# The European Research Council (ERC) in a nutshell

**Europe Day @ DESY** 

6 September 2023

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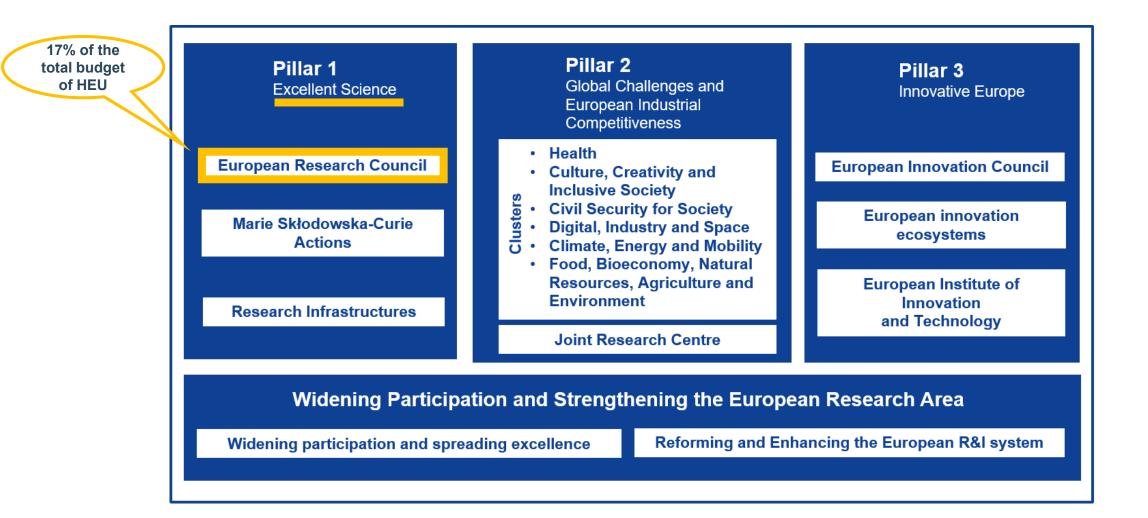
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# Introduction to ERC Grants

# Horizon Europe — 9th Research Framework Program

#### **Pillar 1: Excellent Science**



## **ERC Funding Principles**

- 'Bottom-up' basis without predetermined priorities in any field of research
- Scientific excellence is the sole criterion of evaluation
- Encourages proposals of a multi- or interdisciplinary nature, addressing new and emerging fields of research or proposals introducing unconventional, innovative approaches and scientific inventions
  - If you have an idea that you think will make a significant change in your field of research or some other area, consider writing it down, and apply to ERC

**Not:** expected continuations of ongoing work or existing collaboration

Research program should be **based on previous work of the PI** (required expertise must be evident), but their work should **take a new direction**, involve new techniques or a **novel** combination of techniques, or a completely different approach ...

'new ideas on common grounds'



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# What does an ERC-suitable idea look like?

## **Excellence of the proposed research**

- ✓ goes **beyond the current state of the art** (focus and/or methods used)
- potential impact of the project's outcome towards the scientific community should be significant, also beyond the specific area of research
- ✓ can lead to **very significant results**, **even if** the objectives are **not fully achieved**
- ✓ appears to be **feasible** within the duration of the ERC project
- ✓ preliminary **results** support the **feasibility** of the project
- ✓ project is **timely**
- methodology of the project is carefully thought out
- ✓ **potential risks/challenges** are identified and a Plan B is at hand
- ✓ a **failure** in a specific task does not jeopardize the project

### **Excellence of the PI**

- has the required expertise and capacity to carry out the project
- past work provides a very solid background

Research program must be ambitious and challenging, while remaining well within the PI's field of competence

## **ERC** — Funding Schemes

### Researchers of any nationality and from all scientific disciplines are eligible to apply to the ERC

StG Starting Grants (2–7 years after PhD) up to €1.5 Million for 5 years + up to €1 Million CoG Consolidator Grants (7–12 years after PhD) up to €2 Million for 5 years + up to €1 Million AdG Advanced Grants 10 years track record up to €2.5 Million for 5 years + up to €1 Milliump sum SYG Synergy Grants 2–4 PIs at any career stage up to €10 Million for 6 years +up to €4 Million

no PhD related eligibility requirements

Proof of Concept Top-up funding for ERC grant holder: bridging gap between fundamental research & earliest stage of marketable or social innovation lump sum €150,000

# **Eligibility & Application**

## StG & CoG Eligibility Periods — Cut-off dates for 2024 calls

## **Starting Grant**

PhD shall have been awarded > 2 and ≤ 7 years prior to 1 January 2024

Cut-off dates: PhD awarded from 1 January 2017 to 31 December 2021 **Consolidator Grant** 

PhD shall have been awarded > 7 and ≤ 12 years prior to 1 January 2024

Cut-off dates: PhD awarded from 1 January 2012 to 31 December 2016

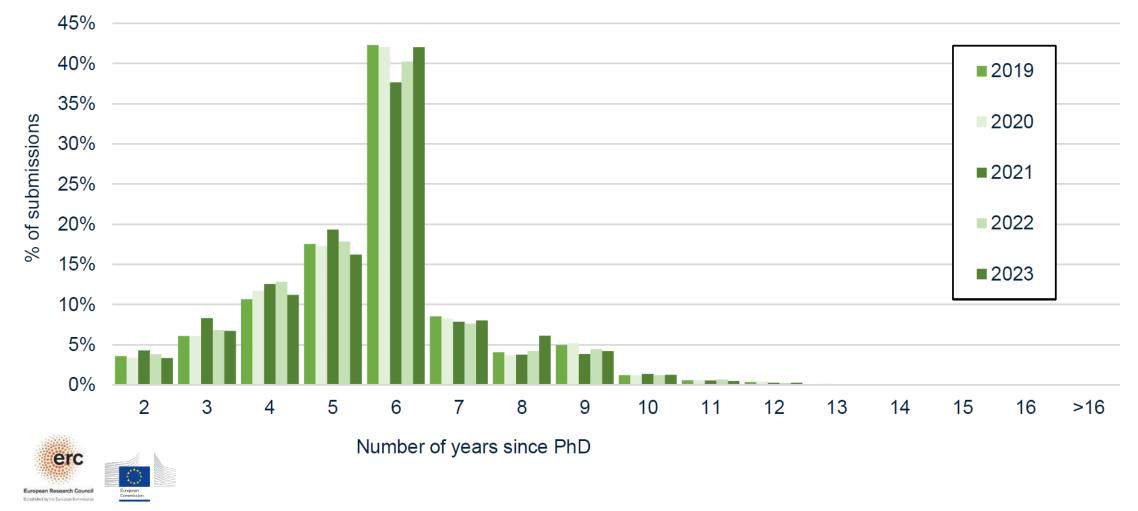
Change since the 2023 Starting and Consolidator Grant Calls: **new PhD reference date**:

#### date of the actual award $\rightarrow$ date of the successful PhD defence

Whenever the **PhD certificate does not show the PhD defence date**, applicants should provide a **written confirmation** from the awarding institution stating the defence date.

## StG 2019–2023: Submissions by years since PhD

ERC encourages researchers to **submit their applications earlier**, as the success rates are higher after resubmission than after the first submission, most researchers submit their application in the 6th year after the PhD.



# StG & CoG Eligibility — Make sure you are eligible

**Extensions of eligibility** window possible for documented situations occurring **before the call deadline**:

- Maternity 18 months per child (before or after PhD)
- Paternity actual time taken off (before or after PhD)
- Military service
- Clinical training (up to 4 years)
- Long-term illness of the PI/ Caring for seriously ill family members
- Natural Disaster
- Request Asylum

## **General submission restrictions:**

- A researcher may participate as a PI in **only one ERC main research grant** project at any one time
- A PI may not **submit another proposal**, unless the existing project ends less than two years after the call deadline
- A researcher who is a serving **Panel Member** for the open call
- If a researcher **applies to more than one main ERC** frontier research grant call published under the same Work Programme (i.e. from the same 'call year'), only the first eligible proposal will be evaluated.

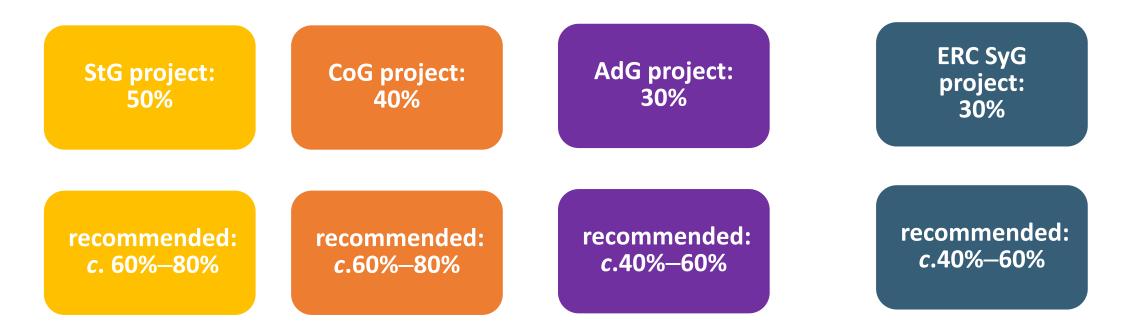
# **StG & CoG Eligibility — resubmission restrictions**

Additional **resubmission restrictions related to the outcome** of the evaluation in previous call:

| Call to which the PI applied under prev<br>evaluation outc                | 2024 Calls to which a PI is <u>NOT</u> eligible                 |                    |  |
|---|---|--------------------|--|
| 2022 and 2023 Starting, Consolidator,<br>Advanced Grant, or Synergy Grant | Rejected on the grounds<br>of a breach of research<br>integrity | STG, COG, ADG, SYG |  |
| 2022 Starting, Consolidator, or<br>Advanced Grant                         | C at Step 1   | STG, COG, ADG      |  |
| 2023 Starting, Consolidator, or<br>Advanced Grant                         | A or B at Step 2  | No restrictions    |  |
|   | B or C at Step 1  | STG, COG, ADG      |  |
| 2022 and 2023 Synergy Grant   | A or B at Step 3  | No restrictions    |  |
|   | B at Step 1 or Step 2   | No restrictions    |  |
|   | C at Step 1   | SYG                |  |

# **Expected Time Commitment & Working Time in EU/AC**

Pl's time commitment on the ERC Project, minimum:



**StG, CoG, AdG:** Principal Investigators must spend a **minimum of 50%** of their working time in a **Member State or** <u>Associated Country</u>

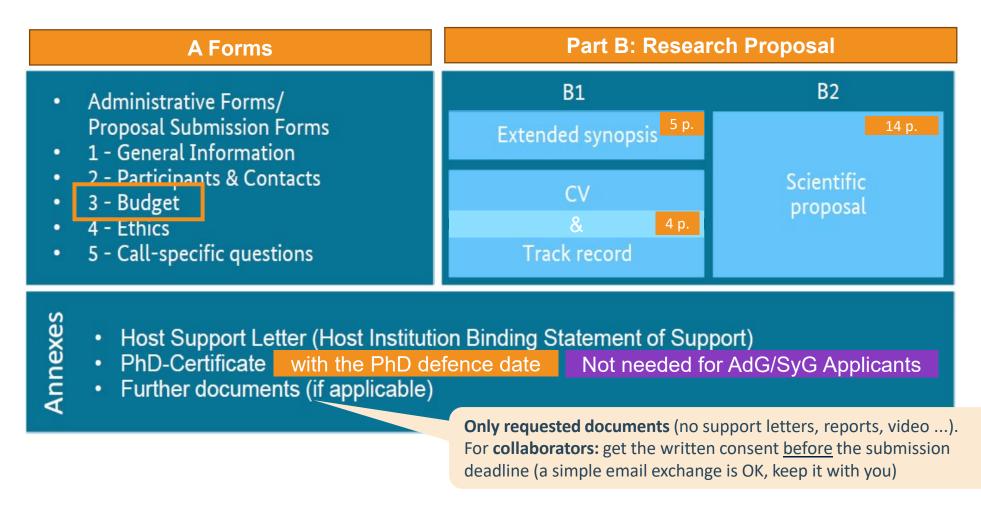
**SyG:** one PI can apply with a host institution outside of EU/AC)

## **ERC** — Call Dates for 2024

|                                       | Starting<br>Grant | Consolidator<br>Grant | Advanced<br>Grant | Synergy<br>Grant | Proof of<br>Concept Grant |
|---------------------------------------|-------------------|-----------------------|-------------------|------------------|---------------------------|
| Call opens                            | 11/07/2023        | 12/09/2023            | 29/05/2024        | 12/07/2023       | 16/11/2023                |
| Deadline to<br>submit<br>applications | 24/10/2023        | 12/12/2023            | 29/08/2024        | 08/11/2023       | 14/03/2024<br>17/09/2024  |
| Budget                                | €601m             | €584m                 | €578m             | €400m            | €30m                      |

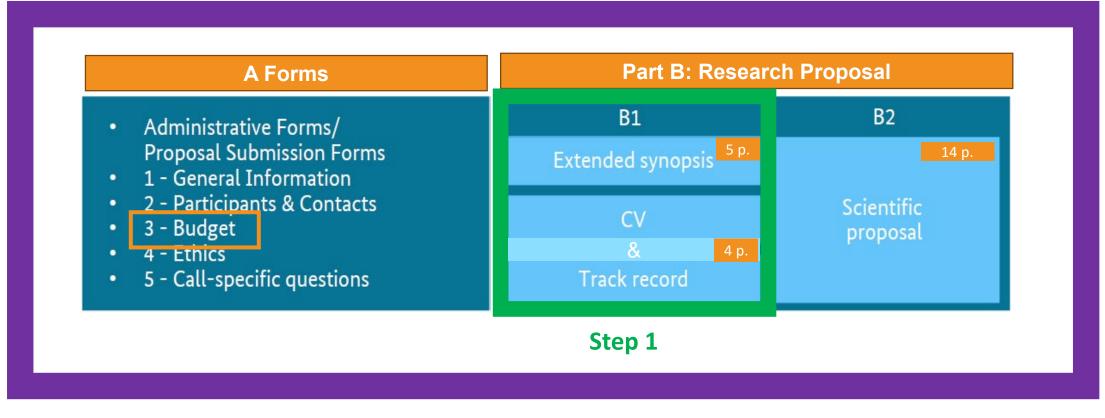
# **Completing an ERC Application: single submission**

• Proposals must be submitted online via the **Funding & Tenders Portal** 



# **Evaluation Process**

# Evaluation: 2-step (StG, CoG AdG) peer review procedure



#### **Step 2 including interview**

SyG: 3-step evaluation including interview

## **Evaluation Panels: StG, CoG, AdG**

- **Review Panels**: panel chair & *c*.15 members
- assisted by external experts (step 2)
- Panel members change on an annual basis i.e. members of the 2022 panels could potentially review 2024 applications
- **Database** of ERC panel members
- **Study your panel**: who will evaluate you and your research idea?

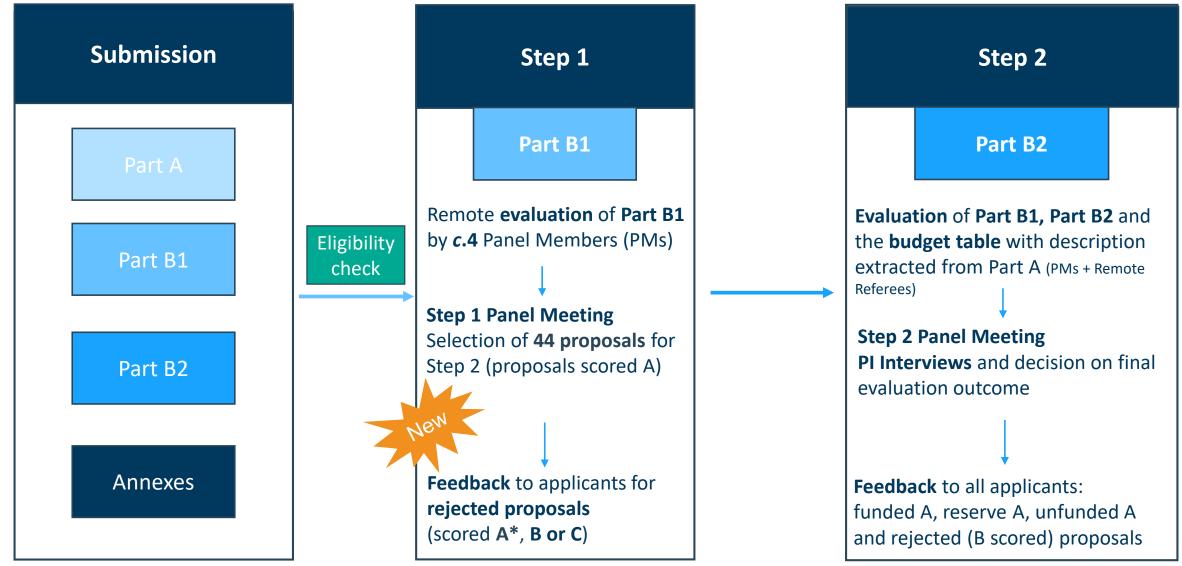
2022 list of StG panel member 2022 list of CoG panel member 2022 list of AdG panel member

#### **11 Panels for 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

https://erc.europa.eu/sites/default/files/2023-03/ERC panel structure 2024 calls.pdf

# **Evaluation Process for StG, CoG, AdG:** single submission —— two-step evaluation



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# **Novelties for ERC WP 2024**



## **Research assessment: focus on the project**

- ERC has decided to explicitly **weigh the project proposal more than the past achievements** of the applicant during the evaluation
- Proposals will continue to be judged on their originality, creativity and ground-breaking ideas
- Researcher: their capacity, creativity, and commitment, applicant's excellence and required scientific expertise to successfully execute the proposed project
- Career stage and personal context are taken into account

## **Evaluation Criteria**

# Excellence

## is the sole evaluation criterion

## **Research Project**

## Ground breaking nature

- Scientific impact
- Scientific Approach

## **Principal Investigator**

- Intellectual capacity
- Creativity
- Commitment

## **Evaluation Criteria**

1. Research Project

Ground-breaking nature, ambition, and feasibility

Starting, Consolidator, Advanced, and Synergy Grants

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)?

#### Scientific Approach

To what extent is the outlined scientific approach feasible bearing in mind the groundbreaking nature and ambition of the proposed research (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 are the proposed timescales, resources, and PI commitment adequate and properly justified (based on the research proposal)?

#### Work Programme 2024

## **Evaluation Criteria — PI**

2. Principal Investigator(s)

Intellectual capacity and creativity Starting, Consolidator, Advanced, and Synergy Grants

To what extent has/have the PI(s) demonstrated the ability to conduct ground-breaking research?

To what extent does/do the PI(s) provide evidence of creative and original thinking?

To what extent does/do the PI(s) have the required scientific expertise and capacity to successfully execute the project?

Work Programme 2024

## **ERC Statistics**

| success rates | Horizon Europe                                |  |         | H2020   |  |        |
|---------------|---|--|---------|---|--|--------|
|               | 2023  | 2022   | 2021    | 2020  | 2019   | 2018   |
| StG           | 14,84%  | 13,73%   | 9,76%   | 13,30%  | 13,10%   | 12,70% |
| CoG           |   | 14,18%   | 11,73%  | 13,00%  | 12,30%   | 12,20% |
| AdG           |   | 13,22%   | 14,44%  | 8,31%   | 9,80%  | 10,80% |
| SyG           |   | 8,06%  | no call | 7,70%   | 13,00%   | 8,80%  |
| PoC           | 1. cut-off 54,10%<br>2. cut-off<br>3. cut-off | 1. cut-off 47,70%<br>2a. cut-off 45,83%<br>2b. cut-off 57,29%<br>3. cut-off 38,46% | no call | 1. cut-off 37.2%<br>2. cut-off 36.4%<br>3.cut-off 28.2% | 1. cut-off 39.4%<br>2. cut-off 46.2%<br>3. cut-off 31.9% |        |

### Should you fail, try again!

Gain experience from evaluation. Panel feedback is useful and resubmissions have higher success rate (*c*.1.5 times higher).

# **Support and Useful Resources**

# **ERC application with DESY & Support**

## **ERC application with DESY as Host Institution**

- Needs to be approved by the director
- DESY's internal application procedure: Expression of Interest form to be submitted to EUP

## **EU Project Office (EUP)**

- DESY-internal ERC Summer Workshop for potential applicants
- Abstract, B1 and Budget table:
- Assistance in filling in the **Administrative Forms**
- HI Support Letter
- Step 2: Interview Training

### Your DESY Group/Contact & Expert Colleagues

- Get a successful proposal
- **Discuss your project** with your group leader and experts from your field, and semi-experts
- Have your proposal proofread by different persons (not all necessarily from you field)
- Step 2: Critical Questions during Interview Training

#### **Other Support**

 Proposal reading service by the <u>NCP</u> send your proposal at least three weeks before the deadline

# **Helpful Resources**

### **Important documents**

- Work Programme 2024
- Information for Applicants StG & CoG
- Guide for Peer Reviewers

#### **ERC Classes**

- What to consider before applying
- How to fill in the application
- The interview
- How the evaluation works

#### **Click here to watch**



## **Useful Links**

- ERC Website
- ERC-FAQs
- Datahub of ERC funded projects
- <u>ERIS</u> (analysis tool to search ERCfunded projects, includes dashboards)
- ERC podcast
- List of ERC Proposals published online
- ERC eligibility calculator
- Parental leave and eligibility
- 11 questions you must answer about
  your project

## **Contact Persons at DESY's EU Project Office**

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