ERC Consolidator Grant 2018 & 2020

(few advices)

Panel Member PE4

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ERC basics

European Research Council
Established by the European Commission

INDIVIDUAL RESEARCHERS
FROM ALL OVER THE WORLD

LONG TERM
GRANTS

TO HIGH-RISK/HIGH-GAIN PIONEERING PROJECTS
IN ANY FIELD OF FRONTIER RESEARCH

- Life Sciences
- Physical Sciences and Engineering
- Social Sciences and Humanities

2021 Call Calendar

ERC calls	Call Opening	Submission Deadline
Starting Grants ERC-2021-StG	24/02/2021	24/03/2021
Consolidator Grants ERC-2021-CoG	24/02/2021	20/04/2021
Advanced Grants ERC-2021-AdG	24/02/2021	31/08/2021
Proof of Concept ERC-2021-PoC	No Proof of Concept call in 2021	
Synergy Grants ERC-2021-SyG	No Synergy Grant call in 2021	

ERC Consolidator Grant 2020

Submitted and selected Proposals by Domain

European Research Council

Established by the European Commission

	Submitted Proposals	Selected Proposals
Life Sciences	710	94
Physical Sciences and Engineering	1102	144
Social Sciences and Humanities	694	89
Total	2506	327

Success rate ~ 13 %

https://erc.europa.eu/sites/default/files/document/file/erc-2020-cog-statistics.pdf

ERC Panel structure

Life Sciences (LS)

- 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 Aging
- 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

- For each class of ERC Grant
- 3 Domains / 27 Panels/ 27X15 = 405 Panel members

Social Sciences and Humanities (SSH)

- 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

Physical Sciences & Engineering (PSE)

- PE1 Mathematics
- PE2 Fundamental Constituents of Matter
- PE3 Condensed Matter Physics
- **PE4 Physical & Analytical Chemical Sciences**
- PE5 Synthetic Chemistry and Materials
- PE6 Computer Science and Informatics
- PE7 Systems and Communication Engineering
- PE8 Products and Processes Engineering
- PE9 Universe Sciences
- PE10 Earth System Science
- PE11 Materials Engineering

PE4 Physical and Analytical Chemical Science

- Evaluation of *excellence* at two levels:

Excellence of the Research Project

- ✓ Ground-breaking nature
- ✓ Potential impact
- ✓ Scientific approach

Excellence of the Principal Investigator

- ✓ Intellectual capacity/Independence
- ✓ Creativity
- ✓ Scientific expertise and capacity to execute the project

The Host Institution is not an evaluation criterion: quality of PI's past, current or future institution is not evaluated

Excellence

is the sole evaluation criterion

Key points :

Risky proposal are preferred (if risk-taking makes sense!)

Avoid the incremental research "more of the same"

No discrimination based on gender, geography or Host Institution.

Host Institutions are not to be evaluated or commented upon.

How panel works:

- ERC approaches the potential panel member for signing a contract. Only for a limited term.
- ERC asks for confidentiality.
- Only the name of president of the panel is disclosed since the beginning
- List of submissions, preliminary disclosure of conflict of interest (no collaboration, no joint publications, no joint projects, no same institution, no previous bias).
- Two step evaluation: B1 and then B1+ B2 + budget

PE4. Physical and Analytical Chemical Science

- 15 panel members, one acting as president with the support of three ERC officers
- Computational Chemistry: 3
- Physical Chemistry: 3
- Chemical Biology: 3
- Instrumental techniques: 3
- Catalysis: 2
- Three from Italy, two from Germany, Sweden, only one from Spain, Belgium, Netherlands, Austria, France, US, UK
- No connection among them
- The list is not known in advance, but disclosed with the results

PE4 Physical and Analytical Chemical Sciences

ERC Consolidator Grant-2020 call **138 proposals (160 in 2018)**

4 evaluations each by Panel members. A general scientific view.

Step 1: May based on B1: Outcome: **35 proposals** passed **to Step 2**

Excellence *is the sole criterion of evaluation and is at the core of the peer review evaluation process. It is applied to the evaluation of both the Research Project and the Principal Investigator in conjunction.*

On October the Panel joint to discuss the 35 proposals, based on the criteria stablished for **Step 2 and taking in account the evaluations of the remote referees**

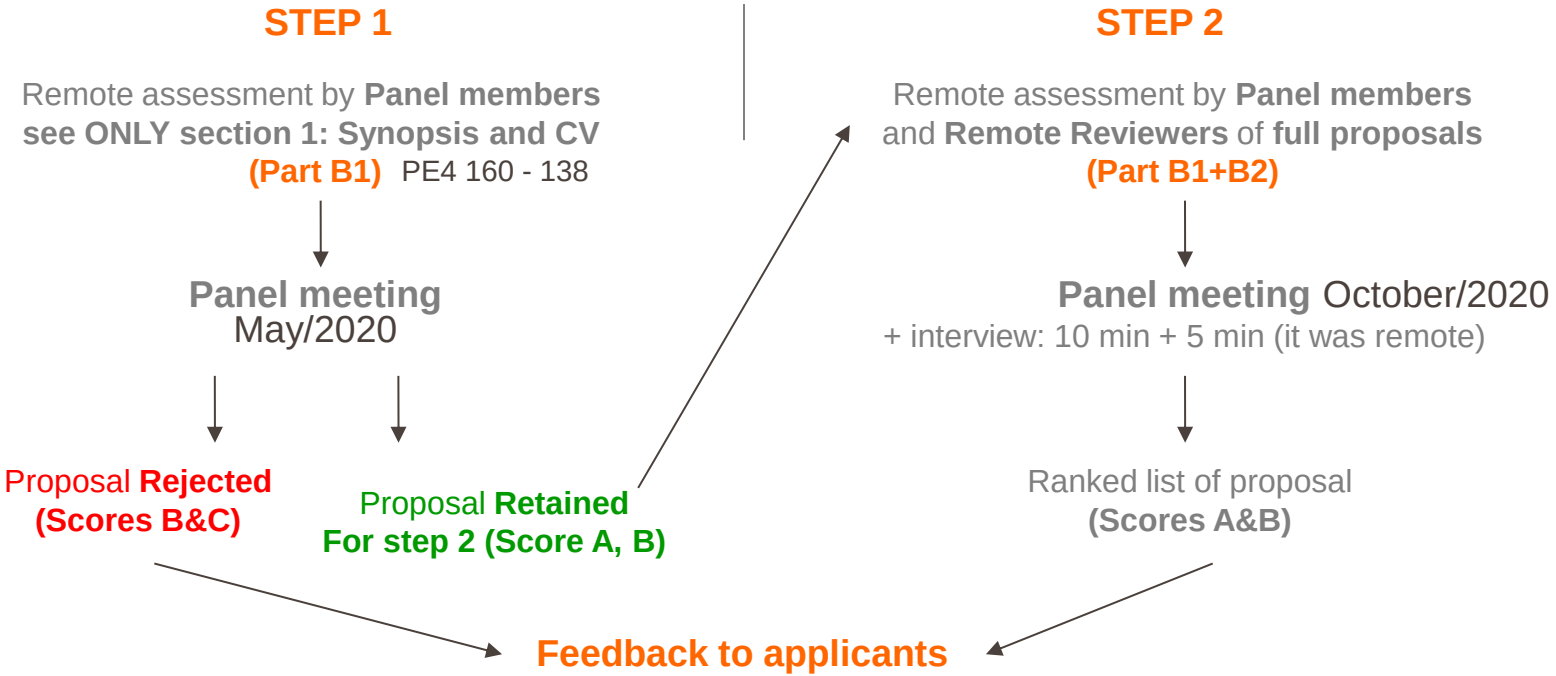
The detailed scientific approach (methodology, timescales and resources included) is assessed at step 2.

13 proposals were selected

How are the ERC proposal evaluated

Single submission but a two step evaluation

2nd Rigorous conflict of interest round



Interview

- 10+5 min. Very strict (on seconds)
- At Brussels (costs covered), but last year it was remote
- Why? To have the opportunity to clarify some points. Ensure authorship.
- Typically all the candidates perform very well.
- Panel members more close to the topic ask questions.
- It does not change the rank of the proposal, except in a few cases

Scores

Based on numbers (from 0 to 5) for each of the two parts: project and PI.
Statistics are made by ERC officers
One member of the panel presents the Project. The other readers make their comments, in most cases agreeing.
The numbers from remote are revised or confirmed by the panel.
All the proposals are ranked by these numbers and 3 times the expected proposals granted are retained for step 2.
The rank B and C is given based on the score

In step 2, remote reviewers also give numbers
Three to six external reviewers.
The numbers are never disclosed.
Read the rank in the decision letter. They give an indication of how close-far was the proposal

CONCLUSIONS

Well written proposal: clear, conceptual

Novelty, innovation should appear easily

Ambition, ground-breaking character, interdisciplinarity

Proof of concept , ideas, scientific approach well defined

State of the art including the related contributions

High risk/ high gain should be clear

Well described and justified methodology

<u>To avoid</u>

Vague and tedious proposals

Large introductions

Incremental research "more of the same"

General considerations

"Philosophical" considerations

Classical methodologies/ screening/trial-error