The Birth of the European Research Council

Putting Excellence at the Heart of the European Science Policy

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Overview

- **Evolution of an idea**
- **The Scientific Council's ERC strategy**
- **The ERC Work Programme 2007**

Post-WWII European Integration in Science

- The Intergovernmental System:
  - *CERN*
  - *EMBO/EMBC*
  - *EMBL*
  - *ESO*
  - *ESA*
  - *Variants: ILL,ESRF, JET/EFDA*
- The EIROForum Collaborative

Post-WWII European Integration in Science

- The Community System:

  - *Joint Research Centre (Direct EC Action)*

  - *Research and Technological Development Directorate*

  Rationale: Support for Industrial Policy

  ".....and other Community policies"

  (as an afterthought)

Who Is Afraid of Virginia Wolf?

- What is the European Paradox?

  - *Excellent science without industrial innovation?*

  OR

  - *European Science policy without investment in science?*

  - *A hopeful start: CODEST*

  - *A bizarre failure: Firing ESTA*

Should Europe Invest More in Basic Research?

- ELSF (European Life Sciences Forum): an Initiative of EMBL, EMBO, FEBS
- Small meeting organised by the Swedish Royal Academy
- Danish EU Presidency Meeting (Copenhagen):

-Do we need a European Research Council?

-Surprising near unanimity: YES

An Idea Whose Time Has Come

- Series of ELSF meetings: What is needed?
- Engagement of other Scientific Communities
- High Level Groups
- Formation of the initiative for Science in Europe
- Minister Jose-Mariano Gago
- Commissioner P. Busquin,

Director-General A. Mitsos

The Birth of the ERC

- Commissioner Potočnik and the arms-length nomination of the ERC's 22-member Scientific Council

- The ScC Decisions:

- Develop the Structures and define the Strategy, in time to implement the ERC as soon as the legal co-decision is finalised (Commission, Council of Ministers, Parliament)

  - *Elect the chair and vice Chairs*
  - *Overcome the ScC/Executive Agency split: The ERC Board and the Secretary General*
  - *Towards an Integrated, Autonomous ERC*

The ERC Strategy

- Focus on the essential and the obvious
  - *Excellence as the sole criterion*
  - *All fields of Research*
  - *Individual, independent investigators*
  - *Significant funding, to make a difference*
- Starting Independent Researchers:
- Advanced Investigators

NB: Issues Being Addressed

- *Oversubscription*
- *Evaluation System*

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ERC's Central Strategy: See http://erc.europa.eu
First Major Funding Programme

- **ERC Starting Independent Researcher Grant (ERC Starting Grant)**

  - *The only programme funded in 2007*

  - *Ca. 200 new investigators/year in any field; funded ca. 1.5 M€ up to 5 yrs*

  - *Sole selection criterion: Excellence of person & proposal*

  - *Eligibility:*

    (a) 2-8 years since PhD (at submission deadline)

    (b) Newly established in research or educational position (or offer of position), within EU or associated States

    (c) No nationality criterion: The 3 Rs:

    Recruit, Repatriate, Retain TOP TALENT (ca 1200 positions in 7 years)

ERC's Central Strategy: See http://erc.europa.eu Second Major Funding Programme

- **ERC Advanced Investigator Grant (ERC Advanced Grant)**

  - *Start up expected in 2nd year*

  - *Annual budget minus ERC Starting Grants*

  - *From ca. 250 M to > 1 billion €/year (ca. 3M€ / proposal)*
  → ca. 200 grants committed / each year

  - *Sole selection criterion: Excellence of proposal & track record*

  - *Eligibility:*
  investigators at all career stages; no age limit; 3 Rs

ERC budget 2007-2013

- **Total (FP7 Ideas budget): € ≈7.5 bn**
  - ≈ 15 % of FP7 budget
  - ≈1/3 Starting Grants, ≈ 2/3 Advanced Grants
  - Less than 5% for operational ERC management
- **1st Call**
  - StG only, Jan 2007, € 300 Mio.
- **2nd Call**
  - AdG only, August 2007, € 550 Mio.
- **3rd call onwards:**
  - StG + AdG ≈ € 1.0 bn per year

Applying for ERC Grants (I)

- **Two-step application procedure (risk of oversubscription)**
  - 1st stage – Outline Proposal: max 8 Pages (3+4+1)
  - 2nd stage – Full Proposal: max 16 Pages (4+10+2)
- **Proposal Components**
  a) CV + self-evaluation of the PI's research achievements + funding ID
  b) Brief Description of scientific and technical aspects of the project
  c) Description of the scientific environment and resources
- **Electronic Submission only (via EPSS)**
- **Pre-registration (via EPSS)** – indication of number /area of proposals

Applying for ERC Grants (II)

Eligibility (ERC Starting Grant)

→ PI

- 2-8 years since completion of PhD: Special circumstances will be taken into account, such as maternity/paternity leave, military/civil service (+2 years max.)

→ PI and contributing investigators (team members)

- Any nationality
- One ERC Grant per investigator only may be active at any one time

→ Hosting institution

- Located in a EU member state or associated country
- Intra-European grant portability allowed

Evaluation criteria (I)
Scientific Excellence is the sole Criterion

1. **Potential of applicant**
2. **Quality of project**
3. **Research Environment**

- Referees and panels evaluate and score criteria under Heading 1 and Heading 2 numerically which will result in the ranking of the projects
- Criteria under Heading 3 will be considered as "pass/fail" and commented but not scored

Evaluation criteria (II)
ERC Starting Grant

1. Principal Investigator: Potential to become a world class research leader

a. Quality of research output

- Has the Principal Investigator published in high quality peer reviewed journals or the equivalent?
- To what extent are these publications ground-breaking and demonstrative of independent creative thinking and capacity to go significantly beyond the state of the art?

b. Intellectual capacity and creativity

- To what extent does the Principal Investigator's record of research, collaborations, project conception, supervision of students and publications demonstrate that he/she is able to confront major research challenges in the field, and to initiate new productive lines of thinking?

Evaluation criteria (III)
ERC Starting Grant

2. Quality of the research proposal

a. Ground-breaking nature of the research

b. Potential impact

c. Methodology

- Stage 1: Is the outlined scientific approach (including the activities to be undertaken by the individual team members) feasible?
- Stage 2: Is the proposed research methodology (including when pertinent the use of instrumentation, other type of infrastructures etc.) comprehensive and appropriate for to the project? Will it enable the goals of the project convincingly to be achieved within the timescales and resources proposed and the level of risk associated with a challenging research project?

Evaluation criteria (IV)
ERC Starting Grant

3. Research Environment

a. Transition to independence

- Will the proposed project enable the Principal Investigator to make or consolidate the transition to independence?

b. Host institution

- Is it in a position to provide an appropriate intellectual environment and infrastructural support and to assist in achieving the ambitions for the project and the Principal Investigator?

c. Participation of other legal entities

- If it is proposed that other legal entities participate in the project, in addition to the applicant legal entity, is their participation fully justified by the scientific added value they bring to the project?

Evaluation – Stage 1

Stage 1

- Submission and reception of proposal
- Allocation to relevant Panel(s)
- Assignment of best-matched Panel members by Panel Chair(s)
- Stage 1 panel meeting
- **Outcome:** Proposal rejected or retained for Stage 2

Evaluation – Stage 2

Stage 2

- Submission of complete and updated proposal
- Panels may be assisted by:
  - Referees (remote Evaluation using “Rivet”)
  - Interviews with applicants
- Stage 2 Panel meeting
- **Outcome:** Consolidated ranking list of retained proposals

Peer Review Evaluation

- **Approx. 20 high level panels (~10 members+chair), based on:**
  - → Coherence across all broad research domains and fields
  - → A forward-looking approach
  - → Encouragement to interdisciplinarity
  - → Funding allocations independent of the panel structure
  - → Flexibility and inclusiveness
- **Multidisciplinary projects appraised by all appropriate panels**
- **ScC members monitoring quality of the process**

Panel Structure

1. **PHYSICAL SCIENCES, ENGINEERING SCIENCES, UNIVERSE AND EARTH SCIENCES (8 panels)**
2. **BIOLOGICAL AND LIFE SCIENCES (7 panels)**
3. **SOCIAL AND HUMAN SCIENCES (5 panels)**

- **Each panel consists of one Panel Chair and approximately 10 panel members**
- **Panel Chair oversees evaluation process for the proposals assigned to his/her panel in collaboration with the ERC staff**
- **The Panel Chair gives high level stamp of credibility and visibility to the whole evaluation process**