

# The European Research Council

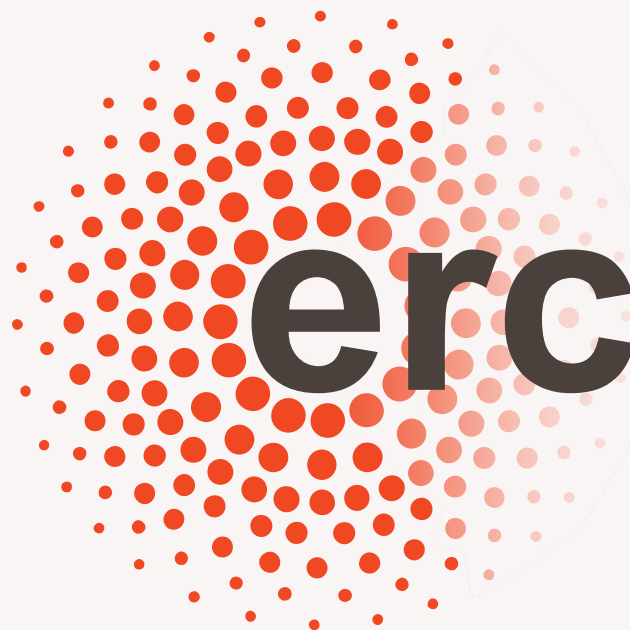
Event

**Pilar López**

ERC/European Commission

RTD, Directorate S

email, fax



# FP7 (EC)

- 7<sup>th</sup> Framework Programme (FP7)
- “Family” of FP7 Specific Programmes
  - Co-operation
  - **Ideas**
  - People
  - Capacities
- **Ideas**: complementary to other FP7 support  
policy vs. science-driven, bottom-up vs. targeted research
- FP7 Rules for Participation (RfP)

# FP7 Ideas Programme

- **Creates the ERC (new “institution”):**
  - Scientific Council (ScC)
  - Dedicated Implementation Structure (DIS)
- **Provides funding:**
  - € 7.51 bn (2007-2013), around 15% of FP7 budget
  - Average budget: € ~1 bn per year
- **Sets overall objectives for research and operating principles**
- **By 2010: review of ERC structure and mechanisms**

# ERC Legal Texts

## Based on Specific Programme « Ideas »

- **ERC Establishing Act**

- Sets up the components of the ERC (ScC, SG, DIS)

## Based on Council Regulation (EC) N° 58/2003

- **ERC Executive Agency Establishing Act (not adopted yet)**

- Sets up the ERC Executive Agency

- **ERC Executive Agency Delegation Act (not adopted yet)**

- Delegates powers to the ERC Executive Agency

# ERC Actors

## The Scientific Council

*Independent scientific governance*

## The Agency

*Practical implementation and management of operations*

## The European Union

*Providing the financial means*

# 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 Agency

## “Dedicated Implementation Structure”

- **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 Agency

## “Establishing the ERC Executive Agency”

- **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 in the second half of 2007 and is expected to be fully operational by mid-2008
- **Review of ERC structure by 2010**



# 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 ERC Board

## Linking strategy and operations

**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)



## Boost European excellence in "Frontier Research"

- by investing in the best researchers and ideas
- through competition at European level
- on the basis of scientific 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

# 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 Grant Schemes

## Launch Strategy of 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, up to 5 years, up to € 2.5 Mio.
- **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, up to 5 years, up to € 2.0 Mio.

# ERC Grant schemes

## 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 Starting Grant

## Requirements

### → **Principal Investigator (PI)**

- 2-9 years after completion of PhD (1st call)
- Future calls: 3-8 years
- Special circumstances are taken into account, such as maternity/paternity leave, military/civil service (+2 years max.)
- Any nationality
- Only one ERC Grant managed by a PI can be active at any time

### → **Hosting institution**

- Located in a EU Member State or Associated Country
- Intra-European grant portability allowed



# ERC Advanced Grant

## Requirements

### → Principal Investigator (PI)

- Any nationality
- Only one ERC Grant managed by a PI can be active at any time

### → 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 Grant Schemes

## 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, € 300 Mio., call closed on 25 April 2007
  - Budget allocated to three areas (for operational reasons)
- **2nd Call**
  - AdG only, Autumn 2007, € 550 Mio.
- **3rd call onwards:**
  - StG + AdG ≈ € 1.0 bn per year

# ERC Grant schemes

## Operational Principles

- **Application in response to calls for proposals**
- **Staged Evaluation Procedure**  
due to large number of applications
- **ERC peer review evaluation process**  
Proposals are assessed and ranked by Panels  
Scientific Council decides on peer review methodology and  
selects peer reviewers

# ERC Grant schemes

## Budget Allocation

- ERC covers **all fields of science, engineering and scholarship**
- For operational reasons the ScC agreed for the first call on **3 main research domains**:
  - **Domain 1: Mathematics, Physical Sciences, Information and Communication, Engineering Sciences, Universe and Earth Sciences (PE)**
  - **Domain 2: Life Sciences (LS)**
  - **Domain 3: Social Sciences and Humanities (SH)**Future calls: **A new Interdisciplinary domain**
- Pre-allocation of **call budget for ERC Grants** per domain as follows: **39% - 34% - 14%- 13%**

- Panels have one **Panel Chair** and **10-15 Panel Members**
- Panel Chair **oversees evaluation process** for the proposals assigned to his/her Panel in collaboration with ERC staff
- Panel Chair gives high level stamp of **credibility and visibility** to the whole evaluation process

# ERC Grant Schemes

Evaluation: Scientific Excellence is the sole criterion

1. Principal Investigator
2. Research Project
3. Research Environment

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

# ERC Grant schemes

## Evaluation: Feedback to applicants

### Evaluation Report

is sent to each applicant, including:

- Final decision of panel
- Comments by the panel
- Comments by individual reviewers, referees, panel members/evaluators

#### Annex 3: Sample of an Evaluation Report (ER)

##### ERC EVALUATION REPORT Stage 1

Call reference	ERC-2007-SIG
Activity	ERC-SG
Funding scheme	ERC Starting Grant
Panel name	PE4 – Material and Chemical Sciences
Proposal No.	057432-1
Acronym	HSUIT
Title	A novel method in holographic lithography at the nano-scale

##### PANEL MARKS

1. Principal Investigator: Potential to become an independent research leader. 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? Intellectual capacity and creativity: To what extent does the Principal Investigators 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?	4 / 5
2. Quality of the proposed research project 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)? Potential impact: Does the research open new and important scientific/technological or scholarly horizons? Methodology: Is the outlined scientific approach (including the activities to be undertaken by the individual team members) feasible?	3.8 / 5
Total mark	7.8 / 10
Has the proposal passed the threshold (8/10)?	No

##### PANEL COMMENTS

This evaluation report documents the final decision by the ERC evaluation panel. The panel bases its appraisal on the individual assessments by specific panel members and evaluators, whose comments are reproduced below.

The panel has reviewed these assessments and, while not necessarily subscribing to each and every opinion expressed, finds that in their totality they provide a fair and positive assessment of the proposal. The panel shares this impression that the proposal is generally of good quality.

However, in the context of the strong competition and the limited availability of funding, the proposal did not find sufficient support and endorsement from the panel members to be retained for the second stage of the evaluation.

The panel has therefore decided to award the final marks as given in the table above.

# ERC Starting Grant

(ERC Starting Independent Researcher Grant )

- Support researchers at the beginning of their career, **establishing or consolidating their own independent research team**
- Provide a structure for transition from working under a supervisor to an independent research leader

up to 5 years,  
up to € 2 million per  
grant

~1400 Starting Grants  
over 7 years of FP7  
(2007-2013)





# ERC Starting Grant

First call: ERC-2007-StG

- Indicative Budget: € 289,5 Mio
- Call deadline: 25 April 2007
- 2-stage submission and evaluation
- 3 domains, 20 panels (8 PE, 7 LS, 5 SH)

# ERC-2007-StG

## Submission (stage 1): Massive response!

Domain	Number of proposals	% of proposals	% of budget pre-allocated*
Life Sciences	3,396	37,0	40
Physical Sciences & Engineering	4,408	48,1	45
Social Sciences & Humanities	1,363	14,9	15
<b>Total</b>	<b>9,167</b>		

\*Indicative budget established by ScC (Work programme 2007)

# ERC-2007-StG

## Submission (stage 1): Electronic Submission System

### EPSS coped well with massive response

- First ERC call for proposals closed on 25/04 without any significant technical issue.
- Total number of proposals: 9.167 (registration figure: 11.251)
- The peak transaction time for the reference transaction was 1.5 seconds
- The system handled a peak of 36 transactions a second

# ERC-2007-StG

## Submission (stage 1): some statistics

### Constitution of Individual Teams

- 87% of proposals involve 1 institution
- 7% of proposals involve 2 institutions
- 2% of proposals involve 3 institutions

⇒ **The concept of “individual teams” has been well applied.**

### Time after PhD

- 84% of PIs received PhD between 3 and 8 years ago

### Gender

- 30% female applicants

# ERC-2007-StG

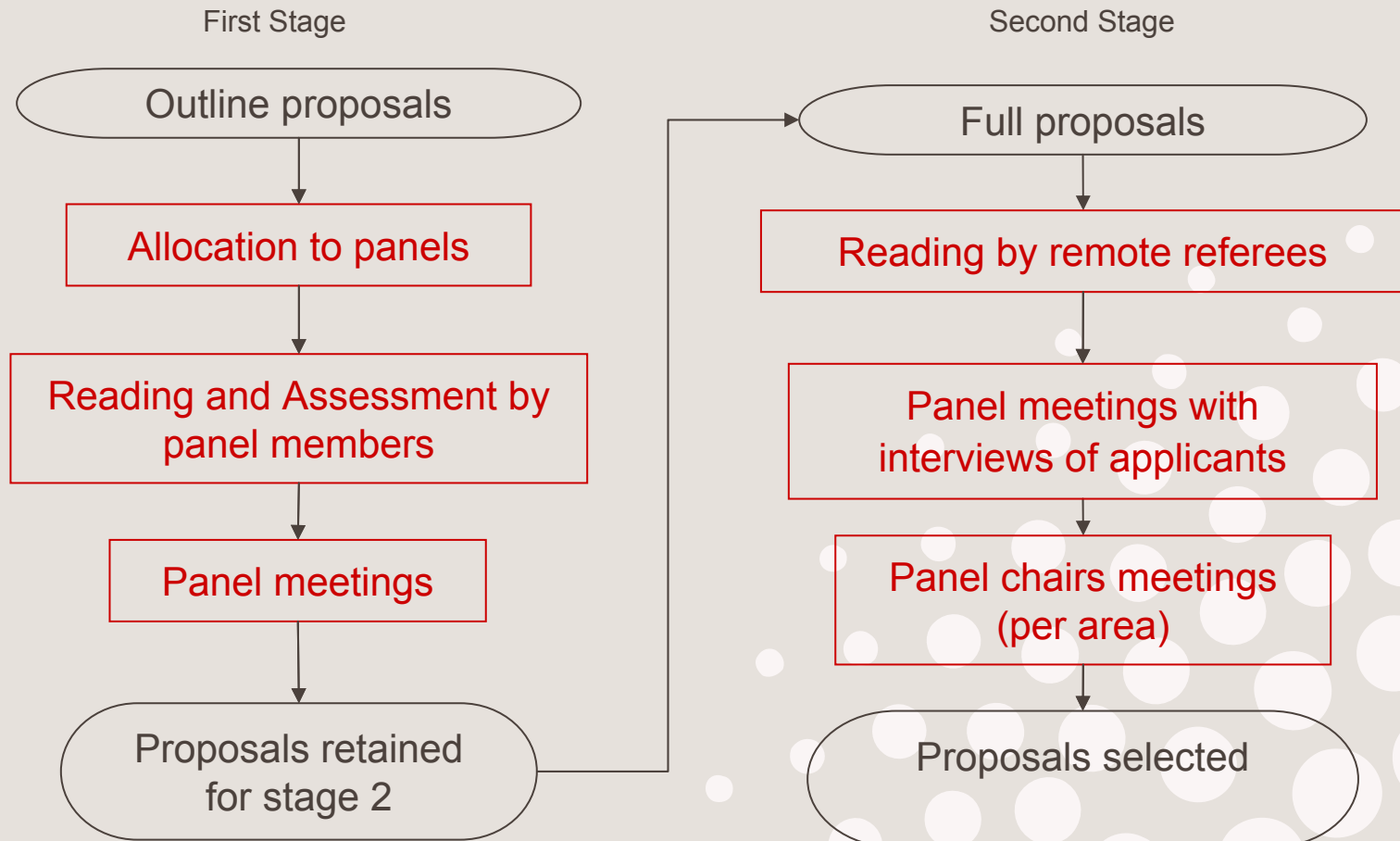
## Submission (stage 1): Geographical distribution

<u>Cluster</u>	<u>Number of proposals</u>	<u>PI residence %</u>	<u>Host Institution location %</u>
<b>European Union</b> New Member States	8207 796	88.9 8.6	92.2 8.8
<b>Associated countries</b>	715	7.9	7.8
<b>Overseas</b>	244	3.2	0
	100*	100*	100*

\* Based on the total of 9167 submitted proposals (before eligibility check)

# ERC Starting Grant

## Submission and Selection



# ERC Starting Grant

## Peer Review Evaluation (stage 1)

### ■ Prior to panel meeting

- Panel members assess outline proposals "remotely"
- Additional Panel Evaluators may be appointed (for remote assessment only)
- Remote evaluation results in joint compilation of individual assessment reports and in a preliminary ranked list per panel

### ■ Panel meetings

- Panels discuss proposals with average score above threshold
- Number of proposals invited to proceed to stage 2 is approximately double the number of grants available

# ERC Starting Grant

## Peer Review Evaluation (stage 2)



- **Prior to panel meeting**
  - ➔ Submission of full proposal by applicants
  - ➔ Remote assessment by Panel members and Referees (specialists)
- **Panel meetings with interviews of stage-2 PIs**
  - ➔ Interview of at least 20 minutes
  - ➔ Starting with a short overview of the project
  - ➔ Followed by questions / answers related to criteria
  - ➔ Interviews are an additional element in subsequent considerations
  - ➔ Panel members decide on the final scoring
  - ➔ Ranked lists per panel
- **Panel chairs meeting (per area)**
  - ➔ Ranked lists per area (PE, LS, SH)





# ERC-2007-StG

## Evaluation (Stage 1)

### Eligibility Check

9167 incoming proposals

- 8799 eligible
- 5 withdrawn
- 368 ineligible

### Individual assessment

8794 eligible proposals evaluated at first stage

- 8235 rejected
- **559** selected (LS=206, PE=251, SH=102)



# ERC-2007-StG

## Evaluation (stage 2): some statistics

### Time after PhD

- 87% of PIs received PhD between 4 and 9 years ago

### Age

- 36 years in average

### Gender

- 24% female applicants (PE: 18%, LS: 21%, SH: 44%)

# ERC-2007-StG

## Evaluation (stage 2): Distribution over Scientific Domains

Domain	Number of proposals	% of proposals	% of budget pre-allocated*
Life Sciences	206	37	40
Physical Sciences & Engineering	251	45	45
Social Sciences & Humanities	102	18	15
<b>Total</b>	<b>559</b>		

\*Indicative budget (Scientific Council, ERC work programme 2007)

# ERC-2007-StG

## Evaluation (stage 2): Geographical distribution

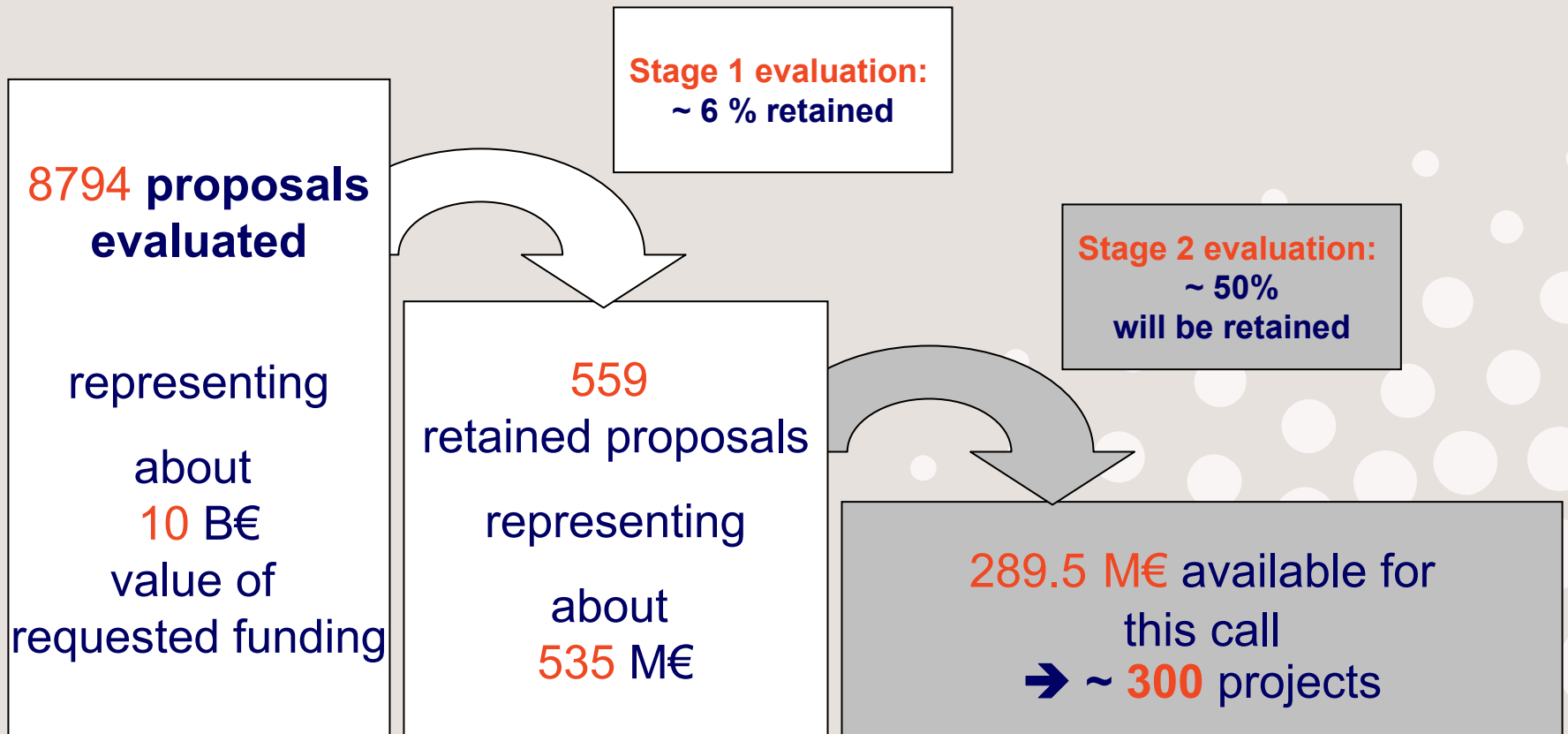
<u>Cluster</u>	<u>Number of proposals</u>	<u>PI residence %</u>	<u>Host Institution location %</u>
<b>European Union</b> New Member States	475 30	85 5	89 4
<b>Associated countries</b>	47	8	11
<b>Overseas</b>	37	7	0
	100*	100*	100*

\* Based on the total of 559 retained proposal



# ERC-2007-StG

## Evaluation: overview



# 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>
- **ERC News Alert:** <http://erc.europa.eu/?fuseaction=reg.edit#01>



Thank you !

