

FP7 IDEAS Programme

The European Research Council

Aims, strategies and operations ...

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- **Who is the ERC?**
- What are its activities?
- How does it operate?
- What are the achievements to date?



ERC, “Ideas” and FP7

Main features

- Part of the “family” of FP7 and complementary to other FP7 supports to research

- **Bottom-up** vs targeted research
- **Individual teams** vs consortia



- FP7 “Ideas” programme provides funding

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

- An “integrated structure” with a specific vocation

- Independent scientific governance
Scientific Council with 22 members
- Dedicated Implementation Structure
Executive Agency with 389 employees by 2013



The Scientific Council

Establishing and controlling the funding strategy/methodologies

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

President : Prof. F. Kafatos

Vice presidents :

Prof. H. Nowotny, Dr D. Estève

- 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 Executive Agency : ERCEA

Implementing and operating the funding strategy/methodologies

- **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





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ERC Grant schemes

Boost European excellence in frontier research

Funding Strategy: 3R and 2 schemes

Aim: Retain – Repatriate – Recruit

⇒ Favour “brain gain” and “reverse brain drain”

- improve **career opportunities and independence** - especially for young researchers
- increase **competition, recognition and international visibility** - for excellent individual scientists and scholars in Europe
- raise **aspiration and achievement** of basic research in Europe

Activities: Two complementary funding schemes

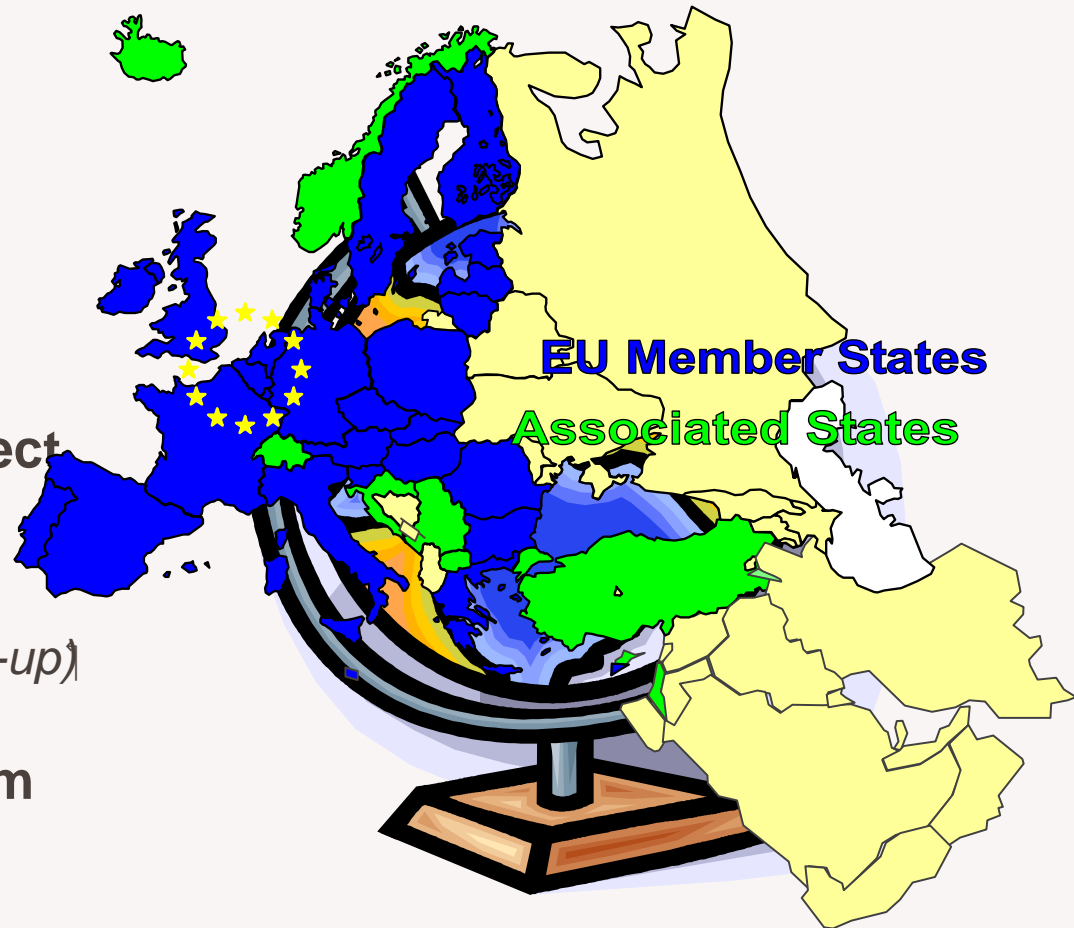
- **ERC Starting Grant (StG)**: attract & retain the next generation of independent research leaders
- **ERC Advanced Grant (AdG)**: attract & reward established independent research leaders



ERC Grant schemes

Who can apply? – General requirements

- **Principal Investigator**
Nationality, age or current place of work not relevant
- **Host organisation**
To be located in MS or AC
- **Frontier Research Project**
All fields of science, engineering and scholarship are eligible (investigator-driven, bottom-up)
- **Individual research team**
PI has freedom to choose team members



ERC Grant schemes

Two complementary funding schemes

ERC Starting Grant (StG): with 2-10 years experience after PhD award - up to €2.0 Mio for 5 years

↳ 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**

ERC Advanced Grant (AdG): up to €3.5 Mio for 5 years

↳ Designed to **support excellent investigator-initiated frontier research projects** by established independent research leaders

↳ Targeting researchers who have already established their independence as team leaders and are **exceptional researchers** in terms of impact, recognition (in the last 10 years)



ERC Grant schemes

Why “Frontier Research” ?

ERC aims at pioneering projects at/beyond the frontiers of knowledge

- Encouraging risk-taking and creativity
- Go beyond main stream and beyond established frontiers of knowledge (ERC is not aiming at ordinary or routine research projects)

Research at the frontiers is

- characterised by an absence of disciplinary boundaries
- intrinsically risky
- is often triggered by real world problems

Avoid outmoded distinctions

- between “basic” and “applied” research
- between “science” and “technology”
- between “traditional” disciplines





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ERC Grant schemes

Operational Principles

- **Application in response to calls for proposals**

- ↳ Principal Investigators applies in conjunction and on behalf of a research-performing host institution
- ↳ Electronic submission only - via EPSS <https://www.epss-fp7.org/epss/>

- **Staged Evaluation Procedure**

- ↳ to manage large number of expected applications

- **Panel-based international peer review process**

- ↳ Scientific Council defines panels, selects panel chairs/members and peer reviewers
- ↳ Panels assess and rank proposals (based on individual assessments by additional peer reviewers, panel meetings, interviews with StG applicants)



ERC Grant schemes

All fields, budget pre-allocation in 3 + 1 areas

- ERC covers **all fields of science, engineering and scholarship**
- For operational reasons the ScC agreed on **3 main research domains** :
 - **Physical Sciences & Engineering** – 10 Panels
 - **Life Sciences** (incl. medical) – 9 Panels
 - **Social Sciences & Humanities** – 6 Panels
- The call budget will be pre-allocated to these areas as follows:
 - 39% - 34% - 14%
- **Interdisciplinary Research** (Panel Chairs) : 13% of call budget



ERC Grants

Panel structure : 25 panels

Each panel :
Panel Chair and
10-15 Panel Members

Life Sciences

- LS1 Molecular & Structural Biology & Biochemistry
- LS2 Genetics, Genomics, Bioinformatics & Systems Biology
- LS3 Cellular and Developmental Biology
- LS4 Physiology, Pathophysiology & Endocrinology
- LS5 Neurosciences & neural disorders
- LS6 Immunity & infection
- LS7 Diagnostic tools, therapies & public health
- LS8 Evolutionary, population & environmental biology
- LS9 Applied life sciences & biotechnology

Social Sciences and Humanities

- SH1 Individuals, institutions & markets
- SH2 Institutions, values, beliefs and behaviour
- SH3 Environment & society
- SH4 The Human Mind and its complexity
- SH5 Cultures & cultural production
- SH6 The study of the human past

Physical Sciences & Engineering

- PE1 Mathematical foundations
- PE2 Fundamental constituents of matter
- PE3 Condensed matter physics
- PE4 Physical & Analytical Chemical sciences
- PE5 Materials & Synthesis
- PE6 Computer science & informatics
- PE7 Systems & communication engineering
- PE8 Products & process engineering
- PE9 Universe sciences
- PE10 Earth system science



ERC Grant Schemes

Evaluation: Scientific Excellence is the sole criterion

Evaluation of *Excellence* at three levels:

- Quality of Principal Investigator
- Quality of Research Project
- 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:

- 1-4 per criterion
- Threshold ≥ 2 per criterion

Criteria under **Heading 3** will be considered as "**pass/fail**" and commented but **not scored**



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



ERC Grant Agreement

Grant Portability

- ERC Grants are portable:
“Money follows researcher”
- PI is entitled to transfer the grant to another institution, normally after a minimum 2 years at the sponsoring institution
- Proper justification and ERC approval required





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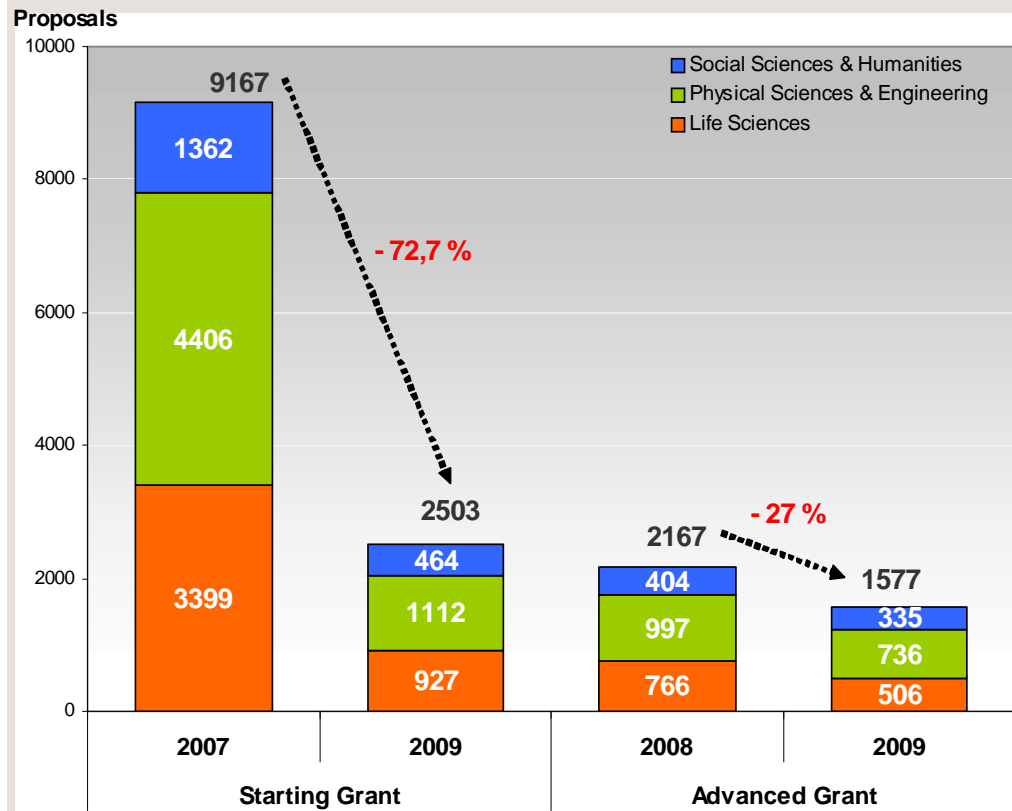




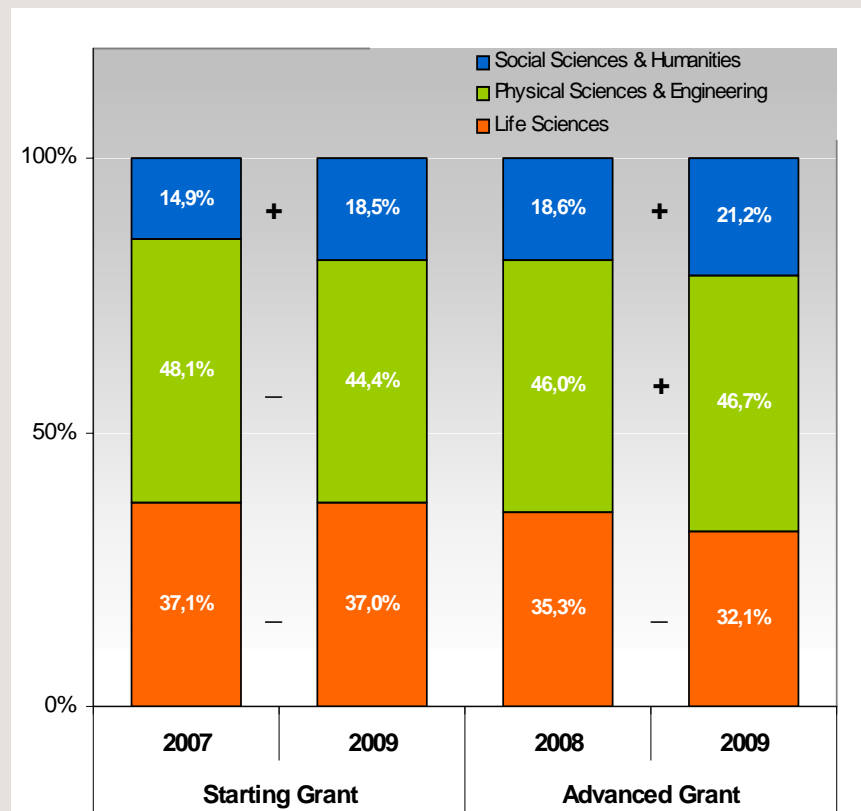
ERC Starting & Advanced grant calls 2007, 2008 & 2009

Submitted proposals by domain

Number of proposals



Proposals by domain



ERC Starting Grant

Specific features (PI profile, success rate)

First StG call 2007

- **299 grantees** (call budget: € 335 Mio.)
- 21 host countries, 32 nationalities, 170 host institutes
- Average Age: **35 years** (spans from 24, 28 to 44y)
- Average experience after PhD: **6 years**
- Average grant size: **€1.1 Mio.**
- Gender: **26% women** (as low as 12% in LS2 up to 71% in SH4)
- Success rate: **3.3%** (9167 applications)

Second StG call 2009

- Available budget/grants: ca. +€300 Mio. for ca. 300 grants
- Success rate: **±10%** (2503 applications)



ERC Advanced Grant

Specific features (PI profile, success rate)

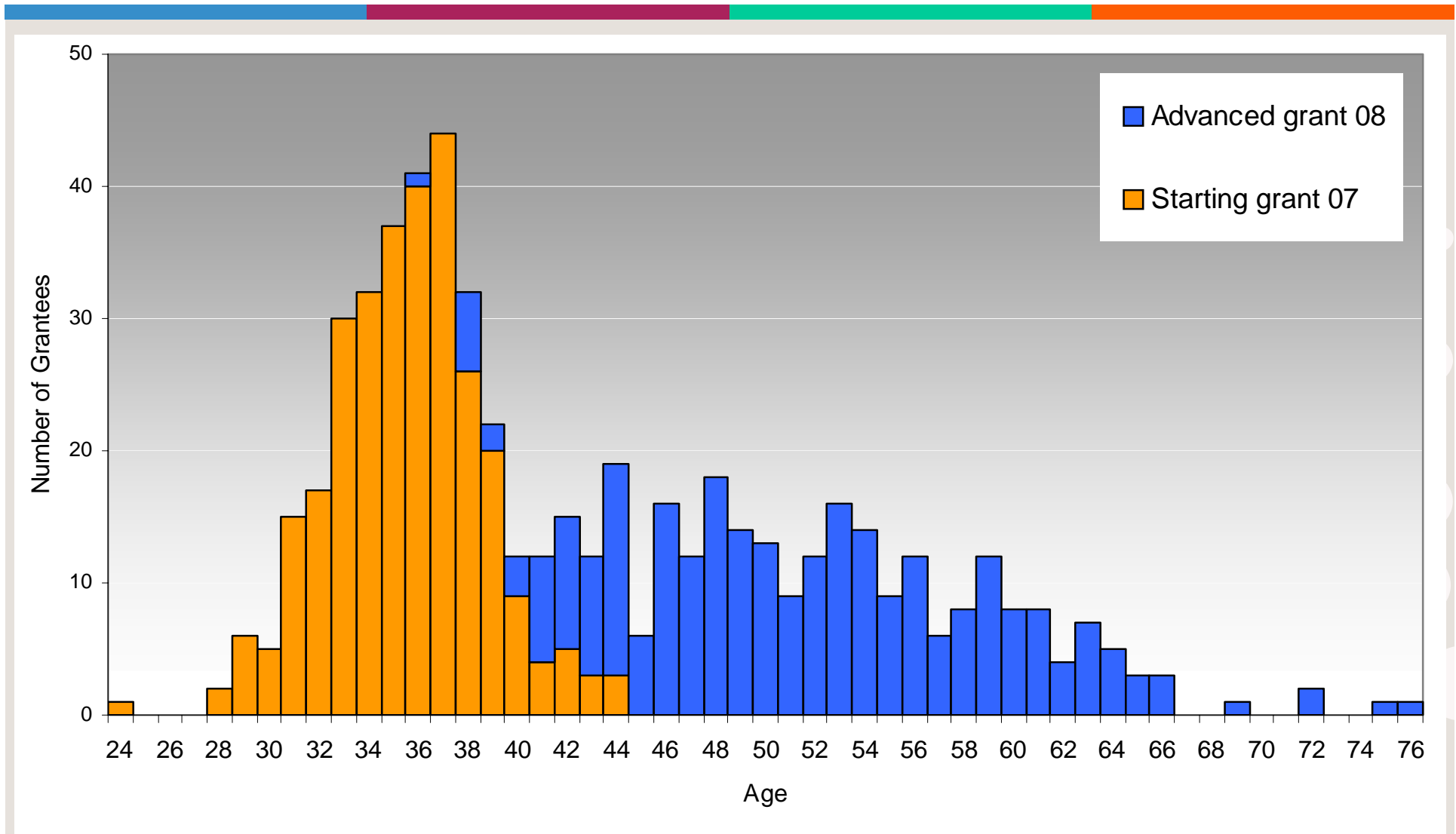
First AdG call 2008

- **275 grantees** (call budget : € 490 Mio)
- 23 host countries, 26 nationalities
- **Average Age: 51 years** (spans from 38 to 66y)
- **Average experience** after PhD: 23 years (spans mainly from 7 to 45y)
- **Average requested grant:** PE-1.9 M€, LS-2.1 M€, SH-1.7M€
- **Gender:** 14% women (as low as 3% in PE7 up to 29% in SH5)
- Success rate : 10% (2167 proposals submitted)



Complementarity of StG & AdG

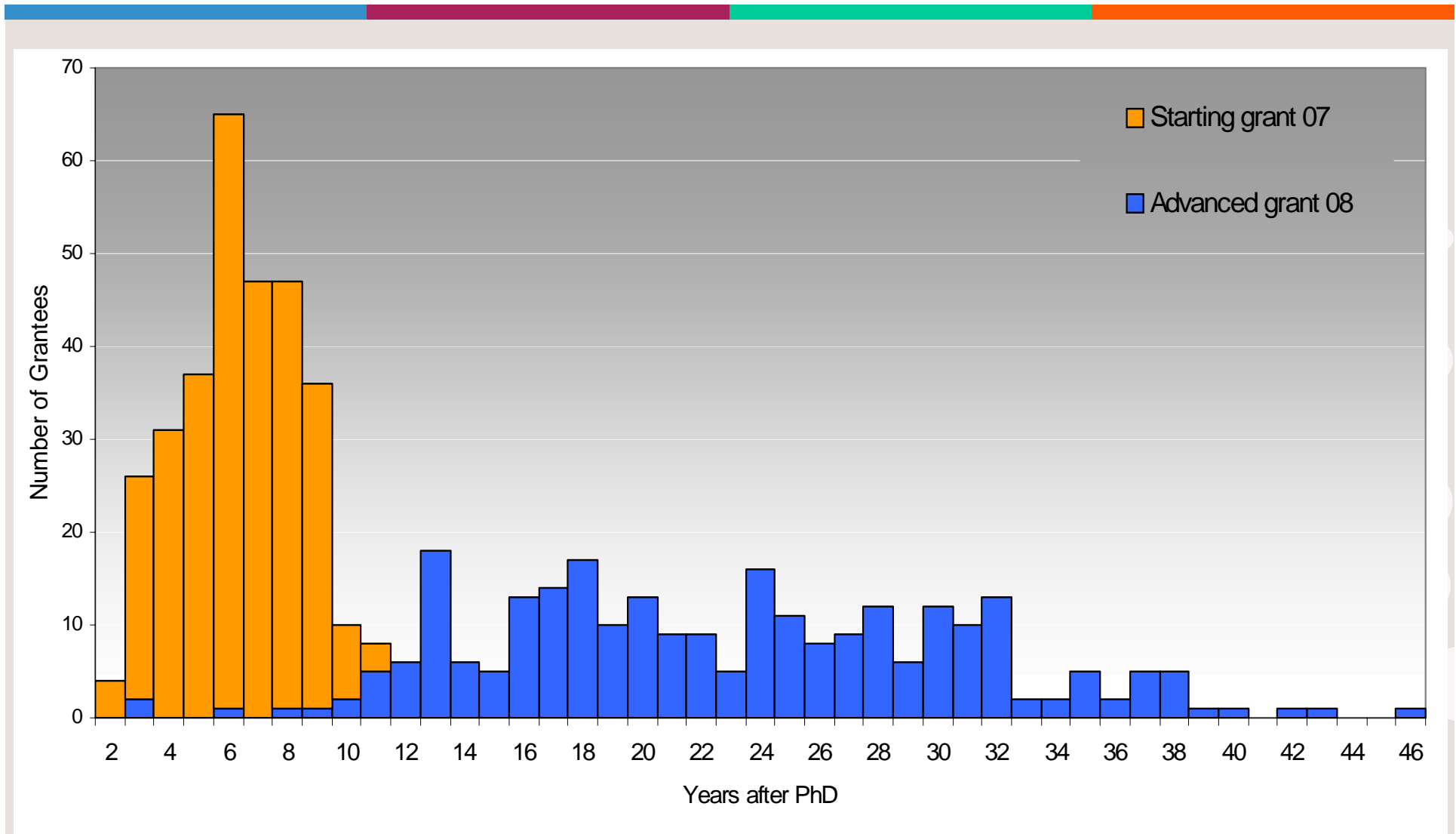
Age of the Grantees





ERC StG 2007 & ERC AdG 2008

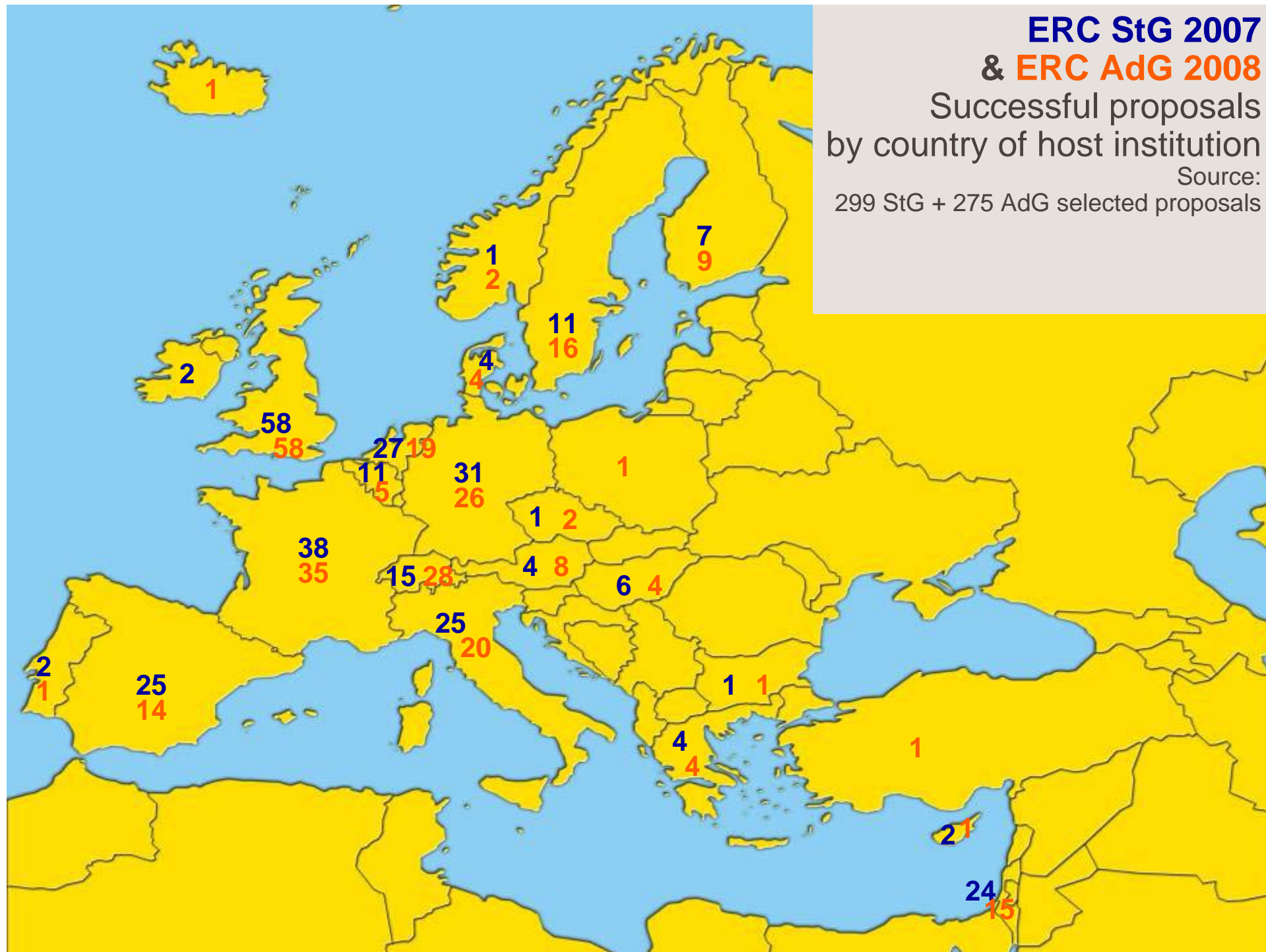
Selected projects: Years after PhD



ERC StG 2007 & ERC AdG 2008

Successful proposals
by country of host institution


Source:
299 StG + 275 AdG selected proposals

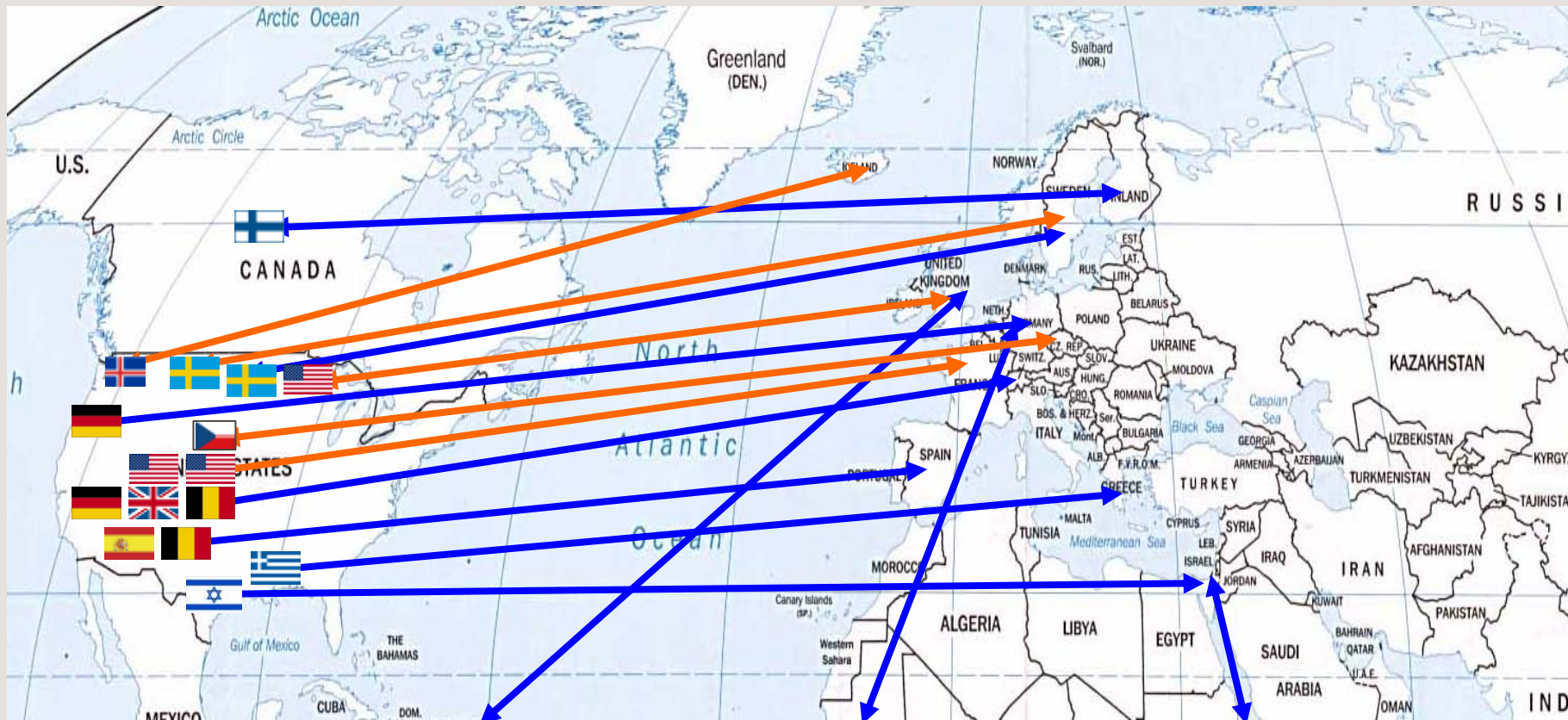


ERC StG 2007 & ERC AdG 2008

Selected projects: Repatriation and Recruitment



 Starting Grant 2007
 Advanced Grant 2008



Argentina



Japan



Australia

Conclusions

- ERC has succeeded in gaining European & worldwide recognition as a world-class research-funding agency
- ERC has made pioneering steps towards research innovation & attracted many very-high-quality proposals
- Success rate of applicants is limited by the current funding level
- Several national funding agencies decided to fund the researchers listed in the reserve list. This underpins the confidence on ERC as a pan-European funding agency that sets standards of excellence



ERC – International Relations

Relation to other funding agencies & research institutions

Mutual support and cooperation

- National institutions responsible for building up excellence in the national research community
- ERC responsible for building up excellence across Europe without regard to nationality

Substantial opportunities for synergy

- National support for researchers who passed the ERC quality threshold but who will not get ERC funding (Switzerland, Sweden, Norway, France, Italy, Spain, Hungary, Region of Flanders etc.) : confidence on ERC as a pan-European funding agency that sets standards of excellence
- sustainability of the ERC incentives : Gent University offers tenure track for successful grantees



ERC Grant Schemes

ERC Calls Indicative Schedule (2009-2010)

ERC Starting Grant Calls

Work Programme Revision	ERC Action	Call open	Call Deadline	Evaluation
May 2009	StG3	Summer 09	Autumn 09	Winter 09 – Spring 10
May 2010	StG4	Summer 10	Autumn 10	Winter 10 – Spring 11

ERC Advanced Grant Calls

Work Programme Revision	ERC Action	Call open	Call Deadline	Evaluation
May 2009	AdG3	Autumn 09	Spring 10	Spring 10 - Autumn 10
May 2010	AdG4	Autumn 10	Spring 11	Spring 11 - Autumn 11



Up-to-date Information ERC website at <http://erc.europa.eu>



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What's New

■ [ERC Guide for Peer Reviewers](#)

- 10/09/2007 -

■ [Scientific Council of the ERC: Relaunching the European Research Area \(ERA\)](#)

- 03/09/2007 -

Message from the President of the European Research Council



The creation of the European Research Council (ERC) by the common action of the political institutions of the European Union (the Commission, the Parliament and the Council of Ministers) represents a landmark event for science policy in our continent. By this action, Europe is taking a decisive step towards the formation of a common European Research Area.

We are committed to establish the ERC as an outstanding research funding agency that attracts the very best researchers, beginning in 2007 with those who are embarking on or consolidating their independent careers. ... [read more](#)

Professor Fotis C. Kafatos, FMRS
ERC President and Chairman of its Scientific Council

HIGHLIGHTS

4 bn Euro for Europe's most far-reaching research
21 November 2007

The Scientific Council of the European Research Council (ERC) today announced the successful completion of its first round of funding and unveiled the detailed design of a new high-profile initiative which is set to become one of the most prestigious...[Read more](#)



Applicants Services Information and helpdesks

- **ERC News Alert**
<http://erc.europa.eu/?fuseaction=reg.edit#01>
- **ERC National Contact Points**
<http://erc.europa.eu/index.cfm?fuseaction=page.ncpList>
- **ERC helpdesk**
<https://www.epss-fp7.org/epss/helpdesk.jsp>



Thank you!
Merci!
Danke!
Gracie!
Gracias!





ERC Budget 2007 – 2013 : €7.51 bn

Annual budget evolution (prospective schedule)

