

How to apply for a grant of the European Research Council? Strategy, application process, avoiding pitfalls

Franz Neubauer

Dept. of Environment and Biodiversity, Geology Division

Paris-Lodron-University Salzburg



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European Research Council
Established by the European Commission

The main goal of the European Research Council (ERC) is to encourage high quality research in Europe through competitive funding. Here, you can find out more about the ERC and the vital role it plays in supporting European leadership in world class research.

- Support the best of the best in Europe across all fields of science, scholarship and engineering
- **Promote wholly investigator-driven, or 'bottom-up' frontier research**
- Encourage the work of the established and next generation of independent top research leaders in Europe
- Reward innovative proposals by placing emphasis on the **quality of the idea** rather than the research area
- Raise the status and visibility of European frontier research and **the very best researchers of today and tomorrow**

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The ERC is particularly keen to encourage **excellent proposals from Principal Investigators based in non-associated third countries** wishing to carry out a project with a **host institution in the EU or in one of the Associated Countries**.

Eligible Principal Investigator: Principal Investigators may be of any age and nationality and may reside in any country in the world at the time of the application.

Associated countries:

1. Bosnia and Herzegovina
2. Georgia
3. Iceland
4. Israel
5. Moldova

Associated countries:

6. Montenegro
7. North Macedonia
8. Norway
9. Serbia
10. Turkey

The ERC welcomes applications from **Principal Investigators hosted by private for-profit research centres, including industrial laboratories**.

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What is 'frontier research' and what are its benefits?

Today the distinction between 'basic' and 'applied' research has become blurred as emerging areas of science and technology often cover substantial elements of both. As a result, the term 'frontier research' was coined for ERC activities since they will be directed towards **fundamental advances at and beyond the 'frontier' of knowledge**.

- By creating open and direct competition for funding between the very best researchers in Europe. It enables the best ideas and talents to be recognised from a larger pool than exists at national level.
- The ERC's competitive funding will channel funds into the most promising new fields, with agility not always possible in national funding schemes.
- The ERC aims to stimulate research organisations to invest more in the support of promising new talents - the next generation of research leaders in Europe.
- On the economic side, the ERC will help nurture science-based industry and create a greater impetus for the establishment of research-based spin-offs.
- From a societal perspective, the ERC could provide a mechanism for investing rapidly in research targeted at new and emerging issues confronting society.

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European Research Council (ERC) :

Which types of excellence grants?

(ERC provides funds only for excellent proposals)

Time frame: up to **five years**; can include **salary of PI**

European Research Council (ERC)

ERC Starting Grant: Year 2 – 7 after PhD

1.5 M€ (five years) (+ maximum 1 M€ for equipment)

ERC Consolidator Grant: Year 8 – 12 after PhD

2.0 M€ (five years) (+ maximum 1 M€ for equipment)

ERC Advanced grant: Mature active researcher

2.5 M€ (five years)

ERC Synergy grants: 2 – 4 PIs

Up to 14 M€

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Discussion

(on the example of funded proposals)

What is a fundable proposal?

What means ground-breaking research?

What means high risk/high gain?

What means scientific excellence?

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ERC - Starting Grant (1)

Eligibility: researchers of any nationality with 2-7 years of experience since completion of PhD (**plus 18 months for each child**), a scientific track record showing great promise and an excellent research proposal

Location: research must be conducted in a public or private research organisation (known as a Host Institution/HI). It could be the HI where the applicant already works, or any other HI located in one of the EU Member States or Associated Countries

Funding per grant: up to € 1.5 million (*can include own salary*), *negotiation with host university is allowed and even recommended*: *What does mean when funded: ca. 2 postdoctoral researchers for each 2 - 3 years, 3 PhD positions, travel and analytical costs, overhead etc.*

Duration: up to 5 years

Sole evaluation criterion: scientific excellence of researcher and research proposal

Calls for proposals: published once a year

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ERC - Starting Grant (2)

- Applicants for the ERC Starting Grants - called Principal Investigators (PI) - must have already shown the potential for research independence and evidence of maturity.
- For example, by having produced at least one important publication without the participation of their PhD supervisor.
- Applicants should also be able to demonstrate a promising track-record of early achievements appropriate to their research field and career stage, including significant publications (as main author) in major international peer-reviewed multidisciplinary scientific journals, or in the leading international peer-reviewed journals of their respective field.
- They may also demonstrate a record of invited presentations in well-established international conferences, granted patents, awards, prizes etc.

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Project: How a fundable project looks like?

- Novelty – novelty – novelty
- Avoid any incremental research
- Hypothesis-driven
- Clear research questions, which could be answered with up-to-date methodology and the proposal should demonstrate how the new data will allow distinguish between distinct hypotheses
- Methodology must be up-to-date
- Involve leading experts/laboratories: many projects involve 2 – 3 external experts

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ERC Starting grant: Good practice and When to apply?

Guidelines give minimum requirements. Basically 11 – 15 percent of applications are funded but **ranking** list contains ca. 15 – 30 percent all rated as A (meaning fundable) (Reason: National Research Agencies fund sometimes such people (e.g., START-Price in Austria) including, e.g., a position).

- 10 – 15 ISI-listed publications, some with original influential ideas (*reviewers are asked for mentioning such ideas*), *H-factor*: > 8-10; minimum ca. one third of publications without PhD supervisor; several publications in high-impact journals
- Several invited conference talks
- Potentially a prize or an award
- Co-supervised PhD students; supervision of MSc students

Project: Hypothesis-driven research!!!

- New, original idea concerning a new working hypothesis
- High risk, high gain! Project should have potential to open a new field, outside mainstream
- Well elaborated, preliminary data as a proof of concept
- Include collaboration partners well trained in specific topics (methods, modelling)
- No technology-driven proposal!!

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ERC Starting, Consolidator, Advanced Grants

Two-stage proposal and evaluation:



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Stage 1: Part A (all together ca. 10-15 pages, 1 line): evaluated by ca. (generalists, specialists) in Stage 1. Part A comprise:

- Abstract (half page)
- **Section A: Extended Synopsis** (of the proposal): max. 5 pages incl. figures and tables
- References: 1 – 3 pages
- **Section B: CV** (2 pages)
- Appendix: all ongoing and submitted grants and funding of the PI
- **Section C: Early achievements and track record**: 2 pages (incl. peer-reviewed publications since PhD)

Stage 2: Part B (max. 15 pages, which also include all references, 1 line spacing): evaluated by ca. 6 - 8 reviewers in Stage 2. Part B is **not evaluated** during **Stage 1**.

Basically it represents the proposal: *Section A Extended Synopsis (of the proposal)* of Part A is a short version of Part B

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Evaluation by an expert panel

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Panel composition and the role of the panel:

Composition: Ca. 16 recognized researchers with a wide network and publication record, gender balance; + two ERC officers (only for minutes, control of correct treatment, legal issues). Have the right to exclude panel members if there is any incorrectness; + external supervisor. All panel members have the same rights.

Chair (+ Co-Chair): In Stage 1, the chair distributes proposals to 3 – 4 panel members & 3 – 4 external reviewers worldwide (internal ERC reviewer list) & give each proposal a lead reviewer.

Stage 1 meeting: Panel makes classification of all proposals in classes A, B and C. Usually, ca. 30 percent are invited to Stage 2, which includes Hearing. 6 – 8 reviewers are proposed for Stage 2

Stage 2 meeting: Hearing and ranking of proposal. Proposals can be ranked to A, B (and C).

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ERC Evaluation Criteria	
Criterion 1: Research Project	Score:
Ground-breaking nature and potential impact of the research project	
<i>To what extent does the proposed research address important challenges?</i>	
<i>To what extent are the objectives ambitious and beyond the state of the art (e.g. novel concepts and approaches or development across disciplines)?</i>	
<i>To what extent is the proposed research high risk/high gain?</i>	
Comments:	
Scientific approach	
<i>To what extent is the outlined scientific approach feasible bearing in mind the extent that the proposed research is high risk/high gain (based on the Extended Synopsis)?</i>	
Comments:	
Criterion 2: Principal Investigator	Score:
Intellectual capacity, creativity and commitment	
<i>To what extent has the PI demonstrated the ability to propose and conduct ground-breaking research?</i>	
Non-competitive Very Good Excellent Outstanding	
<i>To what extent does the PI provide evidence of creative independent thinking?</i>	
Non-competitive Very Good Excellent Outstanding	
<i>To what extent have the achievements of the PI typically gone beyond the state of the art?</i>	
Non-competitive Very Good Excellent Outstanding	
Comments:	



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ERC: Evaluation scheme (0.5 point classes: 1.0, 1.5, 2.0, 2.5, 3.0, 3.5 4.0)

- 1.0 - Non-competitive
- 2.0 - Very Good
- 3.0 - Excellent**
- 4 - Outstanding**



In Stage 1, the corresponding ERC Panel classifies – according to reviews and detailed discussion - all proposals in three classes and gives detailed comments to the project proposals:

A: means invitation to interview with Panel, and all proposals are sent out for review to 6 – 8 reviewers (ca. 3 maybe the same as in Stage 1, 3 - 5 are world class experts).

B: Project proposal and/or PI not mature enough, but resubmission in next year is allowed.

C: Project proposal and/or PI not mature enough, but resubmission not earlier than two years is allowed.

Stage 2: *Presentation of the project by the applicant and discussion with the Panel* to clarify potentially all open questions raised during the Stage 1 & 2 review process (applicant do not know reviews of Stage 2) and final ranking of all proposals classified as A in Stage 1. Some proposals may be classified as B or even C. Usually ca. 40 – 50 percent of A-ranked proposals are funded.

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Criterion 1: Scientific Approach

- To what extent is the outlined scientific approach feasible bearing in mind the extent that the proposed research is high risk/high gain (based on the Extended Synopsis)?
- To what extent does the proposal go beyond what the individual Principal Investigators could achieve alone (for Synergy Grants, based on the Extended Synopsis)?
- To what extent do the Principal Investigators succeed in proposing a combination of scientific approaches that are crucial to address the scope and complexity of the research questions to be tackled (for Synergy Grants, based on the Extended Synopsis)?
- To what extent are the proposed research methodology and working arrangements appropriate to achieve the goals of the project (based on the research proposal)?
- To what extent does the proposal involve the development of novel methodology (based on the research proposal)?

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Criterion 2: Intellectual capacity and creativity: Starting and Consolidator

- To what extent has the PI demonstrated the ability to conduct ground-breaking research?
- To what extent does the PI provide evidence of creative independent thinking?
- To what extent does the PI have the required scientific expertise and capacity to successfully execute the project?

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Criterion 2: Intellectual capacity and creativity: Advanced and Synergy

- To what extent has/have the PI(s) demonstrated the ability to conduct ground-breaking research? T
- To what extent does/do the PI(s) has/have the required scientific expertise and capacity to successfully execute the project?
- To what extent has the PI demonstrated sound leadership in the training and advancement of young scientists (for Advanced Grant applicants)?

Synergy Grant Group Synergy

- To what extent does the Synergy Grant Group successfully demonstrate in the proposal that it brings together the know-how – such as skills, experience, expertise, disciplines, teams – necessary to address the proposed research question (based on the Extended Synopsis)?

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Evaluation outcome

At the end of step 1 of the evaluation the proposal will receive one of the following scores:

- A is of sufficient quality to pass to step 2 of the evaluation;
- B is of high quality but not sufficient to pass to step 2 of the evaluation;
- C is not of sufficient quality to pass to step 2 of the evaluation.

At the end of step 2 of the evaluation the proposal will receive one of the following scores:

- A fully meets the ERC's excellence criterion and is recommended for funding if sufficient funds are available;
- B meets some but not all elements of the ERC's excellence criterion and will not be funded.

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ERC - Starting Grants in brief (1)

Eligibility: researchers of any nationality with 7-12 years of experience since completion of PhD (plus 18 months for each child), a scientific track record showing scientific talent and an excellent research proposal

Location: research must be conducted in a public or private research organisation (known as a Host Institution/HI). It could be the HI where the applicant already works, or any other HI located in one of the EU Member States or Associated Countries

Funding per grant: up to € 2 million

Duration: up to 5 years

Sole evaluation criterion: scientific excellence of researcher and research proposal

Calls for proposals: published once a year

For research talents with proven potential only

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ERC Starting Grants in brief (2)

For research talents with proven potential only

Applicants for the ERC Consolidator Grants - called Principal Investigators (PI) - must have already shown the potential for research independence and evidence of scientific maturity. For example, it is normally expected that applicants will have produced independently **several important publications without the participation of their PhD supervisor**.

Applicants should also be able to demonstrate a **promising track-record of early achievements** appropriate to their research field and career stage, including significant publications (as main author) in major international peer-reviewed multidisciplinary scientific journals, or in the leading international peer-reviewed journals of their respective field.

They may also demonstrate a record of invited presentations in well-established international conferences, granted patents, awards, prizes etc.

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Starting grant: Early achievements track record:

1. Up to five publications in major international peer-reviewed multidisciplinary scientific journals and/or in the leading international peer-reviewed journals, peer-reviewed conferences proceedings and/or monographs of their respective research fields, highlighting those as main author or without the presence as co-author of their PhD supervisor (properly referenced, field relevant bibliometric indicators may also be included); preprints may be included, if freely available from a preprint server (preprints should be properly referenced and either a link to the preprint or a DOI should be provided);
2. Research monographs and any translations thereof;
3. Granted patent(s);
4. Invited presentations to internationally established conferences and/or international advanced schools; 5
5. Prizes, awards, academy memberships.

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ERC Starting grant: Good practice and When to apply?

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- 8 – 15 ISI-listed publications, some with original influential ideas (*reviewers are asked for mentioning such ideas*), *H-factor*: > 7 - 14; scientific independence (minimum one (but in reality 50 percent of publications without PhD supervisor; a significant number of publications in high-impact journals
- Several invited conference talks
- Several prizes or awards
- Successful co-supervision of MSc and/or PhD students and postdocs

Project: Hypothesis-driven research!!!

- New, original idea concerning a new working hypothesis
- **High risk, high gain!** Project should have potential to open a new field
- Well elaborated, preliminary data as a proof of concept
- Include collaboration partners trained in specific topics (methods, modelling)
- No technology-driven proposal!!

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ERC Consolidator Grants in brief (1)

Attractive long-term funding: Normally grants will be € 1.5 million for a period of 5 years (or for projects of shorter duration). However, an additional € 0.75 million can be made available to cover eligible “start-up” costs for researchers moving from a third country to the EU or an associated country and/or the purchase of major equipment and/or access to large facilities. An ERC grant can cover up to 100% of the total eligible direct costs of the research plus a contribution of 25% of the total eligible costs towards indirect costs (= *overhead to the academic institution*).

Commitment of the Host Institution: Applications for an ERC grant must be submitted by a single Principal Investigator (PI) in conjunction with and on behalf of their host institution, called the applicant legal entity. Grants are awarded to the host institution with the explicit commitment that this institution offers appropriate conditions for the Principal Investigator independently to direct the research and manage its funding for the duration of the project. Any type of legal entity, including universities, research centres and undertakings can host the PI and his/her team. Legally the host institution must be based in one of the EU Member States, or one of the associated countries. The PI does not necessarily need to be working at the host institution at the time when the proposal is submitted. However, a mutual agreement and the host institution’s commitment on how the relationship will be established are necessary, should the proposal be successful.

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(1) Principal Investigators of Advanced Grant proposals will be expected to demonstrate a record of achievements appropriate to the field and at least matching one or more of the following benchmarks:

- 10 publications as main author (or in those fields where alphabetic order of authorship is the norm, joint author) in major international peer-reviewed multidisciplinary scientific journals, and/or in the leading international peer-reviewed journals and peer-reviewed conferences proceedings of their respective field;
- 3 major research monographs. This benchmark is relevant to research fields where publication of monographs is the norm.

(2) Advanced grants: exceptional record and recognition in the last 10 years:

- 5 granted patents;
- 10 invited presentations in well established internationally organised conferences and advanced schools;
- 3 research expeditions led by the applicant Principal Investigator;
- 3 well-established international conferences or congresses where the applicant was involved as a member of the steering and/or organising committee;
- International recognition through scientific or artistic prizes/awards or membership in well-regarded Academies or artefact with documented use (for example, architectural or engineering design, methods or tools);
- Major contributions to launching the careers of outstanding researchers;
- Recognised innovation leadership.

SYNERGY GRANTS (1)



Are you a researcher that wants to address a research problem so ambitious, that can not be dealt with you and your team alone? The Synergy Grants could be for you!

Who can apply?

A group of **two to maximum four Principal Investigators (PIs)** – of which one will be designated as the corresponding PI (cPI) – working together and bringing different skills and resources to tackle ambitious research problems. **No specific eligibility criteria regarding the academic training** are foreseen for ERC Synergy Grants. PIs must present an **early achievement track-record** or a **ten-year track-record**, whichever is most appropriate. Proposals will be evaluated on the **sole criterion of scientific excellence** which, in the case the ERC Synergy Grants, takes on the additional meaning of **outstanding intrinsic synergetic effect**.

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SYNERGY GRANTS (2)

What proposals are eligible?

Criteria

Applications can be made in **any field of research**.

The ERC's grants operate on a 'bottom-up' basis without predetermined priorities. In the case of the ERC Synergy Grants, applications must demonstrate that the proposed research **cannot be carried out by a single PI working alone**.

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Here, recently funded projects (from call 2021; these are not public yet) will shown to underline the type of successful projects

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Success rate of ERC Starting Grants, Application 2021

	Submitted Proposals	Selected Proposals
Life Sciences	1113	111
Physical Sciences and Engineering	1762	172
Social Sciences and Humanities	1191	114
Total	4066	397

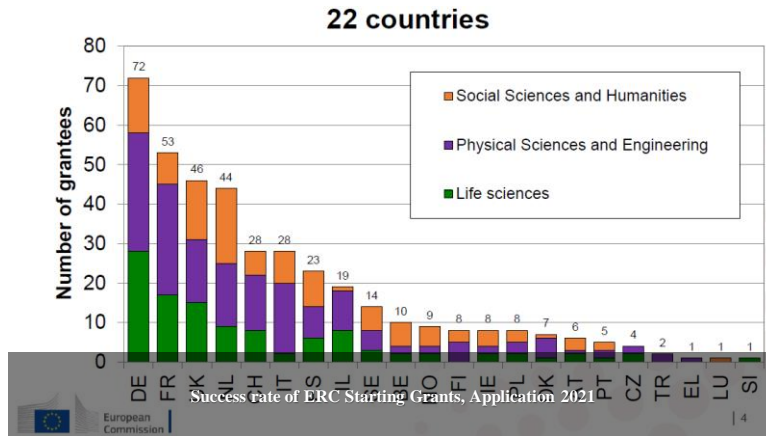
Success rate ~ 9.8 %

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Success rate of ERC Starting Grants, Application 2021

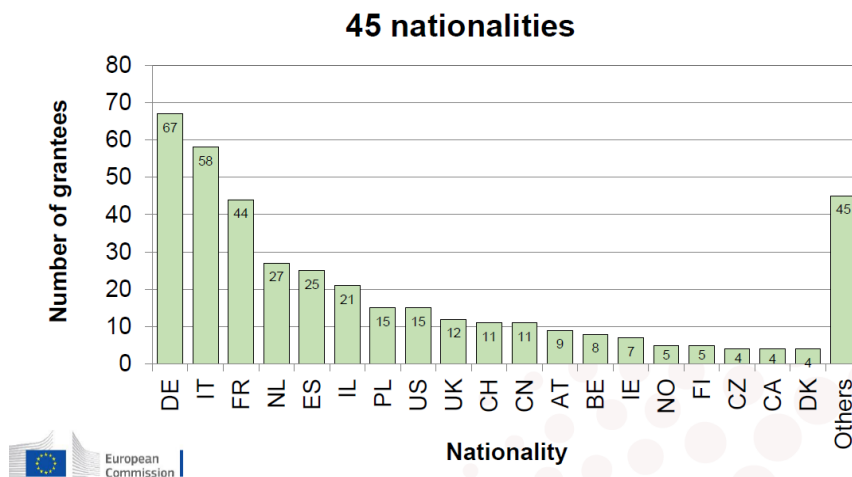


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Success rate of ERC Starting Grants, Application 2021



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