

ERC – European Research Council



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Funding Opportunities for Young Researchers

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ERCEA

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Outline



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Part 1 – ERC in FP7

- Background
- Grant schemes

Part 2 – Evaluation process

Part 3 – Data from previous calls

Part 4 – ERC and H2020



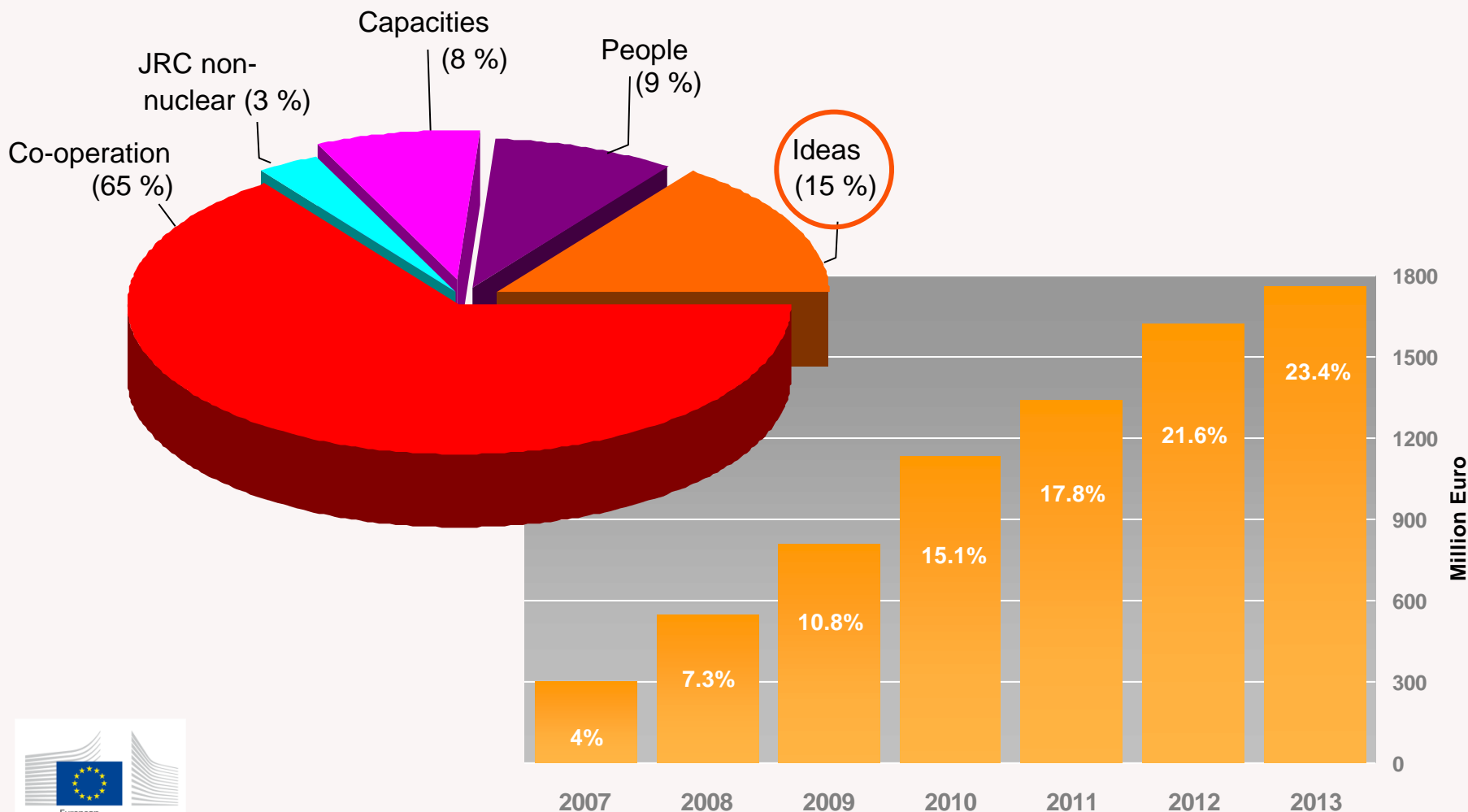
2007-2013 : FP7 budget € 50.5 billion

ERC budget € 7.5 billion



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What is ERC?



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- Part of the **7th EU Research Framework Programme (IDEAS Programme)**
- **Frontier research** projects
- **Excellence** as the only valid criterion
- No predetermined subjects (**bottom-up**); all science fields
- Support for the **individual** scientist
- Open to **researchers from anywhere in the world** willing to do research **in Europe**



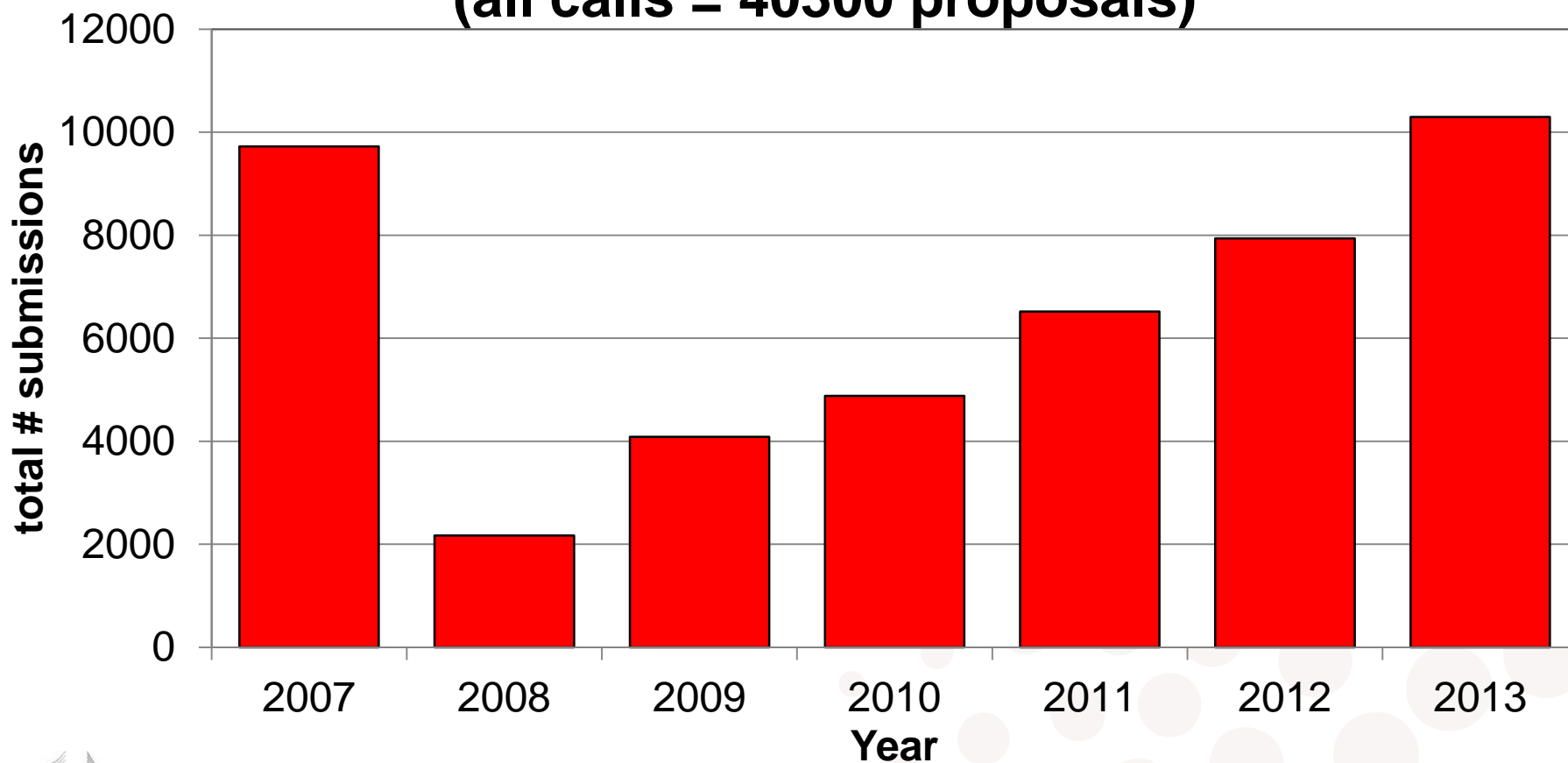
Achievements of the ERC - so far (I)



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ERC 2007-2013 - Total number of submissions (all calls = 40300 proposals)



Achievements of the ERC - so far (II)



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- More than 3200 funded proposals (~60% of them StG)
- More than 480 different host institutions in 26 countries
- Average success rate ~12 %

ERC Funding Schemes

Freedom of the individual grantee



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ERC offers independence, recognition & visibility

- to work on a research topic of **own choice**, with a team of **own choice**
- to gain true **financial autonomy** for 5 years
- to attract **top team members** (EU and non-EU)
- to move with the grant to any place in Europe if necessary (**portability of grants**)



ERC Grant schemes



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Starting Grants

starters
(2-7 years after PhD)
up to € 2.0 Mio
for 5 years

Consolidator Grants

consolidators
(7-12 years after PhD)
up to € 2.75 Mio
for 5 years

Advanced Grants

track-record of
significant research
achievements in
the last 10 years
up to € 3.5 Mio
for 5 years

Synergy Grants

2 – 4 *Principal* Investigators
up to € 15.0 Mio for 6 years

Proof-of-Concept

bridging gap between research - earliest
stage of marketable innovation
up to €150,000 for ERC grant holders



ERC Funding Schemes

Who can apply?



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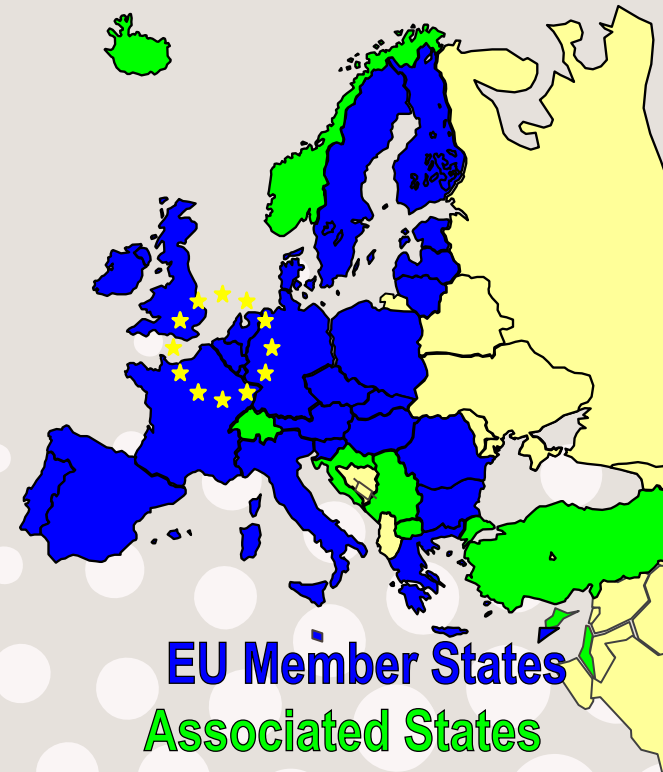
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Excellent Researchers (PIs)

- Any nationality, age or current place of work

In conjunction with a Host Institution

- Based in the EU or an Associated Country



Attractive features for researchers from outside Europe



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Incentive:

- Additional “start-up” funding for scientists moving to Europe (EUR 500 000 for Starting and EUR 1 Million for Advanced grantees)

Flexibility:

- Grantee can keep affiliation with home institute outside Europe (“significant part” of work time in Europe)
- Team members can be based outside Europe
- Grantee can move within Europe with the grant



ERC Starting and Consolidator Grants



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The applicant's profile : *"Am I competitive enough?"*

- Potential for (StG) or demonstrated research independence (CoG)
- At least one (StG) or several (CoG) important publications without the participation of PhD supervisor
- Promising track-record of early achievements
 - ➔ Significant publications
 - ➔ Invited publications
 - ➔ Funding, awards, prizes



ERC Starting and Consolidator Grants

The applicant's profile : Eligibility



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- At least 2 – 7 years post PhD : StG
- At least 7 – 12 years post PhD : CoG
- Extensions to this period are possible



ERC Starting and Consolidator Grants

Grant Size



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- 1.5 M Euro (StG)
- 2.0 M Euro (CoG)
- 100% total eligible direct costs (salaries, equipment, etc)



Simple and flexible grants for researchers from outside Europe



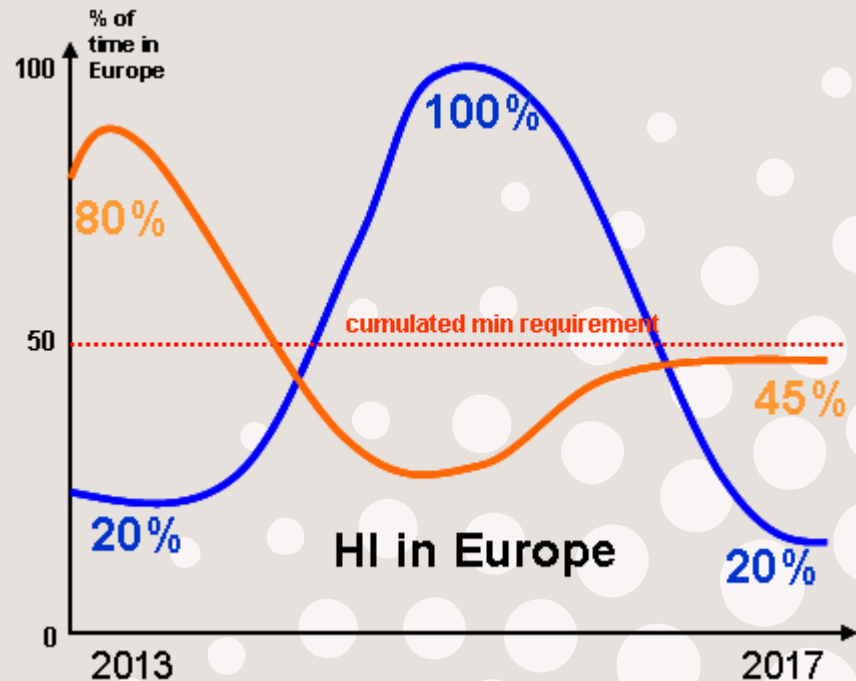
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Grantee must spend a “significant part” (min. 50 %) of the work time in Europe

BUT Grantee can **keep affiliation** with home institute outside Europe

Coming to Europe doesn't mean burning bridges



Example: use of the flexibility



ERC Panel Structure

3 domains – 25 panels



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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, space and population
- SH4 The human mind and its complexity
 - SH5 Cultures and 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



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Part 4 – ERC and H2020



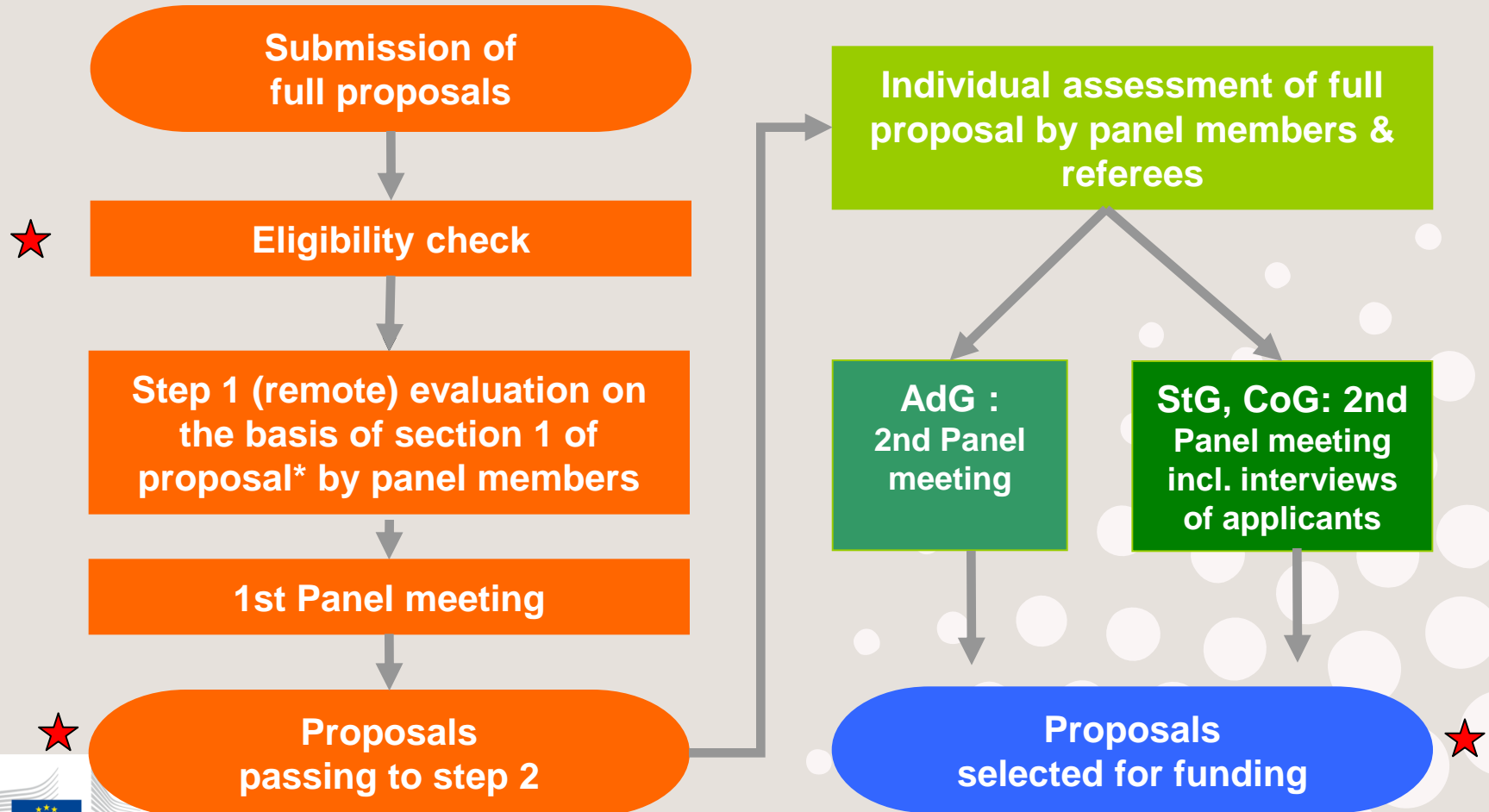
ERC Grants: how does it operate?



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Submission, evaluation and selection



★ : Communication to applicants



Submission of proposals



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Single submission

- ▶ one deadline per Call
- ▶ to a targeted panel
- ▶ electronically only
- ▶ proposals have two parts:
 - Part A: administrative forms
 - Part B: scientific proposal itself

Complete information: Guides for Applicants



Proposal Structure – Part B

- **Part B1 = 'The PI'**
 - Extended synopsis (5 pgs)
 - CV (2 pgs)
 - Early achievement track-record (2 pgs)
- **Part B2 = Full Scientific Proposal** (15 pgs)
- Ethical Review information (where appropriate)
- Separate additional documents:
 - ➔ Host Institution Support Letter
 - ➔ Copy of PhD document
 - ➔ Documents to prove extension to the eligibility window

Preparing an application (1)

- Allow sufficient time to prepare your application
- Talk to the Grants Office
- Your Profile
 - ➔ Major accomplishments; capacity and creativity; competitive edge; independence
 - ➔ Be accurate
 - ➔ Caution: assert; do not sell

Preparing an application (2)

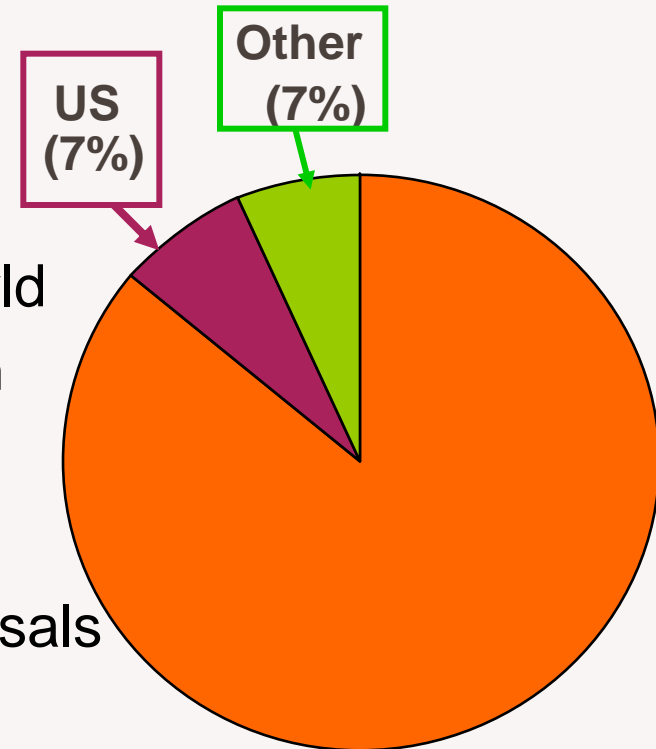
- Scientific proposal (15 pages) with an extended synopsis (5 pages) and an abstract
- State-of-the-art is not enough
- Explain ground-breaking features, high-risk/high-gain balance
- Have alternative strategies to mitigate risk
- Justify the use of your resources

Preparing an application (3)

- Follow the formatting rules and page limits
- Proof-read the proposal well
- Have all your documentation ready in time
- Submit in advance of the deadline

Who evaluate the proposals ?

- **Panel members:** typically 600 / call
 - ➔ High-level scientists
 - ➔ Recruited by ScC from all over the world
 - ➔ About 12 members plus a chair person
- **Referees:** typically 2000 / call
 - ➔ Evaluate only a small number of proposals



Possibility to exclude reviewers

- Up to three persons
- Reason for exclusion must be specified:
 - *Direct scientific rivalry*
 - *Professional hostility*
 - *Similar situation which would impair or put in doubt the objectivity of the potential evaluator*
- Any independent expert, including panel chair, panel members
- The concerned persons will be excluded from the evaluation of the proposal assuming that the ERCEA is still in a position to evaluate the proposal properly

Evaluation Criteria

Excellence as sole criterion, to apply to: Research Project

- Ground breaking nature
- Potential impact
- Scientific Approach

Principle Investigator (PI)

- Intellectual capacity
- Creativity

Feedback to Applicants

Scoring system



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End of Step 1:

A	Proposal is of sufficient quality to pass to Step 2 of the evaluation
B	Proposal is of high quality but not sufficient to pass to Step 2 of the evaluation
C	Proposal is not of sufficient quality to pass to Step 2 of the evaluation. The applicant may also be subject to resubmission limitations in the next call ➡ consider before applying!

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Part 2 – Evaluation

- Evaluation process
- 2013 Deadlines

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ERC Competitions 2007-2012



	Total number of applications	of which		
		Evaluated*	Funded	success rates**
Starting Grant 2007	9.167	8.787	299	3,4
Starting Grant 2009	2.503	2.392	245	10,2
Starting Grant 2010	2.873	2.767	436	15,8
Starting Grant 2011	4.080	4.005	486	12,1
Starting Grant 2012	4.741	4.652	566	12,2
Starting Grant	23.364	22.603	2.032	10,7
Advanced Grant 2008	2.167	2.034	282	13,9
Advanced Grant 2009	1.584	1.526	245	16,1
Advanced Grant 2010	2.009	1.967	271	13,8
Advanced Grant 2011	2.284	2.245	301	13,4
Advanced Grant 2012***	2.304	2.269	313	13,8
Advanced Grant	10.348	10.041	1.412	14,2
Proof of Concept 2011 - 1&2	151	139	51	36,7
Proof of Concept 2012 - 1&2	143	120	60	50,0
Proof of Concept	294	259	111	43,3
Synergy Grant 2012	710	697	11	1,6

* withdrawn and ineligible proposals not taken into account

** percentage of funded proposals in relation to evaluated proposals

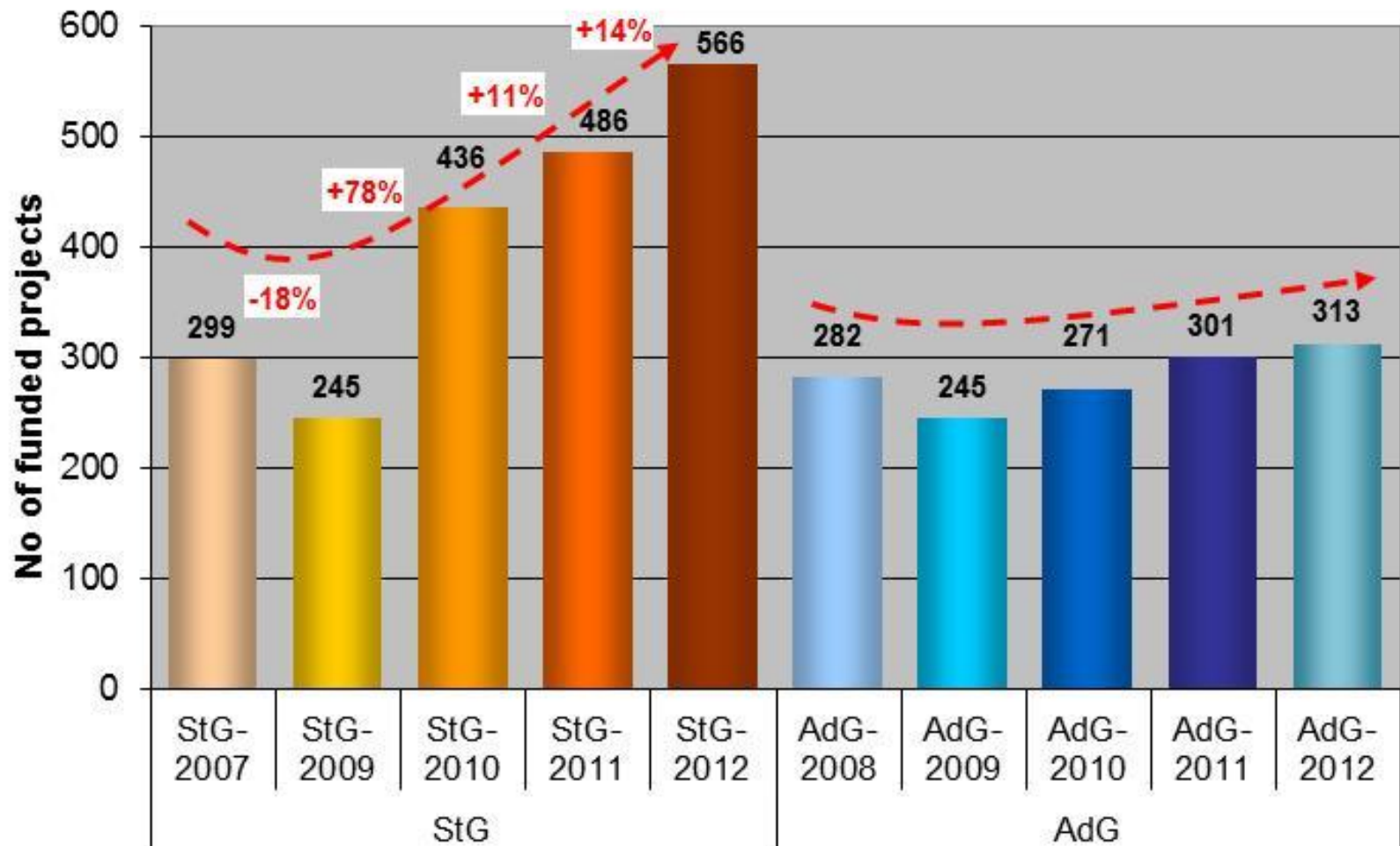
*** selected



Over 3400 grants awarded after 10 StG and AdG calls

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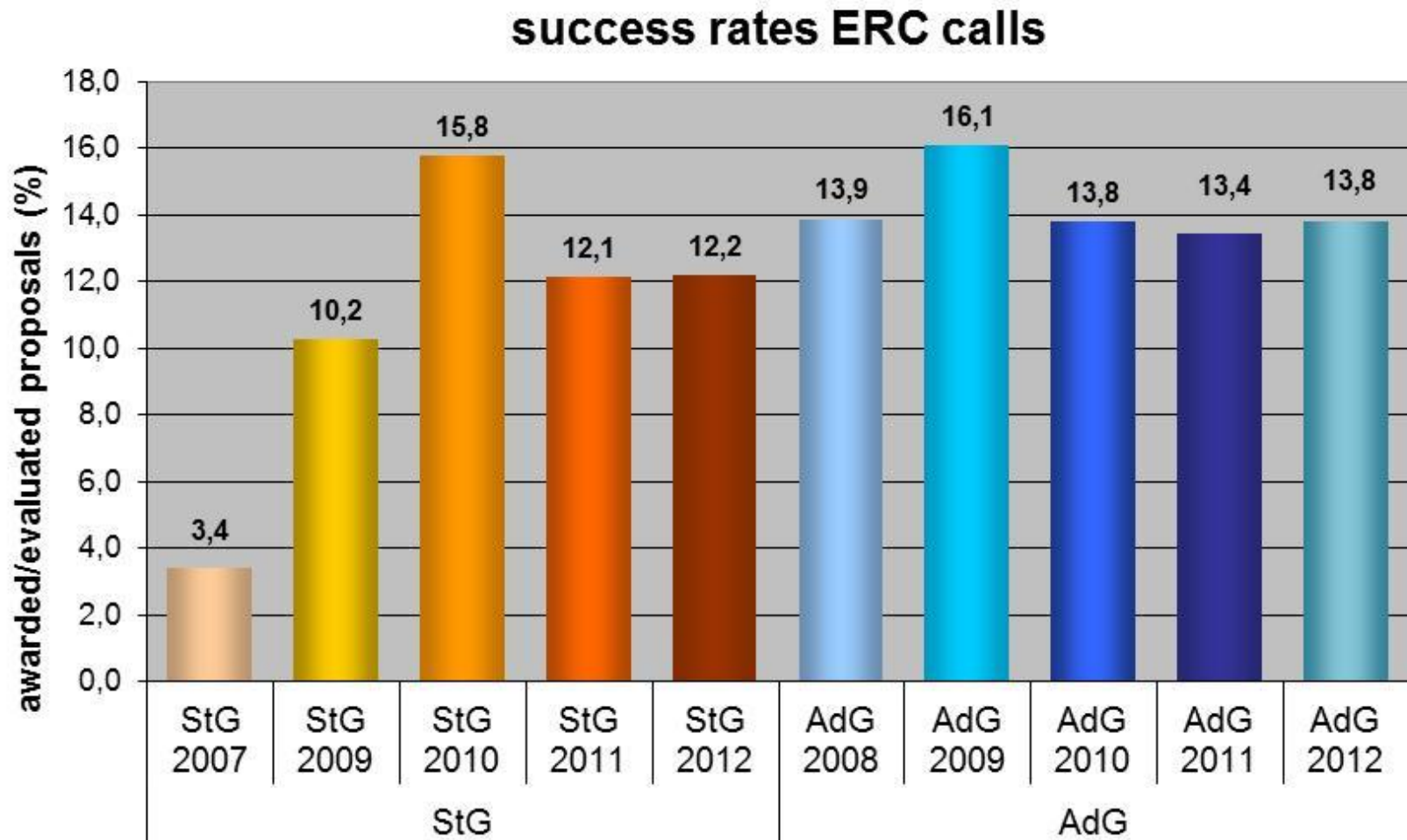
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Highly competitive: Average success rate 12%

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Success rates per country of Host Institution

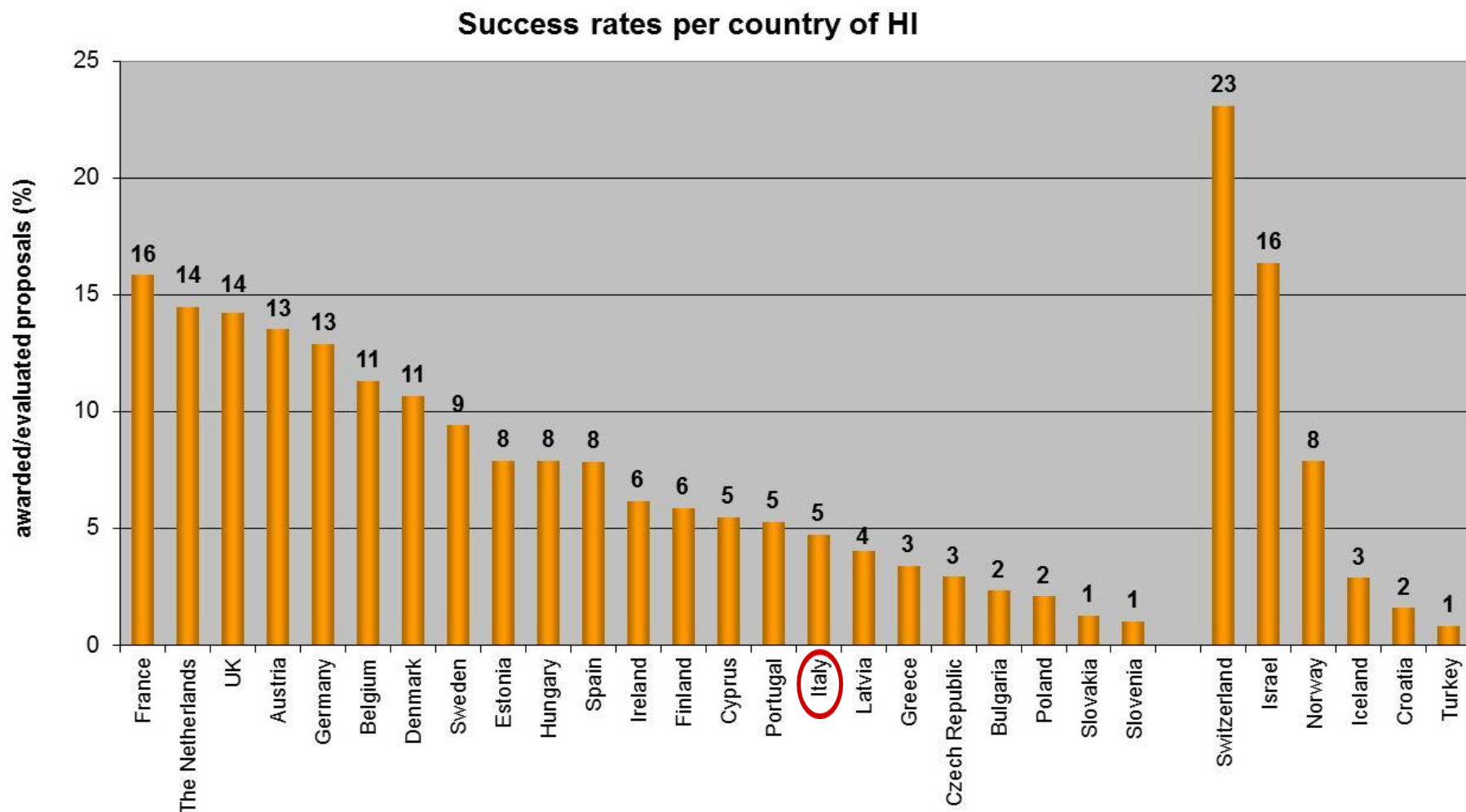
ERC Starting Grant calls 2007-2012

ERC Advanced Grant calls 2008-2012



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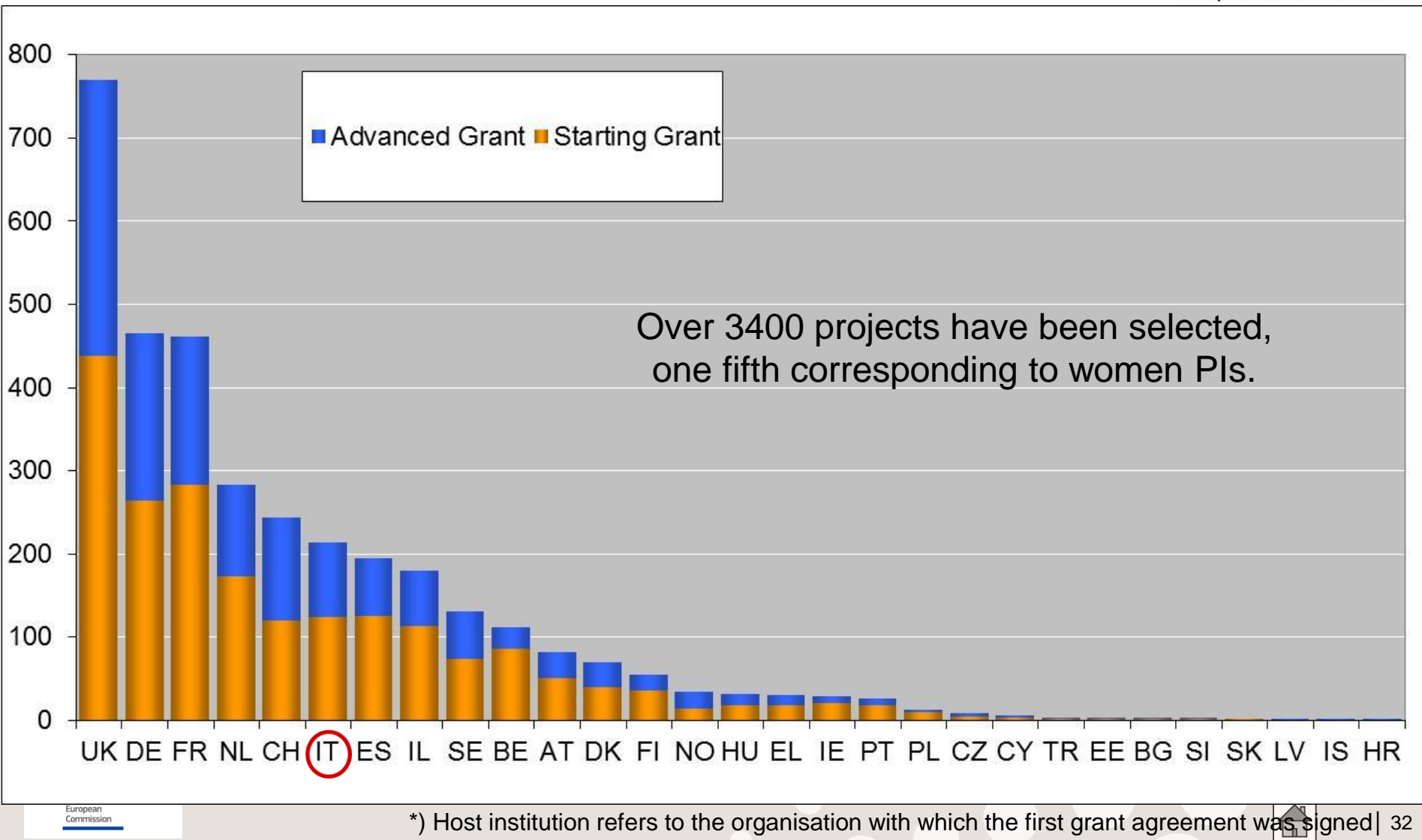
*) First legal signatories of the first grant agreement taken into account

ERC grant distribution to countries of HI

ERC Starting and Advanced grant calls 2007-2012



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*) Host institution refers to the organisation with which the first grant agreement was signed | 32

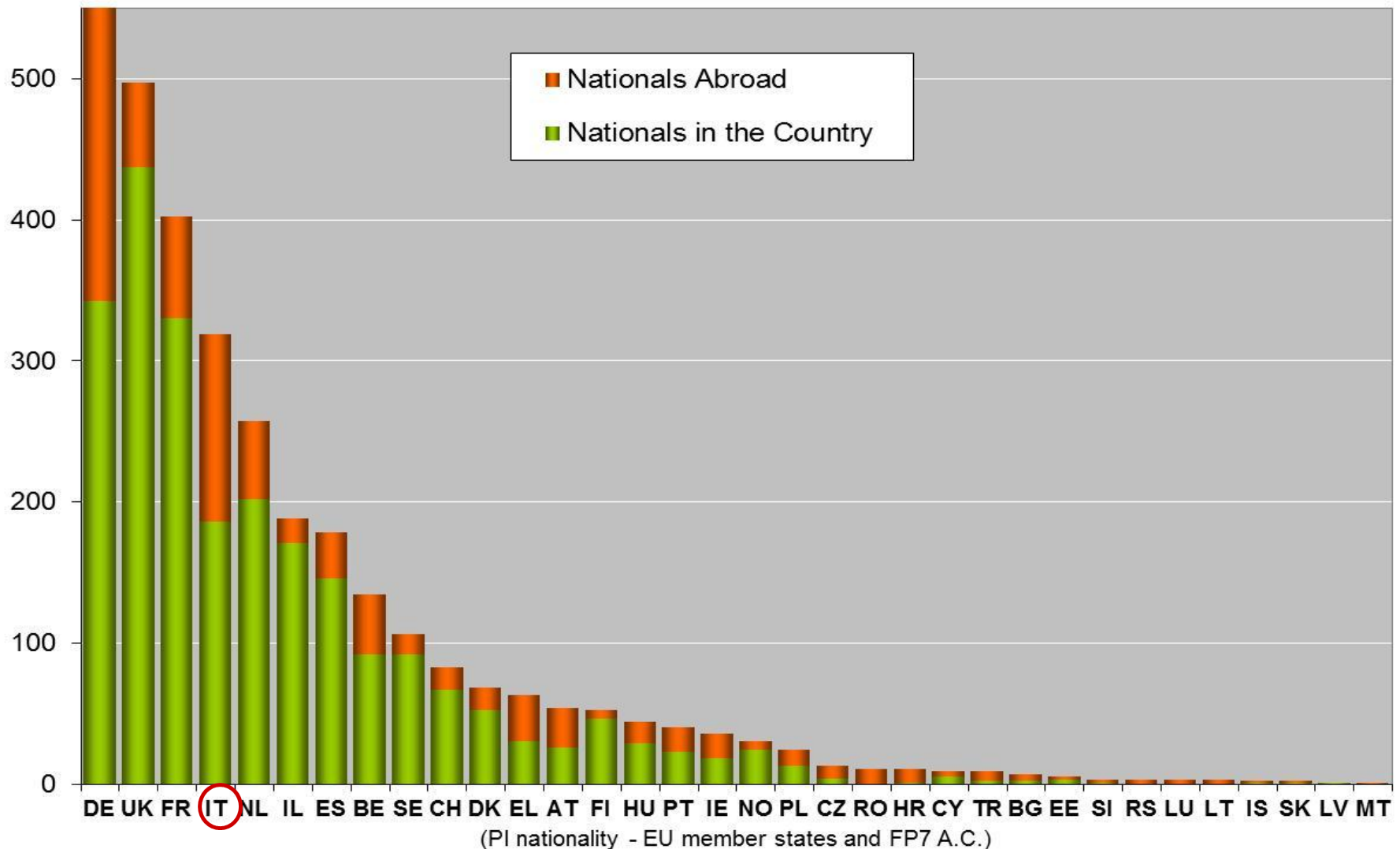
Nationals at home and abroad

ERC Starting and Advanced Grant calls 2007-2012



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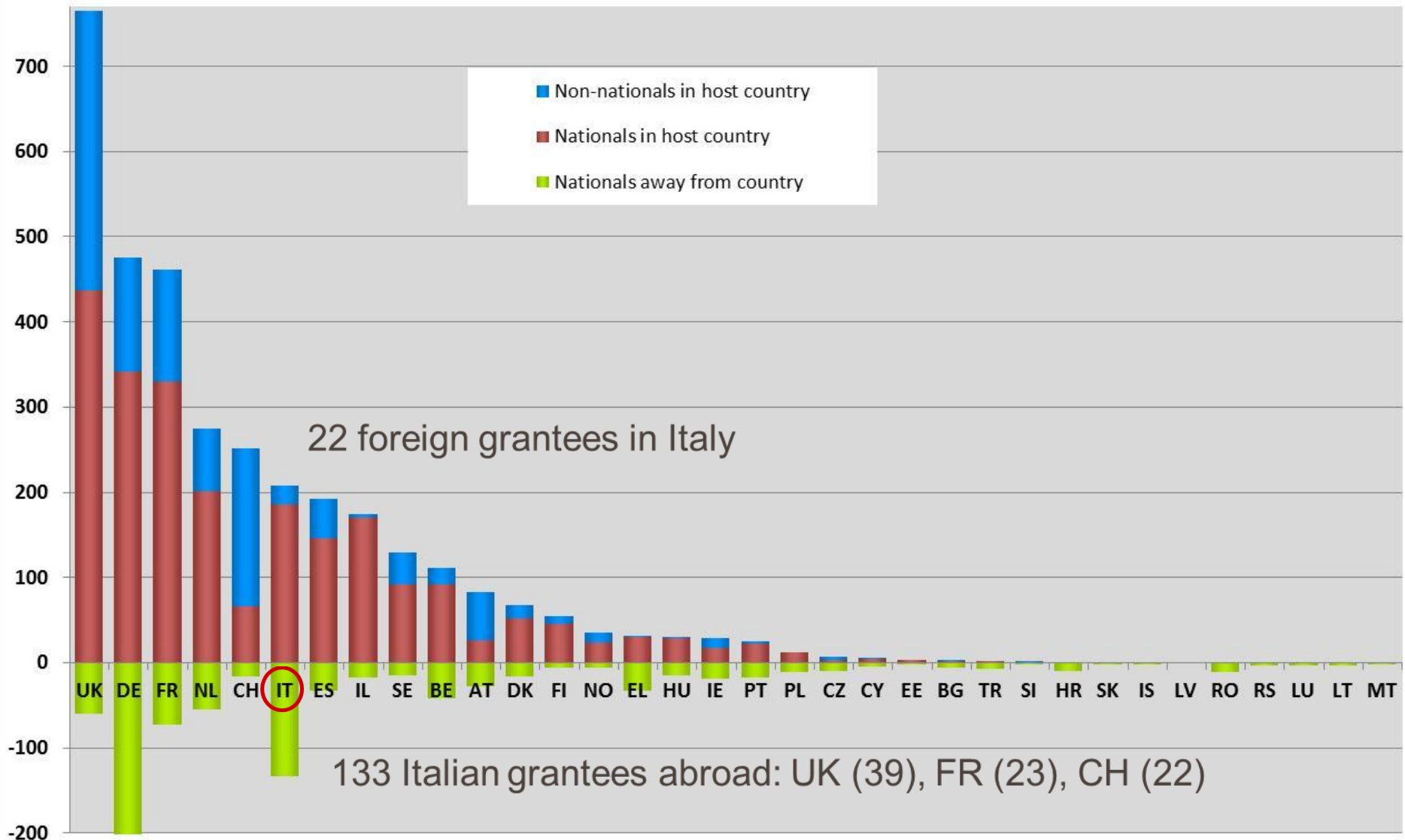
Nationality as last declared by the principal investigator



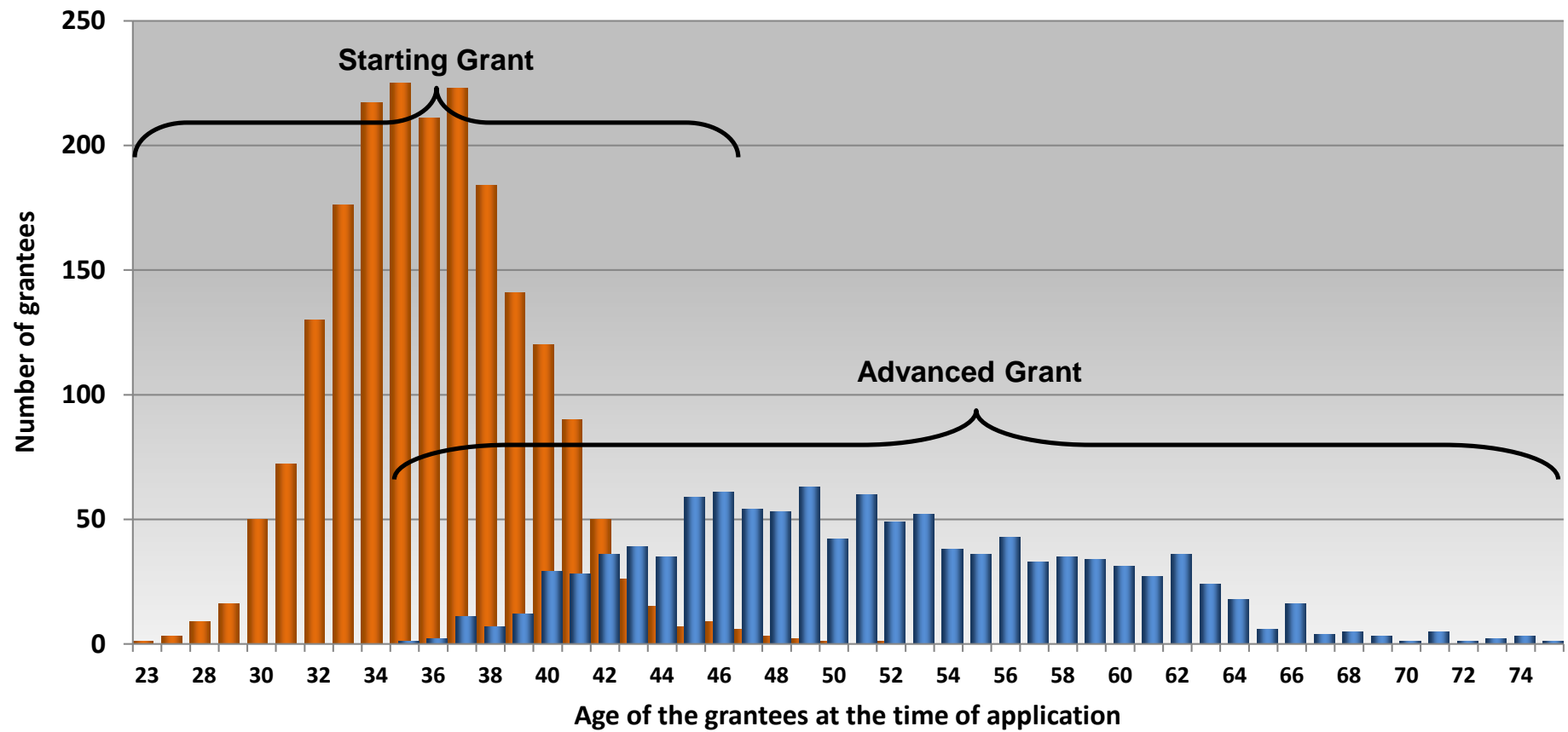
Mobility of researchers

ERC Starting and Advanced Grant calls 2007-2012

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Many grantees are young scientists

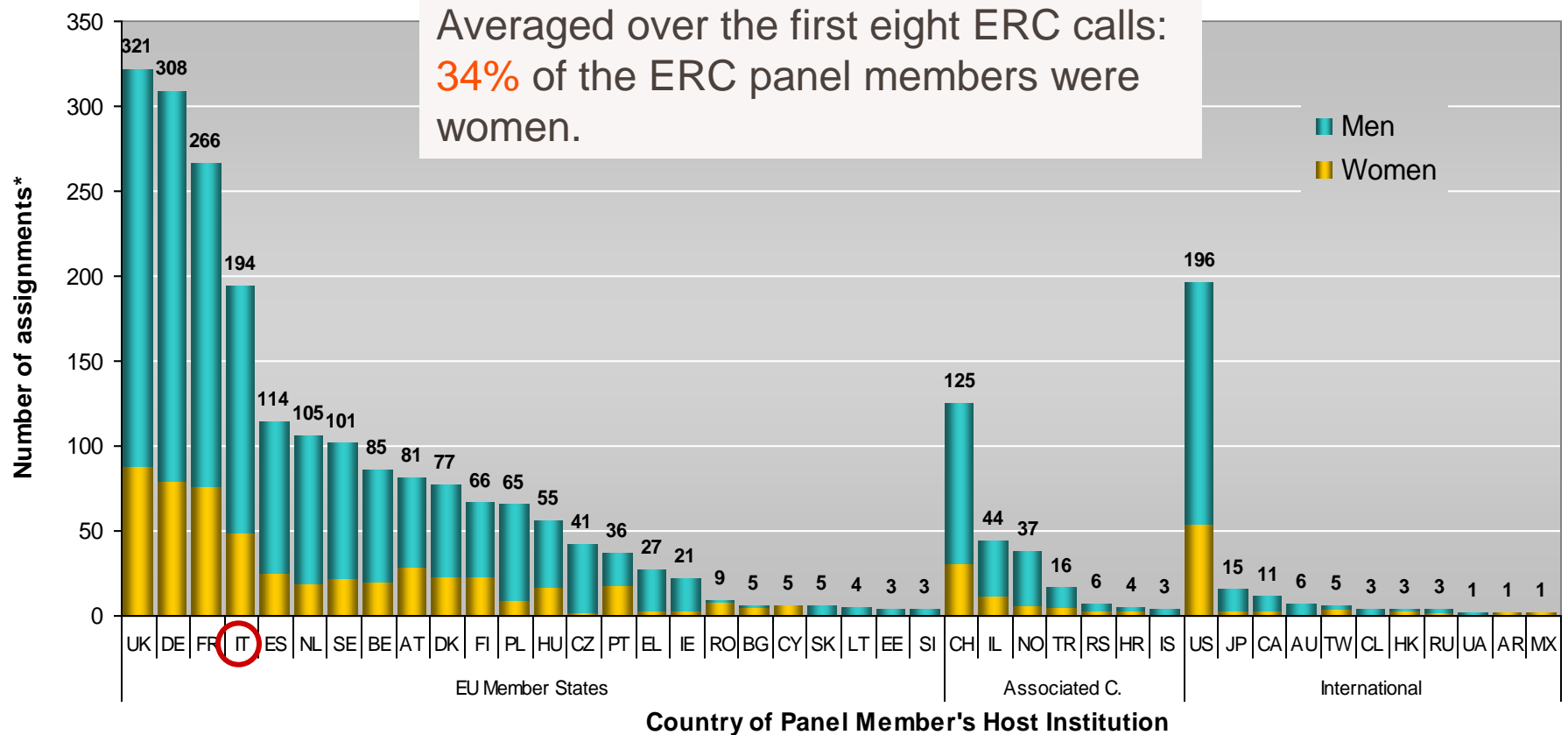


ERC 2012

Starting Grant 2007-2012; Advanced Grant 2008-2011

ERC panel members by country of HI and gender

ERC Starting and Advanced grant calls 2007 - 2011



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Relation with National Agencies I

Open Channel of communication without formalized relationship

- Exchange of information and good practices
 - Training of Officers from the Polish National Science Center
 - Regular visits and exchange of information with officials from national funding agencies

- ERC Annual Science Management Workshop Series
 - 2010: Best Practices in Schemes supporting young researchers
 - 2011: Assessing the performance of ERC funded projects
 - 2012: Impact of Research

- ERC participation in Global Science Forum
 - 2012: Peer Review Principles
 - 2013 : Open Access & Research Integrity

National initiatives in support of finalist projects in the ERC calls



A new **partnership** between
National Funding Councils
and ERC

NO: The Research Council
supports unfunded StG finalists

FI: support scheme
for finalists in reserve
lists since 2009 calls

SE: support for unfunded
finalists of StG calls since 2007

IE: New scheme opening
in 2012. Previous scheme
for StG2007 finalists

BE Flanders: FWO
supports the best
ranked PIs on the
ERC-StG reserve list

PL: Support scheme for
finalists of 2009 and 2010
calls. It might continue

CZ: opened
support scheme
for finalists in 2012

LU: FNR supports
unfunded StG and
AdG finalists since
2009 calls

HU: Call for unfunded
ERC finalists of
StG2007 and StG2009

RO: opened support scheme
for finalists in 2012

FR: ANR launched
an initiative to
support unfunded
StG2007 finalists

CH: SNSF launched
an initiative to back
unfunded StG2007
finalists

SI: Complementary
scheme for unfunded
finalists of 2010 calls

TR: Considers a
scheme to support
unfunded ERC finalists

PT: New national initiative
in support of ERC finalists
being developed

IT: Call open to all
unfunded StG2007
finalists

BG: Develops a
scheme to financially
support projects in the
ERC reserve list

CY: Research
Promotion
Foundation
supported StG
2009 finalists

ES: support for unfunded
finalists of StG calls since 2007

EL: support for unfunded
StG and AdG finalists in
2010 and 2011 calls

Relation with National Agencies III

New initiatives with funding agencies : ERC / NSF Agreement

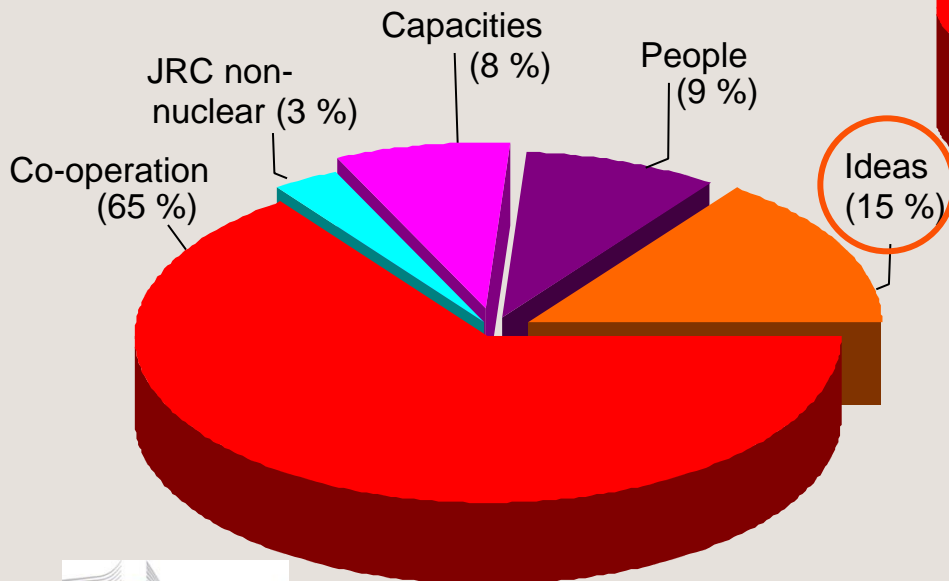
Implementation Modalities

- U.S. scientists to be part of ERC-funded teams for six to twelve months.
- Selected researchers will be supported by the ERC grant in the same way as any other team member.
- All ERC grantees will be informed about this possibility and will be able to participate on a voluntary basis.
- NSF will solicit proposals from its CAREER (Faculty Early Career Development Programme of NSF) awardees and Post-doctoral research fellows for these opportunities.
- Travel costs for the U.S. scientists will be covered by the NSF
- their NSF grant will continue to run during their visit in Europe (in case of CAREER)

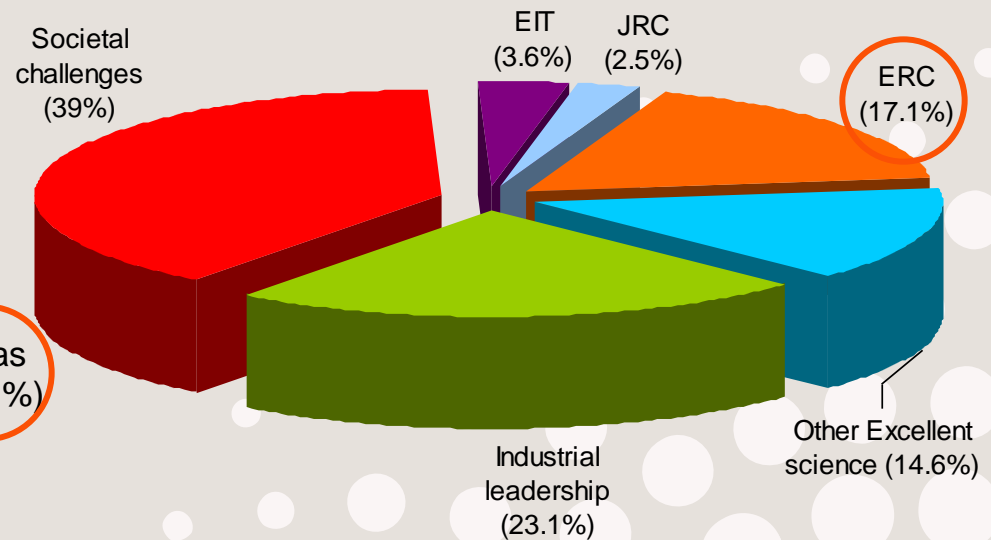
- **HORIZON 2020** structure:
 - Excellent Science
 - Industrial leadership
 - Societal challenges
 - EIT
 - JRC
- **Excellent Science:** reinforcing and extending the excellence of the EU's science base and consolidating ERA to make EU's R&I system more competitive on a global scale
 - ✧ **European Research Council** (budget proposal under H2020: € 15 billion)
 - ✧ Future and Emerging Technologies
 - ✧ Marie Curie
 - ✧ Research Infrastructures

Budget proposal under H2020

FP7 budget € 50.5 billion
ERC budget € 7.5 billion



H2020 budget € 88 billion
ERC budget € 15 billion



ERC in FP7 and in H2020 : Changes and Continuity - I

Essential features maintained

- Independent Scientific Council with full authority over funding strategy
- Executive Agency with autonomous operation
- Scientific excellence - the sole criterion on which ERC grants are awarded

ERC in FP7 and in H2020 : Changes and Continuity - II

Strengthening the Scientific Governance of the European Research Council

- Merging positions of President of ERC and Secretary General
- Full-time President based in Brussels
- 3 Vice-Chairs elected from amongst the Scientific Council members
- Strengthening the role of Scientists in the Steering Committee of the ERCEA

Take-home message



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Bottom up approach:

- ERC schemes are open to all topics, including Social Sciences and Humanities
- No thematic preferences
- Projects often inter-/multidisciplinary but this is not a requirement

Flexibility in terms of team structure and size/duration of project:

- Principal Investigator (PI) alone or multinational team - as justified by scientific needs
- Duration flexible (up to 5 years)

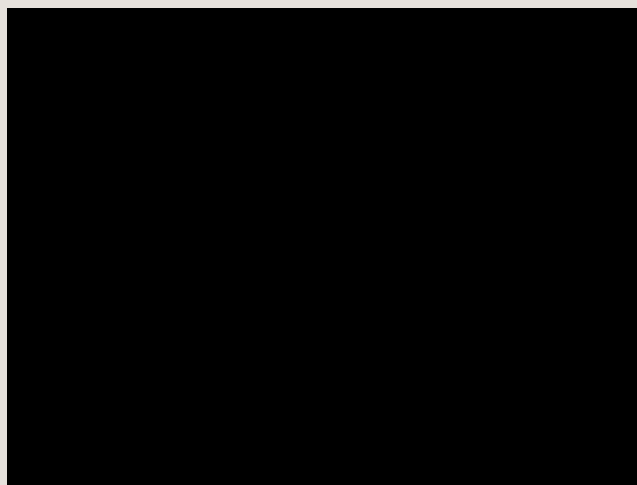


Testimonial



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Support and service



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ERC website: <http://erc.europa.eu>

Documentation, detailed statistics,...

ERC newsletter and newsalerts : subscribe to

<http://erc.europa.eu/keep-updated-erc>

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

ERC helpdesk : dedicated email and phone line





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Thank you for your attention!

