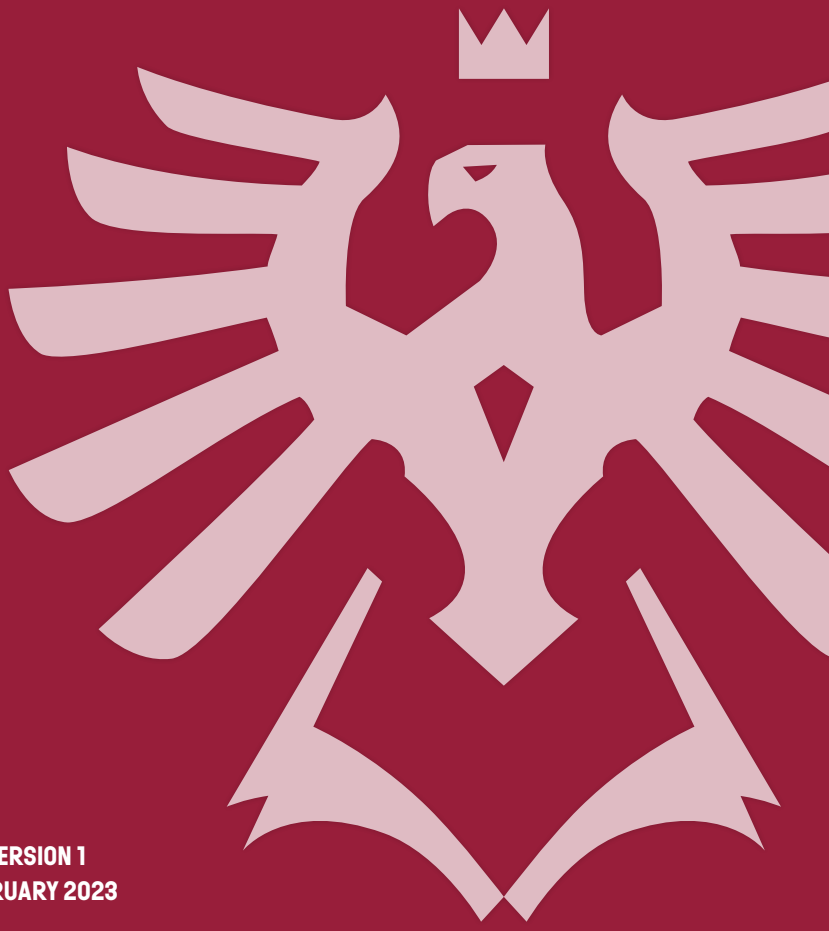
SILESIAN UNIVERSITY IN OPAVA

HOW TO WRITE A COMPETITIVE ERC PROPOSAL

QUICK GUIDE



VERSION 1
FEBRUARY 2023

ESSENTIALS TO KNOW

What is ERC?

- ERC (European Research Council) is the premier European funding organisation for excellent frontier research.
- ERC supports creative researchers of any nationality and age to run projects based across Europe.
- ERC supports bottom-up research – across all scientific disciplines.
- ERC supports individual researchers, not consortia.
- Research topics are defined by the applicant.
- Research excellence (quality of the proposal and credibility of the applicant) is the only criterion.

ERC GRANT SCHEMES

Starting Grants

- grant up to € 1.5 million for 5 years;
- for promising early-career researchers with 2 to 7 years of experience after PhD. – the reference date is the certified date of the successful defence (and not award) of the PhD.!!!
- at least partly independent with potential to become a leader in the field, for example having produced at least one important publication as main author or without the participation of their PhD. supervisor;
- able to develop ground-breaking idea, think out of the box;
- minimum time commitment 50 % on the ERC project and 50 % in an EU Member State or Associated Country.

Consolidator Grants

- grant up to € 2 million for 5 years;
- for excellent researchers with 7 to 12 years of experience after PhD – the reference date is the certified date of the successful defence (and not award) of the PhD.!!!
- at the career stage at which they may still be consolidating their own independent research team or programme;
- fully independent position and results shown by having produced several important publications as main author or without the participation of their PhD. supervisor;
- minimum time commitment 40 % on the ERC project and 50 % in an EU Member State or Associated Country.

Eligibility periods can be extended beyond 7 and 12 years for ERC StG and CoG for certain properly documented circumstances:

- **Maternity 18 months per child (before or after PhD.) or longer**
- **Paternity actual time taken off (before or after PhD.)**
- **Military service (after PhD. award)**
- **Clinical training (after PhD. award, up to 4 years maximum)**
- **Long term illness over 90 days for the PI or a close family member (child, spouse, parent or sibling) after PhD. award**

It is necessary to read carefully the current work programme and check the eligibility criteria!

Advanced Grants

- grant up to € 2.5 million for 5 years
- for established world research leaders with a recognised significant research achievements in the last 10 years;
- exceptional leaders in terms of originality and significance of their research contributions;
- brand new idea, not continuation of previous work;
- minimum time commitment 30 % on the ERC project and 50 % in an EU Member State or Associated Country.

Proof-of-Concept Grants

- Lump Sum Grant of € 150.000
- for ERC grant holders to explore the commercial or societal innovation potential of their ERC frontier research project.

Synergy Grants

- grant up to € 10 million for 6 years
- to address ambitious research questions that can only be answered by the coordinated work of a small group of 2-4 principal investigators.

Note: ERC grants are awarded to the host institution that engages the Principal Investigator for at least the duration of the grant.
The host institution is fully responsible for project implementation.
The host institution must be established in an EU Member State or Associated Country.

PREPARATION OF THE PROPOSAL

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STRUCTURE OF THE PROPOSAL

The ERC application consists of 3 parts: A, B1 and B2.

Part A – online

1. **General information**
2. **Participants**
3. **Detailed budget table**
4. **Ethics and security issues tables**
5. **Other questions including time commitment**

The right choice of the panel is of primary importance that can affect the quality of evaluation.

- **27 panels, each covering a sub-section of one of three domains:**
  1. **Life Sciences – 9 panels**
  2. **Physical and Engineering Sciences – 11 panels**
  3. **Social Sciences and Humanities – 7 panels**

See the full evaulation panel structure at the end of this guide.

Part B1 – consists of three segments:

Section a: The Extended synopsis – 5 pages
Section b: CV – 2 pages
Section c: Track record – 2 pages

Part B2 – includes the full research proposal – 14 pages:

Section a: state-of-the-art and objectives
Section b: methodology

Annexes – must be saved into the system as a PDF:

- Host Institution Binding Statement of Support (Commitment)
- PhD. record and supporting documentation for eligibility checking if applicable

A deeper review of the B1 form

The B1 form 'opens the gate' for the application. After reading the B1 form, the review panel members decide whether to pass the ERC application to the 2nd evaluation step.

Extended Synopsis of the research project:

- an invitation to read Part B2, which is not available to the panel in the first round of the evaluation.
- 5 page limit for this section
- questions to be answered:

  WHAT is the fundamental problem to be investigated? What do you want to do? (including a short introduction into the topic).

  WHY is the proposed work worth funding? Why is it necessary to carry out such research? What will be the expected impact? (importance of the research idea)

  HOW can be the problem approached? Which novel methods will be used? (short description of your work plan)

  WHO Why are YOU the right person to achieve the proposed objectives? Show that you are an expert in the given field.

Evaluators are looking for:
- **ground-breaking nature of the research project, novelty, high risk – high gain, state of the art in the field**
- **risky focus on a difficult problem with the goal of achieving breakthrough knowledge**

CV and Track Record

- Significant publications, contribution to the field
- Past achievements, previous research experience
- Invited presentations at conferences
- Funding, patents, awards, prizes
- Career breaks should be given and justified (1.5 years for each child for mothers, paternity leave, full time care for somebody, long term illness, military service etc.)
- Unusual career paths (industry, secondary school teaching etc.) can also be taken into consideration by the reviewers (at least for the number of papers, citations etc.).

Show your impact on people.
Provide the proof of independence.
Present you scientific life like a story.
The mention of Journal Impact Factors is not accepted anymore among the field relevant bibliometric indicators!!!

HOT NEWS
Changes to the ERC's application forms and evaluation procedures are about to be for the 2024 calls. The current CV and Track Record templates will be combined and simplified. The project proposal will weigh more than the past achievements of the applicant during the evaluation.

A deeper review of the B2 form

The B2 form = Scientific Proposal

- is the main document that the external experts will review, in addition to the B1 form
- must convey the key ERC attributes – the frontier research nature of the application, novelty, high risk, high gain and non incremental research
- should include a full project description:
    - the state of the art and objectives, while elucidating both the scientific (potentially significant) knowledge gaps that the project addresses, as well as the chosen research approach
    - the research methodology and a work plan
    - important part is the contingency plan how to mitigate the high risks.

ERC BUDGET

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COST CATEGORIES

A. Direct personnel costs (PI, senior staff, post docs, students, other personnel)

B. Subcontracting costs (no indirect costs)

C. Purchase costs – travel and subsistence, equipment (including major equipment), consumables (including field-work and animal costs), publications (including any costs related to Open Access fees) and dissemination, and other additional direct costs

D. Internally invoiced goods and services (no indirect costs)

Indirect costs are fixed as a flat rate: 25 % of the direct costs.
All the cost categories considered necessary for the project are supposed to be described.

RECOMMENDATIONS

- A detailed estimate of planned personnel costs for principal investigator (PI) and his team is necessary = it is to prove a clear idea how the team will look like and work on the project.
- Include in the budget:
    - total amount of money in euros for each work package;
    - the percentage of the PI's commitment in the project with the respect to the minimum time commitment which must then be followed!
    - it is useful to plan administrative or laboratory stuff in the „Other personnel costs" category.
- Respect usual practice in your institution when planning personnel costs.
- Include all levies, taxes and insurance to the personnel costs!
- There is no single recommended salary range for PI or team members.
- Have in mind that the budget is created for the next 5-7 years. Reflect inflation, career progress as well as exchange rate movements and plan for adequate financial reserves.
- Subcontractors participation in project work should be limited.
- Subcontractor costs are not included into the calculation for indirect costs.
- Don´t write the specific name of the subject that will perform the subcontracted work. Just describe what the job will be and why it is necessary that subcontractor to do it and not the host institution.
- Travel and subsistence – only journeys necessary for the project (active participation of the team members); it is appropriate to mention several major conferences supposed to be participated in.
- Equipment – proportional amount of accounting depreciation is an eligible cost! Also describe already existing infrastucture or equipment to be used in the project but not applied for funding under the ERC project.
- Consumables – laboratory equipment, chemicals etc. Common computers, notebooks, phones or small equipment are NOT elegible but special software only!
- Publications – organizing conferences, publishing proceedings or monographs; creating websites, webinars, seminars, etc. aimed not only at the academic community, but also at the general public. The dissemination of results is of great importance!
    - OPEN ACCESS – only publication fees in **full open access** venues for peer-reviewed scientific publications are eligible for reimbursement.

ERC EVALUATION PROCES

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- A two stage peer review proces
- only the highest ranking proposals in step 1 will pass to step 2

1st REVIEW STEP

- only the B1 form is reviewed by the review panel members
- each proposal reviewed and ranked by 4 panel members
- most panel members are NOT experts in the particular field and act as generalists
- however, 1-2 panel members might be experts in the particular field

  = The B1 part of the proposal must be interesting and comprehensible for generalists but also sufficiently rigorous for experts – very difficult balance on 5 pages limit

The B1 part is of crucial importance (60-75 % of proposals are rejected in Step 1)

2nd REVIEW STEP

- external reviewers evaluate both B1 and B2 and act as experts
- external reviewers write up detailed reviews and give ranking
- in addition, 4 panel members also evaluate both B1 and B2 and act as generalists
- individual interview phase – careful preparation, no improvisation!!

Answers to these specific questions should be easy to find for the reviewers (both internal or external) in the proposal:

Ground-breaking nature, ambition and feasibility

Ground-breaking nature and potential impact of the research project

To what extent does the proposed research address important challenges?
To what extent are the objectives ambitious and beyond the state of the art (e.g. novel concepts and approaches or development between or across disciplines)?
To what extent is the proposed research high risk high gain (i.e. if successful the payoffs will be very significant, but there is a high risk that the research project does not entirely fulfil its aims)?

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 are the proposed research methodology and working arrangements appropriate to achieve the goals of the project (based on the full Scientific Proposal)?
To what extent does the proposal involve the development of novel methodology (based on the full Scientific Proposal)?
To what extent are the proposed timescales, resources and PI commitment adequate and properly justified (based on the full Scientific Proposal)?

Intellectual capacity and creativity

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

GENERAL TIPS AND ADVICES

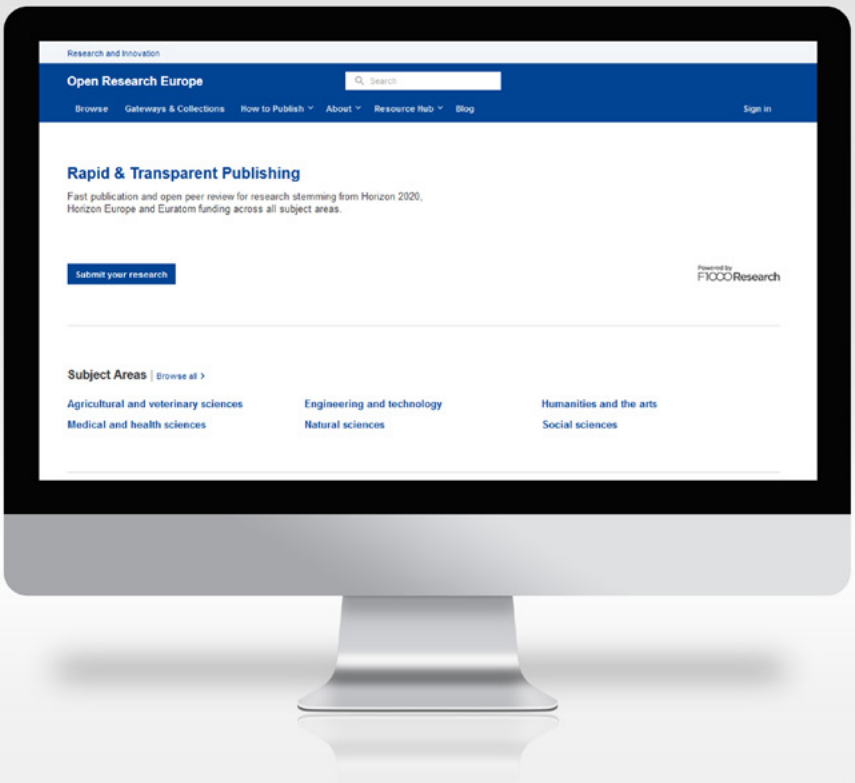
- Have a great idea!
- Be ambitious and original!
- Take as many risks as possible but be still realistic and keep feasibility in mind!
- ERC grants are not for funding of „butter and bread“ research or continuation of previous work!
- Work on your CV, be independent!
- Be better than others, only outstanding proposals win!
- Compare and distinguish your project within the current state of the art!
- Do not lie or oversell, some panel members may not be experts in your field but they are not idiots!
- Avoid buzzwords!
- Fashionable topics do not always win! Topics that are currently considered as timely and fashionable get stronger competition (many applications on similar topics). Try to be different from others (and ideally come up with the next future fashion)!
- Use graphics! Well designed scheme/figure explains more than a page of text (ideally the reviewer should understand the basics of the proposal from graphics only and refer to the text only for details).

Necessary to know

OPEN ACCESS

The beneficiaries must ensure open access to peer reviewed scientific publications relating to their results:

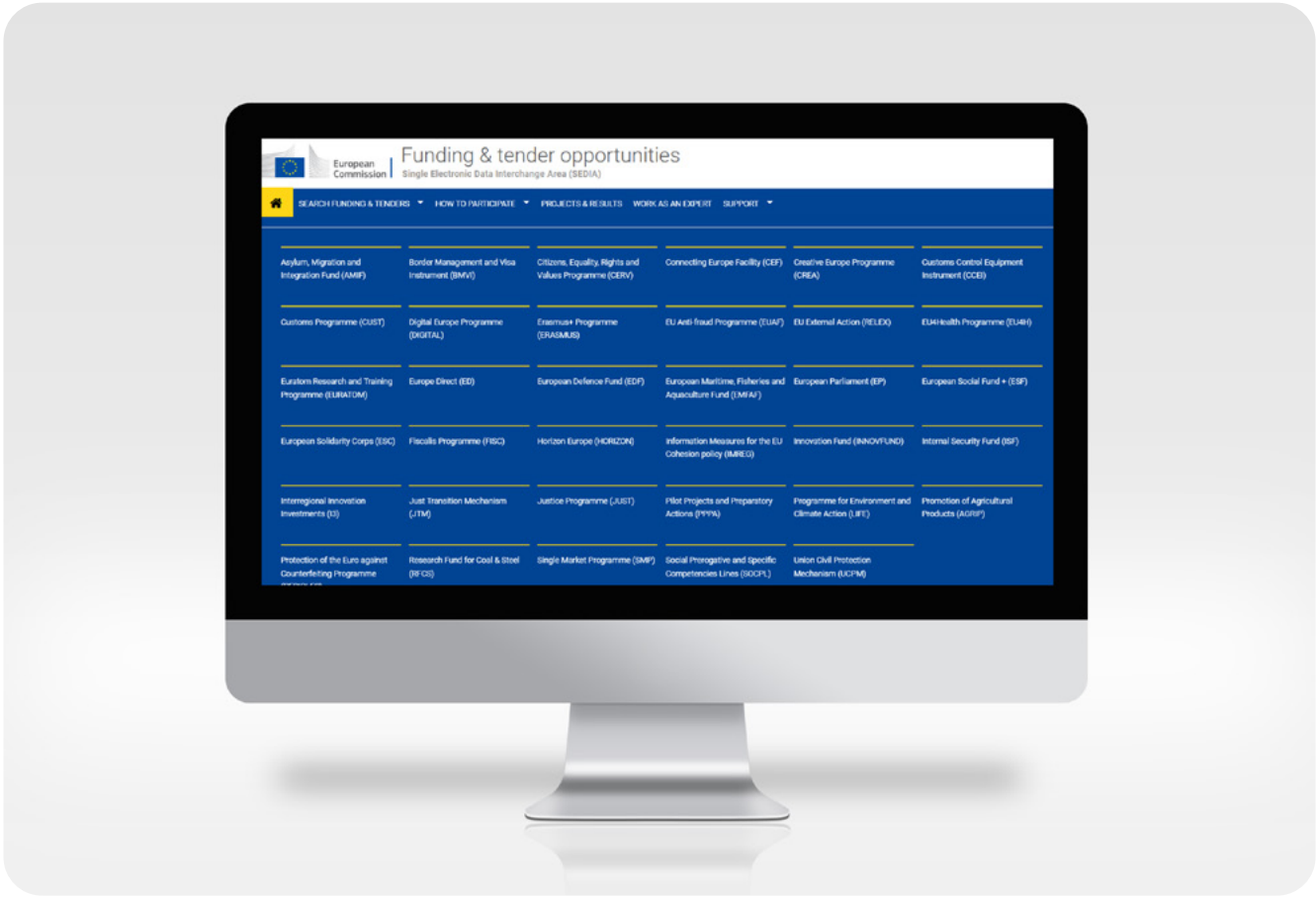
- **at the latest at the time of publication,** a copy **of the published version,** or **the final peer reviewed manuscript** accepted for publication, is deposited in a REPOSITORY for scientific publications = **IMMEDIATE OPEN ACCESS** is provided via the repository!!
- Open Research Europe (ORE) – an EU open access publishing platform **https://open-research-europe.ec.europa.eu/**



HOW TO APPLY?

ERC grant applications can only be submitted in response to a Call for Proposals.
The ERC has yearly calls for proposals covering all scientific fields.
For an ERC grant application to be complete, it needs to include the administrative forms, the research proposal and the supplementary documents. The completed proposal should be submitted by the specified closing date.

Calls are published on the European Commission's Funding and Tenders Portal –
https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home
or
https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/horizon



Seriously interested in preparing an ERC grant? Please contact Petra Skoumalová at petra.skoumalova@slu.cz (contact person for ERC at SU).

KEY RESOURCES REFERENCED OR USED IN THE PREPARATION OF THIS DOCUMENT

https://erc.europa.eu
https://erc.europa.eu/sites/default/files/document/file/ERC_WorkProgramme_2023.pdf
https://www.horizontevropa.cz
https://enspire.science/
https://ec.cuni.cz/EC-132.html

EVALUATION PANEL STRUCTURE SINCE 2021

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 AND 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