Logic Tree for Grant Writing

An simple Tool in Grant Support

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Grant Writing

Research processes

Grant writing is to bring these 3 dimensions together in the proposal

The proposal

The evaluation Criteria

The template
The Researcher’s mindset
General Research Process

1. Ask a Question
2. Do Background Research
3. Construct a Hypothesis
4. Test with an Experiment
5. Analyze Data and Draw Conclusions
6. Communicate Results

- Troubleshoot procedure. Check all steps and set-up
- Experimental data becomes background research for new/future project. Ask new question, form new hypothesis, experiment again!

Results align partially or not at all with Hypothesis

Results align with hypothesis
Writing down the Results

- **Hour Glass Model**
  Swal93
The Reviewer’s mindset
Reviewers are Scientists with a Research Mindset

General Research Process

- Ask a Question
- Do Background Research
- Construct a Hypothesis
- Test with an Experiment
  - Procedure Working? Yes/No
    - Yes: Analyze Data and Draw Conclusions
    - No: Troubleshoot procedure, check all steps and set-up
  - Results align partially or not at all with Hypothesis
  - Results align with hypothesis
- Communicate Results

Experimental data becomes background research for new/future project. Ask new question, form new hypothesis, experiment again!

Writing down the Results

- Hour Glass Model
  - Swan93

Source: internet; 2013_updated_scientific-method_v6
What drives the reviewer?
The logic of logic models

Logic Models
“... a graphic description of the structure of the grant (template and evaluation criteria) designed to identify how the scientific argumentation can be logically fitted to the structure”.

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The Logic Tree for Grant Writing

Key Question

Objective 1
Objective 2
Objective 3

Research Design

Outcome
Outcome
Outcome

The basic skeleton
Grant Support
<table>
<thead>
<tr>
<th>PART (priority) I</th>
<th>PART (priority) II</th>
<th>PART (priority) III</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCELLENT SCIENCE</td>
<td>Industrial Leadership</td>
<td>SOCIETAL CHALLENGES</td>
</tr>
<tr>
<td><strong>European Research Council (ERC):</strong></td>
<td>Leadership in Enabling and Industrial Technologies (LEIT)</td>
<td><strong>FOCUS AREAS</strong></td>
</tr>
<tr>
<td>1. Starting Grant</td>
<td>1. ICT</td>
<td>1. Health, demographic change and wellbeing</td>
</tr>
<tr>
<td>2. Consolidator Grant</td>
<td>2. Nanotechnologies</td>
<td>2. Food security, sustainable agriculture and forestry, marine and maritime and inland water research and bio-economy</td>
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<tr>
<td>3. Advanced Grant</td>
<td>3. Advanced materials</td>
<td>3. Secure, clean and efficient energy</td>
</tr>
<tr>
<td>4. Proof of Concept</td>
<td>4. Biotechnology</td>
<td>4. Smart, green and integrated transport</td>
</tr>
<tr>
<td><strong>Future Emerging Technologies (FET):</strong></td>
<td>Access to Risk Finance:</td>
<td>6. Europe in a changing world – inclusive, innovative and reflective societies</td>
</tr>
<tr>
<td>1. FET Open</td>
<td>1. Debt Facility</td>
<td>7. Secure societies – protecting freedom and security of Europe and its citizens</td>
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<tr>
<td>2. FET Proactive</td>
<td>2. Equity Facility</td>
<td></td>
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<tr>
<td>3. FET Flagships</td>
<td>3. Capacity-Building in Technology Transfer</td>
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<tr>
<td><strong>MSCA Actions:</strong></td>
<td><strong>SME INSTRUMENT</strong></td>
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<tr>
<td>1. ITN</td>
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<tr>
<td>2. Ind. Fellowships</td>
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<td>3. RISE</td>
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<td>4. COFUND</td>
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</table>
The Evaluation Criteria
Art 14 RfP Award criteria

Art 14.1 Proposals submitted shall be evaluated on the following award criteria. Art 14.3 The WP shall lay down further details of the application of the award criteria laid down in paragraph 1, and specify weightings and thresholds.

**Excellence**
- 5 points
- 1-stage: 3 pts
- 2-stage: 4 pts
- Priority 1

**Impact**
- 5 points
- 1-stage: 3 pts
- 2-stage: 4 pts
- Priority 2

**Implementation**
- 5 points
- 1-stage: -
- 2-stage: 3 pts
- Priority 3
The Excellence Award Criteria

The following aspects will be taken into account, to the extent that the proposed work corresponds to the topic description in the work programme:

- Clarity and pertinence of the objectives;
- Soundness of the concept, and credibility of the proposed methodology;
- Extent that proposed work is beyond the state of the art (e.g. ground-breaking objectives, novel concepts and approaches), and demonstrates innovation potential;
- Appropriate consideration of interdisciplinary approaches and, where relevant, use of stakeholder knowledge.

**Excellence**

- 5 points
- Threshold 3/4
- Priority 1
**Scientific Excellence: Ground-breaking nature, Ambition and Feasibility**

**Ground-breaking nature and potential impact of the research project**

1. *To what extent* does the proposed research address **important challenges**?

2. *To what extent* are the **objectives ambitious** and beyond **S-o-t-A** (e.g. **novel concepts & approaches** or **development across disciplines**)?

3. *To what extent* is the proposed research **high-risk / high-gain**?

**Scientific Approach**

4. *To what extent* is the outlined **scientific approach feasible** bearing in mind that the proposed research is high-risk / high-gain (based on the Extended Synopsis)?

5. *To what extent* are the proposed **research methodology and working arrangements** appropriate to achieve the **goals** of the project (B2)?

6. *To what extent* does the proposal **involve the development of novel methodology**? (B2)

7. *To what extent* are the proposed **timescales and resources** necessary and properly justified? (B2)
# ERC Evaluation Criteria: Research Project

**Scientific Excellence:** Ground-breaking nature, Ambition and Feasibility

<table>
<thead>
<tr>
<th>Ground-breaking nature and potential impact of the research project</th>
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<tr>
<td>1. Important challenges?</td>
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<tr>
<td>2. Objectives ambitious incl. novel concepts &amp; approaches or development across disciplines?</td>
</tr>
<tr>
<td>3. High-risk / high-gain balance?</td>
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</tbody>
</table>

**Scientific Approach**

| 4. Scientific approach feasible? |
| 5. Proposed research methodology appropriate? |
| 6. Involving the development of novel methodology? |
| 7. Timescales and resources necessary and properly justified? |

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**Step 1**

**Step 2**

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How to use the Logic Tree for Grant Writing

The Logic Tree for Grant Writing

Key Question

Objective 1  Objective 2  Objective 3

Research Design

Outcome  Outcome  Outcome

The basic skeleton

ERC Evaluation Criteria Research Project

Scientific Excellence: Ground-breaking nature, Ambition and Feasibility

Ground-breaking nature and potential impact of the research project

1. Important challenges?
2. Objectives ambitious incl. novel concepts & approaches or development across disciplines?
3. High-risk / high-gain balance?

Scientific Approach

4. Scientific approach feasible?
5. Proposed research methodology appropriate?
6. Involving the development of novel methodology?
7. Timescales and resources necessary and properly justified?
And it all begins with an idea…

Thank you