Belgian NCP info session: ERC Advanced Grant

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Outline

- ERC overview
- Grants and Evaluation process
- Preparing your proposal
- Statistics
- Questions?
The ERC is …

• A **funding body** set up by the EU in 2007, based in Brussels

• A component of **Horizon 2020**: 'Excellent Science' Pillar

• Led by **scientists for scientists**

• **International peer-review**

• Supporting **bottom-up, investigator-driven** research across **all fields**, on the basis of **scientific excellence**

• Looking for **High-risk/High-gain** ambitious projects
After 12 Years…

Over **9400** top researchers funded since the ERC’s creation in 2007

Over **60.000** researchers and other professionals employed in ERC research teams

**€ 13 billion**

ERC budget for 2014-2020 under Horizon 2020

Over **100.000** articles from ERC projects published in prestigious scientific journals

780 research institutions hosting ERC grantees – universities, public or private research centres in the EU or associated countries

82 nationalities of grant holders
The ERC is part of Horizon 2020: The EU Research and Innovation programme

- Horizon 2020 budget:
  77 billion € in 7 years (11B€/year)

→ ERC budget:

  2.2 billion €

  1.9 billion €/year
  = € 13 billion

  1.1 billion €/year
  = € 7.5 billion
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ERC grants provide independence, recognition & visibility:

• Work on a research topic of own choice, with a team of own choice
• Gain true financial autonomy for 5 years
• Negotiate the best conditions with the Host Institution
• Attract top team members and collaborators
• Move with the grant to any place in Europe (portability)
• Attract additional funding
Established by the European Commission

Starting Grants
(2-7 years after PhD)
up to €1.5 Million for 5 years + €1 Million

Consolidator Grants
(7-12 years after PhD)
up to €2 Million for 5 years + €1 Million

Advanced Grants
10 Y research track-record
up to €2.5 Million for 5 years + €1 Million

Synergy Grants
2 – 4 Principal Investigators
up to €10 Million for 6 years + €4 Million

Proof-of-Concept
bridging gap between research - earliest stage of marketable innovation
Lump sum: €150,000 for ERC grant holders
ERC Synergy Grants (not in 2021)

- Objective: projects that would not be possible by the individual PIs working alone
- Grant size: Up to €10M over 6 years (possibility of additional €4M)
  - 2-4 PIs of any nationality at any career stage
  - One PI designated as corresponding PI (cPI)
  - Ambitious research projects - new methods, approaches, techniques, research between disciplines.
  - Min. 30% of PI's time on the project
  - Min. 50% of PI's time in the EU or AC
ERC Proof of Concept Grants
(need to have a StG, CoG, AdG or SyG grant)

• To bring ERC-funded ideas to a pre-demonstration stage for:
  → potential commercialisation opportunities or
  → potential societal benefits

• A 150,000€ /1,5 year grant to verify the innovation potential of an idea.
  → The funding should cover technical validation, market research, clarifying IPR strategy, investigating business opportunities.
  → Not a research proposal diguised as a PoC
**Advanced Grants**

- **Objective:** support excellent PIs at the career stage at which they are already established research leaders with a recognised track record of achievements.

- **Grant size:** €2.5M with possibility of an additional €1M:
  - Start-Up costs for scientists moving to EU/Associated Countries
  - Major equipment or other major experimental and field work costs
  - Access to large facilities

- **PI Profile:**
  - Active researchers that are leaders in terms of originality and significance of their research.
  - Last 10 years publication record
  - Patents, invited presentations, prizes, mentoring, funding
  - 30% of PI's time on the project + 50% of PI's time in the EU or AC
Evaluation procedure
Advanced Grant
Single submission, two-step evaluation

STEP 1
Remote individual assessment by Panel Members of Part B1 only (synopsis and CV)

Panel meeting 1

score B & C: Rejected proposals

score A: proposals retained for step 2

STEP 2
Remote individual assessment by Panel Members and External Reviewers of Part B1+ Part B2 (full proposal)

Panel meeting 2 + Interview, from 2021 onwards

scores A & B: Ranked list of proposals

Feedback to applicants
To make the evaluation process more effective

**STEP 1**
- **A** (unfunded)
  - • you can apply next year
- **B**
  - • wait 1 year before reapplying
- **C**
  - • wait 2 years before reapplying

**STEP 2**
- • you can apply next year

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Re-submission restrictions
Submission to Panels

- The applicant submits a Proposal to a Panel.
  ➞ Possibility to indicate a Secondary Panel (+justify why)

- Applicant **chooses the panel**, this panel is 'responsible' and runs the evaluation of the proposal

- **But**: In case of cross-panel or cross-domain proposals, evaluation by other panels is possible

- Changing a proposal’s panel is exceptional (when expertise is available in another panel or in case of a clear mistake)

- Select carefully **panel descriptors** and indicate **free keywords** (they are used when allocating proposals to PMs)
ERC panel structure

Each panel: Panel Chair + 12-16 Panel Members

**Life Sciences**
- **LS1** Molecular and Structural Biology and Biochemistry
- **LS2** Genetics, Genomics, Bioinformatics and Systems Biology
- **LS3** Cellular and Developmental Biology
- **LS4** Physiology, Pathophysiology and Endocrinology
- **LS5** Neurosciences and Neural Disorders
- **LS6** Immunity and Infection
- **LS7** Diagnostic Tools, Therapies, Applied Medical Technology & Public Health
- **LS8** Evolutionary, Population and Environmental Biology
- **LS9** Applied Life Sciences & Non-Medical Biotechnology

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

**Social Sciences and Humanities**
- **SH1** Individuals, Markets and Organisations
- **SH2** Institutions, Values, Environment and Space
- **SH3** The Social World, Diversity, Population
- **SH4** The Human Mind and Its Complexity
- **SH5** Cultures and Cultural Production
- **SH6** The Study of the Human Past
Excellence is the only evaluation criterion

Research Project

- Ground-breaking nature
- Potential impact
- Clever Scientific Approach

Principal Investigator

- Creativity
- Leadership
- Scientific expertise and capacity to execute the project
Individual evaluation report by panel members:

- Criterion 1 - RESEARCH PROJECT

Current score: - / 5.0 ; Threshold 0

Your score: *

- 1.0 - Non-competitive
- 1.5
- 2.0 - Good
- 2.5
- 3.0 - Very Good
- 3.5
- 4.0 - Excellent
- 4.5
- 5.0 - Exceptional

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:
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 higher-than

Comments: *

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 (ba:

Comments: *
- Criterion 2 - PRINCIPAL INVESTIGATOR

Current score: - / 5.0 ; Threshold 0

* Please click here for more information

Your score: *

- 1.0 - Non-competitive
- 1.5
- 2.0 - Good
- 2.5
- 3.0 - Very Good
- 3.5
- 4 - Excellent
- 4.5
- 5 - Exceptional

To what extent has the PI demonstrated the ability to conduct ground-breaking research? *

- Non-competitive
- Good
- Very Good
- Excellent
- Exceptional

To what extent does the PI provide evidence of creative independent thinking? *

- Non-competitive
- Good
- Very Good
- Excellent
- Exceptional

To what extent does the PI have the required scientific expertise and capacity to successfully execute the project? *

- Non-competitive
- Good
- Very Good
- Excellent
- Exceptional

Comments:

- SUGGESTED REMOTE REFEREE FOR STEP 2 EVALUATION

Add Remote Referee
Who evaluates your proposal?

Panel Members by HI Country

30% of ERC panel members are women
Outline

- ERC overview
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- Statistics
- Questions?
Preparing your proposal

- Have a **bright, original and exciting idea**
- **Design a research project** to implement your idea
- Get a letter of support from the **Host Institution** where the project is to be carried out (in EU or any of the H2020 associated countries)
- Write your **research proposal:**
- Get **feedback** from peers (who have an Advanced Grant)
- Submit your research proposal **before the deadline**
  → fully electronic/web based submission system
Preparing your proposal: Questions to ask yourself as an applicant

- Does the proposal go **beyond the state of the art?**
- Is it **timely**? (Why wasn't it done in the past? Is it feasible now?)
- What is the risk? Is it justified by the potential gain? Do I have a plan for managing the risk?
- Why is my proposal important?
- Why am I the best/only person to carry it out?
- Am I internationally competitive as a researcher at my career stage and in my discipline?
- Am I able to manage a 5-year project with a substantial budget?
Preparing your proposal: Writing your CV

• Remember that the CV/Track Record is as important as your project (50-50)
• Describe activities indicating scientific leadership
• Explain what was your contribution to key publications
• Explain publishing habits in your field and country if needed.
• If you know that you have gaps or other issues in your CV, explain them
• Fully fill in your Funding ID
Preparing your proposal
Host Institution

- You **can change** HI during the project's lifetime, if needed
- **Negotiate** with the HI (your position, equipment, administrative support, access to infrastructure, etc.)
- The Host Institution is not an evaluation criterion
Preparing your proposal: Tips

- **Register early**, get familiar with the system and templates and start filling in the forms.
- A submitted proposal can be **revised until the call deadline** by submitting a new version and overwriting the previous one.
- Follow the formatting rules and page limits.
- Download and proof-read the proposal before submitting.
- Make use of the **help tools and call documents** *(Information for Applicants, Work Programme, FAQs)*
- Talk to the **Belgium National Contact Point** and your Institution's Grant Office.
# Proposal structure

## Part A: Administrative form

1. General information
2. Administrative data of participating organisation(s)
3. Resources and Budget table
4. Ethics
5. Call specific questions

## Annexes - submitted as pdf

Commitment of the Host Institution, PhD certificates (StG,CoG), etc.

## Part B1 - submitted as pdf

*Evaluated in Step 1 & Step 2*

- Cross-domain explanation: 1 page
- Extended synopsis: 5 pages
- Curriculum vitae: 2 pages
- Funding ID: 1 page
- Track-record: 2 pages

## Part B2 - submitted as pdf

*NOT evaluated in Step 1 (Step 2 only)*

- Scientific proposal: 15 pages
  - a – State-of-the-art and objectives
  - b – Methodology
Preparation a proposal
 Differences in Part B1 and Part B2

Step 1: Panel members evaluate only Part B1 of your proposal: Prepare it accordingly!

- Pay attention to the **groundbreaking nature** of the project – no incremental research. State-of-the-art is not enough.
- Know your competitors – what is the **state of play** and why is your idea and scientific approach outstanding?
- **Concise and clear presentation** is crucial (evaluators are not necessarily all experts in the field - at step 1 acting as a “generalist” is normal)
- **Outline of the methodological approach** - the feasibility is assessed. Do you provide convincing elements on the approach used?
Preparation a proposal
Differences in Part B1 and Part B2

**Step 2:** Panel members and external reviewers (with specific expertise relevant to the project) evaluate both Part B1 and Part B2

- Part B2: Do not just repeat the synopsis from Part B1
- Provide **sufficient detail** on methodology, work plan, selection of case studies where relevant, etc. (15 pages)
- Make sure you give **full references** (excluded from page count)
- Add a **timeline**
- Provide strategies to **mitigate risk**
- Explain your **budget** and involvement of **team members**
Explain your budget properly

• Panels have to ensure that the requested resources are reasonable and well justified.
  Unexplained costs may (will) be cut.

• Granting is made on a 'take-it-or-leave-it' basis: no negotiations.

💰 Ensure coherence between the description of resources and the budget table.

💡 Follow Information for Applicants on how to fill the budget table and calculate overheads.

🌟 Ask for funding for Open Access – OA is obligatory in Horizon2020 and these costs are eligible.
Contrary to what you may think…..

- ERC funds "frontier research", including applied research
- The budget is distributed among the panels as a function of demand (equal success rate)
- The panel descriptors do not represent ERC scientific priorities
- Publication record is not decisive in selection
- Re-applying pays off (50% success rate increase)
- No indication that native English speakers are more likely to succeed
## 2020 Call Calendar

<table>
<thead>
<tr>
<th>ERC calls</th>
<th>Budget</th>
<th>Call Opening</th>
<th>Submission Deadline(s)</th>
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</thead>
<tbody>
<tr>
<td><strong>Starting Grants</strong></td>
<td></td>
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<tr>
<td>ERC-2020-StG</td>
<td>677 M€</td>
<td>17 July 2019</td>
<td>16 October 2019</td>
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<td>(455 grants)</td>
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<td><strong>Synergy Grants</strong></td>
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<tr>
<td>ERC-2020-SyG</td>
<td>350 M€</td>
<td>18 July 2019</td>
<td>5 November 2019</td>
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<td>(39 grants)</td>
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<tr>
<td><strong>Consolidator Grants</strong></td>
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<tr>
<td>ERC-2020-CoG</td>
<td>657 M€</td>
<td>24 October 2019</td>
<td>4 February 2020</td>
</tr>
<tr>
<td></td>
<td>(343 grants)</td>
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<tr>
<td><strong>Advanced Grants</strong></td>
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<tr>
<td>ERC-2020-AdG</td>
<td>492 M€</td>
<td>14 May 2020</td>
<td>26 August 2020</td>
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<tr>
<td></td>
<td>(209 grants)</td>
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<td></td>
<td>(166 last year)</td>
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<tr>
<td><strong>Proof of Concept</strong></td>
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<tr>
<td>ERC-2020-PoC</td>
<td>25 M€</td>
<td>15 October 2019</td>
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<tr>
<td></td>
<td>(167 grants)</td>
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2020 Call Calendar: Established by the European Commission.
Outline

- ERC overview
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2017 StG-CoG-AdG: Age of Grantees

2017 Grantees by age and success rate

- STG 2017 (median 35)
- COG 2017 (median 40)
- ADG 2017 (median 52)
- SR by age
ERC Funded Projects by Country

Host country (as of 10/12/2019)

ERC grants

- Advanced Grant
- Consolidator Grant
- Starting Grant
ERC Funded Projects by Domain

Host country (as of 10/12/2019)

SH
PE
LS
Success Rate by Country


Average ~12%
ERC Grants by Belgian institutions
# ERC Grants by Belgian institutions

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Institution</th>
<th>Grants</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>FR</td>
<td>CNRS</td>
<td>563</td>
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<tr>
<td>2</td>
<td>UK</td>
<td>Oxford University</td>
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<tr>
<td>3</td>
<td>UK</td>
<td>Cambridge University</td>
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<td>4</td>
<td>DE</td>
<td>Max Planck Society</td>
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<tr>
<td>5</td>
<td>IL</td>
<td>Weizmann Institute</td>
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<td>UK</td>
<td>University College London</td>
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<td>CH</td>
<td>ETH Zurich</td>
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<td>CH</td>
<td>EPFL Lausanne</td>
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<td>IL</td>
<td>Hebrew University of Jerusalem</td>
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<td>UK</td>
<td>Imperial College</td>
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<td>11</td>
<td>FR</td>
<td>INSERM</td>
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<td>12</td>
<td>UK</td>
<td>Edinburgh University</td>
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<td>13</td>
<td>DE</td>
<td>Munich University (LMU)</td>
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<td>14</td>
<td>NL</td>
<td>Amsterdam University</td>
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<td>Copenhagen University</td>
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<td>BE</td>
<td>Leuven University</td>
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<td>18</td>
<td>IL</td>
<td>Technion - Israel Institute of Technology</td>
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<td>NL</td>
<td>Delft University of Technology</td>
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<td>20</td>
<td>ES</td>
<td>Spanish National Research Council (CSIC)</td>
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<td>29</td>
<td>BE</td>
<td>Ghent University</td>
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<td>44</td>
<td>BE</td>
<td>VIB - Flanders Institute for Biotechnology</td>
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<td>BE</td>
<td>Louvain University</td>
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<td>85</td>
<td>BE</td>
<td>ULB - Free University of Brussels</td>
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<tr>
<td>95</td>
<td>BE</td>
<td>Antwerp University</td>
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</tbody>
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Established by the European Commission

Grantees at home and abroad

68 foreign grantees in BE, mainly with Italian, German, and Dutch nationality

278 PIs with Belgian nationality in BE

102 Belgian PIs abroad, mainly in the NL, UK, FR and CH
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Questions

• Does a successful proposal require collaboration with international groups or should all expertise be available in house?

• What is the need for preliminary data in a proposal. Can we suggest broad ideas without pilot experiments?

• Compatibility of the ERC Advanced Grant and other grants

• What to do if the comments do not reflect a reason to reject funding, as has typically been the case in the past?
Questions: CV

- Are candidates evaluated at the same level of seniority?
- Is the CV evaluated in the context of the research field?
- Are there restrictions regarding the nationality of an applicant?
Questions: Multidisciplinary proposals

- How to choose a panel for multidisciplinary research?
- How does the ERC treat multidisciplinary proposals that do not exactly fit in any of the panel descriptions?
- Is there any counterpart for the interdisciplinary panel at the FWO?
The European Research Council

- National Contact Point:  [erc.europa.eu/national-contact-points](http://erc.europa.eu/national-contact-points)
- Sign up for news alerts:  [erc.europa.eu/keep-updated-erc](http://erc.europa.eu/keep-updated-erc)
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  - [twitter.com/ERC_Research](http://twitter.com/ERC_Research)
  - [www.linkedin.com/company/european-research-council](http://www.linkedin.com/company/european-research-council)
Thank you
2018 Grantees by age and success rate

Success rate vs. Age on 1 Jan 2018

- STG
- COG
- ADG
- SR by age

Success rate

# funded proposals

0 10 20 30 40 50 60 70 80

Age on 1 Jan 2018

29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71