The European Research Council:

ERC Advanced Grants – Continuity in a changing Horizon

Lionel Thelen, PhD
Panel coordinator
Social Sciences and Humanities Unit
ERC Scientific Management Department

Info Day NCP Belgium, 26 Avril 2019
Outline

What is the ERC? What does the ERC offer for AdG Principal Investigators and their teams?

How is Belgium doing at the ERC?

How are ERC research proposals evaluated?

Some tips on preparing an ERC proposal
To encourage the highest quality research **in Europe** through competitive funding and to support investigator-driven frontier research across all fields, on the basis of scientific excellence.
What is the European Research Council?

The ERC supports excellence in frontier research through a bottom-up, individual-based, pan-European competition

**Budget:** € 13 billion (2014-2020) - 1.9 billion €/year
€ 7.5 billion (2007-2013) - 1.1 billion €/year

**Legislation**
- Scientific governance: independent Scientific Council with 22 members including the ERC President; full authority over funding strategy
- Support by the ERC Executive Agency (autonomous)
- Excellence as the only criterion

**Strategy**
- Support for the individual scientist – no networks!
- Global peer-review
- No predetermined subjects (bottom-up)
- Support of frontier research in all fields of science and humanities
Scientific Governance by the Scientific Council
ERC in the H2020 Structure

The HORIZON 2020 main components:

- **Excellent Science**
  - *World class science is foundation of technologies, jobs, well-being*
  - *Europe needs to develop, attract, retain research talent*
  - *Researchers need access to the best infrastructures*

- **Industrial leadership**

- **Societal challenges**

**Excellent Science:**

- **European Research Council** (budget under H2020: € 13 billion)
- Future and Emerging Technologies
- Marie Skłodowska Curie Actions
- Research Infrastructures
ERC H2020 Budget

For 2019, the budget is more than 2 billion euros, the highest ever since the beginning of the ERC.

ERC Budget
€ 13 billion
ERC Grant Schemes

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

**Consolidator Grants**
- **consolidators** (7-12 years after PhD)
- up to € 2 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

**Proof-of-Concept**
- bridging gap between research - earliest stage of marketable innovation
- up to €150,000 for ERC grant holders

**Synergy Grants** (re-launched 2018)
- 2 – 4 Principal Investigators
- up to € 10.0 Mio for 6 years
What does ERC offer?
Creative freedom to individual grantee

ERC offers independence, recognition & visibility

- Work on any research topic: **bottom-up**
- Gain **financial autonomy** for 5 years
- Negotiate the **best work conditions** with the host institution
- Attract **top team members and collaborators** (EU and non-EU)
- **Portability of grants**
- **Attract additional funding** and gain recognition: ERC is a quality label
Who can apply?

- **Excellent** Researchers
- **Any nationality, any age** or any current place of work
- In conjunction with a Host Institution based in Europe EU or associated countries
- If granted, you need to spend at least 50% of your working time in the EU or associated countries
Particular emphasis on…..

Frontier of science, scholarship and engineering, e.g.

✓ Multi- or interdisciplinary proposals which cross boundaries between different fields of research, or

✓ Pioneering proposals addressing new and emerging fields of research, or

✓ Proposals introducing unconventional, innovative approaches and scientific inventions.
2019 Panel Structure

Each panel: Panel Chair and 12-17 Panel Members

### Life Sciences
- **LS1** Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics
- **LS2** Genetics, 'Oomics', Bioinformatics and Systems Biology
- **LS3** Cellular and Developmental Biology
- **LS4** Physiology, Pathophysiology and Endocrinology
- **LS5** Neuroscience and Neural Disorders
- **LS6** Immunity and Infection
- **LS7** Applied Medical Technologies, Diagnostics, Therapies, and Public Health
- **LS8** Ecology, Evolution and Environmental Biology
- **LS9** Applied Life Sciences, Biotechnology and Molecular and Biosystems Engineering

### 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

### 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 and Informatics
- **PE7** Systems and Communication Engineering
- **PE8** Products and Processes Engineering
- **PE9** Universe Sciences
- **PE10** Earth System Science
ERC funds "frontier research", including applied research

The budget is distributed among the scientific panels as a function of demand

The panel descriptors do not represent ERC scientific priorities

The success rate is virtually flat across the eligibility window (StG, CoG)

The Host Institution is not an evaluation criterion
Shall I apply now or wait another year?
2018 StG/CoG/AdG Calls
Age of Grantees

2018 Grantees by age and success rate

# funded proposals vs age on 1 Jan 2018

Success rate vs age on 1 Jan 2018

- STG
- COG
- ADG
- SR by age
2018 StG/CoG/AdG Calls
"Academic age" of grantees

All calls 2018 Grantees by years since PhD

- STG Grantees
- COG Grantees
- ADG Grantees
- Success rate

Years since PhD on 1 Jan 2018

# grantees

Percentage

2018 StG/CoG/AdG Calls
"Academic age" of grantees
ERC Advanced Grants
The applicant’s profile

“Am I competitive enough?”

- Exceptional leader in terms of originality and significance of your research
- Excellent track record and achievements during the last 10 years (this time window can be extended in case of eligible career breaks)
- **Substantial track record of significant research achievements**
  - as appropriate for the field
  - publications in peer-reviewed journals, monographs, invited presentations, funding, patents, awards, prizes
  - Organisation of international conferences
  - Major contributions to the early careers of excellent researchers
  - Bibliometric data may be one of the proxies used (where appropriate) among many others
Design of the Synergy call in a nutshell

- **Grant size:**
  - 2018: up to 10M€ + 4M€ for 6 years
  - 2019: 400M€

- **2018 Call budget:** 250 M€
  - 2019: 400M€

- **2018:** 27 projects funded
- **2019:** 40-45 projects

- **Principal Investigators:**
  - HI in general to be in EU or Associated Country (AC)
  - SyG2019: possible for one PI to be outside of EU or AC

- **SyG2019:**
  - Call closed for submission on 8/11/2018
  - 3 step evaluation to finish in September 2019

- **SyG2019:**
  - 3 Step evaluation: with interviews for all PIs in step 3

- **No restrictions on their location**

- **Deadline for SyG2019 proposal submission:** 8 November 2018

- **SyG2020:** submission opening planned for July 2019

- **≥50% of working time in EU or AC and ≥30% of working time on the ERC project**
<table>
<thead>
<tr>
<th>HI Country (SyG 2018)</th>
<th>Synergy Pls</th>
<th>Corresponding Pls</th>
<th>Pls</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>BE</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>CH</td>
<td>11</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>CZ</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>DE</td>
<td>23</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>DK</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EL</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>ES</td>
<td>7</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>FI</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>FR</td>
<td>14</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>HU</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>IL</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>IT</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>NL</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>NO</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>PT</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>SE</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>UK</td>
<td>10</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>88</strong></td>
<td><strong>27</strong></td>
<td><strong>61</strong></td>
</tr>
</tbody>
</table>
EXAMPLE OF A GROUND-BREAKING SYNERGY PROJECT

Black hole breakthrough: a European success
by Helena Gonzalez-Sanchez Bodiroa, ERC EA
11/04/2019 | 130 | 20

Since yesterday, it's been all over the media: the first ever image of a massive black hole. 'First-ever?' some may wonder. Yes, despite the abundance of artistic simulations and pictures from science fiction, the truth is that astrophysicists know little about these mysterious places in space. It has taken several years of research and an unprecedented international cooperation to obtain the long-awaited image. The support of the EU has been key in this fascinating quest.

You cannot see black holes. By nature, they are out of sight. Gravity pulls so much inside them that they swallow nearby planets and stars, even light. Since Einstein described these cosmic objects in his Theory...
ERC Proof-of-Concept (POC) Grants

- For Principal Investigators of existing grants
- Lump sum of EUR 150,000 for a period of 18 months
- To maximise the value-creation of the ERC-funded research

Provide funds to bring ERC-funded ideas to a pre-demonstration for:

- Generation of return for innovators (economic, reputation, prestige, influence, …)
- Generation of new value for users (socio-economic benefits)
Outline

- What is the ERC? What does the ERC offer?
- How is Belgium doing at the ERC?
- How are ERC research proposals evaluated?
- Some tips on preparing an ERC proposal
ERC Funded Projects by Country of HI

Host country (as of 06/12/2018)

- **Advanced Grant**
- **Consolidator Grant**
- **Starting Grant**

<table>
<thead>
<tr>
<th>Country</th>
<th>ERC Grants</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>1850</td>
</tr>
<tr>
<td>DE</td>
<td>1351</td>
</tr>
<tr>
<td>FR</td>
<td>1101</td>
</tr>
<tr>
<td>NL</td>
<td>750</td>
</tr>
<tr>
<td>CH</td>
<td>613</td>
</tr>
<tr>
<td>IL</td>
<td>483</td>
</tr>
<tr>
<td>DE</td>
<td>479</td>
</tr>
<tr>
<td>ES</td>
<td>3094</td>
</tr>
<tr>
<td>BE</td>
<td>243</td>
</tr>
<tr>
<td>SE</td>
<td>155</td>
</tr>
<tr>
<td>AT</td>
<td>104</td>
</tr>
<tr>
<td>DK</td>
<td>89</td>
</tr>
<tr>
<td>FI</td>
<td>64</td>
</tr>
<tr>
<td>NO</td>
<td>52</td>
</tr>
<tr>
<td>IE</td>
<td>36</td>
</tr>
<tr>
<td>PT</td>
<td>16</td>
</tr>
<tr>
<td>HU</td>
<td>11</td>
</tr>
<tr>
<td>EL</td>
<td>11</td>
</tr>
<tr>
<td>CZ</td>
<td>8</td>
</tr>
<tr>
<td>PL</td>
<td>7</td>
</tr>
<tr>
<td>TR</td>
<td>6</td>
</tr>
<tr>
<td>CY</td>
<td>4</td>
</tr>
<tr>
<td>LU</td>
<td>3</td>
</tr>
<tr>
<td>EE</td>
<td>3</td>
</tr>
<tr>
<td>SI</td>
<td>2</td>
</tr>
<tr>
<td>RO</td>
<td>1</td>
</tr>
<tr>
<td>IS</td>
<td>1</td>
</tr>
<tr>
<td>BG</td>
<td>1</td>
</tr>
<tr>
<td>HR</td>
<td>1</td>
</tr>
<tr>
<td>RS</td>
<td>1</td>
</tr>
<tr>
<td>LT</td>
<td>1</td>
</tr>
<tr>
<td>LV</td>
<td>1</td>
</tr>
<tr>
<td>MT</td>
<td>1</td>
</tr>
<tr>
<td>SK</td>
<td>1</td>
</tr>
</tbody>
</table>
Evaluated ERC Proposals by HI Country

Country of HI

EU15 - 85%
EU13 - 6%
A.C. - 9%

AdG 2008-2017
CoG 2013-2018
StG 2007-2018
Grantees at Home and Abroad

- 49 foreign grantees in Belgium
- 232 PIs with Belgian nationality in Belgium
- 90 Belgian PIs abroad, mainly in the NL, UK, FR and CH

Non-nationals in host country
Nationals in host country
Nationals abroad

ERC 2007-2017 calls
ERC Grants versus Top Publications

correlation = 0.97

Host countries as of 27/07/2018

Linear fit

Nr of ERC grants 2007-2018

Nr of top-1% highly cited publications 2005-2015
ERC Grants versus GERD
(Gross domestic expenditure on R&D)

correlation = 0.86

Linear fit
Host countries as of 27/07/2018
ERC Funded Projects by Domain

[Graph showing the distribution of ERC grants by country and domain, with bars for SH, PE, and LS.}
Success Rate by Country of HI
Success Rate by Country of HI and by Type of Grant

Overall Success Rates by Country of HI

Country of Host Institution

0% 5% 10% 15% 20% 25% 30%

StG 2007-2018
CoG 2013-2018
AdG 2008-2017
Overall Success Rates by Type of Grant

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Funded Proposals</td>
<td>4257</td>
<td>1920</td>
<td>2678</td>
<td>8855</td>
</tr>
<tr>
<td>Evaluated Proposals</td>
<td>40960</td>
<td>15240</td>
<td>21091</td>
<td>77291</td>
</tr>
<tr>
<td>Success Rate</td>
<td>10%</td>
<td>13%</td>
<td>13%</td>
<td>11%</td>
</tr>
</tbody>
</table>
### European Institutions Hosting ERC Grantees by Funding Schemes

**ERC calls 2007-2017 +StG2018+CoG2018**

**Current signatories of the grant agreement**

Data as of 06/12/2018

<table>
<thead>
<tr>
<th>Country</th>
<th>Higher-Education Institution</th>
<th>No</th>
<th>StG</th>
<th>CoG</th>
<th>AdG</th>
<th>Total</th>
<th>LS</th>
<th>PE</th>
<th>SH</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>University of Cambridge</td>
<td>1</td>
<td>103</td>
<td>48</td>
<td>82</td>
<td>233</td>
<td>82</td>
<td>111</td>
<td>40</td>
</tr>
<tr>
<td>UK</td>
<td>University of Oxford</td>
<td>2</td>
<td>85</td>
<td>52</td>
<td>94</td>
<td>231</td>
<td>65</td>
<td>96</td>
<td>70</td>
</tr>
<tr>
<td>UK</td>
<td>University College London</td>
<td>3</td>
<td>80</td>
<td>40</td>
<td>49</td>
<td>169</td>
<td>63</td>
<td>48</td>
<td>58</td>
</tr>
<tr>
<td>CH</td>
<td>Swiss Federal Institute of Technology Zurich (ETH Zurich)</td>
<td>4</td>
<td>54</td>
<td>22</td>
<td>75</td>
<td>151</td>
<td>39</td>
<td>105</td>
<td>7</td>
</tr>
<tr>
<td>IL</td>
<td>Weizmann Institute</td>
<td>5</td>
<td>67</td>
<td>41</td>
<td>42</td>
<td>150</td>
<td>87</td>
<td>61</td>
<td>2</td>
</tr>
<tr>
<td>CH</td>
<td>Swiss Federal Institute of Technology Lausanne (EPFL)</td>
<td>6</td>
<td>63</td>
<td>23</td>
<td>55</td>
<td>141</td>
<td>36</td>
<td>102</td>
<td>3</td>
</tr>
<tr>
<td>IL</td>
<td>Hebrew University of Jerusalem</td>
<td>7</td>
<td>65</td>
<td>21</td>
<td>40</td>
<td>126</td>
<td>53</td>
<td>51</td>
<td>22</td>
</tr>
<tr>
<td>UK</td>
<td>University of Edinburgh</td>
<td>8</td>
<td>45</td>
<td>17</td>
<td>41</td>
<td>103</td>
<td>35</td>
<td>41</td>
<td>27</td>
</tr>
<tr>
<td>UK</td>
<td>Imperial College</td>
<td>9</td>
<td>53</td>
<td>20</td>
<td>28</td>
<td>101</td>
<td>31</td>
<td>67</td>
<td>3</td>
</tr>
<tr>
<td>DE</td>
<td>University of Munich (LMU)</td>
<td>10</td>
<td>44</td>
<td>10</td>
<td>37</td>
<td>91</td>
<td>35</td>
<td>32</td>
<td>24</td>
</tr>
<tr>
<td>DK</td>
<td>University of Copenhagen</td>
<td>11</td>
<td>43</td>
<td>25</td>
<td>21</td>
<td>89</td>
<td>39</td>
<td>32</td>
<td>18</td>
</tr>
<tr>
<td>NL</td>
<td>University of Amsterdam</td>
<td>12</td>
<td>48</td>
<td>16</td>
<td>24</td>
<td>88</td>
<td>8</td>
<td>25</td>
<td>55</td>
</tr>
<tr>
<td>IL</td>
<td>Tel Aviv University</td>
<td>13</td>
<td>50</td>
<td>17</td>
<td>18</td>
<td>85</td>
<td>35</td>
<td>42</td>
<td>8</td>
</tr>
<tr>
<td>BE</td>
<td>University of Leuven</td>
<td>14</td>
<td>40</td>
<td>14</td>
<td>26</td>
<td>80</td>
<td>21</td>
<td>42</td>
<td>17</td>
</tr>
<tr>
<td>NL</td>
<td>Delft University of Technology</td>
<td>15</td>
<td>40</td>
<td>17</td>
<td>18</td>
<td>75</td>
<td>10</td>
<td>57</td>
<td>8</td>
</tr>
<tr>
<td>CH</td>
<td>University of Zurich</td>
<td>16</td>
<td>31</td>
<td>16</td>
<td>26</td>
<td>73</td>
<td>38</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>NL</td>
<td>Utrecht University</td>
<td>17</td>
<td>30</td>
<td>24</td>
<td>18</td>
<td>72</td>
<td>13</td>
<td>28</td>
<td>31</td>
</tr>
<tr>
<td>FI</td>
<td>University of Helsinki</td>
<td>18</td>
<td>34</td>
<td>15</td>
<td>22</td>
<td>71</td>
<td>39</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>NL</td>
<td>Radboud University Nijmegen</td>
<td>19</td>
<td>36</td>
<td>17</td>
<td>17</td>
<td>70</td>
<td>23</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>NL</td>
<td>Leiden University</td>
<td>20</td>
<td>35</td>
<td>14</td>
<td>19</td>
<td>68</td>
<td>1</td>
<td>25</td>
<td>42</td>
</tr>
<tr>
<td>UK</td>
<td>University of Bristol</td>
<td>21</td>
<td>26</td>
<td>9</td>
<td>32</td>
<td>67</td>
<td>13</td>
<td>40</td>
<td>14</td>
</tr>
<tr>
<td>IL</td>
<td>Technion - Israel Institute of Technology</td>
<td>22</td>
<td>39</td>
<td>11</td>
<td>14</td>
<td>64</td>
<td>20</td>
<td>43</td>
<td>1</td>
</tr>
<tr>
<td>DE</td>
<td>Technical University of Munich</td>
<td>23</td>
<td>27</td>
<td>17</td>
<td>17</td>
<td>61</td>
<td>14</td>
<td>46</td>
<td>1</td>
</tr>
<tr>
<td>UK</td>
<td>University of Manchester</td>
<td>24</td>
<td>21</td>
<td>14</td>
<td>24</td>
<td>59</td>
<td>10</td>
<td>40</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>Research Organisation</th>
<th>No</th>
<th>StG</th>
<th>CoG</th>
<th>AdG</th>
<th>Total</th>
<th>LS</th>
<th>PE</th>
<th>SH</th>
</tr>
</thead>
<tbody>
<tr>
<td>FR</td>
<td>National Centre for Scientific Research (CNRS)</td>
<td>1</td>
<td>235</td>
<td>124</td>
<td>108</td>
<td>467</td>
<td>129</td>
<td>280</td>
<td>58</td>
</tr>
<tr>
<td>DE</td>
<td>Max Planck Society</td>
<td>2</td>
<td>105</td>
<td>36</td>
<td>87</td>
<td>228</td>
<td>118</td>
<td>92</td>
<td>18</td>
</tr>
<tr>
<td>DE</td>
<td>Helmholtz Association of German Research Centres</td>
<td>3</td>
<td>69</td>
<td>35</td>
<td>31</td>
<td>135</td>
<td>81</td>
<td>53</td>
<td>1</td>
</tr>
<tr>
<td>FR</td>
<td>National Institute of Health and Medical Research (INSERM)</td>
<td>4</td>
<td>52</td>
<td>27</td>
<td>28</td>
<td>107</td>
<td>99</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ES</td>
<td>Spanish National Research Council (CSIC)</td>
<td>5</td>
<td>33</td>
<td>20</td>
<td>18</td>
<td>71</td>
<td>20</td>
<td>43</td>
<td>8</td>
</tr>
<tr>
<td>FR</td>
<td>French Alternative Energies and Atomic Energy Commission</td>
<td>6</td>
<td>43</td>
<td>9</td>
<td>17</td>
<td>69</td>
<td>10</td>
<td>57</td>
<td>2</td>
</tr>
</tbody>
</table>
ERC Grants by Belgian institutions
(provisional data)

Current Host Institutions (data as of 10/04/2018)
<table>
<thead>
<tr>
<th>Rank</th>
<th>Institution</th>
<th>ERC Grants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>National Centre for Scientific Research (CNRS)</td>
<td>425</td>
</tr>
<tr>
<td>2</td>
<td>University of Cambridge</td>
<td>218</td>
</tr>
<tr>
<td>3</td>
<td>University of Oxford</td>
<td>214</td>
</tr>
<tr>
<td>4</td>
<td>Max Planck Society</td>
<td>210</td>
</tr>
<tr>
<td>5</td>
<td>University College London</td>
<td>157</td>
</tr>
<tr>
<td>6</td>
<td>Swiss Federal Institute of Technology Zurich (ETH Zurich)</td>
<td>136</td>
</tr>
<tr>
<td>7</td>
<td>Swiss Federal Institute of Technology Lausanne (EPFL)</td>
<td>134</td>
</tr>
<tr>
<td>8</td>
<td>Weizmann Institute</td>
<td>133</td>
</tr>
<tr>
<td>9</td>
<td>Hebrew University of Jerusalem</td>
<td>117</td>
</tr>
<tr>
<td>10</td>
<td>Nat. Institute of Health and Medical Research (INSERM)</td>
<td>101</td>
</tr>
<tr>
<td>11</td>
<td>Imperial College</td>
<td>97</td>
</tr>
<tr>
<td>12</td>
<td>University of Edinburgh</td>
<td>97</td>
</tr>
<tr>
<td>13</td>
<td>University of Amsterdam</td>
<td>83</td>
</tr>
<tr>
<td>14</td>
<td>University of Copenhagen</td>
<td>80</td>
</tr>
<tr>
<td>15</td>
<td>University of Munich (LMU)</td>
<td>80</td>
</tr>
<tr>
<td>16</td>
<td>University of Leuven</td>
<td>76</td>
</tr>
<tr>
<td>17</td>
<td>Tel Aviv University</td>
<td>75</td>
</tr>
<tr>
<td>18</td>
<td>Delft University of Technology</td>
<td>66</td>
</tr>
<tr>
<td>19</td>
<td>French Alternative Energies and Atomic Energy Comm.</td>
<td>66</td>
</tr>
<tr>
<td>20</td>
<td>Spanish National Research Council (CSIC)</td>
<td>66</td>
</tr>
<tr>
<td>34</td>
<td>Ghent University</td>
<td>50</td>
</tr>
<tr>
<td>45</td>
<td>Flanders Institute for Biotechnology (VIB)</td>
<td>39</td>
</tr>
<tr>
<td>62</td>
<td>University of Louvain la Neuve</td>
<td>31</td>
</tr>
<tr>
<td>75</td>
<td>ULB – Free University of Brussels</td>
<td>24</td>
</tr>
</tbody>
</table>
Outline

- What is the ERC? What does the ERC offer?
- How is Belgium doing at the ERC?
- How are ERC research proposals evaluated?
- Some tips on preparing an ERC proposal
Evaluation - StG/CoG/AdG

Peers

- **Panel members**: typically 425 / call (SyG:~90)
  - High-level scientists
  - Recruited by the ERC Scientific Council from all over the world: ~14% from outside Europe
  - About 14-17 members, including one chair person

- **Referees**: typically 2000 / call
  - Evaluate only a small number of proposals
  - Similar to normal practise in peer-reviewed journals
ERC Panel Members by Country of HI and Gender

Averaged over 2007-2017, 29% of the ERC panel members were women.
StG/CoG/AdG: Submission to Panels  
(SyG: all proposals are submitted to a single panel)

- Proposals are submitted to a **targeted Panel** (of PI's choice)
  - Can flag one “**Secondary Review Panel**”

- Applicant **chooses his/her panel**, and this panel is “responsible” for the evaluation of the proposal

- Proposals can be moved to other panels in exceptional cases, e.g. if clear mistake on part of applicant, or due to the necessary expertise being available in a different panel

- In case of cross-panel or cross-domain proposals, evaluation by members of other panels possible
# Online Submission

## Proposal structure

### Administrative forms (Part A)

1. General information
2. Administrative data of participating organisations
3. Budget
4. Ethics
5. Call specific questions

### Annexes

Commitment of the host institution, PhD certificates, certificates on extension of eligibility, ethics issues etc.

<table>
<thead>
<tr>
<th>Part B1 (submitted as pdf)</th>
<th>Evaluated in Step 1 &amp; Step 2</th>
</tr>
</thead>
</table>
| Text box - Cross-domain nature explanation | ![Image](image)
| a – Extended synopsis | 5 pages |
| b – Curriculum vitae | 2 pages |
| Appendix – Funding ID | ![Image](image) |
| c - Track-record | 2 pages |

<table>
<thead>
<tr>
<th>Part B2 (submitted as pdf)</th>
<th>NOT evaluated in Step 1 (Step 2 only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific proposal</td>
<td>15 pages</td>
</tr>
<tr>
<td>a – State-of-the-art and objectives</td>
<td><img src="image" alt="Image" /></td>
</tr>
<tr>
<td>b – Methodology</td>
<td><img src="image" alt="Image" /></td>
</tr>
<tr>
<td>c – Resources</td>
<td><img src="image" alt="Image" /></td>
</tr>
</tbody>
</table>

→ **Read the Information for Applicants**
How are ERC research proposals evaluated?

Excellence is the sole evaluation criterion

Evaluation of excellence at two levels:

• Excellence of the Research Project
  ✓ Ground breaking nature
  ✓ Potential impact
  ✓ Scientific Approach

• Excellence of the Principal Investigator
  ✓ Intellectual capacity
  ✓ Creativity
  ✓ Commitment
Evaluation

Review procedure (StG, CoG and AdG)

**STEP 1**
Remote assessment by Panel members of section 1 – PI and synopsis

- Panel meeting

- Proposals retained for step 2

**STEP 2**
Remote assessment by Panel members and reviewers of full proposals

- Panel meeting + interview (StG and CoG)

- Ranked list of proposals

Feedback to applicants

- Right balance between generalist + specialized review
- Appropriate treatment of interdisciplinary proposals
How to prepare and submit a successful ERC research proposal?

- Have a **bright, original, exciting idea**
- Design a **research project** to implement the idea
- Get a letter of support from a **Host Institution** where the project is to be carried out (the HI must be located in the EU or any of the H2020 associated countries)
- Write your **research proposal**
- **Fully electronic/web based submission system**
- Submit your research proposal **before the deadline**
Outline

- What is the ERC? What does the ERC offer?
- How is Belgium doing at the ERC?
- How are ERC research proposals evaluated?
- Some tips on preparing an ERC proposal
Preparing your proposal (1)

- 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
- Make sure you are eligible
- 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, Frequently asked questions)
- Talk to the National Contact Points and your Institution's grant office
Prefering your proposal (2): Host Institution

- **You can change** it during the project's life
- **Negotiate** with the HI (your position, equipment, administrative support, access to infrastructure, etc.)

**Rumour 1:** The quality/fame of the HI is increasing my chances/scores.

**✗ NOTtrue:** the HI is not an evaluation criterion!
Preparing your proposal (3): Choosing the Panel

Check out projects funded under panel
Check out past panel members

IMPORTANT: You are not allowed to contact panel members about the evaluation! Any such contact can lead to exclusion from the call.
Preparing your proposal (4): Choosing descriptors

- Descriptors and free keywords may influence:
  - Evaluation Panel
  - Panel members
  - Whether a cross-panel evaluation is necessary

**Rumour 2:** The more cross-panel descriptors indicated, the higher the funding chances, since I emphasize like this the interdisciplinarity of my proposal.

**NOT true:** even though these are used to allocate proposals to Panel Members, once the proposals are allocated, Panel Members do not see the keywords and descriptors used.
Preparing your proposal (5): Part B1: the research project

- Is my project new, **innovative**, bringing new solutions/theories?
- Does it promise to go **substantially beyond the state of the art**? – no incremental research. **Think big!**
- Know your competitors – what is the **state of play** and why is your idea and scientific approach outstanding?
- **Only** the extended Synopsis is read at Step 1: **concise and clear** presentation is crucial (evaluators are not all experts in the field)
- How can I **prove/support** my case? Are my goals **realistic**? Explain your **scientific approach** in sufficient detail to convince the panel about the **feasibility** of your project
- What's the **risk**? Mitigating measures?
- Societal impact is **not** an evaluation criterion (which does not mean ERC-funded projects would not have such impact)
Preparing your proposal (6): Part B1: the principal investigator

• Why am I the best/only person to carry it out? Know your competitors

• Am I able to work independently, and to manage a 5-year project with a substantial budget?

• Am I competitive?

• Have I shown my scientific leadership in my CV?

  *Rumour 3:* One needs publications in Nature/Science/High Impact Factor journals to succeed.

  *NOT true*
Preparing your proposal (7): Part B2

In Step 2, both part B.1 and part B.2 are read by Panel Members and specialists from around the world

- Do not repeat the synopsis, provide sufficient details on your methodology and work plan
- 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
- Explain involvement of team members
- Justify requested resources – explain your budget properly
Preparing your proposal (8): Proposal budget considerations

- Budget analysis carried out in Step 2 evaluation (meeting)
- Panels have responsibility to ensure that resources requested are reasonable and well justified
- Budget cuts need to be justified on a proposal by proposal basis (no across-the-board cuts)
- Panels to recommend a final maximum budget based on the resources allocated/removed
- Panels do not “micro-manage” project finances
- Awards made on a “take-it-or-leave-it” basis: no negotiations
Typical reasons for not making it into Step 2

• Incremental in nature
• Hypothesis and objectives not sufficiently clear
• No realisation of risks & challenges, contingency
• For interdisciplinary proposals: expertise missing in one area

It does take a considerable effort to compose a good application!
Some useful tools and links

- Read **Information for Applicants** and Work Programme
- View the **step-by-step video** Introduction to application process, including tips & tricks for the interview https://vimeo.com/94179654
- Consult **ERC website** for latest funding opportunities, view ERC funded projects
The European Research Council

More information on
erc.europa.eu

National Contact Point in your country
erc.europa.eu/national-contact-points

Follow us on
EuropeanResearchCouncil
ERC_Research

Read through the ERC Work Programme 2019!
Outlook next Framework Programme
**Horizon Europe: Evolution not Revolution**

Specific objectives of the Programme

- **Support the creation and diffusion of high-quality knowledge**
- **Strengthen the impact of R&I in supporting EU policies**
- **Foster all forms of innovation and strengthen market deployment**

**Optimise the Programme’s delivery for impact in a strengthened ERA**

---

**Pillar 1**
- Open Science
- European Research Council
- Marie Skłodowska-Curie Actions
- Infrastructures

**Pillar 2**
- Global Challenges and Industrial Competitiveness
  - Clusters
    - Health
    - Inclusive and Secure Society
    - Digital and Industry
    - Climate, Energy and Mobility
    - Food and natural resources
  - Joint Research Centre

**Pillar 3**
- Open Innovation
  - European Innovation Council
  - European innovation ecosystems
  - European Institute of Innovation and Technology

---

**Strengthening the European Research Area**
- Sharing excellence
- Reforming and Enhancing the European R&I system
Parliament and Council negotiations on Union budget 2021-2027, including budget for Horizon Europe

Parliament agrees its position on Horizon Europe legislation

Council to agree its position on Horizon Europe legislation

Parliament and Council start **trialogues** with a view to agreeing on Horizon Europe legislation

**Envisaged start of Horizon Europe**
The first reported ERC publications began to appear in 2007 and since then publications acknowledging ERC funding have gone from contributing less than 0.1% of EU top 1% publications in 2007 (2) to nearly 7% in 2014 (973). In 2014, for the first time authors based in the EU appeared on more top 1% cited publications (14,172) than authors based in US (14,093) in absolute numbers.
21\% of the ERC-funded Projects Deliver Scientific Breakthroughs
Frontier Research Leads to Innovation

With 17% of the budget of the 7th Framework Programme (FP7), the ERC accounts for 29% of FP7-funded patent filings (>800)

Thematic concept map of ERC supported inventions
## Proposal submission

ERC Work Programme 2019 calendar

<table>
<thead>
<tr>
<th>ERC calls</th>
<th>Budget</th>
<th>Call Opening</th>
<th>Submission Deadline(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Starting Grants</strong></td>
<td><strong>580 M€</strong></td>
<td>1 August 2018</td>
<td>17 October 2018</td>
</tr>
<tr>
<td>ERC-2019-StG</td>
<td>(390 grants)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Synergy Grants</strong></td>
<td><strong>400 M€</strong></td>
<td>2 August 2018</td>
<td>8 November 2018</td>
</tr>
<tr>
<td>ERC-2019-SyG</td>
<td>(48 grants)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Consolidator Grants</strong></td>
<td><strong>602 M€</strong></td>
<td>24 October 2018</td>
<td>7 February 2019</td>
</tr>
<tr>
<td>ERC-2019-CoG</td>
<td>(314 grants)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Advanced Grants</strong></td>
<td><strong>391 M€</strong></td>
<td>21 May 2019</td>
<td>29 August 2019</td>
</tr>
<tr>
<td>ERC-2019-AdG</td>
<td>(166 grants)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Proof of Concept</strong></td>
<td><strong>25 M€</strong></td>
<td>6 October 2018</td>
<td>19 September 2019</td>
</tr>
<tr>
<td>ERC-2019-PoC</td>
<td>(167 grants)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q: Can you show us an example of a successful proposal and say what factors made it stand out from the crowd?

We can't provide a 'representative' example. Every panel decides whether and why a proposal is successful as compared to others. The reasons for this can be very different from one panel to another.

Applicants should find their own way and rely on themselves to come up with a convincing proposal.

See on the ERC Website what projects have been funded in your field.