The European Research Council

An Introduction to the ERC

11/07/2022

NCP Greece and Cyprus

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Established by the European Commission



An introduction to the ERC

- 1. What is the ERC
- 2. How to apply
- 3. Statistics





ERC is....

1. Part of Horizon Europe







17% of the entire Horizon Europe budget



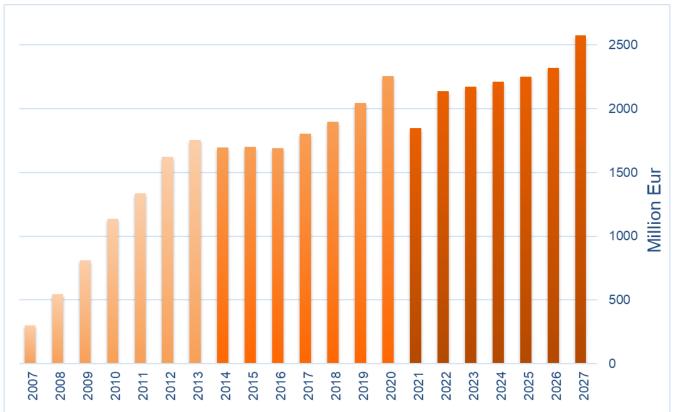


ERC Budget 2007 – 2027: EUR 36.5 billion

FP7: €7.5 billion

H2020: €13 billion

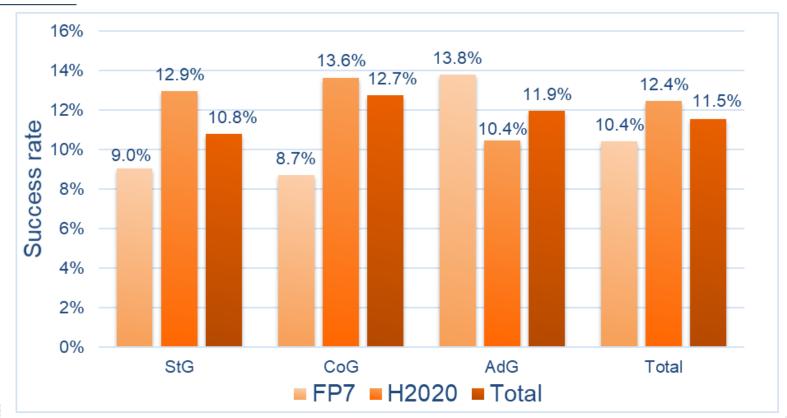
HE: €16 billion







ERC Success Rate







ERC is....

2. Scientific Council Members



Prof. Eveline CRONE (Psychology)

Vice-President



Prof. Maria LEPTIN (Biology) ERC President



Prof. Andrzej JAJSZCZYK (Electronics and Communication Engineering) Vice-President



Prof. Nektarios TAVERNARAKIS (Molecular Systems Biology) Vice-President



Prof. Geneviève ALMOUZNI (Biology)



Prof. Paola BOVOLENTA (Neurobiology)



Prof. Ben FERINGA (Organic Chemistry)



Prof. Mercedes GARCÍA-ARENAL (History)



Prof. Gerd GIGERENZER (Psychology)



Prof. Liselotte HØJGAARD (Medicine)



Prof. Dirk INZÉ (Plant Biology)



Prof. Eystein JANSEN (Earth Science)



Prof. Chryssa KOUVELIOTOU (High-Energy Astrophysics)



Prof. László LOVÁSZ (Mathematics)



Prof. Kurt MEHLHORN (Computer Science)



Prof. Nicola SPALDIN (Materials Theory)



Prof. Giovanni SARTOR (Law)



Prof. Jesper SVEJSTRUP (Biology)



Prof. Alice VALKÁROVÁ (Physics)



Prof. Milena ŽIC FUCHS (Linguistics)





ERC is.... 3. The ERCEA

The ERC Dedicated Implementation Structure

Implements the ERC strategy as set by the Scientific Council and manages ERC operations









ERC in Figures: After 15 Years, a Success Story



Over 11,000 top researchers funded since the ERC creation in 2007



Over 80,000 researchers and other professionals employed in ERC research teams



Over 2,200 patents and other IPR applications generated by ERC funding



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



Over 200,000 articles from ERC projects published in scientific journals



Over 890 research institutions hosting ERC grantees – universities, public or private research centres in the EU or Associated Countries



87 nationalities of grant holders



9 Nobel Prizes, 4 Fields Medals, 11 Wolf Prizes and other prizes awarded to ERC grantees





ERC Basics:

1 researcher, 1 Host Institution, 1 project, 1 selection criterion















ERC Grant Schemes



Starting Grants starters (2-7 years after PhD) up to € 1.5 Mio for 5 years



Advanced Grants
track-record of significant research achievements in
the last 10 years up to € 2.5 Mio
for 5 years



Consolidator Grants
Consolidators (7-12 years after PhD) up to € 2 Mio
for 5 years



Synergy Grants
2 – 4 Principal Investigators up to € 10.0 Mio for 6
years
1 PI can be based outside EU/AC



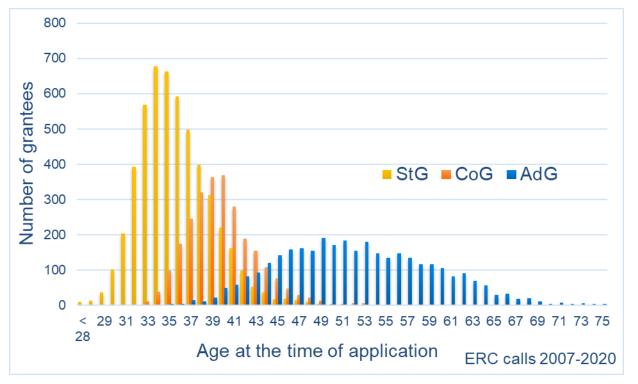
Proof-of-Concept

bridging gap between research - earliest stage of marketable innovation lump sum €150,000 for ERC grant holders





Priority to Young Scientists







Evaluation process Individual grants

EXCELLENCE IS THE SOLE EVALUATION CRITERION

Excellence of the Research Project

Ground-breaking nature & Potential scientific impact

- ✓ Important scientific challenges
- ✓ Ambitious & Beyond state-of-art
- ✓ High risk/High gain

Scientific approach

- ✓ Feasibility
- ✓ Relevance

Excellence of the Principal Investigator

- ✓ Ability for ground-breaking research
- Scientific expertise and capacity to execute the project
- ✓ Know-how (skills, experience, disciplines, teams)
- Leadership (potential or proven)





Evaluation process Synergy grants

EXCELLENCE IS THE SOLE EVALUATION CRITERION

Excellence of the Research Project

Ground-breaking nature & Potential scientific impact

- ✓ Important scientific challenges
- ✓ Ambitious & Beyond state-of-art
- ✓ High risk/High gain

Scientific approach

- Feasibility
- ✓ Relevance
- ✓ Sum beyond individual PIs alone
- Combination of scientific approaches

Excellence of the Principal Investigators

- ✓ Ability for ground-breaking research
- Scientific expertise and capacity to execute the project
- ✓ Know-how (skills, experience, disciplines, teams)
- Each PI to be assessed according to their career benchmarks
- The group as a whole is assessed: intellectual capacity, creativity





Why Should one Apply for an ERC grant?

- Research topic of own choice, with a team of own choice
- True financial autonomy for 5 years
- Negotiate with the host institution the best conditions of work
- Attract top team members (EU and non-EU) and collaborators
- Portability of grants within Europe
- Attract additional funding





An introduction to the ERC

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Step 1: Get the information (early on)!

 Register early, get familiar with the European Commission's Funding and Tender portal and download the templates

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home

Read the call documents (Information for Applicants, Work Programme, Frequently

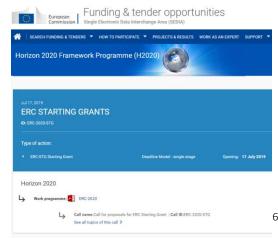
Asked Questions) that explain how to prepare your proposal

Talk to your Institution's grant office

Talk to ERC grantees







Step 2: make sure you are eligible!

- Window is calculated as according to the 1st of January of the year of the Call.
- Extensions of eligibility window possible for StG and CoG for documented cases of:
 - → Maternity 18 months per child (before or after PhD)
 - → Paternity actual time taken off
 - Military service
 - Medical specialty training
 - Caring for seriously ill family members
- No limit to the total years of extension





WP2023: Change in PhD Eligibility Reference Date

New « PhD eligibility reference date » rule:

The reference date towards the calculation of the eligibility period shall be the certified date of the successful defence.

- Allows for the eligibility window to reflect the real academic age instead of the "administrative age" of the PI
- Puts an end to confusion about "award according to national rules" brings clarity to applicants
- Most PhD certificates include the defence date
- If the PhD certificate does not show defence date, the candidate has to ask for written confirmation from the awarding institution



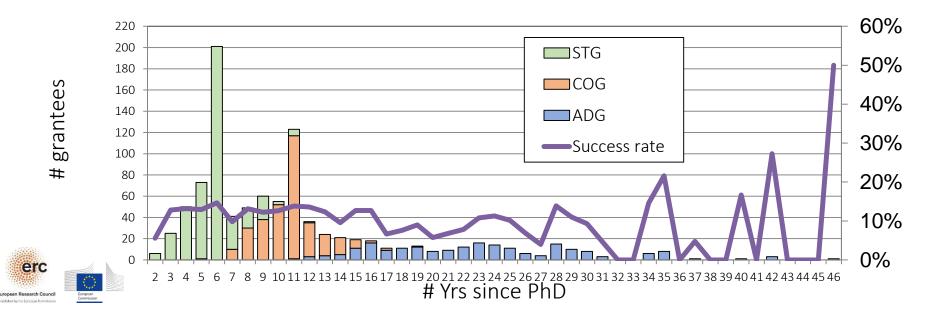


Step 3: Decide whether to apply.

Rumour: I should wait until the end of the eligibility window in order to accumulate enough seniority: only then I will be competitive.

★NOT true: The success rate is virtually flat across the eligibility window (StG, CoG). For advanced grantees only the preceding 10 years are considered, not life-time achievements.

STG COG ADG 2020 Grantees by years since PhD



Step 4: Choose your Panel! Evaluation Panel Structure (2021-2023)

Life Sciences

- 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 Ageing
- 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





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
- PE11 Materials Engineering

Social Sciences and Humanities

- 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

Step 5: Start writing ...

PART A – admin forms online

Section 1 Proposal and PI info

Section 2 Host Institution info

Section 3 Budget

Section 4 Ethics

Section 5 Call-specific Questions

<u>Annexes</u> – submitted as .pdf

- Statement of support of HI
- copy of PhD or equiv. (StG & CoG)

If applicable:

- document for extension of eligibility window (StG & CoG)
- explanatory info on ethical issues



PART B1 – submitted as .pdf

Abstract and Cross-Panel explanation 1 p.

Extended Synopsis 5 p.

(Recommended Model) CV

2 p. 1 p.

Funding ID
Track Record

2 p.

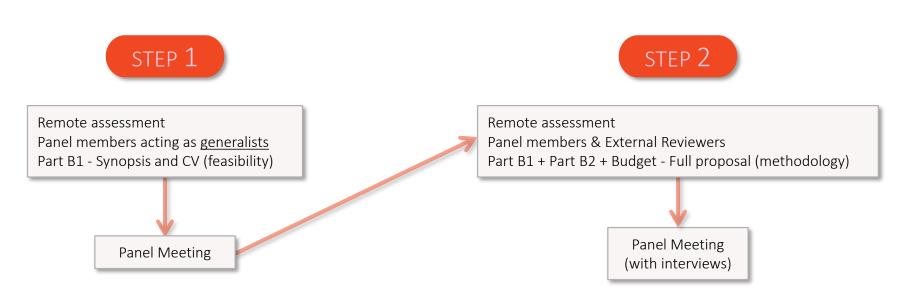
PART B2 – submitted as .pdf

Scientific Proposal 15 p. (incl. budget table)





Evaluation procedure and scoring system - individual grants

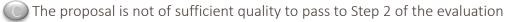






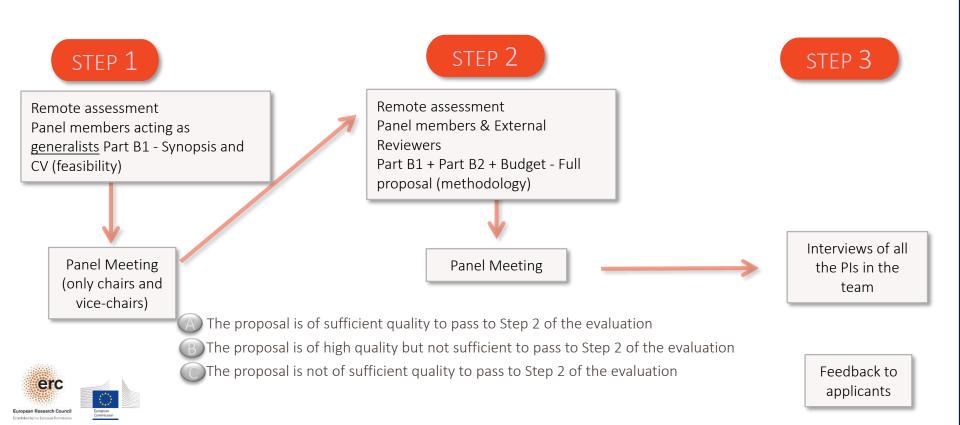
The proposal is of sufficient quality to pass to Step 2 of the evaluation

The proposal is of high quality but not sufficient to pass to Step 2 of the evaluation



Feedback to applicants

Evaluation procedure and scoring system - synergy grants



Step 6: Proof-read and Submit!

- A submitted proposal can be **revised until the call deadline** by submitting a new version and overwriting the previous one.
- Once you submit, all you need to do is wait!



It's our turn to do the work!





I have been invited for an interview — now what?













I have been invited for an interview – now what?

- Have clear and representative slides and focus on SCIENCE! Don't try to make a business presentation you are talking to scientists.
- Anticipate questions. Prepare also for cases where you do not have an answer
- Know the details of your proposal and methods, as well as your research area who are your main competitors/collaborators?
- Visit your collaborators and discuss your supporting evidence with them
- Just in case, be able to answer the questions:
 - Which 2 sentences you hope will be added to a textbook thanks to your ERC project?
 - Where do you want to be in 5 years?





I have been invited for an interview – now what?

- Don't over-explain your CV.
- When the panel asks questions, don't answer with "excellent question".
- Keep the time.
- PRACTICE, PRACTICE, PRACTICE!!!!!

Rumour 1: Choose your Acronym in alphabetical order, interviews are planned alphabetically.

XNOT true: the important thing is to choose an easy-to-say acronym since this helps panel members during discussions!

Rumour 2: Late afternoon interviews have less chance, PMs are tired.

***NOT true**: you need to "shake" the PMs up no matter what time of day!





Typical reasons for rejection

Research Project

- Scope: Too narrow ←→ too broad/unfocussed
- Incremental research
- Collaborative project, <u>several PIs</u>
- Work plan not detailed enough/unclear
- Insufficient <u>risk</u> management
- Part B2 did not give sufficient information on the methodology

Principle Investigator

- Insufficient track-record
- Insufficient potential for <u>independence</u>

Interview

- <u>Vaguely</u> addressed questions
- Panel not convinced is their <u>own</u> idea/project
- Lack of supporting <u>evidence</u>
- Similar work published in the meantime
- Unaddressed issues

If rejected, KEEP TRYING

Reapplications have a higher success rate

Use the feedback from evaluation reports





2023 Call Calendar

ERC calls	Call Opening	Submission Deadline
Starting Grants (TBC) ERC-2023-StG	12/07/2022*	25/10/2022*
Synergy Grants (TBC) ERC-2023-SyG	13/07/2022*	08/11/2022*
Consolidator Grants (TBC) ERC-2023-CoG	28/09/2022*	02/02/2023*
Advanced Grants (TBC) ERC-2023-AdG	08/12/2022*	23/05/2023*



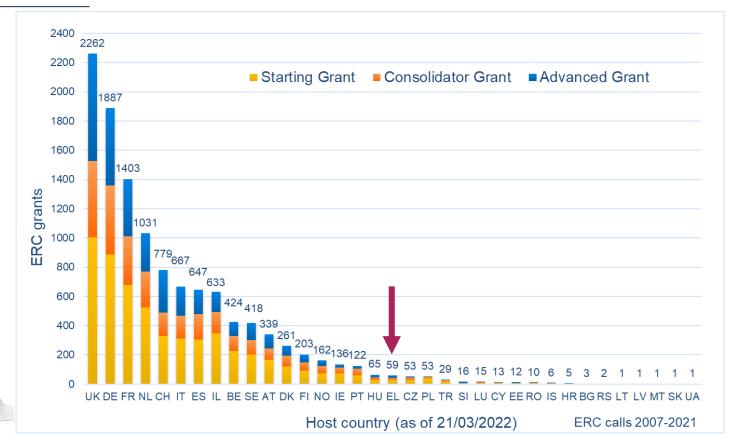
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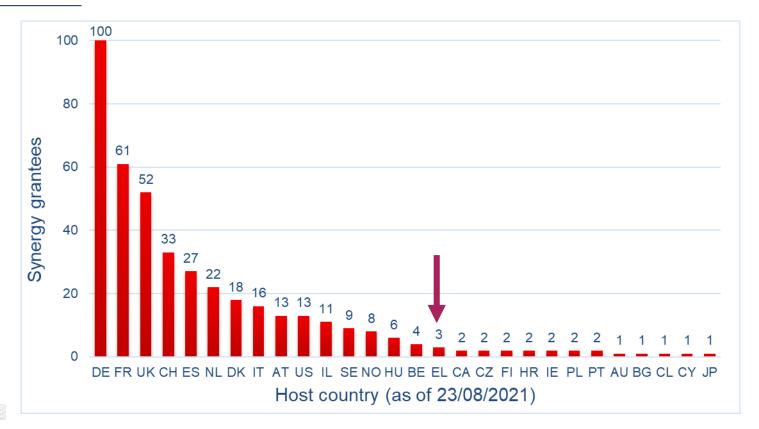
ERC Funded Projects by Country of HI





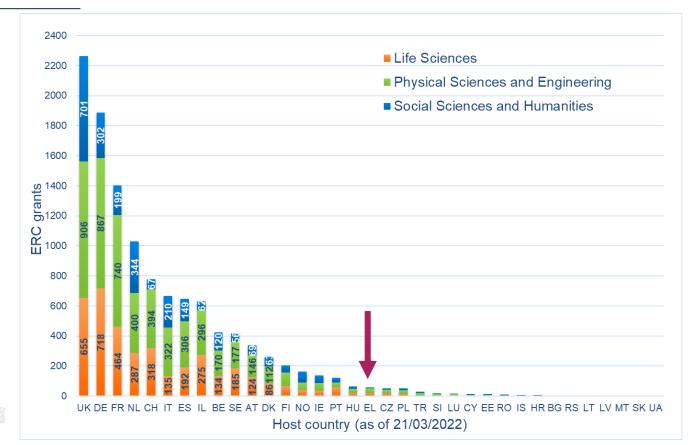


Synergy Grantees





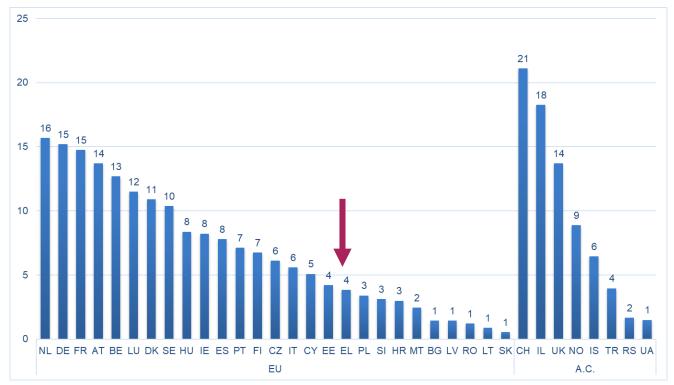
ERC Funded Projects by Domain







Success Rate by Country of HI



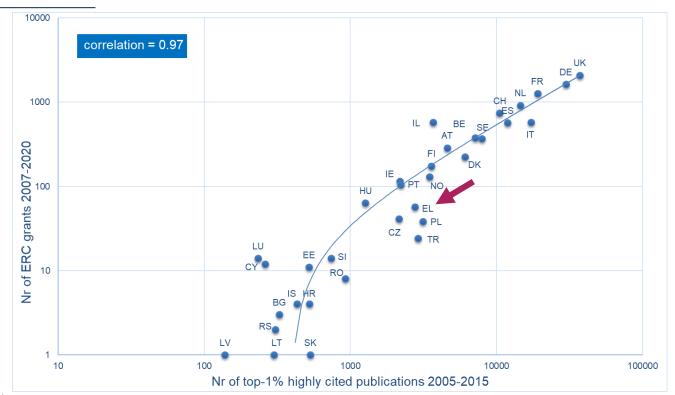




Grantees at Home and Abroad



ERC Grants versus Top Publications



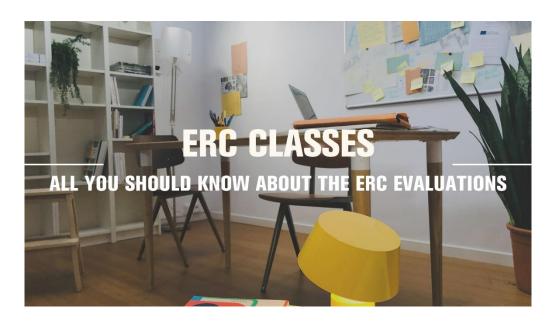
Linear fit

Host countries as of 26/08/2020





Where Can You Find More Information?



Videos - FRC Classes

- What to consider before applying
- How to fill in the application (Part B1 and B2)
- The interview
- How the evaluation works

https://www.youtube.com/watch?v=xbFbzkV WgCU&list=PLtv6FnsXqnXAYRk6HCErwMxwM LOZKoMcy



Thank You!

More information: erc.europa.eu

National Contact Point: erc.europa.eu/national-contact-points

Sign up for news alerts: erc.europa.eu/keep-updated-erc

Funding & Tender Opportunities: https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home

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Let's first talk about Part B1!

- Part B1 gives the first impression of your project/yourself and will determine if you pass to Step 2
- Avoid jargon
- No excessive highlighting
- Do not oversell it

Questions to ask yourself a) Research Project

- Is my project new, innovative, bringing in new solutions/theories?
- Does it promise to go substantially beyond the state of the art? Focus on the ground-breaking nature no incremental research! Something significant, that will last, not just something that will be improved in 5 years (one major step better then several small steps).
- Why is my project important? Answering a complete question (not only 'what' but also 'why') Think Big! Make sure that your idea needs an ERC to do it!
- How can I prove/support my case? Do I have a hypothesis? Do I have supporting evidence? Have I proven the project's feasibility? Are my goals realistic?
- Is it timely? (Why wasn't it done in the past?)
- What's the risk? Is it justified by a substantial potential gain? Do I have a plan for managing the risk? Make sure that your risk is not too early on in the project. Have I proposed alternatives? (proof of maturity?)
- Have I given a realistic picture of my collaborations? Show that you can drive the collaborations but that it is you who will be leading the project.





Questions to ask yourself b) Principal Investigator

- Why am I the best/only person to carry it out? Know your competitors what is the state of play, and why is your idea and scientific approach outstanding compared to them?
- Am I able to work independently, and to manage a 5-year project with a substantial budget? List prior research endeavours and funding, explain your role and contribution.
- Am I internationally recognised, active and competitive? Serve on or chair technical programme committees, associate editor, editor-in-chief, expert service, etc. Research mobility, international collaborations.
- Have I shown my scientific leadership in my CV?





Some more rumours...

Rumour 1: You can only apply for an ERC grant if you are a highly accomplished scientist.

***NOT true**: Accomplishments are appreciated in relation to your stage/seniority as giving some evidence of your capacity to conduct the research you propose and of creativity within the past 10-12 years of your career.

Rumour 2: To be successful, you need to continue on an established research line, to prove continuity.

XNOT true: Generally, the opposite is true.

Rumour 3: If you have already obtained on ERC grant you are less/more likely to get another one.

XNOT true: Panels look at each proposal on its own merit and in comparison with the other applications, irrespectively of whether you have or have not obtained an ERC grant in the past.

Rumour 4: The more socially or medically relevant a grant proposal is, the higher the chances of it getting funded.

XNOT true: ERC funds frontier research, not research that promises to be only an incremental advancement of knowledge. This is irrespective of the field and whether it has societal, medical or clinical applications.





When writing your CV...

- Use the **recommended** model cv as much as possible.
- Remember that the CV/Track Record part of B1 are as important as your project!
- Convince the panel that you are the forefront of your research field this may be (very) different for different people. Highlight your **key** strengths and accomplishments.
- Tell your story!
 - Explain what has been **your own contribution** to your publications and how they have impacted the field (incl. papers published without your PhD and postdoc supervisor). Quality is way more important than quantity!
 - **>** Explain publishing **habits** in your field and country if needed.
 - If you know that you have **gaps** or other issues in your CV (e.g. co-authored publications), explain them.
 - Describe accurately any other activity which can indicate **scientific maturity**.
- Do not forget to put your ORCID ID
- Fill in your Funding ID **fully**.

Rumour: One needs publications in Nature/Science/High IF journals to succeed.

XNOT true: however, publishing with senior scientists (former supervisors) may raise doubts about maturity/scientific independence.



Now let's talk about Part B2!

- Do not repeat the synopsis, go into the details of your methodology and work plan!
- Explain your hypothesis or provide supporting evidence (if it exists)
- Do and redo the structure of the WPs* until you are fully convinced
- Make sure that the quantitative and qualitative differences to the state-of-the-art are clear and referenced - show you did your homework!
- Provide alternative strategies to mitigate risks.
- Make sure that there is an obvious link between B1 and B2!
- Make use of the evaluation criteria to structure your text (Ground breaking nature, Potential impact, Scientific Approach) e.g. use them as title/subtitle.

Rumour: I need preliminary results.

***NOT true**: however explain how the literature supports your hypothesis.





Now let's talk about Part B2!

- Make the project "easy to read and attractive" use paragraphs and correct typos!
- Check coherence of figures pay attention to figure legends
- Use full space available but not more
- Make sure you give full references (these are excluded from page count so there is no excuse)
- You should add/describe some sort of timeline
- Think the project as a team explain involvement of team members and collaborators (be careful though: ERC proposals are NOT consortium proposals)
- Justify requested resources explain your budget properly





Synergy Grants – Key Features

ERC Synergy Grants aim to enable minimum 2 to maximum 4 Principal Investigators and their teams to bring together complementary skills, knowledge, and resources, in order to jointly address ambitious research problems.

Synergy proposals should aim:

- To promote substantial advances at the frontiers of knowledge,
- To cross-fertilize scientific fields,
- To encourage new productive lines of enquiry and new methods and techniques, including unconventional approaches and investigations at the interface between established disciplines,
- To enable transformative research not only at the forefront of European science but also to become a benchmark on a global scale.

PIs must demonstrate the synergies, complementarities and added value that could lead to breakthroughs that would not be possible by the individual PIs working alone.

