

IDEAS: characteristics, priorities, specific elements of the ERC Advanced Grant

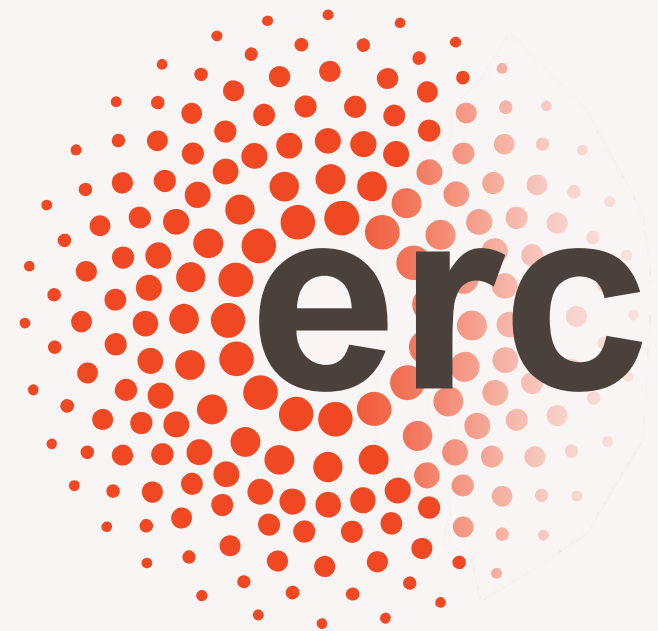
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RTD, Directorate S

Unit S1: *Strategic matters and relations*

with the ERC Scientific Council



Overview

1. Background & Evolution
2. Aim & Strategy
3. Funding Schemes & Activities
4. Organisation & Management

Basic / Frontier research in Europe



- **National activities:**
 - Research councils (DFG-1920, CNR-1923, CNRS-1939, SNF-1952), academies, etc.
- **Intergovernmental activities:**
 - CERN (1953), ESO (1962), ESA (1962/1975), EMBO (1963), ILL (1967), COST (1971), ESF (1974), EMBL (1978), Eureka (1985), ITER (1988), ESRF (1988), INTAS (1993)
- **EU activities (“supranational”):**
 - ECSC – Euratom – EC (1957), JRC (1959), JET (1973), FP1 (1984) ... FP7 (2006-2013)
 - European Research Area – ERA (2000)
 - **FP7 (2006-2013): Ideas/ERC, Marie Curie fellowships, research infrastructures, thematic priority areas**

ERC, “Ideas” and FP7

- A new “institution”

- Which is also part of the “family” of FP7:
 - Co-operation
 - **Ideas**
 - People
 - Capacities

- Complementary to other FP7 support to targeted research (bottom-up vs. targeted research)

FP7 Ideas Programme

- **Creates ERC**

- **Provides funding**
 - Budget (2007-2013) : € 7.51 bn (around 15% of FP7 budget)
 - Average budget: € ~1 bn per year

- **Sets overall objectives for research and operating principles**

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Strategic Aims

Overview



Boost European excellence in frontier research

- by investing in the best researchers and ideas
- through competition at European level
- on the basis of excellence as the sole criterion
- raising incentives towards quality and aspirations of individual researchers
- providing benchmarks and leverage towards broader (structural) improvements in European research

Why “Frontier research”?

Traditional terminology (“basic” / “applied” research “science” vs. “technology”) **is no longer appropriate:**

- Research at the frontiers is characterised by an absence of disciplinary boundaries
- New discoveries are often triggered by real world problems (and vice-versa)
- Progress in understanding phenomena and techniques for investigation go hand in hand

Strategy & Activities

ERC Scientific Council

- **Retain – Repatriate – Recruit**
- Favour “**brain gain**” and “**reverse brain drain**”
 - increase **competition, recognition and international visibility** for excellent individual scientists and scholars in Europe
 - **ERC Advanced Grant**: attract & reward established independent research leaders
- **Keep (young) researchers in Europe**
 - improve **career opportunities and independence** - especially for young researchers
 - **ERC Starting Grant**: attract & retain the next generation of independent research leaders

ERC budget 2007-2013

➤ Total (FP7 Ideas budget): € 7.51 bn

- ≈1/3 Starting Grants, ≈ 2/3 Advanced Grants
- Less than 5% for operational ERC management

➤ 1st Call

- StG only, Jan 2007, € 300 Mio.
- Budget allocated to three areas (for operational reasons)

➤ 2nd Call

- AdG only, later in 2007

➤ 3rd call onwards:

- StG + AdG ≈ € 1.0 bn per year (on the average)

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ERC Grants

Strategic principles

- **All fields of science and scholarship are eligible**
 - ☞ investigator-driven, bottom-up
- **Excellence is the only valid criterion**
 - ☞ individual team + research project
- **Investment in research talent**
 - ☞ Attractive, flexible grants, up to five years
 - ☞ under control of the lead researcher (PI)
- **Independent individual teams in Europe**
 - ☞ nationality of researchers is not relevant
 - ☞ host organisation to be located in EU or AS

ERC Grants

Operational Principles

- **Application in response to calls for proposals**
- **Staged Evaluation Procedure**
due to large number of expected applications
- **ERC peer review evaluation process**
panels select proposals to be funded and applicable budgets

ERC Grants

Who can apply ?

- Individual Research Teams:
 - headed by a single “**Principal Investigator**” (team leader)
 - of any nationality
 - if necessary, including additional team members.
- The “Principal Investigator” has the freedom to choose the **research topic** and the power to assemble his/her **research team** meeting the needs of the project.
- Teams can be of **national or trans-national** character.

ERC Grant Schemes

Two grant schemes are available:

- 1. ERC Starting Independent Researcher Grant scheme (ERC Starting Grant)**
 - 1st call for proposals closed 25 April 2007
- 2. ERC Advanced Investigator Researcher Grant scheme (ERC Advanced Grant)**
 - 1st call for proposals published later in 2007

ERC Starting Grant

(ERC Starting Independent Researcher Grant)

- support researchers at the start of their independent research career and **establishing or consolidating their own independent research team** (or research programme)
- provide a structure for transition from working under a supervisor to an independent research leader
- **~100'000 – 400'000 Euro per grant per year**
- **for up to 5 years, i.e. ~500'000-2'000'000 Euro per Grant**
- ~ 1/3 of ERC annual budget, annual calls
- ~200 Starting Grants per year, ~1400 Starting Grants over 7 years of FP7 (2007-2013)

ERC Starting Grant

1st call for proposals closed 25 April 2007

European Research Council



Massive response to first call (9.167 proposals)

Domain	Number of proposals	%
Life Sciences	3,396	37,0
Physical Sciences & Engineering	4,408	48,1
Social Sciences & Humanities	1,363	14,9
Total	9,167	



Heraklion/Athens – 29 and 31 May 2007



ERC Advanced Grant

(ERC Advanced Investigator Researcher Grant)

- Designed to support excellent investigator-initiated research projects by **established independent research leaders**
- Complement the ERC Starting Grant scheme by targeting researchers who have already established their independence as team leaders
- **Up to ~500'000 Euro per grant per year**
- **for up to 5 years, i.e. up to ~2'500'000 Euro per grant**
- ~ $\frac{2}{3}$ of ERC annual budget, annual calls
- ~ 300 Advanced Grants per year

ERC Advanced Grant

Objectives



- Support individual teams led by leading established Principal Investigators (including, for example, excellent scientists of the European "Diaspora" overseas).
- Finance ground-breaking, high-risk research that opens new opportunities and directions including those of a multi- and inter-disciplinary nature.
- Provide flexibility to manage research funds.

ERC Advanced Grant

Grant size



- for up to 5 years, up to ~M€ 2,5
- ~ 300 Advanced Grants

→ PI and team members (if applicable)

- Any nationality
- Only one ERC Grant per investigator may be active at any one time
- Additional restrictions on multiple submissions

→ Hosting institution

- Located in an EU member state or associated country
- Intra-European grant portability allowed (expected to be very rare for established investigators)

ERC Advanced Grant

Submission of Proposals



➤ Pre-registration (via EPSS)

- To provide ERC with indication on number & area of proposals

➤ One-stage electronic submission (only via EPSS)

- Full Proposal
- Including elements that will be evaluated during the first step

ERC Advanced grant

Budget Allocation

- ERC covers **all fields of science, engineering and scholarship**
- For operational reasons the ScC agreed on **3 main research domains**:
 - **Physical Sciences & Engineering**
 - **Life Sciences (incl. medical)**
 - **Humanities & Social Sciences**
- The **call budget will be pre-allocated to these areas** as follows (20% reserved by ScC):
 - **45% - 40% - 15%**

- Possible increase of panels (>20 of StG)
- Provisionally, each panel consists of the panel chair and 11 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 credibility stamp and visibility to the whole evaluation process

ERC Advanced Grant

Two-step evaluation



- **1st step:** Evaluation of CV with special emphasis on excellent track record (papers published in journals of high impact, highly cited publications, monographs etc.) & “Extended Synopsis”
- **Top proposals (over threshold) proceed to second step**
The over threshold list can go down to the point that cumulative budget is ~ 2-3x of the call budget
- **2nd step:** Evaluation of Full Proposal

Evaluation Criteria

Scientific Excellence is the sole Criterion

- 1. Quality of Principal Investigator**
- 2. Quality of research project**
- 3. Research Environment and Resources**
 - Referees and panels evaluate and score numerically
 - Overall threshold of 80%

Coordination & Support Actions (CSA)

- **Call for Proposals**
- **Call for Tender**
- **Named beneficiaries**

Coordination & Support Actions (CSA)

Topics may cover the following areas:

- Assessing the direct and indirect impacts of the ERC
- Evaluating the implementation of the “Ideas” programme
- Contributing to future ERC policy and initiatives

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ERC Actors

The Scientific Council

Independent scientific governance

The Agency

Practical implementation and management of operations

The European Union

Providing the financial means

The Scientific Council

Members & Role

22 most respected researchers reflecting the full scope of European research and scholarship

- proposed by an independent identification committee
- appointed by the Commission (for 4 years, renewable once)

Role:

- **Establishes overall scientific strategy**
establishes annual work programmes (incl. calls for proposals, evaluation criteria); defines peer review methodology; ensures selection and accreditation of experts
- **Controls quality of operations and management**
- **Ensures communication with the scientific community**

The Scientific Council Organisation

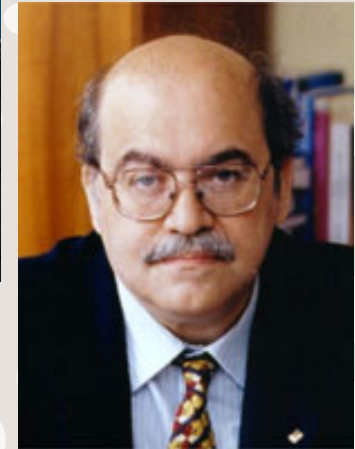
- 22 Members of the Scientific Council elected the **Chair** and **Vice-Chairs**
 - One Chair: **Prof. Fotis Kafatos**
 - Two Vice-Chairs: **Prof. Helga Nowotny** and **Dr Daniel Estève**
-
- + Regular Plenary Meetings (every 1-2 months)
 - + Secretariat of the ScC (Directorate S)



The ERC Secretary-General

The 22 Members of the Scientific Council appointed a Sec. Gen.

- **Prof. Ernst-Ludwig Winnacker**
(Jan 2007 – June 2009)
- **Prof. Andreu Mas-Colell**
(July 2009 – Dec 2011)



Role

- to ensure the integrated operation of ERC
- to monitor the implementation of the ScC's strategy and position as executed by the dedicated implementation structure
- to participate in the ERC board

The Agency

- **Executes annual work programme**
as established by the Scientific Council
- **Implements calls for proposals**
and provides information and support to applicants
- **Organises peer review evaluation**
- **Establishes and manages grant agreements**
- **Administers scientific and financial aspects**
and follow-up of grant agreements

The European Union

(represented by the European Commission)

- **Provides financing**
through the EU framework programmes
- **Guarantees autonomy**
of the ERC
- **Assures the integrity and accountability**
of the ERC
- **Adopts annual work programmes**
as established by the Scientific Council

The ERC Board

Prof. Fotis Kafatos
President of the ERC



Prof. Helga Nowotny
Dr Daniel Esteve

Vice-Presidents of the ERC



Prof. Ernst-Ludwig Winnacker
ERC Secretary-General



Jack Metthey
Director of ERC DIS
(EC RTD Directorate S)



The first home for the ERC



- **Madou Plaza – Tour Madou**
- **Brussels**
- 2 dedicated floors (5th/6th)
- 140 work places
- 5 meeting rooms
- 1 auditorium (192 seats)

Documentation

- **Specific text of “Call for Proposal”**
- **ERC Work Programme (to be revised in Autumn 2007)**
- **ERC Guide for Applicants**
- **ERC Grant agreement**

Other:

- **ERC Guide for Grant Holders**
- **ERC Guide for Peer Reviewers**
- **ERC Rules on submission, evaluation, selection and award procedures (coming soon)**

Applicants Services

- **ERC National Contact Points**
inform, raise awareness and provide advice on ERC funding opportunities, application, follow-up
- **ERC helpdesk**
- **EPSS helpdesk**
technical support on electronic proposal submission
- **ERC website: <http://erc.europa.eu>**
→ News Alert

Σας Ευχαριστώ
για την Προσοχή σας!

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