

# The European Research Council



European Research Council

Established by the European Commission

A photograph of a park scene with a large fountain in the foreground, creating a rainbow. In the background, there are modern glass buildings and trees with autumn foliage.

## ERC in the European Research Landscape

**Jean-Pierre BOURGUIGNON**  
*ERC President*

# What is ERC?



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## European Research Council

- An autonomous pan-European funding body set up by the EU in 2007 **led by scientists** after a long struggle
- **Mandate:** to encourage the highest **quality research** in Europe through competitive funding of **frontier projects**
- Funded through the EU Framework programmes for Research and Innovation
- For the period 2014-2020, **Horizon 2020**

# The Importance of Basic Research



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## Research and Innovation

- A **linkage** whose importance has grown in the last years because of the role attributed to **innovation** in **competitiveness**
- **Existence** of a number of short circuits between some results belonging to **basic research** that quickly **triggered** some new **economic** activities
- This **a priori non focused** financing of research has been done in the past in the US typically by **DARPA** and DOE
- Presently, the best example is given by **Korea**, and the **huge investments** made there in **basic research**, by lack of tradition and under the **pressure of its high-tech industry** anxious to make it for the next major round of innovation.

# What is ERC?



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A **bottom-up, individual-based, pan-European competition** with **host institution** in the **EU** or in an **Associated State**.

## Strategy

- Support for **individual** scientists – no networks!
- **International** peer-review
- **No predetermined subjects** (bottom-up)
- Support of **frontier research** in **all fields of science and humanities**

## Legislation

- Scientific governance by an independent 22-member **Scientific Council**, which has **full authority** over **funding** and **evaluation**
- Support by the **ERC Executive Agency** (autonomous)
- Only criterion: **quality of research** aiming for **excellence**



# What is ERC?



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## The European Commission

- Provides financing
- Guarantees autonomy of the ERC
- Assures ERC's integrity and accountability
- Adopts annual work programmes

## The ERC Scientific Council

- 22 members who are active researchers in their communities
- Appointed by the Commission
- Establishes overall scientific strategy
- Controls quality of operations and management
- Ensures communication with the scientific community

## The ERC Executive Agency (ERCEA)

- Executes annual work programme
- Implements calls for proposals
- Organises peer review evaluation
- Establishes and manages grant agreements with Host Institution
- Administers scientific and financial aspects
- Carries out communications activities

# ERC Funding Schemes



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## Starting Grants

starters  
(2-7 years after PhD)  
up to € 1.5 Mio  
for 5 years

## Consolidator Grants

consolidators  
(7-12 years after PhD)  
up to € 2.25 Mio  
for 5 years

## Advanced Grants

track-record of  
significant research  
achievements in the  
last 10 years  
up to € 3 Mio  
for 5 years

## Proof-of-Concept

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

# ERC in European Funding of Research



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- **Support to investigator-driven frontier research** through a **bottom-up, pan-European competition** in **all fields of science and humanities**
- **Evaluation:** based strictly on the **quality** of the **research proposal** and of the **principal investigator**
- **Scientific governance:** independent **Scientific Council** of 22 members with **full authority** over **funding strategy** and on the **choice of the evaluators**

# ERC after 7 Years



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- **4 500 researchers** funded (65% are at an **early-career** stage);  
**64 nationalities** represented (EU has **28!**)
- **Highly competitive** (average success rate tending to 10%)
- Grants located in almost **600** different institutions in **29** countries
- **50%** of grantees in **50** institutions
- **Benchmarking** effect: impact on national programmes and agencies;  
national funding for best "runners-up"
- **Efficient** and **fast** grant management
- **Highly recognized** by the research community beyond Europe

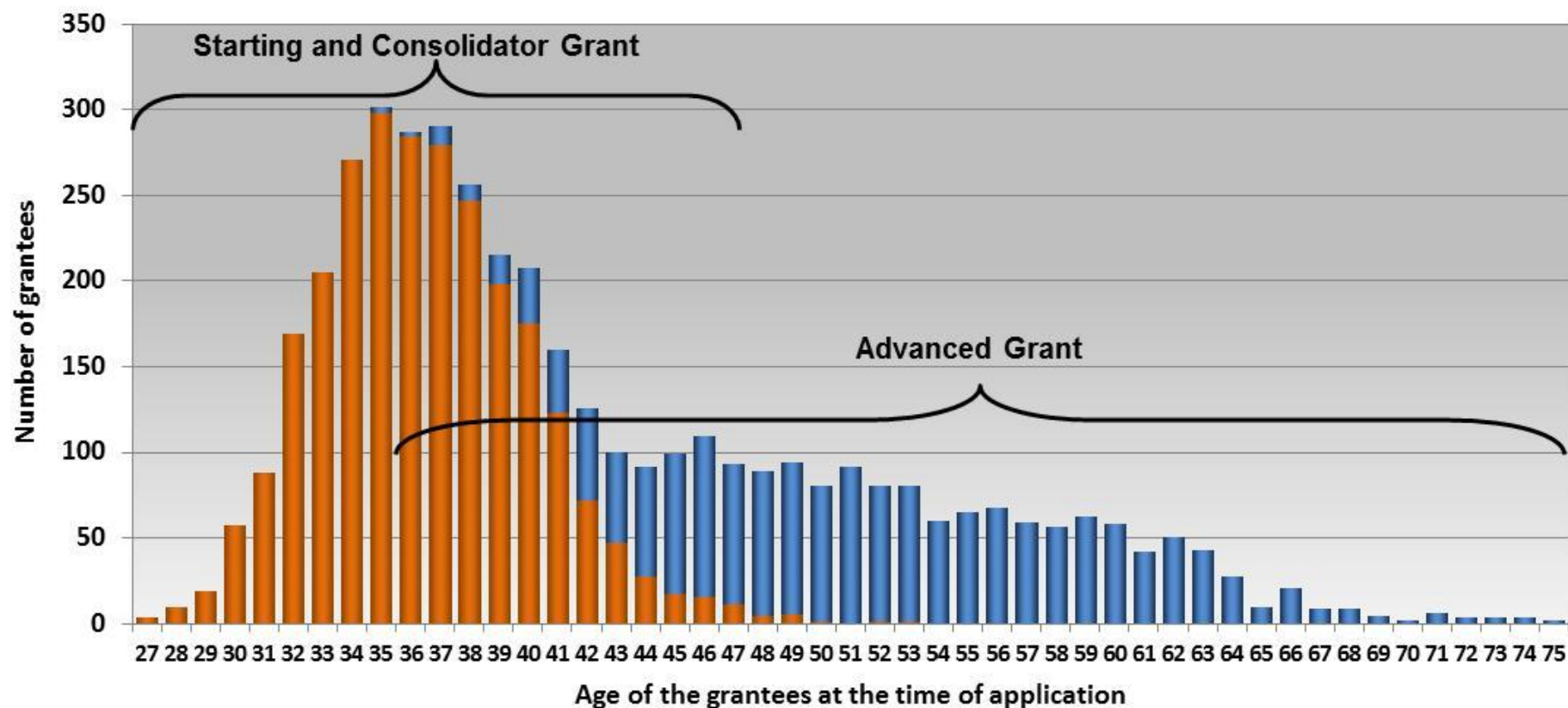


# Priority to Young Scientists



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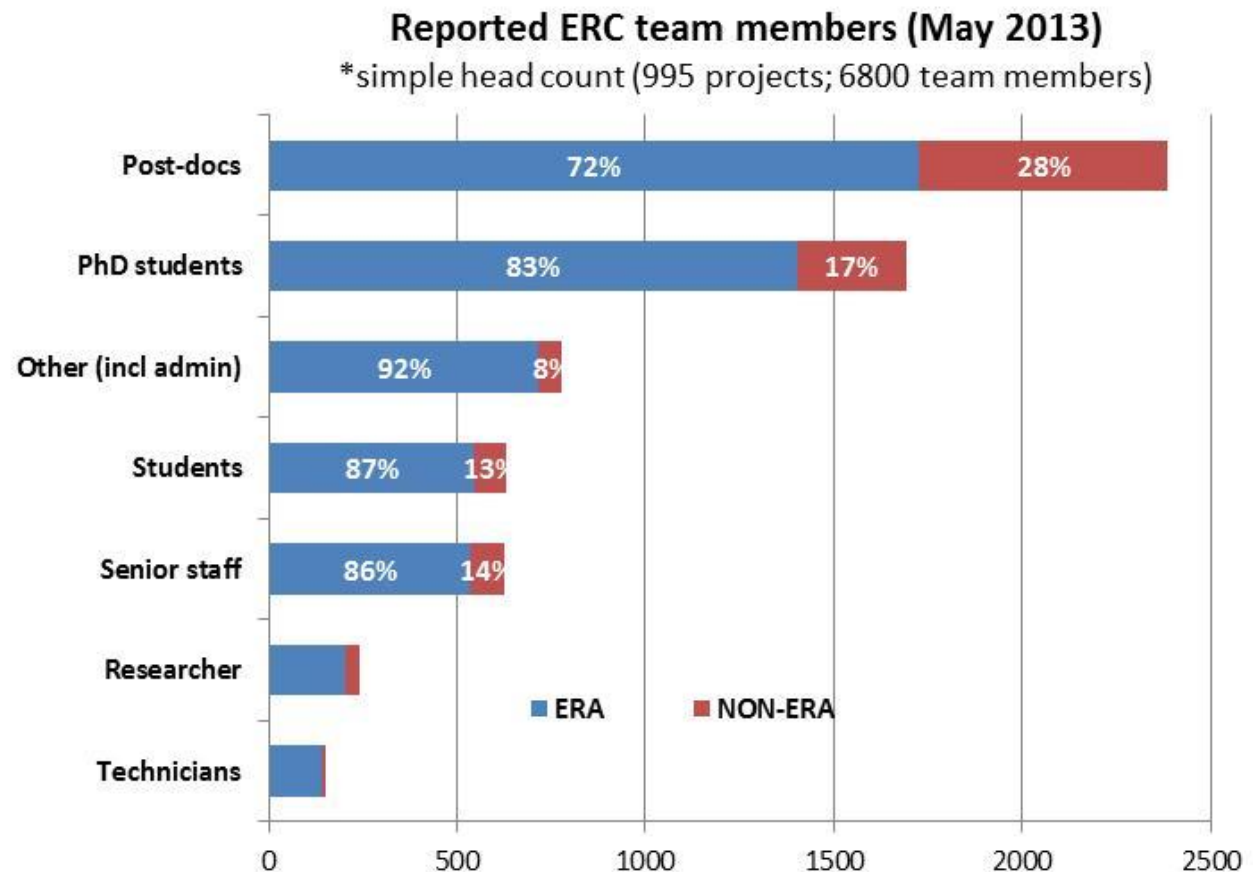


ERC 2007-2013

# Developing a New Generation

On average each ERC project team has six members.

2/3 of team members are in the initial phase of their career.



# Attracting Researchers to Europe

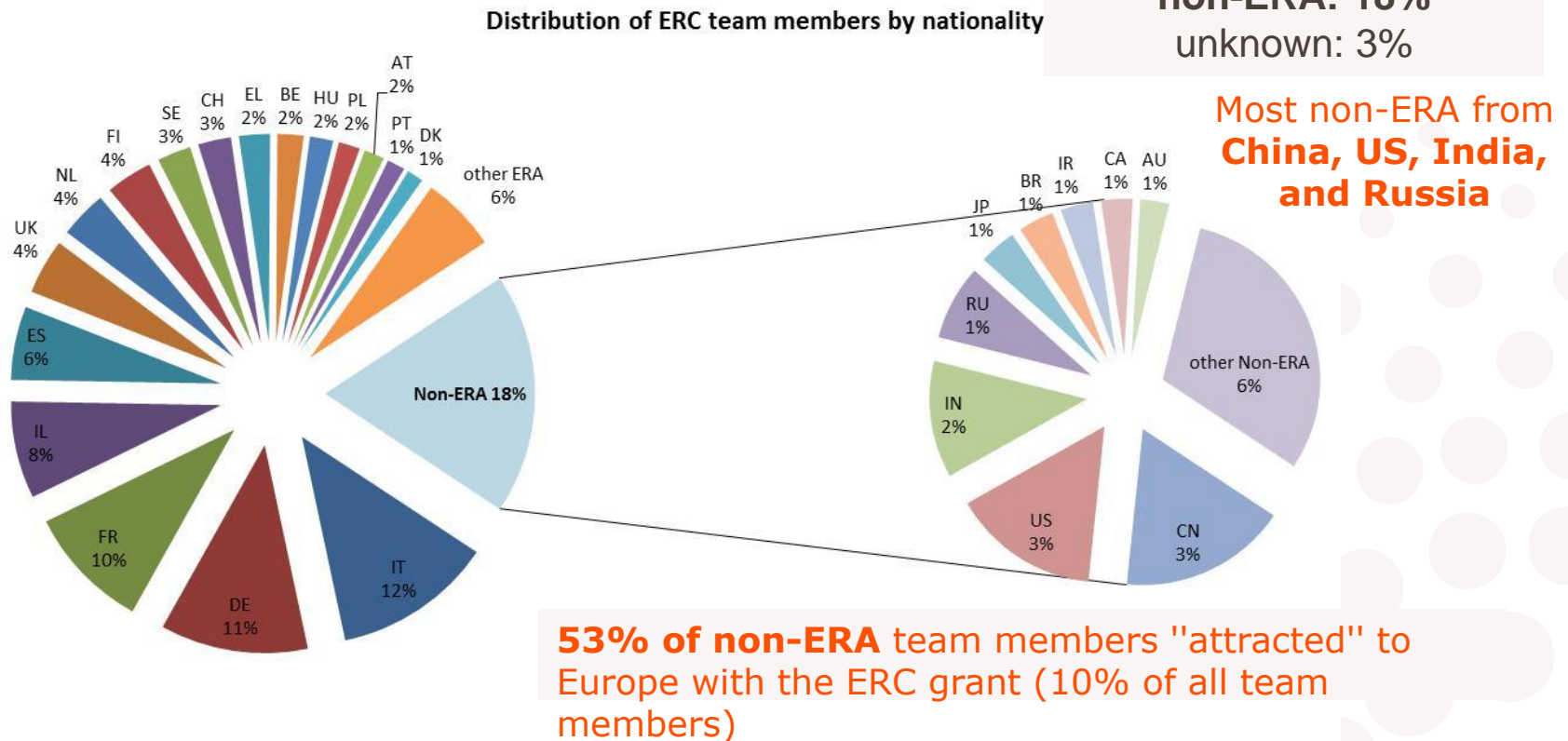


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## Nationality of ERC project teams (PIs not included)

Analysis of 995 Starting and Advanced Grants

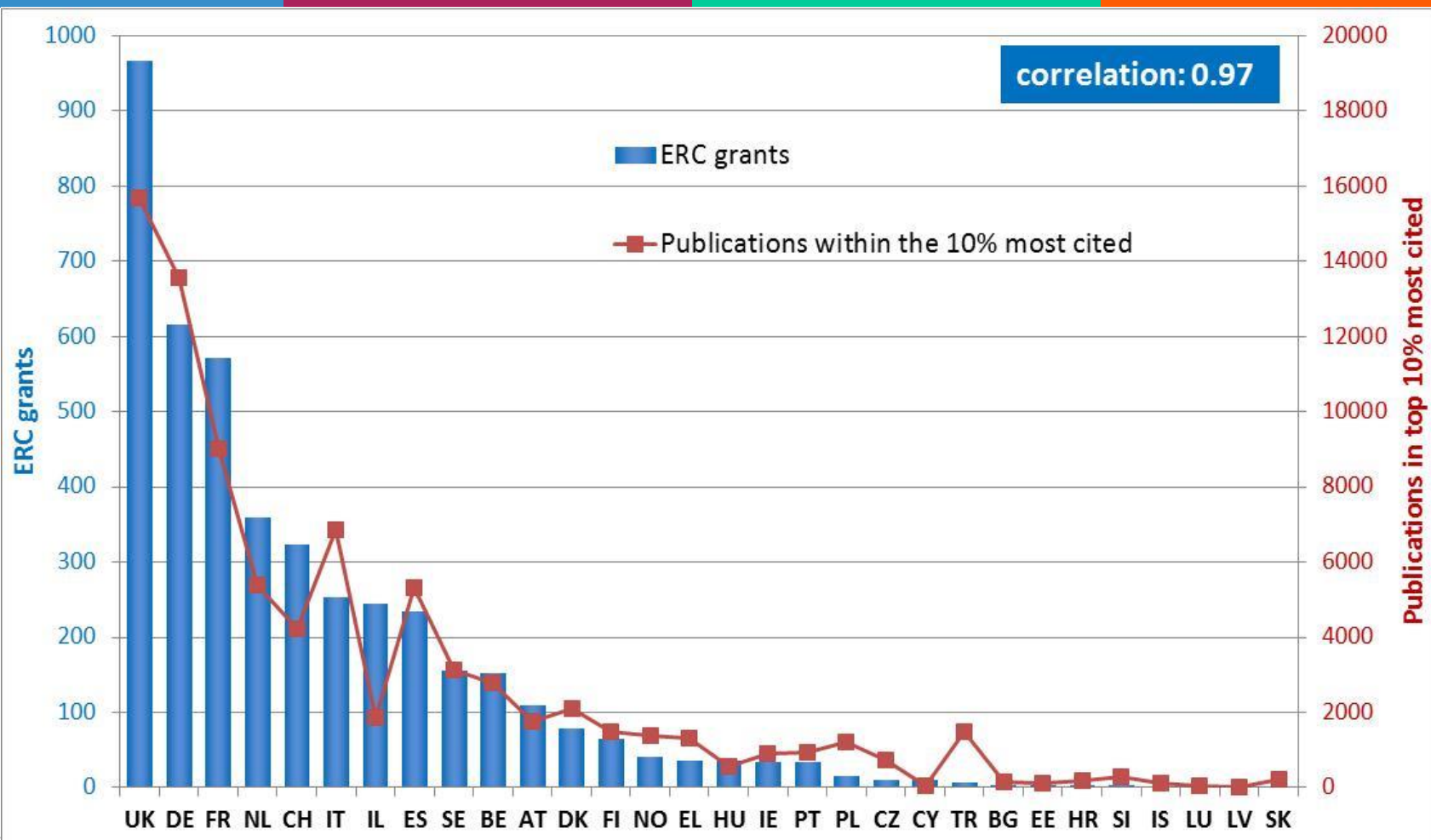


# ERC Grants versus Top Publications



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Horizon 2020  
European Union funding  
for Research & Innovation

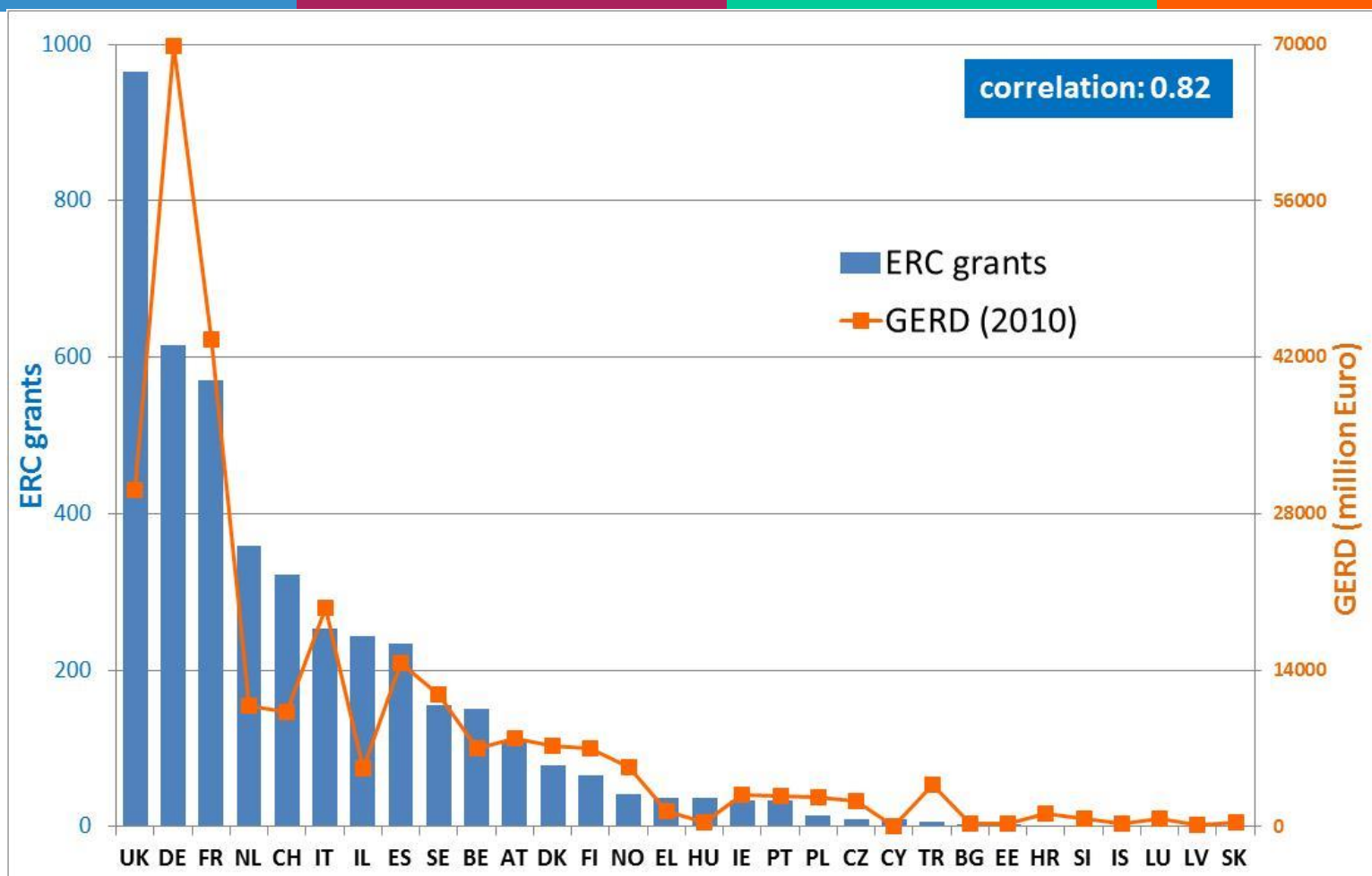
\*) Host institution refers to the organisation with which the first grant agreement was signed | 12

# ERC Grants versus Global R&D Effort



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# ERC in *Horizon 2020*

# The *Horizon 2020* Programme



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## ➤ Principal components of *Horizon 2020*:

- Excellent science
- Industrial leadership
- Societal challenges

# ERC in *Horizon 2020*



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## ➤ **Excellent science:**

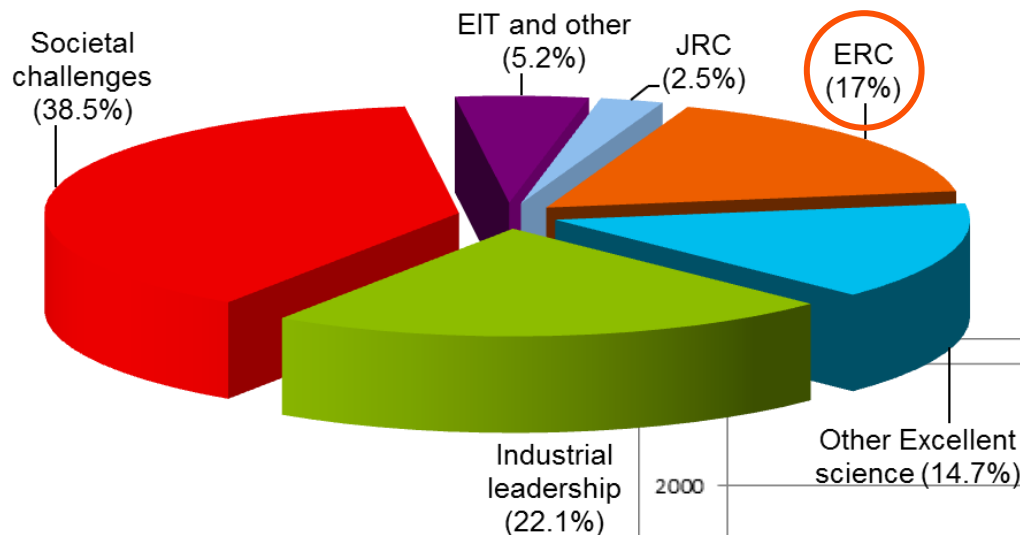
- **The European Research Council (ERC)**  
(budget under Horizon 2020: € 13.1 billion)
- Future and Emerging Technologies
- Marie Skłodowska Curie Actions
- Research infrastructures

# Horizon 2020 Budget



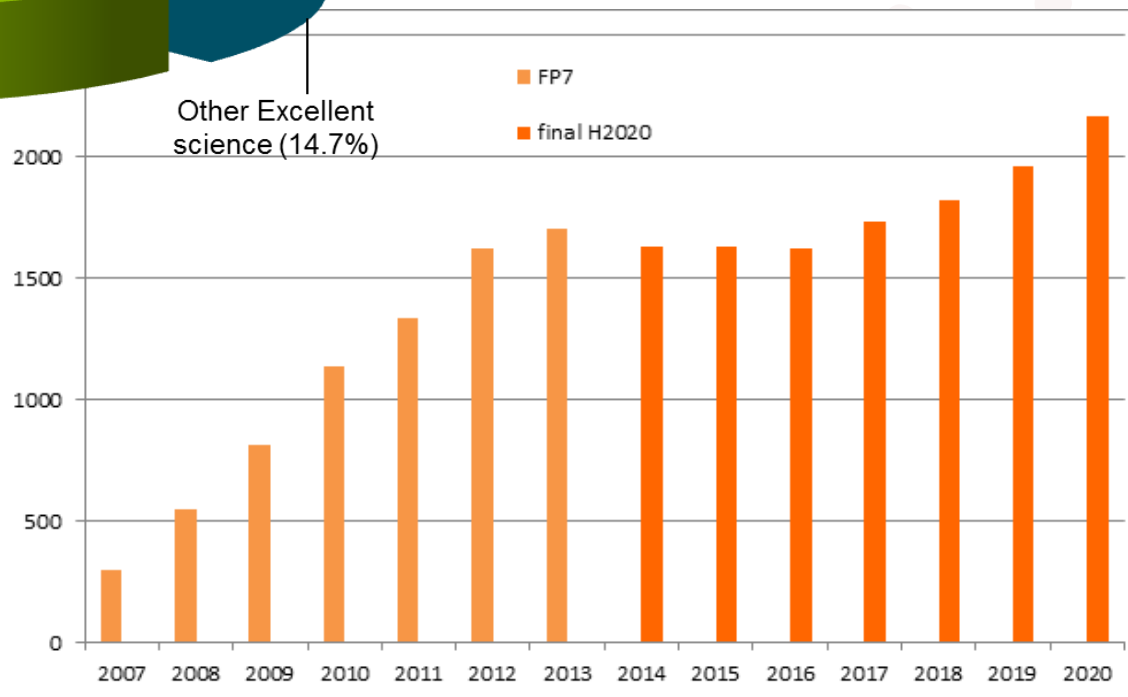
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**H2020 77 milliards d'euros**  
**ERC 13,1 milliards d'euros**

**FP7 50,5 milliards d'euros**  
**ERC 7,5 milliards d'euros**



# Changes and Continuity



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## ➤ Essential features maintained:

- Same schemes, same principles, same selection procedures/criteria
- Independent Scientific Council with full authority over funding strategy
- Executive Agency with autonomous operation

## ➤ Increased budget (€ 13.1 Bio for 2014-2020):

- More opportunities than ever for top research talents

## ➤ Strengthening the Scientific Governance of the ERC:

- Strengthening the links between the Scientific Council and the Agency
- 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



# Forthcoming ERC calls



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ERC calls	Budget	Call Publication	Submission Deadline(s)
<b>Advanced Grants</b> ERC-2014-AdG	450 M€	17 June 2014	21 October 2014
<b>Starting Grants</b> ERC-2015-StG	430 M€	7 October 2014	3 February 2015
<b>Consolidator Grants</b> ERC-2015-CoG	585 M€	13 November 2014	12 March 2015
<b>Advanced Grants</b> ERC-2015-AdG	630 M€	10 February 2015	2 June 2015
<b>Proof of Concept</b> ERC-2014-PoC ERC-2015-PoC	15 M€* 20 M€*	11 December 2013 7 November 2014	DL2: 1 Oct. 2014 DL1: 5 Feb. 2015

\*) full-year budget

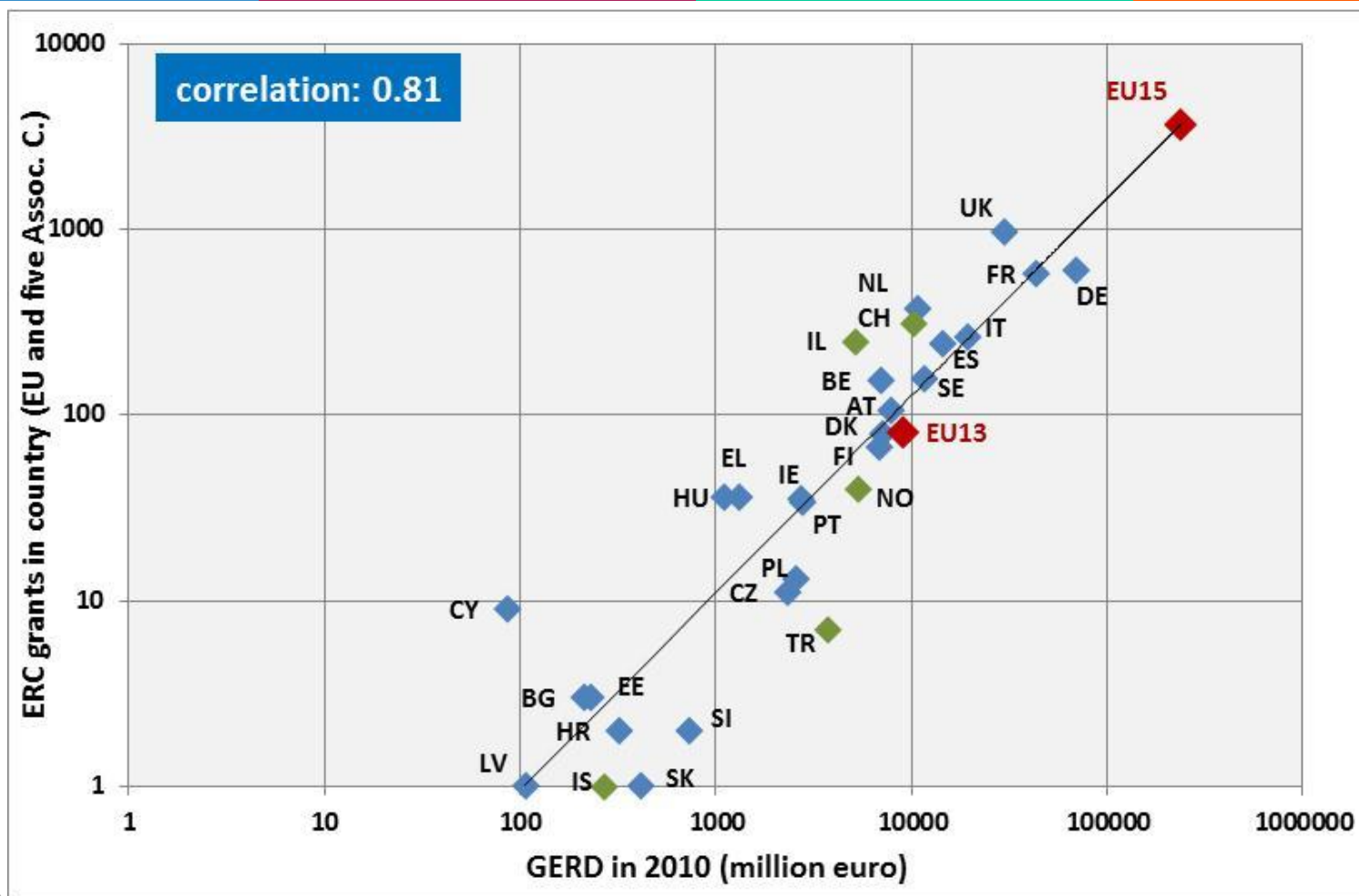
# ERC calls

# Grant Distribution vs. R&D Expenditure



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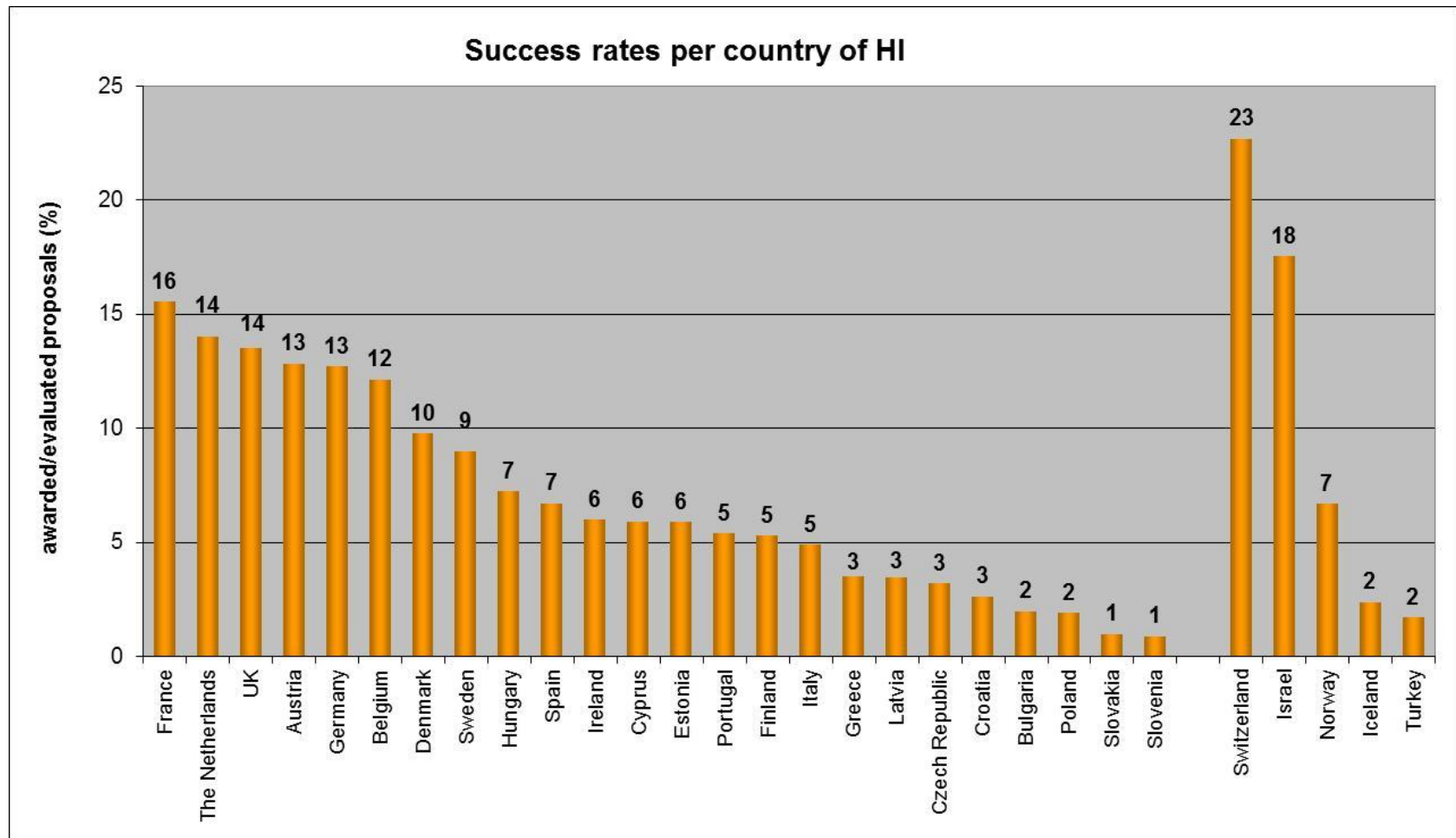
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# Success Rates per Country of HI



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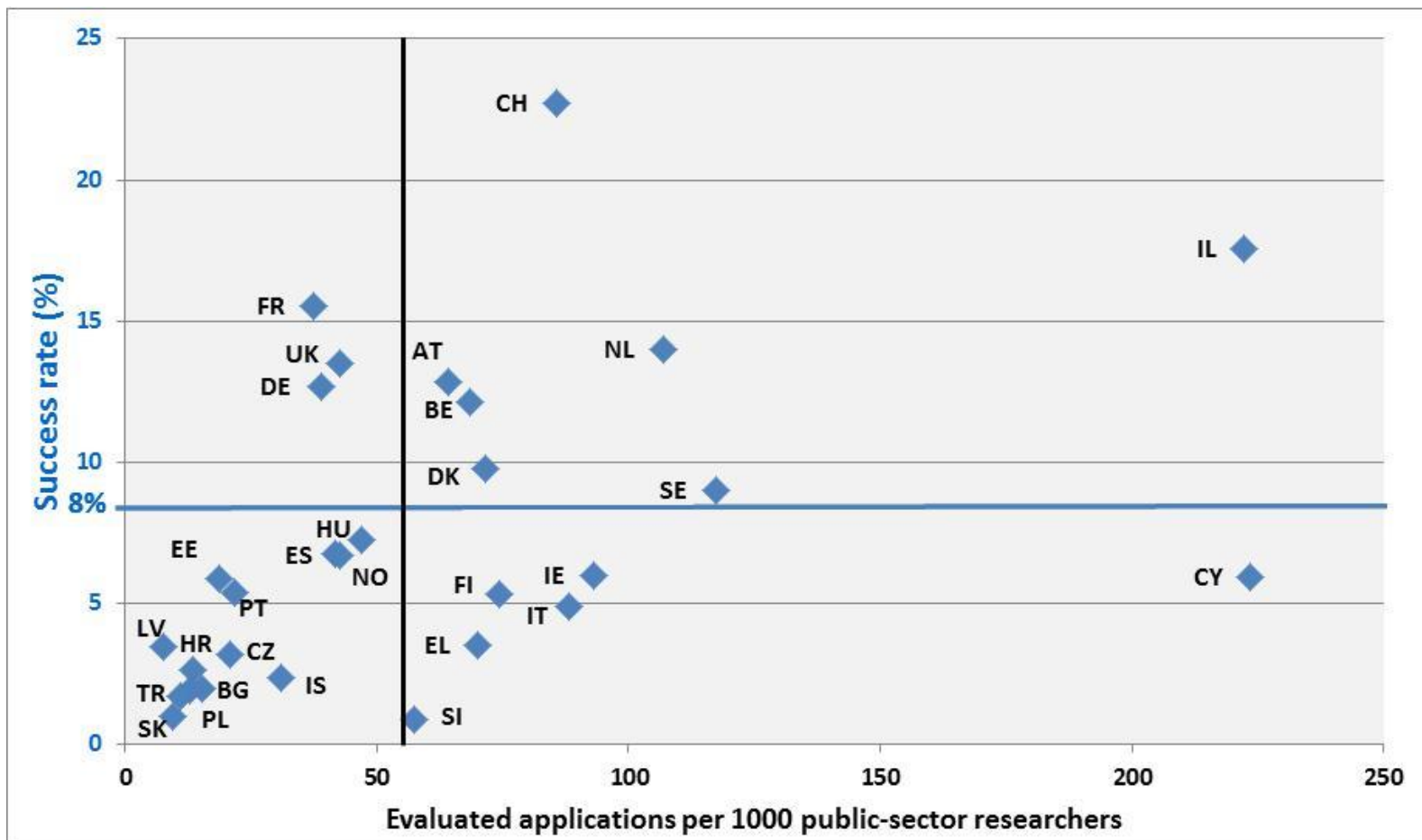


# Success Rates versus Applications



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