?
- Outline of the methodological approach.
- Do you have preliminary results? Is it feasible?
- Is it timely? Why wasn't it done already?
- Concise and clear presentation is crucial (some evaluators are generalists).

Submission of Proposals

Differences in Part B1 and Part B2



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Step 1: Panel members and cross-panel reviewers (if needed)

- Only Part B1 is evaluated!

Principal investigator

- Are you internationally competitive?
- Why are you the right person to carry out the project?
- Show your scientific leadership in your CV.
- Show your own contribution on your key publications (incl. papers published without your PhD supervisor).
- Select papers that highlight achievement, relevant expertise, collaborations and that support the narrative of your CV.
- Give a realistic picture of your collaborations – show that you can drive the collaborations.

Submission of Proposals

Differences in Part B1 and Part B2



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Step 1: Panel members and cross-panel reviewers (if needed)

- Only Part B1 is evaluated!

Principal investigator

Track record for AdG:

- Are you internationally competitive?
- Why are you the right person to carry out the project?
Only the last 10 years are taken into account!
- Show your scientific leadership in your CV.
- Show your own contribution on your key publications (incl. papers published without your PhD supervision).
Can be extended on the applicant's request in case of career breaks
- Give a realistic picture of the collaborations you can drive the project forward.
(see the work programme for details)

Submission of Proposals

Differences in Part B1 and Part B2



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Step 2: Panel members + external remote reviewers

- **Both Parts B1 and B2** are assessed.
- Do not just repeat the synopsis, don't copy-and-paste.
- Provide details on methodology, work plan, selection of case studies etc. Show that you know the alternative methodologies and argue why your choice is the best.
- Make sure that the quantitative and qualitative differences to the state of the art are clear and referenced.
- Check coherency of budget figures, justify requested resources.
- Explain involvement/profile of team members.
- Show that you understand the risks and provide alternative strategies to mitigate them.

Submission to Panels



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Proposals are submitted to a Panel of PI's choice:

- Choose a panel that can appreciate the potential breakthrough of the project.
- PI can flag one “Secondary Review Panel” (could be for methodology / applications / interdisciplinary proposals etc.)
- Explain the choice of the secondary panel.
- Panel chair can request cross-panel review(s) if the main panel does not have all necessary expertise.
- Panel chair can also request reviews from other active panel members across all calls (StG – CoG – AdG).

Transfer of proposals between panels may occur if:

- clear mistake on part of applicant.
- necessary expertise is only available in a different panel.
- both panel chairs agree on the transfer.



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ERC Panel Structure

Work Programme 2019 (and probably 2020)



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Life Sciences

- LS1 Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics
- LS2 Genetics, 'Omics', Bioinformatics and Systems Biology
- LS3 Cellular and Developmental Biology
- LS4 Physiology, Pathophysiology and Endocrinology
- LS5 Neurosciences and Neural Disorders
- LS6 Immunity and Infection
- LS7 Applied Medical Technologies, Diagnostics, Therapies and Public Health
- LS8 Ecology, Evolution and Environmental Biology
- LS9 Applied Life Sciences, Biotechnology, and Molecular 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

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

Preparing an application



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- **Register early**, get familiar with the system and templates and start filling in the forms.
- A submitted proposal can be **revised until the call deadline** by submitting a new version and overwriting the previous one.
- Follow the formatting rules and **page limits**.
- **Download and proof-read** the proposal before submitting.
- Show to some trusted colleagues and friends to check for clarity (but keep it confidential!)

Some typical reasons for rejection

Principal investigator

- Insufficient earlier achievements
- Insufficient leadership profile / lack of independence

Proposed project

- Scope: Too narrow \leftrightarrow too broad / unfocussed
- Incremental research/continuation of previous work
- The proposal does not acknowledge / mitigate risks
- The proposal does not show that the PI is ready to manage the project if funded

ERC grants in Finland

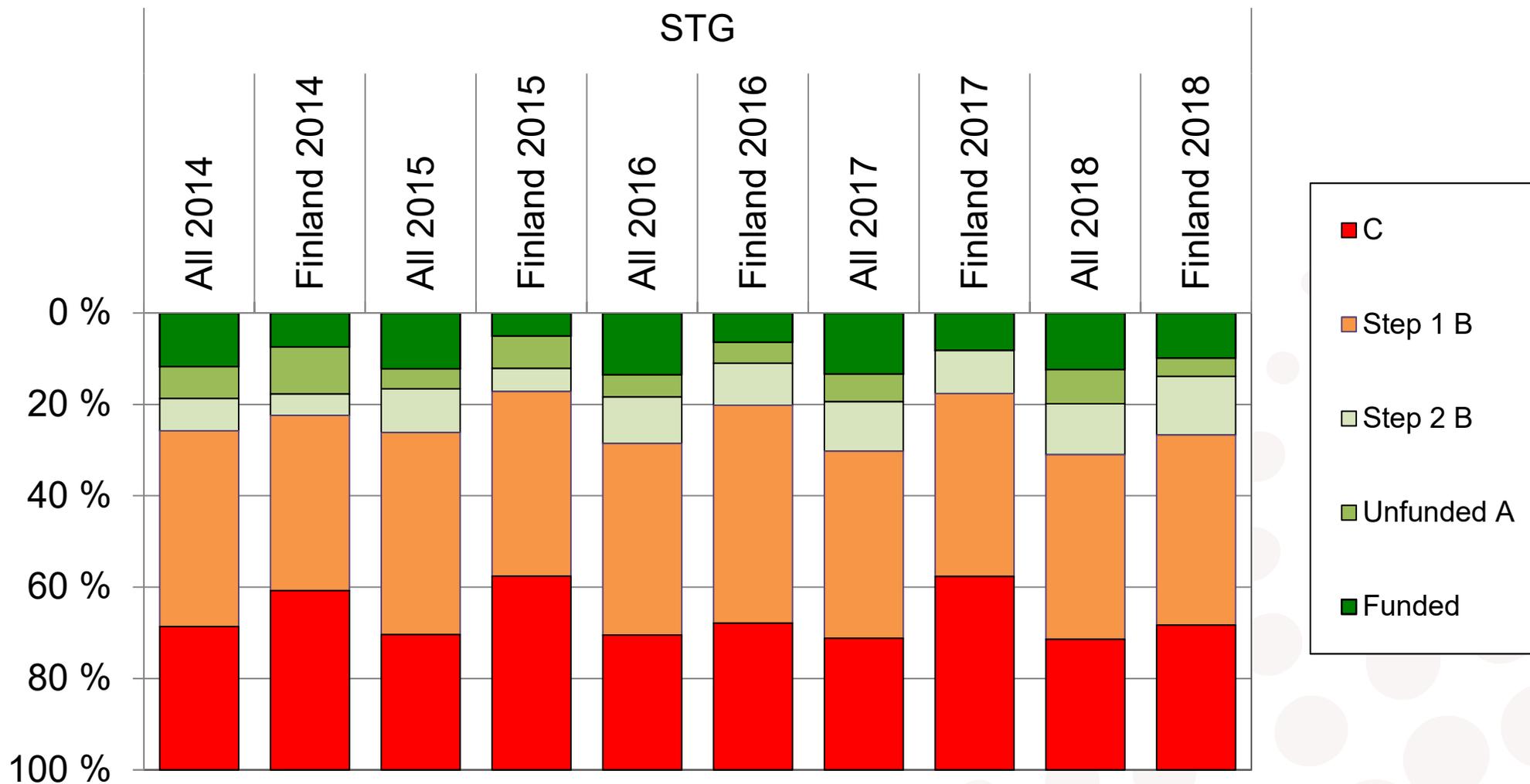
Results – Starting grants 2014-2018



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STG



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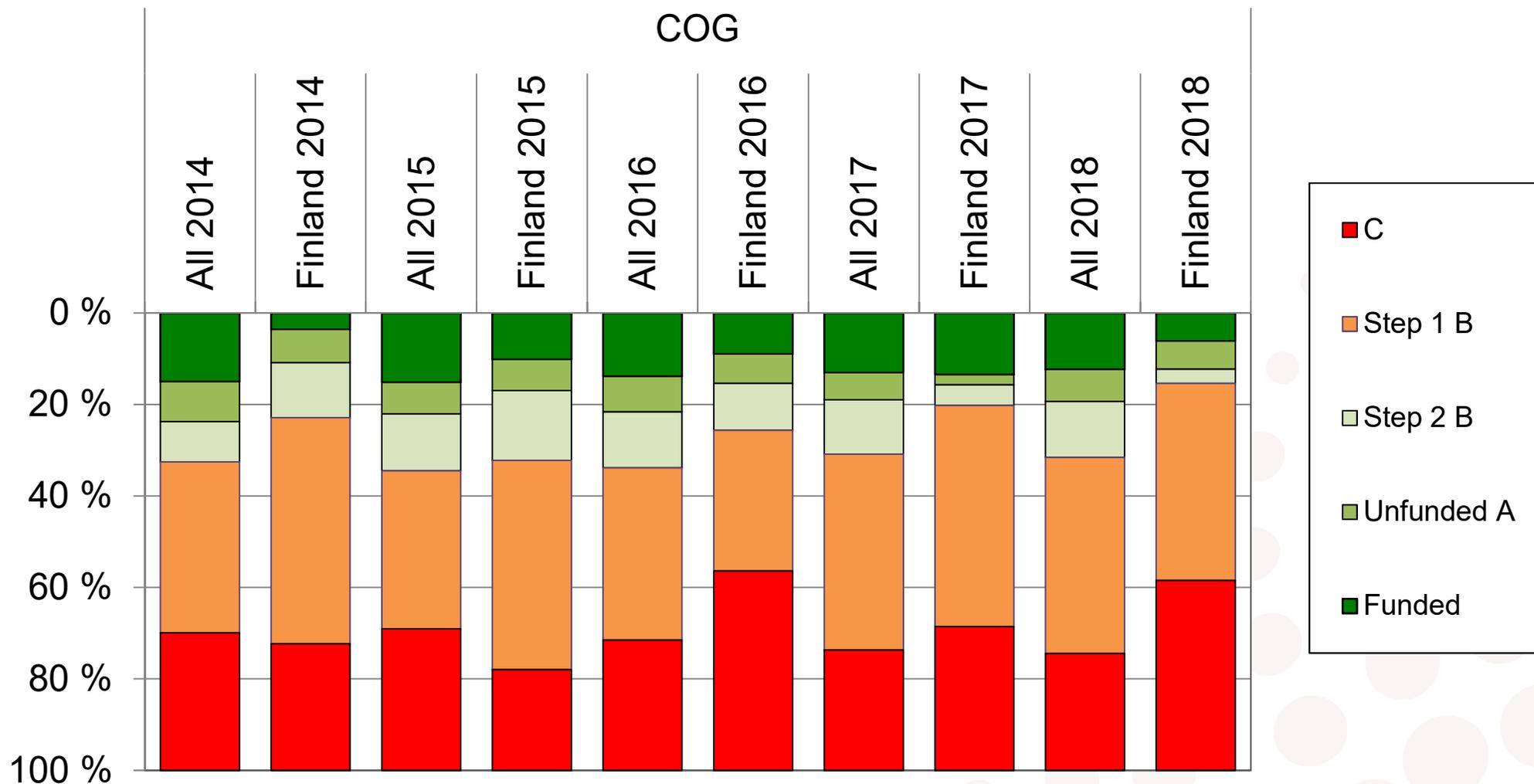
ERC grants in Finland

Results – Consolidator grants 2014-2018



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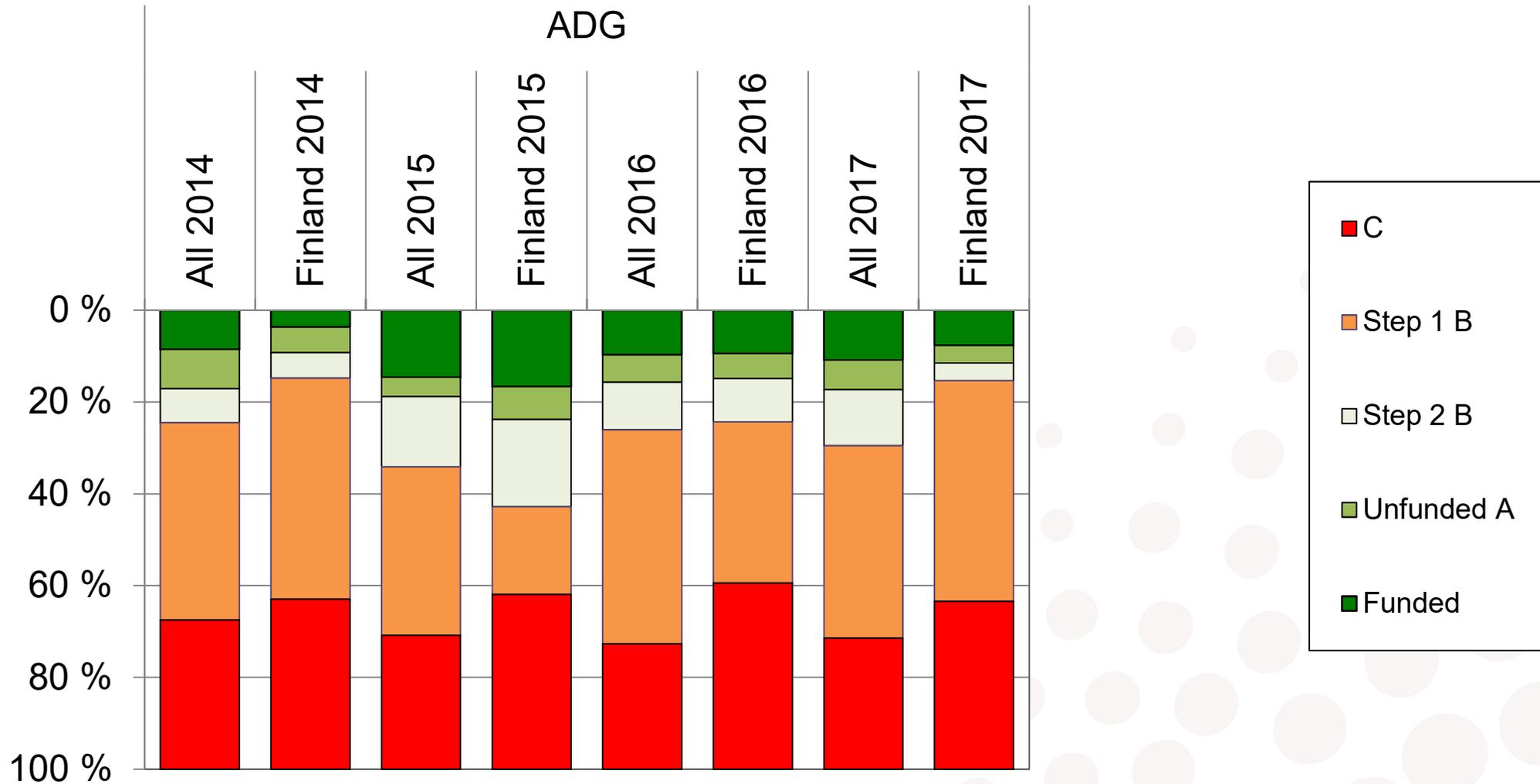
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ERC grants in Finland

Results – Advanced grants 2014-2017



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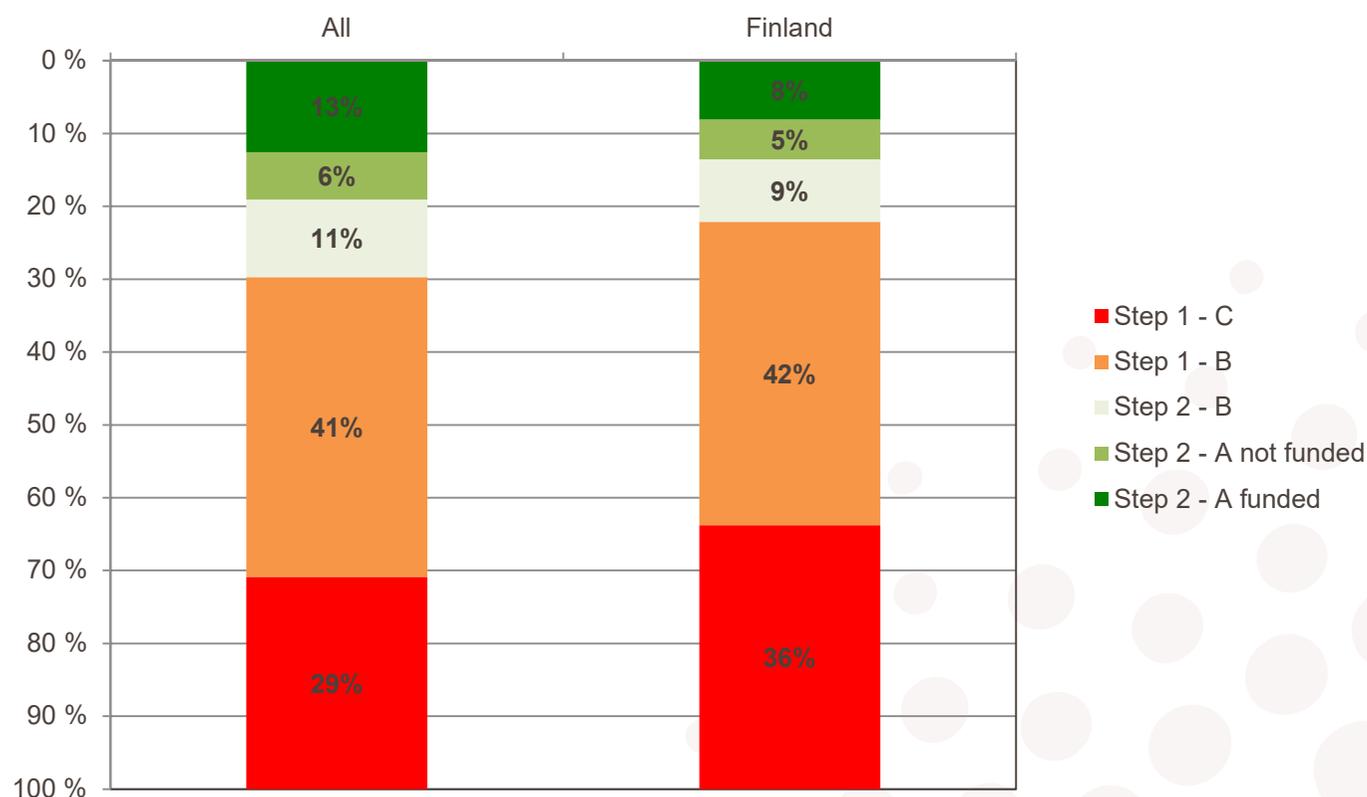
ERC grants in Finland

Results – Horizon 2020 all



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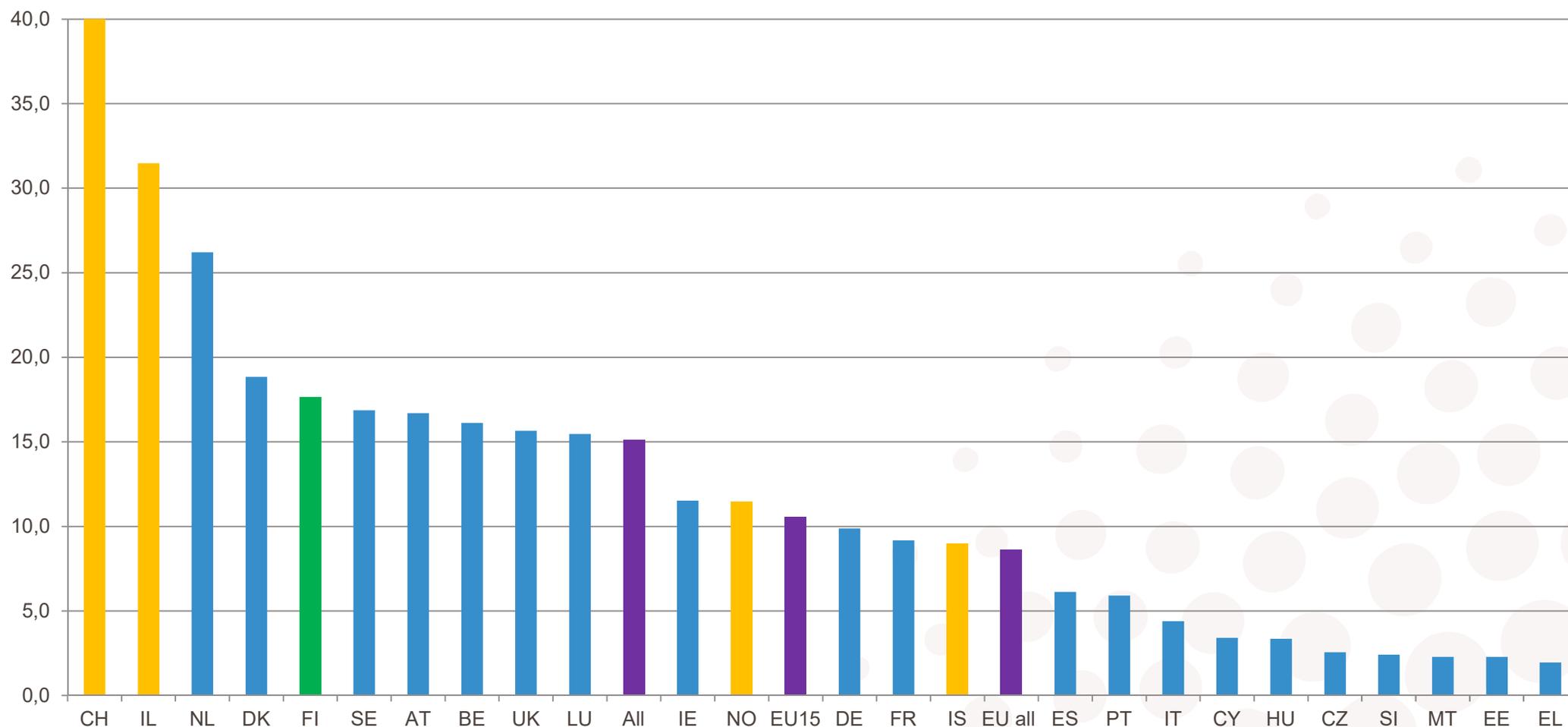
Numbers of grants / million people (on-going or signed)



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Grants / million people



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Scientific management of on-going grants

H2020 grants



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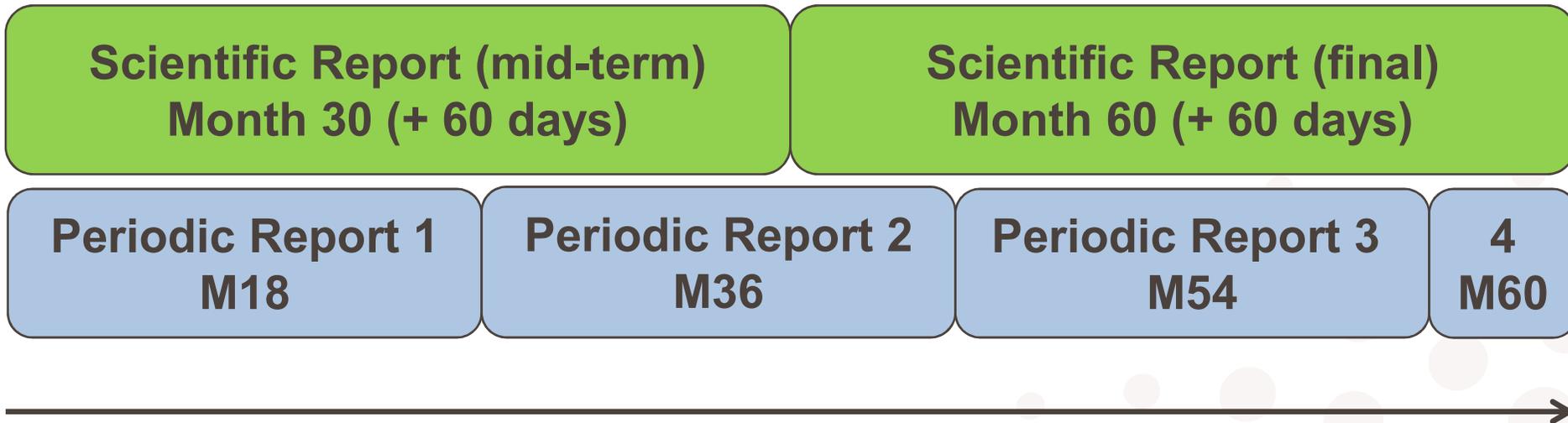
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Different reports:

- Periodic reports (for payments)
- Scientific reports (mid-term and final reports)
- Continuous reporting

Open access publications and research data

De-coupling of Periodic (Financial) and Scientific Reporting – StG/CoG/AdG



5-year projects / 60 months

Project monitoring is:

- Assessment of the projects' progress and achievements
- Assessment of the work carried out, not of the scientific results
- Check whether the progress is consistent with the Description of Action in the Grant Agreement
- Check for signs of underperformance or irregularities

Project monitoring is not:

- A scientific re-evaluation of the project
- A peer review of the scientific output
- An assessment of the scientific quality of the project outcomes

Scientific Project Monitoring (2)

Project Monitoring is done by the ERCEA Scientific Officers in charge of the evaluation panels

Additional information/ clarification may be requested:

- Additional information/ clarification for periodic reports
- Missing elements (e.g. publication details)
- Acknowledgement of the ERC funding
- Open Access
- Other

If needed, additional reviews can be requested from external experts (nominated by ERC Scientific Council/ panel chairs)

Continuous Reporting vs Mid-term / Final activity reports



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Continuous reporting:

- Summary for publication
- Publications
- Dissemination / communication activities
- Other outputs

**Open all the time during
the project
(and beyond)**

Mid-term and final reports

- More detailed questions on the progress, achievements etc.
- Will include the contents of the continuous reporting at that moment (snapshot)

**Become available after
mid-term and end of the
project
–
60 days to fill in and
submit**

Continuous Reporting: Summary for publication



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- **Summary of the context and overall objectives** of the project
 - For the final report, include the conclusions of the action
- **Work performed** from the beginning of the project to the end of the period covered by the report and **main results achieved so far**
 - For the final report, include an overview of the results and their exploitation and dissemination
- **Progress beyond the state of the art and expected results** until the end of the project

The summary for publication should be written as a "stand-alone" text, in a language easily understandable by a broader public and must not contain any confidential data.

Continuous Reporting: Summary for publication



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- **Summary of the context and**

- For the final period

- **Work performed**

covered

- For

and

- **Progress**

the project

**Will be published on Cordis
every time a financial report or
a scientific report
is approved by the agency!
<http://cordis.europa.eu>**

subject

end of the period

for exploitation

ted results until the end of

The summary for publication should be written as a "stand-alone" text, in a language easily understandable by a broader public and must not contain any confidential data.

Open Access to publications



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Work Programme	2007-2011 (FP7)	2012, 2013 (FP7)	2014 onwards (H2020)
Applicability	no formal obligation	Special Clause 39*	Article 29.2**
Types of publications concerned		scientific publications relating to results	peer-reviewed scientific publications relating to results
Providing open access	voluntary	"best efforts"	mandatory
Maximum embargo	no deadline	all domains: 6 months	PE and LS: 6 months; SH: 12 months

Open Access to publications

Work Programme	2007-2011 (FP6)	2012, 2013 (FP7)	2014 onwards (H2020)
Applicability	no formal obligation	Special clause 39*	Article 29.2**
Types of publications concerned	scientific publications relating to results	scientific publications relating to results	peer-reviewed scientific publications relating to results
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Open Access to publications



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**Always upload peer-reviewed publications to a public repository
(publisher website is not enough!)**

→ Either published version OR final, accepted manuscript

- Principal Investigators may **choose green or gold** open access
- Open access **fees are eligible costs** that can be charged to the ERC grant, if incurred within the duration of the project
- After the end of the project:
 - If OA according to Art. 29.2 is not possible without incurring extra costs, green OA with longer delays than 6/12 months will be acceptable



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Pilot on Open Research Data in H2020

Types of data concerned

- DIGITAL research data
- Data needed to validate the results presented in scientific publications
- Other data as specified (=up to projects)

Beneficiaries participating in the Pilot will

- Submit Data Management Plan at months 6 ([ERC template for DMP](#))
- Deposit this data in a research data repository
- Take measures to make it possible to access, mine, exploit, reproduce and disseminate free of charge
- Provide information about tools and instruments necessary for validating the results (where possible, provide these tools and instruments)

ERC Data Management Plan template

1. MAKING DATA FINDABLE (*dataset description: metadata, persistent and unique identifiers e.g., DOI*)

2. MAKING DATA OPENLY ACCESSIBLE (*which data will be made openly available and if some datasets remain closed, the reasons for not giving access; where the data and associated metadata, documentation and code are deposited (repository?); how the data can be accessed (are relevant software tools/methods provided?)*)

3. MAKING DATA INTEROPERABLE (*which standard or field-specific data and metadata vocabularies and methods will be used*)

4. INCREASE DATA RE-USE (*what data will remain re-usable and for how long, is embargo foreseen; how the data is licenced; data quality assurance procedures*)

5. ALLOCATION OF RESOURCES and DATA SECURITY (*estimated costs for making the project data open access and potential value of long-term data preservation; procedures for data backup and recovery; transfer of sensitive data and secure storage in certified repositories for long term preservation and curation*)

Implementation of the open research data pilot (ERC)



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- **Principal Investigators can opt-out retroactively**, but an amendment to the contract is needed
- **Data Management Plan (DMP)** has to be submitted within the first six months of the project implementation (template is available)
- **Monitoring:** ERC Scientific Officers will verify that the five core issues of the DMP are addressed

Coming ERC calls



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	<i>Starting Grant</i>	<i>Consolidator Grant</i>	<i>Advanced Grant</i>	<i>Synergy Grant</i>	<i>Proof of Concept Grant</i>
<i>Call identifier</i>	ERC-2019-StG	ERC-2019-CoG	ERC-2019-AdG	ERC-2019-SyG	ERC-2019-PoC
<i>Call Opens</i>	14/09/2018	24/10/2018	21/05/2019	14/09/2018	16/10/2018
<i>Call closes (cut-off dates for PoC)</i>	17/10/2018	07/02/2019	29/08/2019	08/11/2018	22/01/2019 25/04/2019 19/09/2019
<i>Budget million EUR (estimated number of grants)</i>	580 (390)	602 (314)	391 (166)	400 (48)	25 (167)

Coming ERC calls



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Thank you!



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ERC website:

<https://erc.europa.eu/>

ERC Work programme 2019

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/erc/h2020-wp19-erc_en.pdf

Participant's portal (submission + documents for all calls)

<https://ec.europa.eu/info/funding-tenders/opportunities/portal>

EU Research funding:

<https://ec.europa.eu/programmes/horizon2020/>

More information:

erc-2019-stg-applicants@ec.europa.eu

erc-2019-cog-applicants@ec.europa.eu

erc-2019-adg-applicants@ec.europa.eu

erc-syg-applicants@ec.europa.eu

erc-poc-applicants@ec.europa.eu

erc-scientific-follow-up@ec.europa.eu



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