Stefano Fontana

European Commission RTD, Directorate B

stefano.fontana@ec.europa.eu (up to the end of February)

fontast@gmail.com





VII Programma Quadro ed opportunità per la comunità INFN, Frascati, Febbraio 2007





- 1. Background & Evolution
- 2. Aim & Strategy
- 3. Funding Schemes & Activities
- 4. Grant Agreement
- 5. Organisation & Management
- 6. In brief: 1st call & applicant services







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ERC, "Ideas" and FP7

A new "institution"

• Which is also part of the "family" of FP7:

- Co-operation
- \rightarrow 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





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

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➤ 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, August 2007, € 550 Mio.

> 3rd call onwards:

StG + AdG ≈ € 1.0 bn per year







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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
- Two-step application Procedure due to large number of expected applications
- ERC peer review evaluation process based panels 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:

ERC Starting Independent Researcher Grant scheme (ERC Starting Grant)

→ 1st call for proposals published, deadline 25 April 2007

ERC Advanced Investigator Researcher Grant scheme (ERC Advanced Grant)

→ 1st call for proposals published later in 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
- ~100'000-500'000 Euro per grant per year
- for up to 5 years, i.e. ~500'000-2'500'000 Euro per grant
- ~ € 600M per call (~²/₃ of ERC annual budget, annual calls)
- ~ 300 Advanced Grants per year







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
- ~€300M per call (~ 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 Requirements



→ PI

 2-9 years since completion of PhD: Special circumstances will be taken into account, such as maternity/paternity leave, military/civil service (+3 years max.)

PI and 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





ERC Starting Grant Submission of Proposals



Two-step application procedure (risk of oversubscription)

- 1st stage Outline Proposal: max 8 Pages
- 2nd stage Full Proposal: max 16 Pages
- Electronic Submission only (via EPSS)
- Pre-registration (via EPSS)
 - Providing ERC with indication on number & area of proposals

Proposal Components

CV + self-evaluation + funding ID (3 / 4 pages)

Description of research project (4 / 10 pages)



Description of scientific environment + resources (1 / 2 pages)

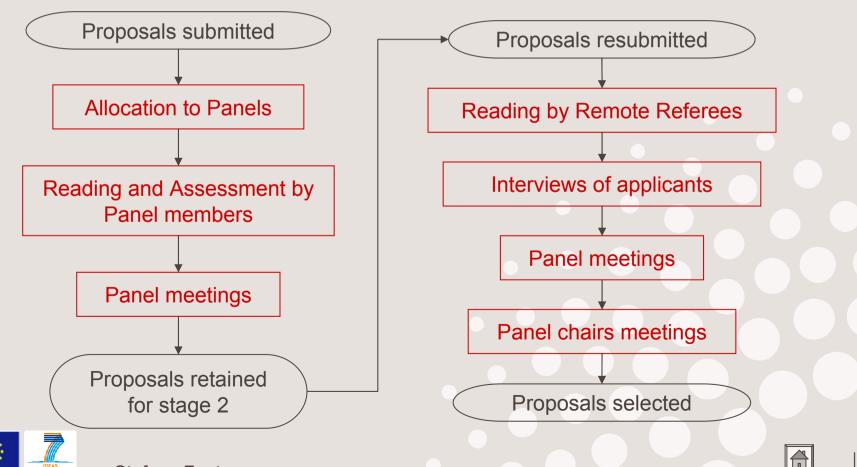




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ERC Submission, Evaluation and Selection Process





ERC Starting Grant 20 peer review panels in 3 domains

Area 1: Physical Sciences, Engineering Sciences, Universe and Earth Sciences (8 panels)

- Area 2: Biological and Life Sciences (7 panels)
- Area 3: Social Sciences and Humanities (5 panels)
 - Each panel consists of one Panel Chair and 10-12 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









Evaluation Criteria

Scientific Excellence is the sole Criterion

- **1. Potential of Principal Investigator**
- **2.** Quality of research project
- **3. Research Environment and Resources**
 - Referees and panels evaluate and score criteria under Heading 1 and Heading 2 numerically which will result in the ranking of the projects:
 - 0-5 points, in increments of 0.5
 - Threshold 8 / 10
 - Criteria under Heading 3 will be considered as "pass/fail" and commented but not scored



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ERC Starting Grant Evaluation criteria (I)



1. <u>Principal Investigator: Potential to perform world</u> <u>class research</u>

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?



ERC Starting Grant Evaluation criteria (II)



2. Quality of the research proposal

a. Ground-breaking nature of the research

- Does the proposed research address important challenges in the field(s) addressed?
- Does it have suitably ambitious objectives, which go substantially beyond the current state of the art (e.g. including trans-disciplinary developments and novel or unconventional approaches)?

b. Potential impact

 Does the research open new and important, scientific, technological or scholarly horizons?

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?



ERC Starting Grant Evaluation criteria (III)



3. <u>Research Environment</u>

a. Transition to independence

- Will the proposed project enable the Principal Investigator to make or consolidate the transition to independence?
- b. Host institution [normally applicant legal entity]
- Does the institution hosting the project have most of the infrastructure necessary for the research to be carried out?
- 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?



ERC Starting 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
 - Biological & Life Sciences
 - Social Sciences and Humanities
- The first call budget for ERC Starting Grants has been pre-allocated to these areas as follows:









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ERC Grant Agreement Concept



Agreement between ERC and Principal Investigator's (PI's) hosting organisation (beneficiary)

- Rights/obligations on scientific, financial, ethical conduct and monitoring, eligible costs, IPR, modifications, grant portability
- Supplementary Agreement between PI and its hosting organisation
 - Rights/obligations: administration, project execution, IPR
- Single grant holder approach
 - PI and members from same organisation
 - But: multi-partner/multi-national teams are possible

There will be no "project negotiations"

• Grant agreement based on the proposal and the peer review decision (budget)



- PI can accept/reject the offered grant



ERC Grant Agreement Main Elements



- -> Core Grant Agreement (between ERC and hosting organisation)
- Description of work (Annex I to the Grant Agreement)
- **General Conditions** (Annex II to the Grant Agreement)
- Supplementary Agreement (between PI and hosting organisation)
- -> Accession Form (if more than one hosting organisation Annex III)
- Special clause (if more than one hosting organisation for team members)









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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*





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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

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- <u>22 Members</u> of the Scientific Council elected the Chair and Vice-Chairs
- One Chair: Prof. Fotis Kafatos
- <u>Two Vice-Chairs</u>: Prof. Helga Nowotny and Dr Daniel Estève

- + Regular Plenary Meetings (every 1-2 months)
- Secretariat of the ScC (Directorate S)



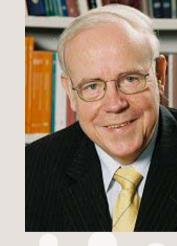


The ERC Secretary-General

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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)





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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



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The ERC Board

Prof. Fotis Kafatos ERC President Chair of the ScC



Prof. Helga Nowotny Dr Daniel Esteve

ERC Vice-Presidents Vice-Chairs of ERC ScC

Prof. Ernst-Ludwig Winnacker

ERC Secretary-General

Jack Metthey

Director of ERC DIS (EC RTD Directorate S)









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Dedicated Implementation Structure (DIS)

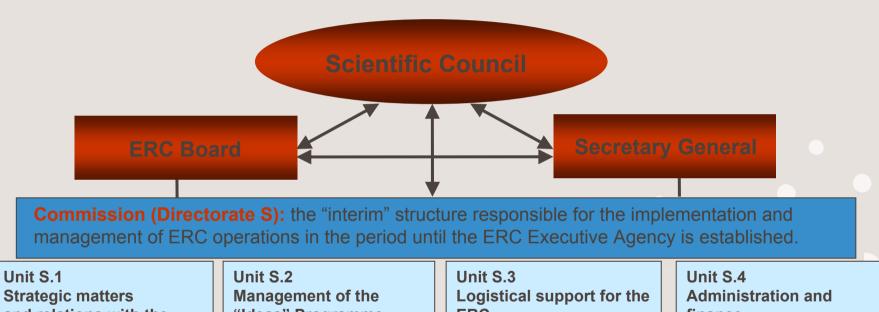
- Progressive establishment of ERC Executive Agency
 - Principles of lean and efficient management apply
- First: Building up of capacities and operational methods as dedicated service within Commission
- Then: Transition to agency structure
 - Executive Agency will be legally established within the first trimester of 2007 and is expected to be fully operational by mid-2008
- Review of ERC structure by 2010



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ERC Management Structure





Strategic matters and relations with the **Scientific Council**

 Provides secretariat of the ERC Scientific Council

•Prepares ERC strategy and work programme under guidance of the ScC

•Communicates and reports on ERC activities and achievements

"Ideas" Programme

 Manages ERC operations related to proposal submission and evaluation

 Establishes peer review evaluation panels under quidance of the ScC

 Provides scientific support to grant preparation and follow-up

ERC

•Prepares legislation for the establishment of the ERC Executive Agency (ERC EA)

•Develops ERC EA internal operational processes

•Manages ERC resources, incl, staff recruitment, logistics

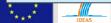
finance

•Manages financial circuits and budgetary operations

•Prepares and administers ERC grant agreements

 Ensures accountability to Court of Auditors

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The first home for the ERC



Madou Plaza – Tour MadouBrussels

- •2 dedicated floors (5th/6th)
- 140 work places
- •5 meeting rooms
- •1 auditorium (192 seats)



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1st Call in Brief

- **ERC Starting Grants only**
- What? Any field of science, engineering and scholarship
- Who? Principal Investigator (Individual Team) + Hosting Organisation
- By when ? Deadline Stage 1 submission: April 25, 2007
- How? Consult « ERC Guide for Applicants »
- Note:
 - Submission via EPSS only (no paper submission) \rightarrow
 - Respect page limits and format \rightarrow
 - Indicate keywords describing the subject area (panel assignment) \rightarrow
 - Stage 2 submission: on invitation only if stage 1 proposal evaluated \rightarrow positively 佘



Documentation

- Specific text of "Call for Proposal"
- ERC Work Programme 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



Applicants Services



• ERC National Contact Points inform, raise awareness and provide advice on ERC funding opportunities, application, follow-up

- ERC helpdesk
 support to ERC NCPs
- EPSS helpdesk
 technical support on electronic proposal submission
- ERC website: <u>http://erc.europa.eu</u>
 - News Alert, Publicity Material





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Thank you !



From 28th February I will quit the European Commission to goelsewhere





Several colleagues at EC is waiting to help you





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