



ERC: First Experience – Next Steps

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Does Europe Need Frontiers Research?

- **Yes, an essential part of our civilization**

Galileo, Newton, Darwin, Freud

Einstein, Watson & Crick, Jacob & Monod... and?

- **What will be our future competitive advantage?**

§ *Ageing and shrinking population?*

§ *High Labour and Social Security costs?*

§ *Expensive production and services?*

§ *Limited natural resources?*

§ *Capital accumulation and management?*



Europe Can Only Compete Through Knowledge

European Research Council



- **Leadership in Science, the Endless frontier**
- **Central Role in the Knowledge Triangle:
Education / Research / Innovation**
- **Investment in excellent people & research
is an imperative, not an option**



To Become More Competitive, Europe Must



- **Generate, Attract and Retain Top Talent**
- **Integrate and Internationalize our Efforts**
- **Encourage and Trust the Young**
- **Create Attractive Career Paths**
- **A Competitive Champions League,
that sets standards
by merit only (as in football)**



ERC is a Major European Initiative: A Visionary Idea Whose Time Has Come

- **Long sought by scientific community**
- **A logical development of the European Research Area**
- **Securely anchored in EU legislation**

but at the same time.....

- **A revolutionary development**



The Roadmap to the ERC

- **Scientific community long urged establishment of the ERC: role of ISE and Minister Gago**
- **Copenhagen Meeting (Danish Presidency): do we need an ERC?**
- **Surprising Unanimity: YES!**
- **Commissioner Busquin and DG Mitsos suggest FP7 as umbrella for the ERC**
- **Approved by Council of Ministers and European Parliament in December 2006; Excellence the sole criterion for selection**



Central concepts

- **ERC consists of:**
 - **An independent Scientific Council**
 - **Supported by a Dedicated Implementation Structure**
- **Commission guarantees ERC autonomy & integrity**
- **ERC under the Commission or Art. 171?**
EC solution (Executive Agency) agreed, to be reviewed 2009
- **Budget of 15% of FP7 proposed by Commission and agreed by Council and Parliament:**
 - **~ €300m in 2007 - €1.7 bn in 2013**



ERC Autonomy

The Scientific Council

- **Commissioners Busquin & Potočnik signalled commitment to autonomy by delegating selection of the Scientific Council to an independent Identification Committee (Patten Committee)**
 - **Scientific Council (ScC) nominated in July 2005**
- **All 22 nominees agreed to serve, radically changing personal plans**
- **Financial sacrifices – currently only travel and subsistence expenses for meetings, despite immense workload (almost full-time for Chair and Vice-Chairs)**



Scientific Council Preparatory work

- **ScC decision to work intensively before formal appointment (1st meeting 18 October 2005)**
- **Key mechanisms established to support independent work and close co-ordination with the implementing structure (proposed by ScC and agreed by Commission):**
 - **ERC Board**
 - **Secretary General**
 - **Support actions for Chair and Vice-Chairs**
- **Full support by Commissioner; excellent staff assigned – nucleus for the ERC-Executive Agency**
- **First report of the Scientific Council to European Institutions presented on 2 February 2007 via EC**



ERC strategy

- ***Keep it simple***
 - address obvious gaps in Europe *Opportunities and independence for young scientists; substantial grants for senior investigators*
 - *The 3 “Rs” – retain, recruit, repatriate*
 - *All fields of science and scholarship are eligible*
 - *Excellence is the sole criterion*
 - *Research at the frontier of knowledge*
- ***Keep it flexible***
 - *Evaluation panels judge investment levels*
 - *Researchers can re-budget*
 - *Grants are portable*
- ***Trust the dynamic of science***
 - *Development of new disciplines*
 - *Excellence breeds excellence*
 - *From individual to institutional excellence*



ERC Scientific Council: Aim, Responsibilities and Actions

- **Collaborates with EC towards an autonomous, integrated world-class Research Funding Agency**
- **Elected Chair & Vice Chairs (12 December 2005)**
(ERC President and Vice Presidents)
- **Selected ERC Secretary General (SG) (Date: 30/08/06)**
- **Established ERC Board (Presidency, SG, EA Director)**
- **Defined ERC Strategy & Annual Work Programme**
- **Decided Calls for Proposals**
- **Established Evaluation Rules & Procedures**
- **Selected Evaluation Panels**
- **Intensive 1 yr work before establishment**



Early achievements



- **First call launched (StG) – deadline of 25 April 2007; huge success with 9167 applications**
- **First stage of peer review evaluation completed already**
- **Enormous enthusiasm and commitment of the scientific community:**
 - **240 top quality panel members selected from around the world, close to 100% acceptance rate**
 - **International acclaim at Berlin launch conference; ERC viewed as comparable to NSF, NIH**



First call - observations

- **Researchers from all regions of Europe engaged in the competition; ditto for host institutions**
- **Modest percentage but significant number of overseas applications**
- **559 top investigators selected – broadly distributed and in all research fields**
- **Large number of comparable candidates could not be included**
- **ScC is convinced that talent is a widely-distributed resource and that the top researchers are interested in working in their country/culture if supported to do their best**

1st Call ERC Starting Grant

Massive response

European Research Council



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
Total	9,167		

*Indicative budget established by ScC (Work programme 2007)



ERC Starting Grant

Statistics

Some preliminary statistics are available:

- ∅ average requested grant size: 1 M€
- ∅ Female/male applicants: 30/70%
- ∅ Mostly from single institutions:

No. of Inst.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	17	22
No. of Prop.	8011	578	268	124	74	41	20	20	12	6	3	2	4	1	2	1

- ∅ Broad distribution of time for PI after PhD:

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005
%	1.7	8.7	13.6	14.6	15.1	15.0	13.6	12.4	4.2



1st Call ERC Starting Grant

Constitution of Individual Teams, “Age” of PI

Proposals mostly involve single institution

- 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



1st Call ERC Starting Grant

Geographical distribution of applications

<u>Cluster</u>	<u>PI residence %</u>	<u>Host Institution location %</u>
EU-27	88.9 (8207)	92.2
12 new Member States	8.6 (796)	8.8
7 EU-associated or candidates countries (CH, HR, IL, IS, NO, RS, TR)	7.9 (715)	7.8
Overseas	3.2 (244)	0
	100*	100*

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



ERC Starting Grant Timeline

European Research Council



Call closure	25/04/07
Remote evaluations (stage 1)	May-June
Panel meetings (stage 1)	June-July
Invitation for stage 2	July
Letters of rejection	August
Submission deadline (stage 2)	17/09/07
Panel meetings & Interviews	October-Nov





ERC health check

- **Basic strategy and peer review processes established**
- **Working arrangements are effective**
- **But there are some key issues to be resolved:**
 - **more flexible administration is needed**
 - **autonomy must be put into practice urgently with a properly-endowed executive agency**



Administrative road blocks encountered

- **Support for chair and vice-chair staff
(now probably solved)**
- **Establishment of the ERC Secretary General
(now probably solved)**
- **Payment of interviewees for
2nd stage StG evaluation
(now probably solved)**



The ERC Executive agency

- The ERC executive agency must be tailored to the task and allow the ERC to meet the standards of the best national agencies in Europe and the US NSF
- The objective is not to cut costs by using low grades and unqualified staff: a high proportion of scientifically-qualified staff is essential
- This can be done with administrative costs that compare well with other similar agencies and are much lower than the 5% limit
- The ERC cannot operate in a state of limbo regarding its structure and personnel – the agency must be established urgently
- Rest of RTD Directorate need separate agency



Thank you for your attention