

The European Research Council



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H2020 National Launch Event
Budapest, 26 November 2013

Agnes Kulcsar
call coordinator – Synergy grants

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ERC basics



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What is ERC?

The ERC supports the best researchers
to do the best research.

ERC mission: "to reinforce excellence, dynamism and creativity in European research"

Budget
2007 – 2013
€ 7.5 billion
1.1 billion €/year

2014 – 2020
€13 billion
1.9 billion €/year

The European Commission

- **Provides financing** through the EU framework programmes
- **Guarantees autonomy, integrity and accountability of the ERC**
- **Adopts annual work programmes** as established by the Scientific Council

The ERC Scientific Council

- **22 prominent researchers** proposed by an independent identification committee and appointed by the Commission (4 years, renewable once)
- **Establishes overall scientific strategy**
- **Ensures communication with the scientific community**

The ERC Executive Agency

- **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**
- **Carries out communications activities**



ERC basics

Substantial grants to the very best



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- **The Researcher (PI : Principal Investigator)**
 - ERC funds individual scientists
 - Any nationality, age or current place of work in the world
 - Starting, consolidator or advanced grant (depending on work experience and scientific achievements)

- **Research team**
 - The PI can choose national or trans-national team members if scientific added value proven
 - The grant covers the salary of team members

ERC basics

Substantial grants to fund frontier research



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➤ Frontier research project

- **All fields of fundamental research:** Physical Sciences & Engineering, Life Sciences, Social Sciences & Humanities
- **Bottom-up:** no predetermined subjects, no priorities
- **High risk/high gain**
- **5 years projects in general**
- **No consortia, no co-funding**

➤ Host Institution (HI) in Europe

- **The one where the researcher already works, or any other institution based in EU or associated countries**
- **Grants are portable (= the PI can change Host Institution)**
- **Universities, research centres; public or private**

ERC basics

ERC funding 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



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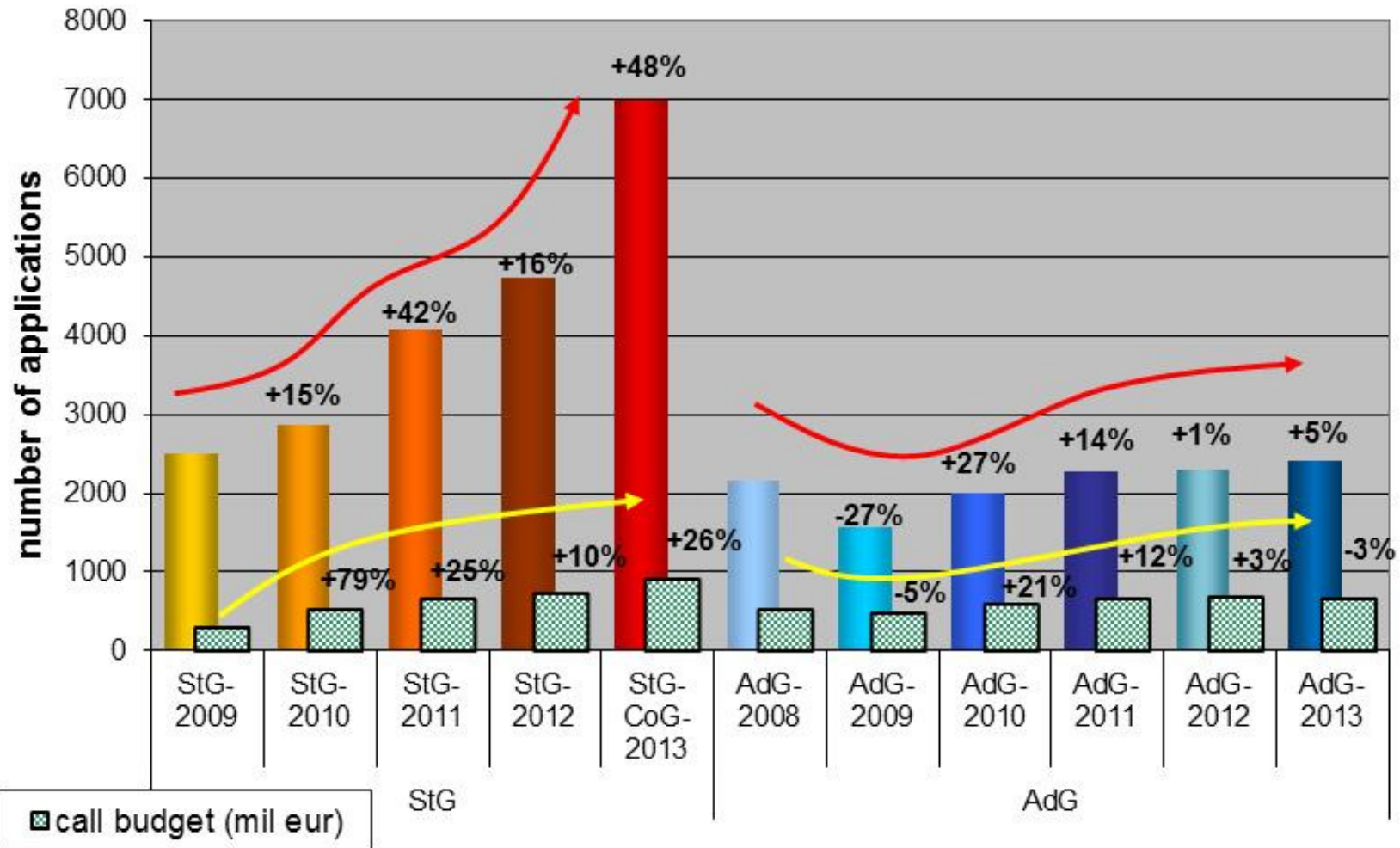
ERC achievements after first 7 years...

ERC achievements

Rising applications – over 40 000 proposals received



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ERC achievements

After 7 years of existence...



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- Highly recognised by the research community
- 4 000 top researchers funded (65% are at an early-career stage); 58 nationalities represented
- **Highly competitive** (average success rate 12%)
- Working in >500 different institutions in 29 countries
- 50% of grantees in 50 institutions : “Excellence attracts excellence”
- **Benchmarking** effect: impact on national programmes and agencies; national funding for best "runners-up"
- Efficient and fast grant management

ERC achievements

Highly distinguished grantees



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 Serge Haroche Nobel 2012	 Konstantin Novoselov Nobel 2010	 Ada Yonath	 Andre Geim	 Christoforos Pissarides	 Theodor Hansch	 James Heckman	 Jean-Marie Lehn
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Stanislav Smirnov AdG 2008
Simon Donaldson AdG 2009
Elon Lindenstrauss AdG 2010

2013 Wolf Prize awarded to Peter Zoller - SyG 2012
2013 Holberg Prize awarded to Bruno Latour - AdG 2010
2013 Crafoord Prize awarded to Lars Klareskog - AdG 2009

Other Prizes awarded to ERC grantees

EMBO GOLD MEDAL 2011 – Simon BOULTON - AdG 2010
FEBS|EMBO WOMEN IN SCIENCE 2011 - Carol ROBINSON - AdG 2010
EMBO GOLD MEDAL 2010 – Jason W CHIN - StG 2007
THE SHAW PRIZE IN MATHEMATICAL SCIENCES 2011 - Christodoulou Demetrios - AdG 2009
CRAFOORD PRIZE 2011 and EUROPEAN LATSIS PRIZE 2010 – Ilkka Hanski - AdG 2008
L'ORÉAL-UNESCO AWARD FOR WOMEN IN SCIENCE 2011 - Anne L'Huillier - AdG 2008
WOLF PRIZE 2010 – Anton ZEILINGER, David BAULCOMBE-AdG 2008, Alain ASPECT-AdG 2010
MILLENIUM AWARD 2010 – Michael GRATZEL - AdG 2009

2012 Prizes awarded to ERC grantees

EMBO GOLD MEDAL 2012 Jiri FRIML - StG 2011
BALZAN PRIZE 2012 David BAULCOMBE - AdG 2008
EUROPEAN LATSIS PRIZE 2012
Uffe HAAGERUP - AdG 2009
KELVIN PRIZE 2012 Colin McINNES - AdG 2008
LEIBNIZ PRIZE 2012 Michael BRECHT - AdG 2008 & Joerg WRACHTRUP - AdG 2010

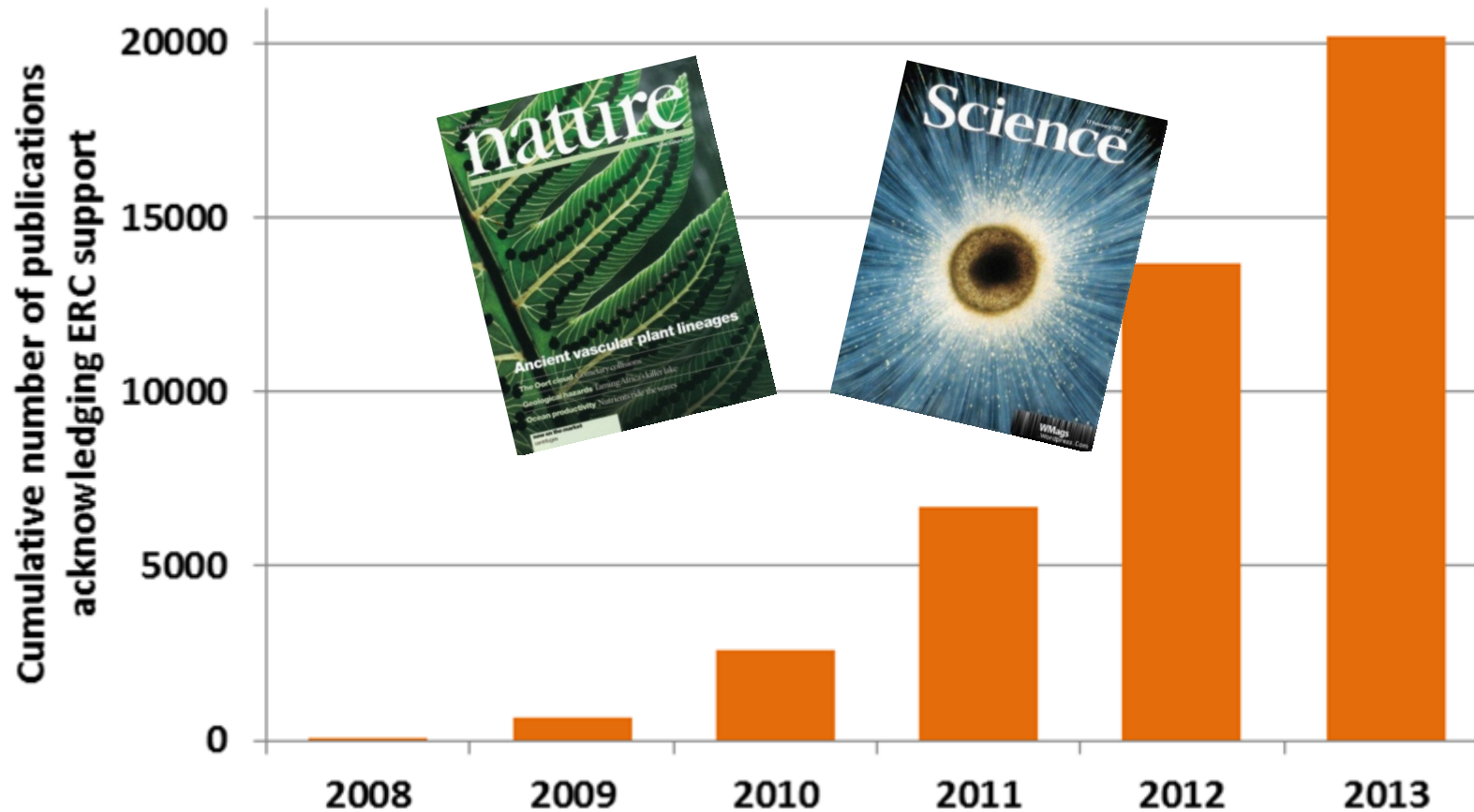
Over 20 000 papers acknowledging ERC support



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* Thomson Reuters, WoS, Oct 2013



Already over **20,000** papers acknowledging ERC support published in international, peer reviewed journals.



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Hungary at ERC

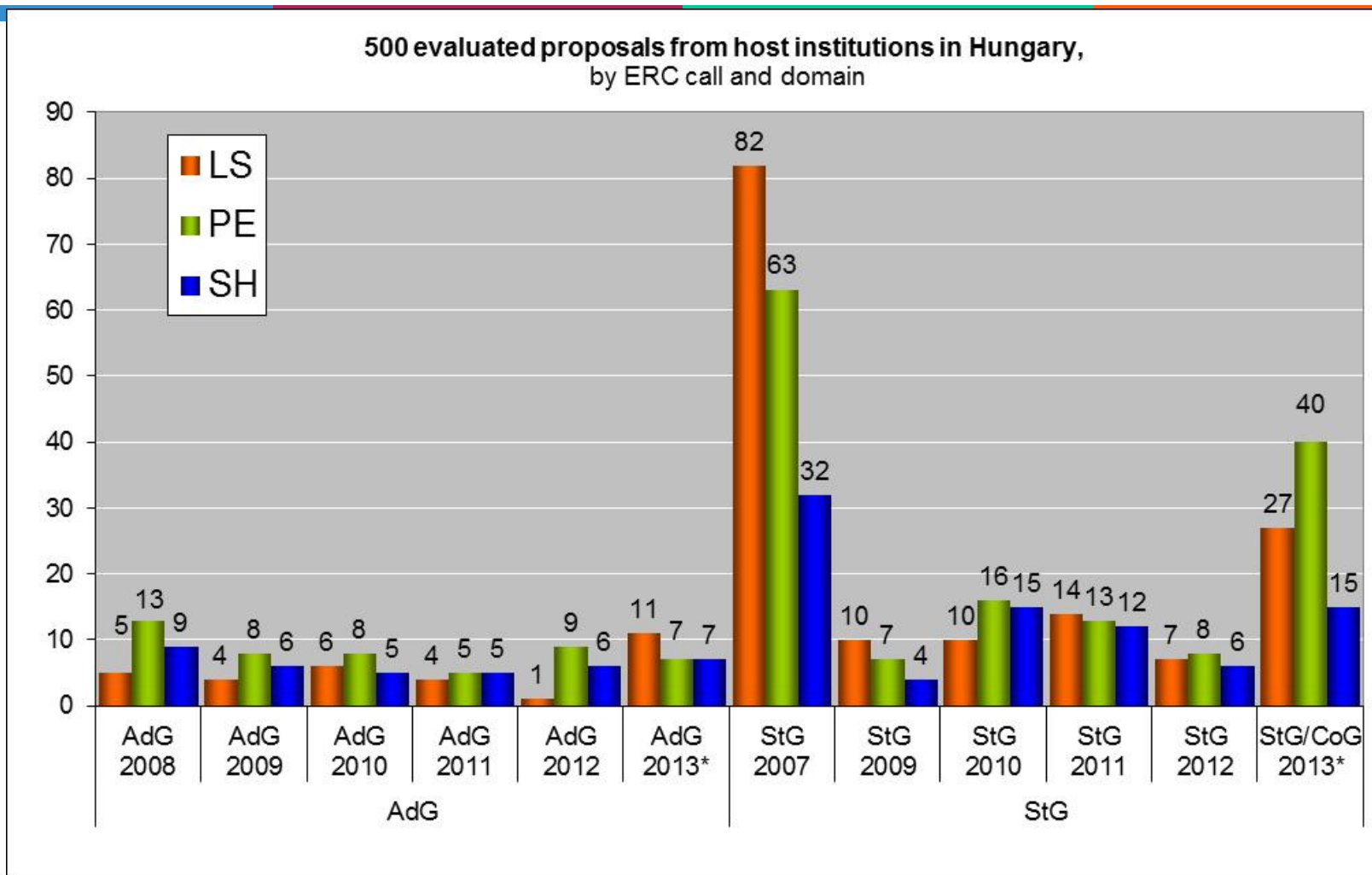
Hungary at ERC

Evaluated proposals from hosts in Hungary



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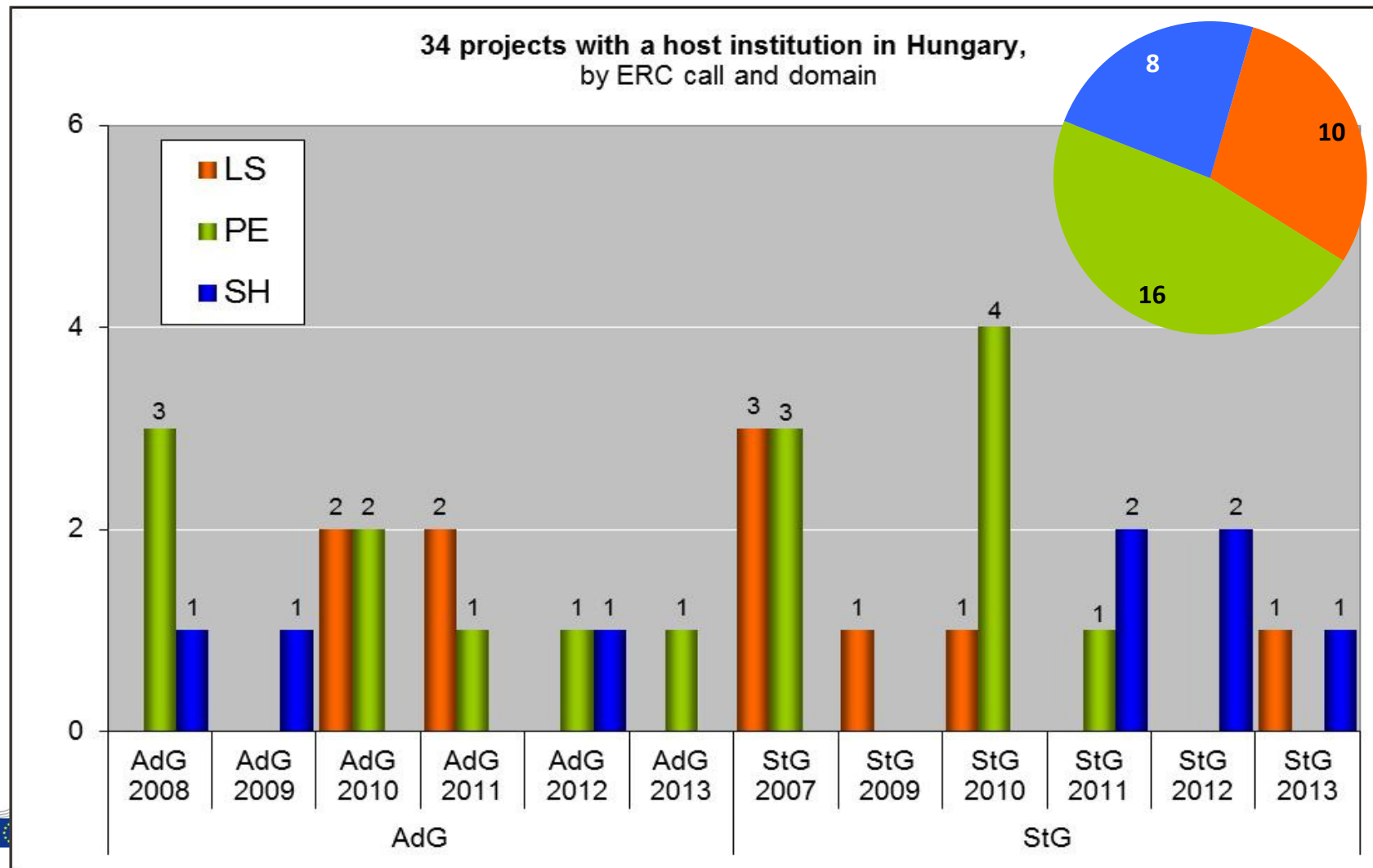
Hungary at ERC

Granted proposals at host institutions in Hungary



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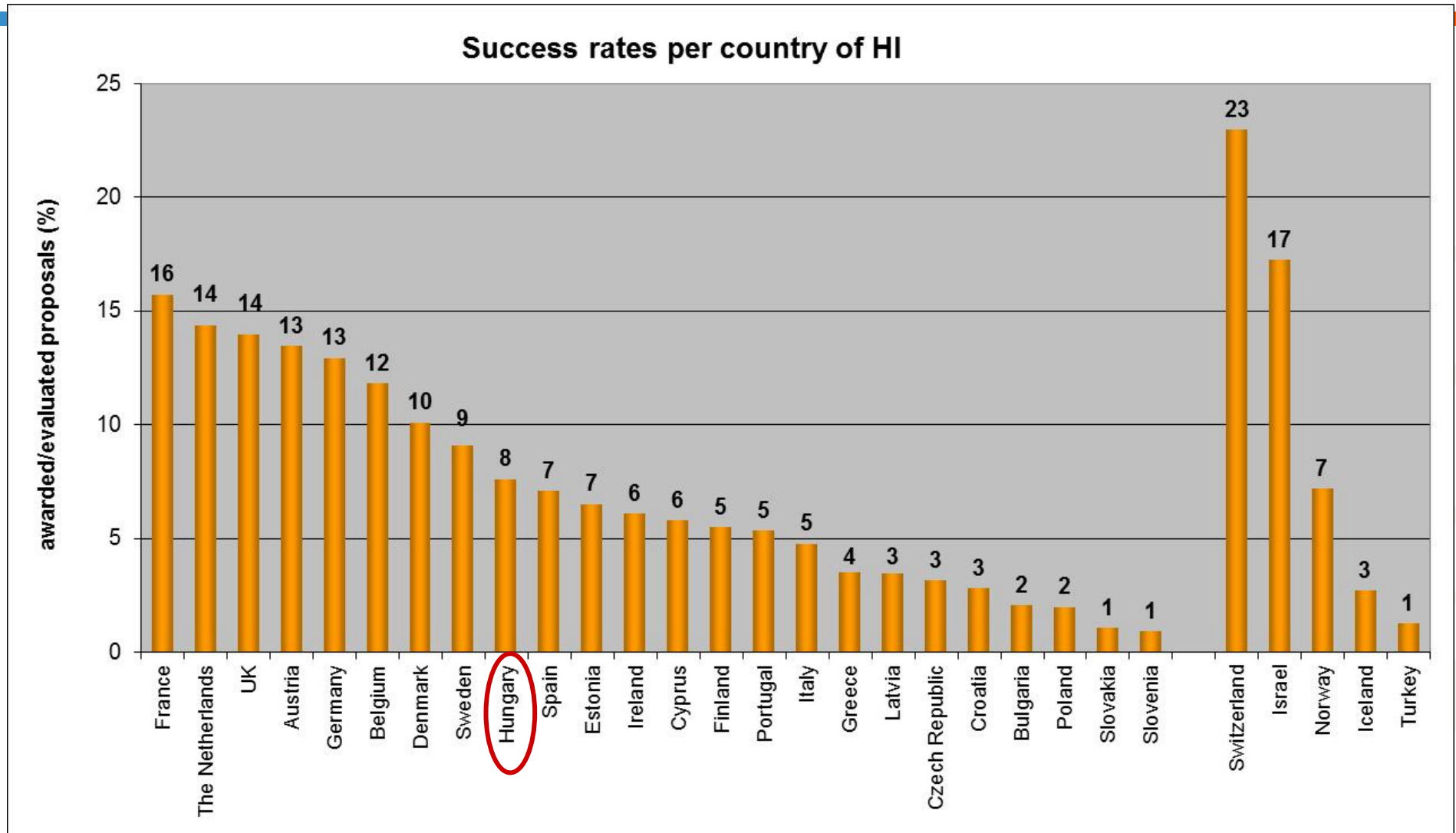
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Success rates per country of Host Institution



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ADG 2012 Success rates: % Evaluated proposals vs success rate of country of Host Institution

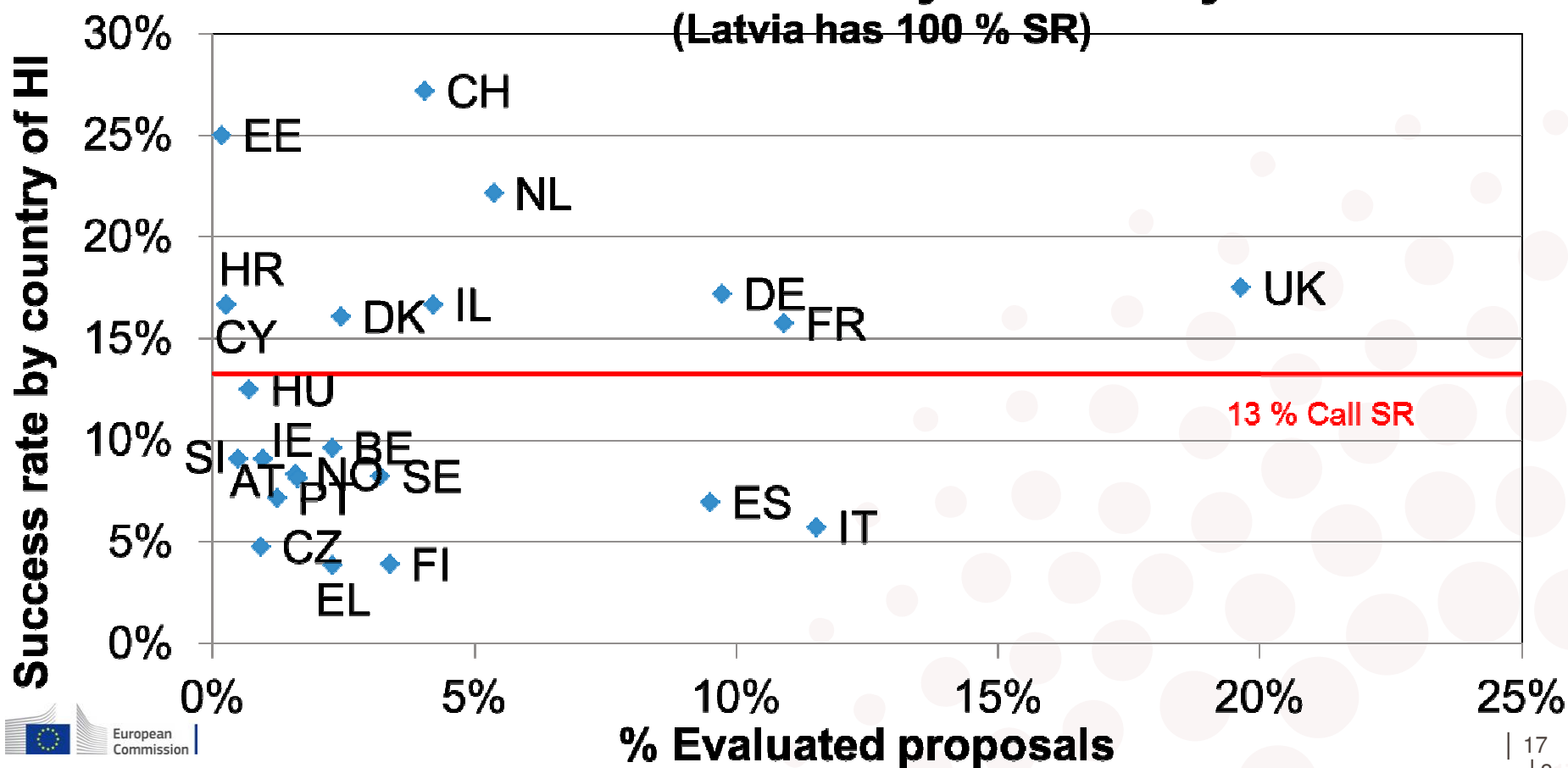


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ERC ADG 2012 - % of Evaluated proposals vs Success rate by HI country

(Latvia has 100 % SR)



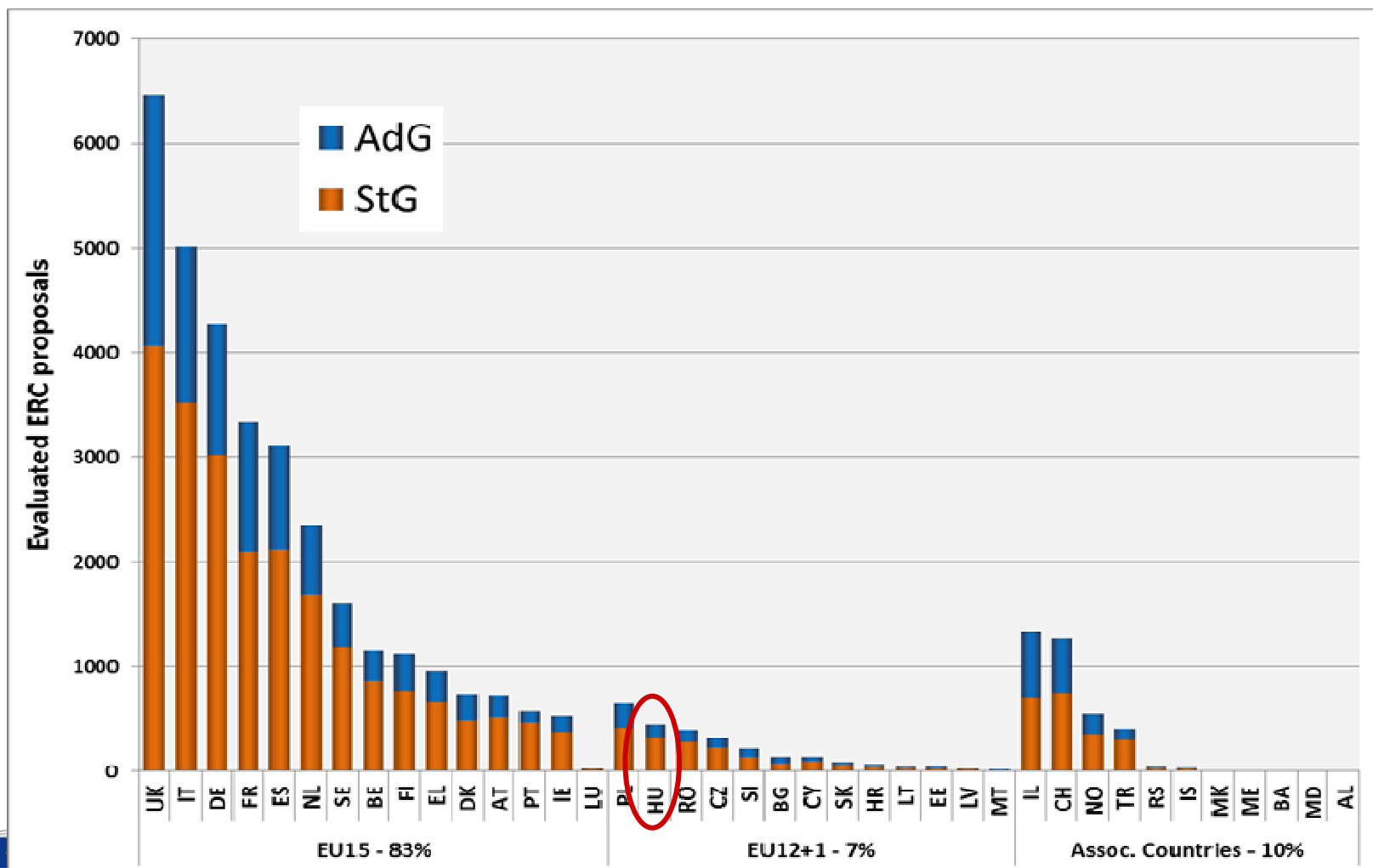
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Number of submitted proposals per country of Host Institution



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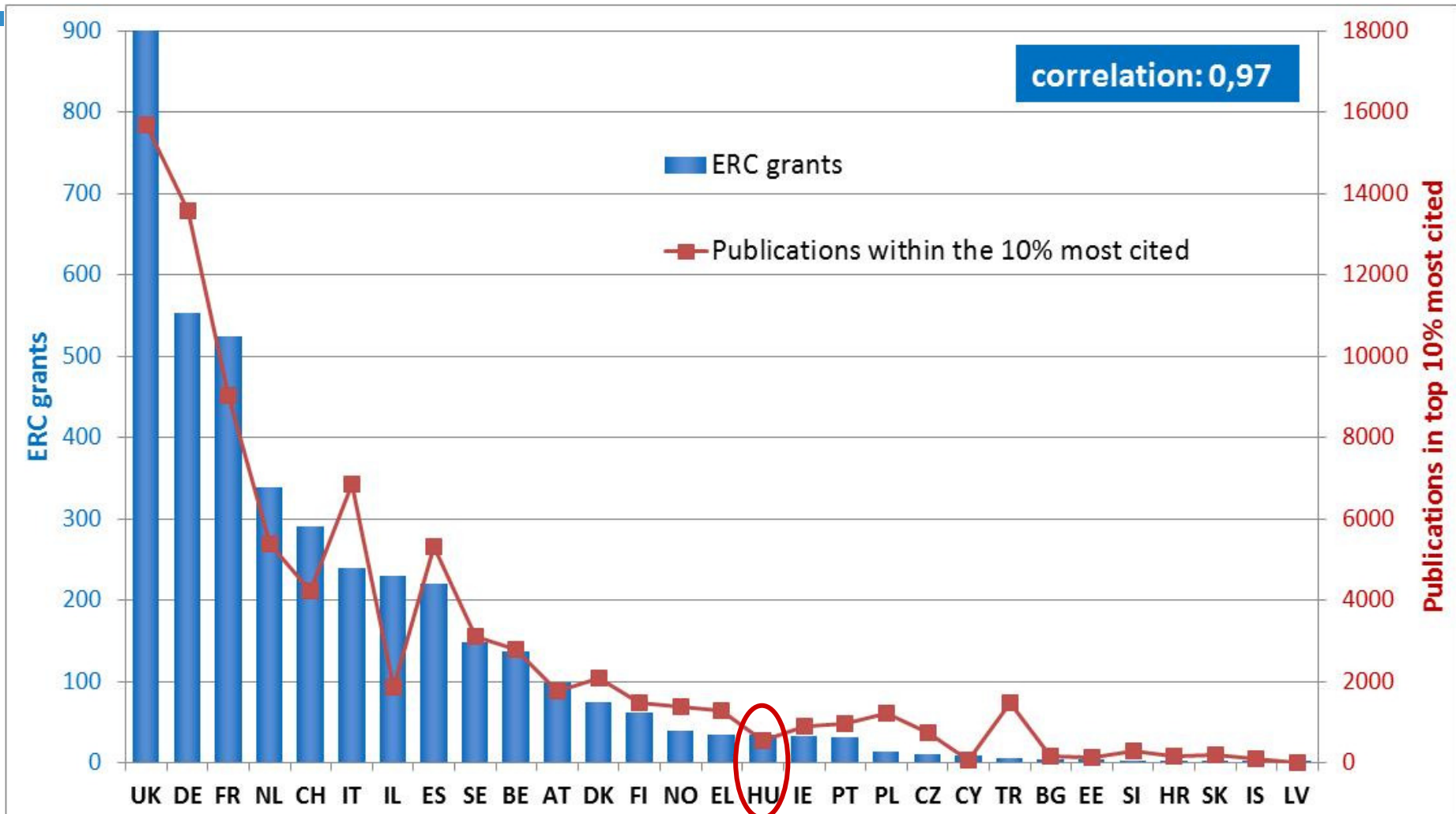


Hungary at ERC - ERC grant distribution to countries of HI



The absolute number of ERC grants hosted in a country correlates very closely (0.97) with the absolute number of scientific publications within the 10% most cited worldwide.

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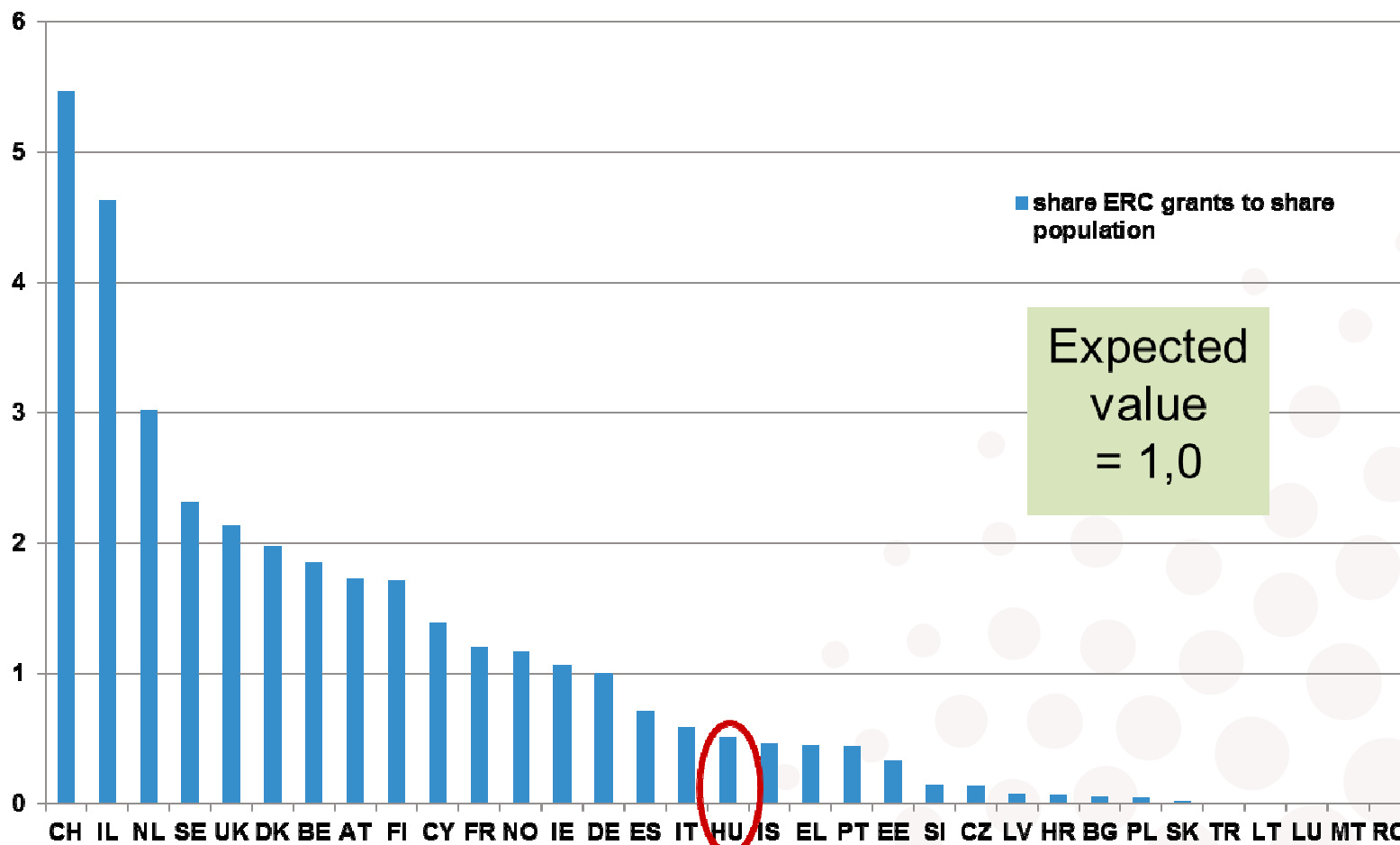


ERC grants share to population share



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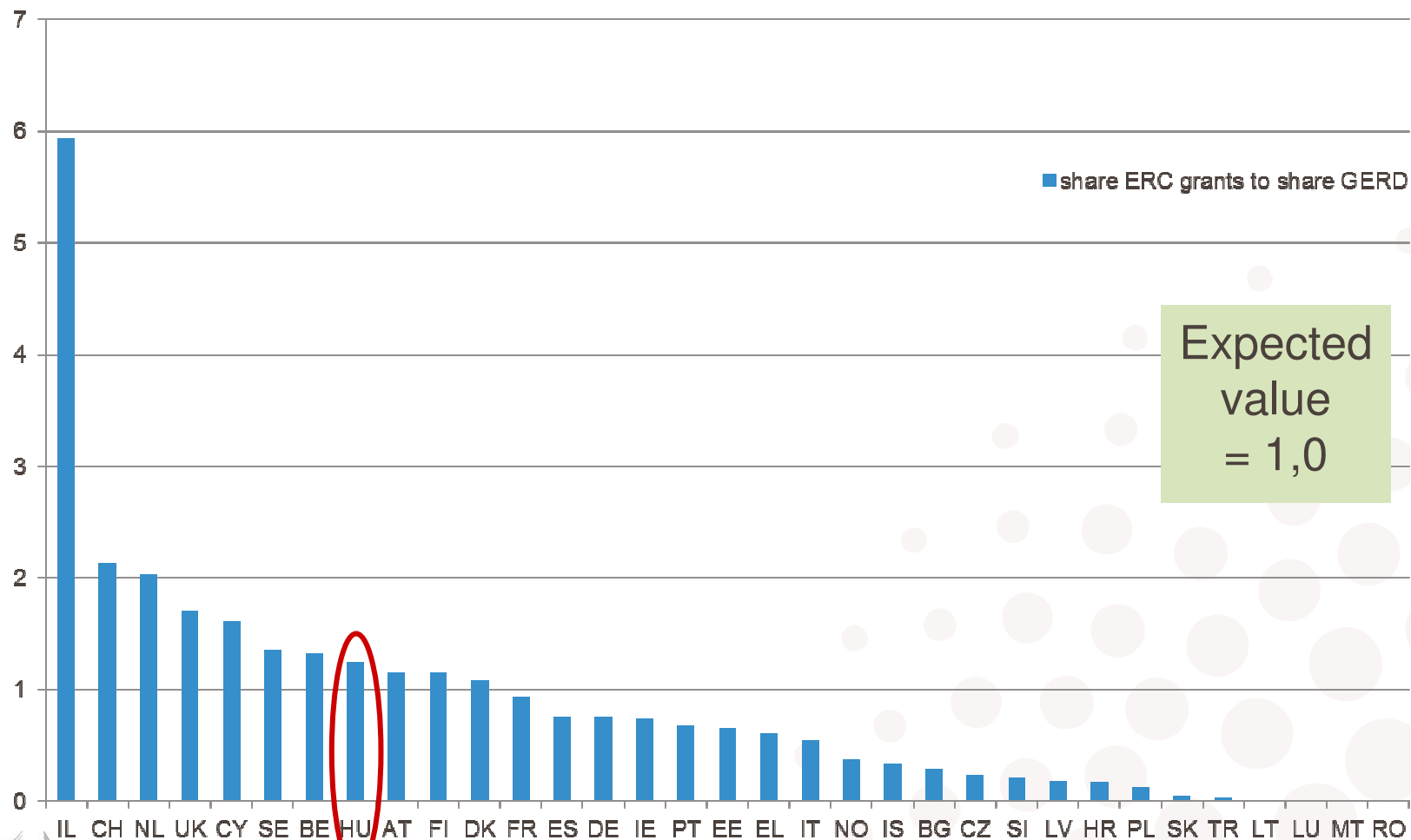


ERC grants share to research investment share



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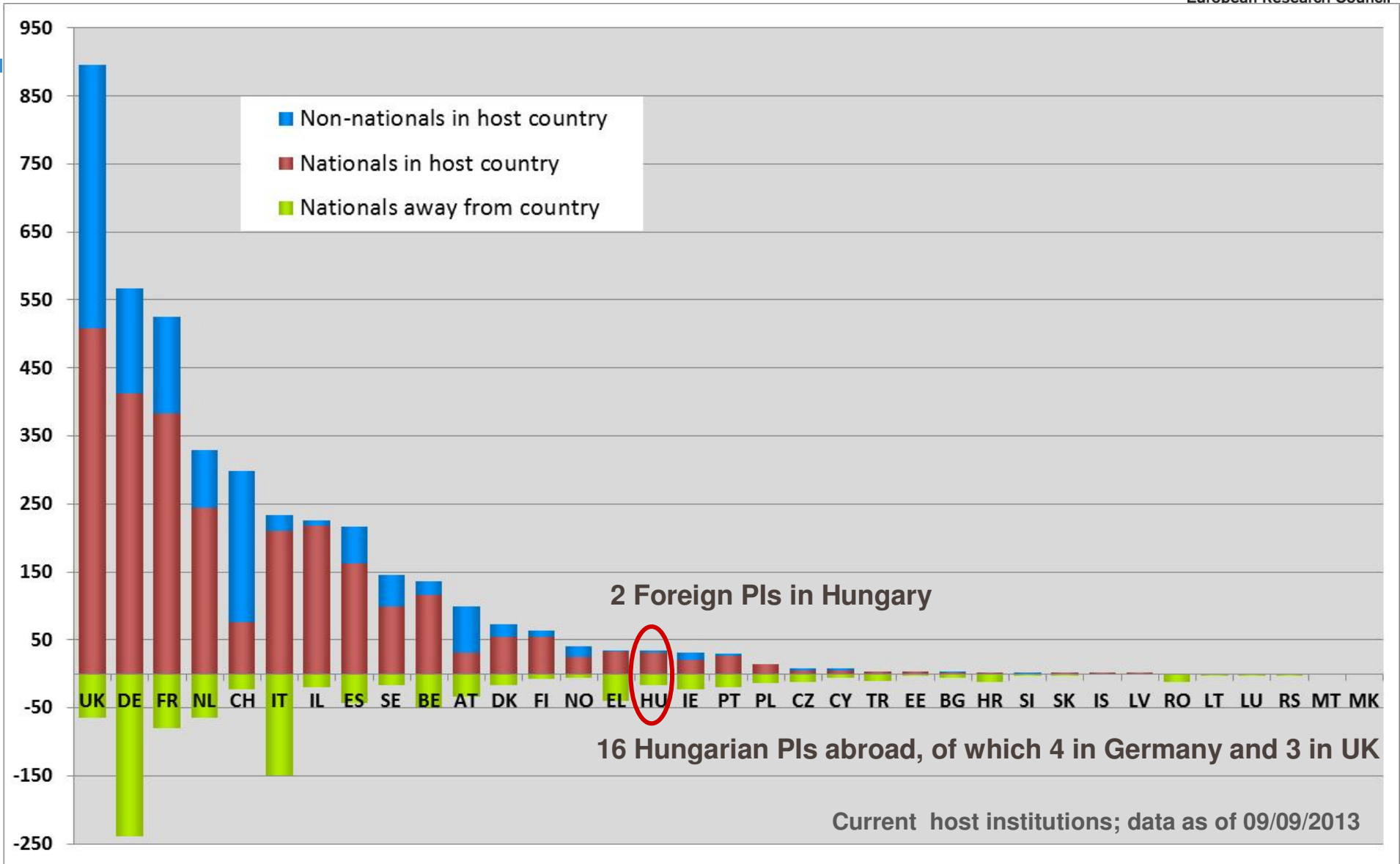
Hungary at ERC

Mobility of researchers

ERC StG and AdG calls 2007-2013 (without CoG 2013)



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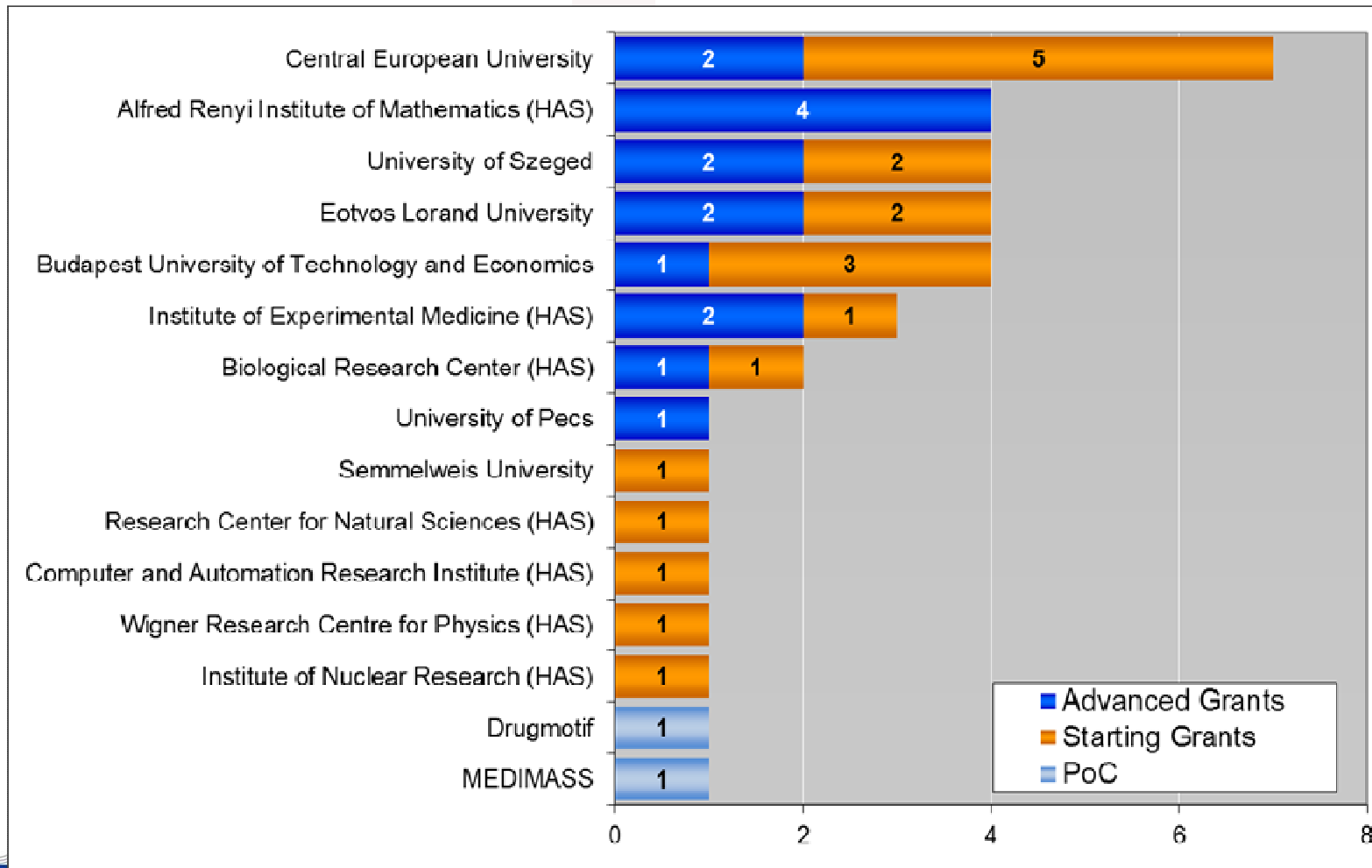
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Host institutions in Hungary

ERC StG and AdG calls 2007-2013 (without CoG 2013)



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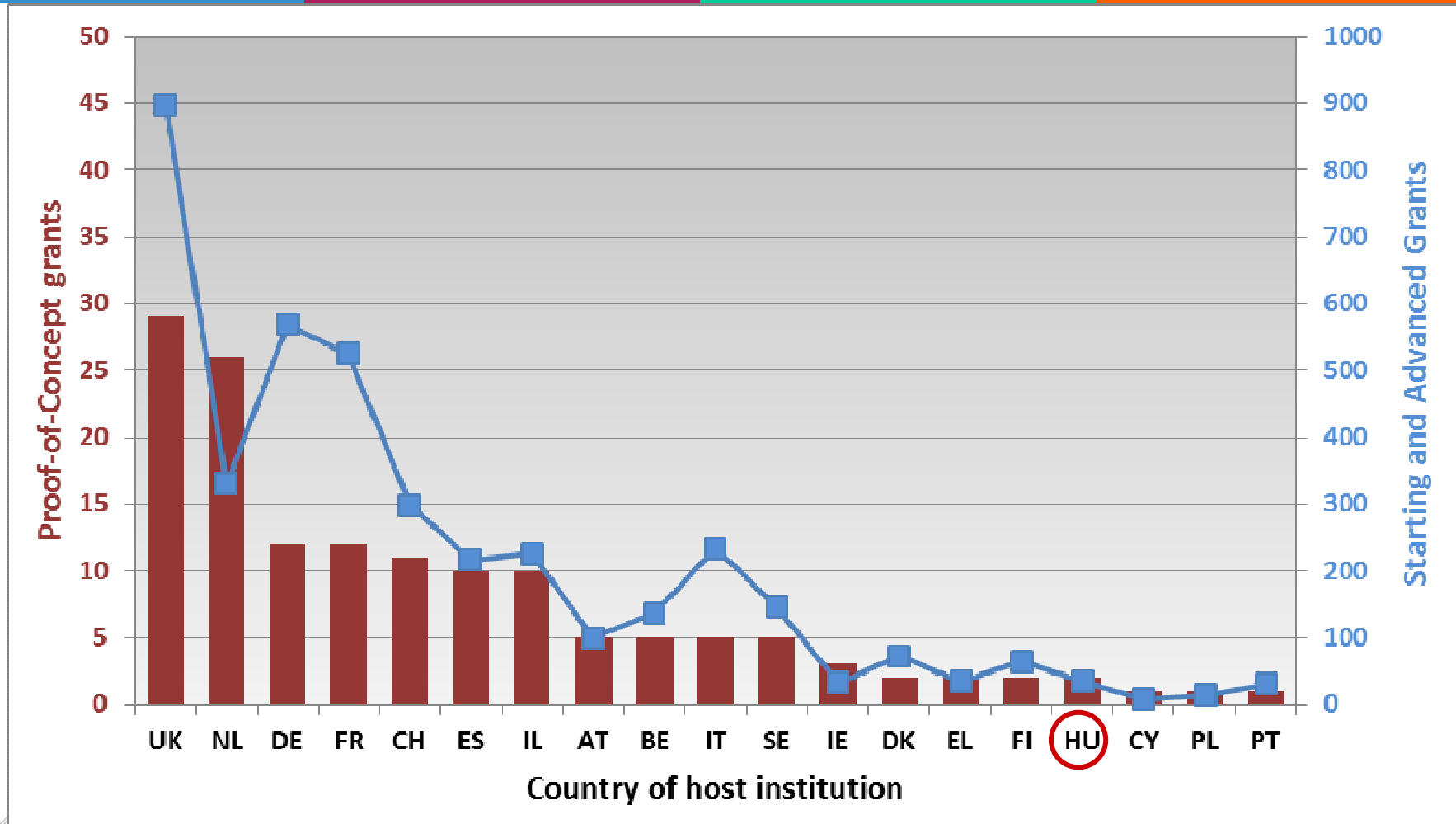


Hungary at ERC

PoC grants by country of host institution
ERC PoC calls 2011, 2012 and 2013-1



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ERC in H2020

Looking ahead

Horizon 2020 - ERC changes and continuity



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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

Strengthening the Scientific Governance of the European Research Council

- Strengthening the links between the Scientific Council and the Executive 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
- Strengthening the role of Scientists in the Steering Committee of the ERCEA
- Strengthening the relation of the Scientific Council and the ERCEA

Strengthening the links between ERC and other parts of H2020 which aim to reinforce European Science base

“Bringing ERC with Marie Curie, FET and Research Infrastructures together in a single programme will enable them to operate with greater coherence

and in a rationalised, simplified and more focused way”

ERC in H2020

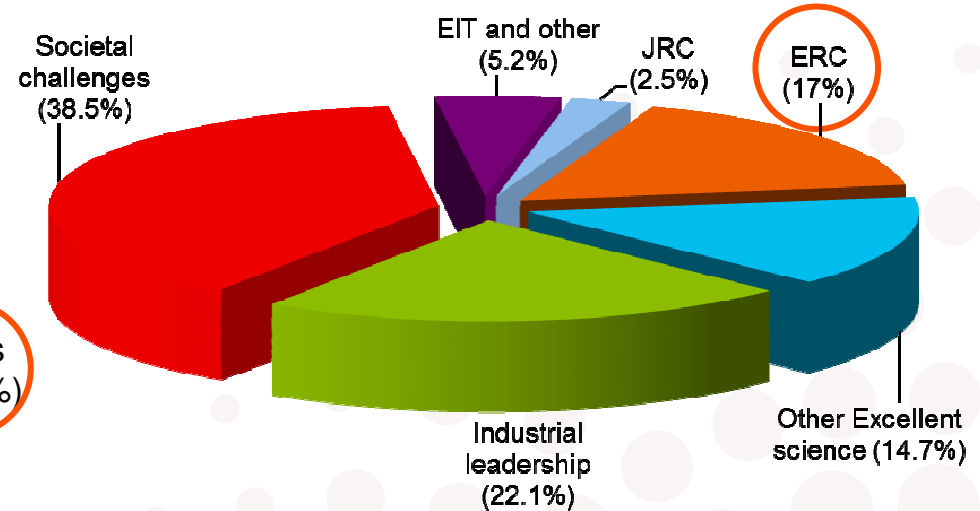
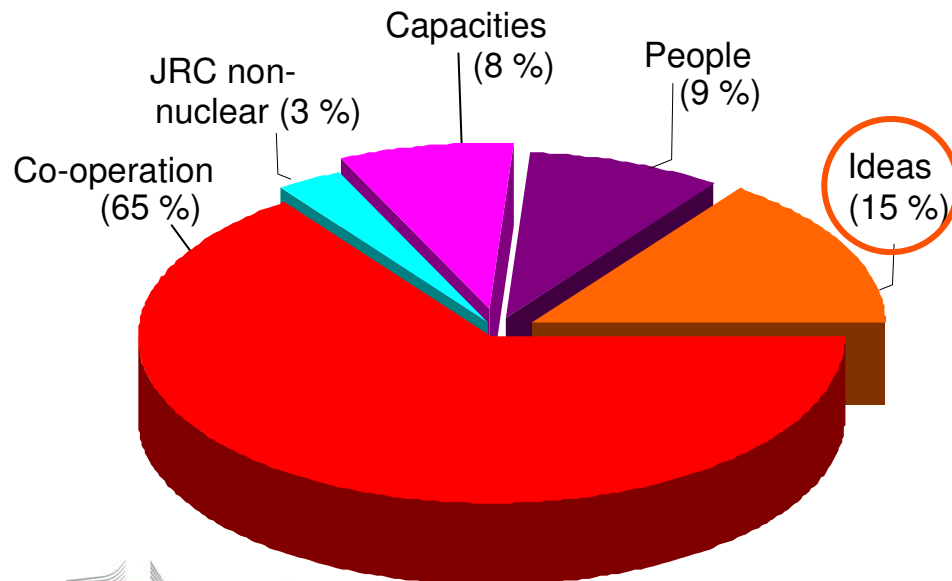
Budget Horizon 2020 after negotiations between Parliament-Council-Commission



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H2020 budget € 77 billion
ERC budget € 13 billion

FP7 budget € 50.5 billion
ERC budget € 7.5 billion



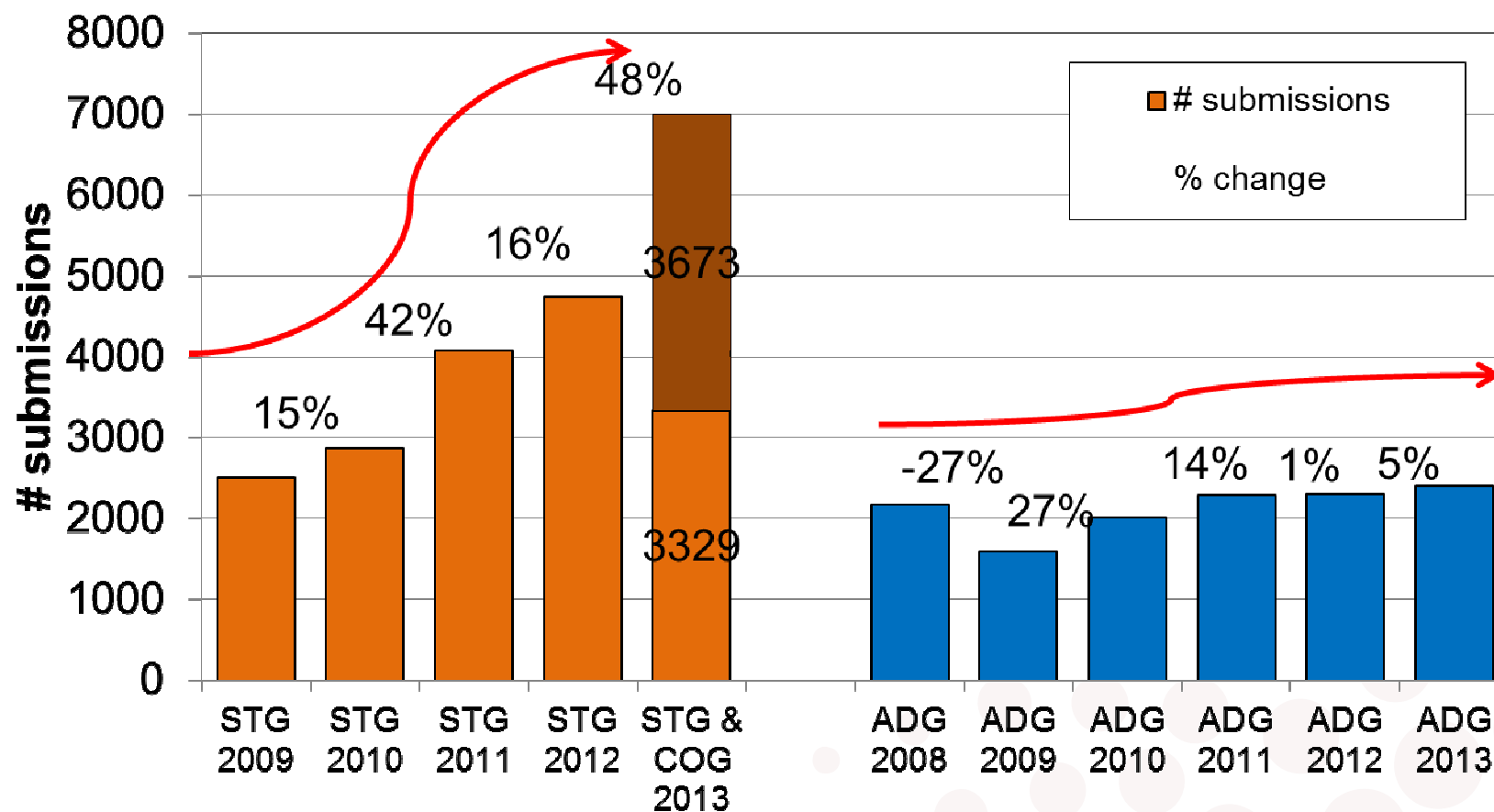
ERC prospects for the future

ERC applications continue to rise?



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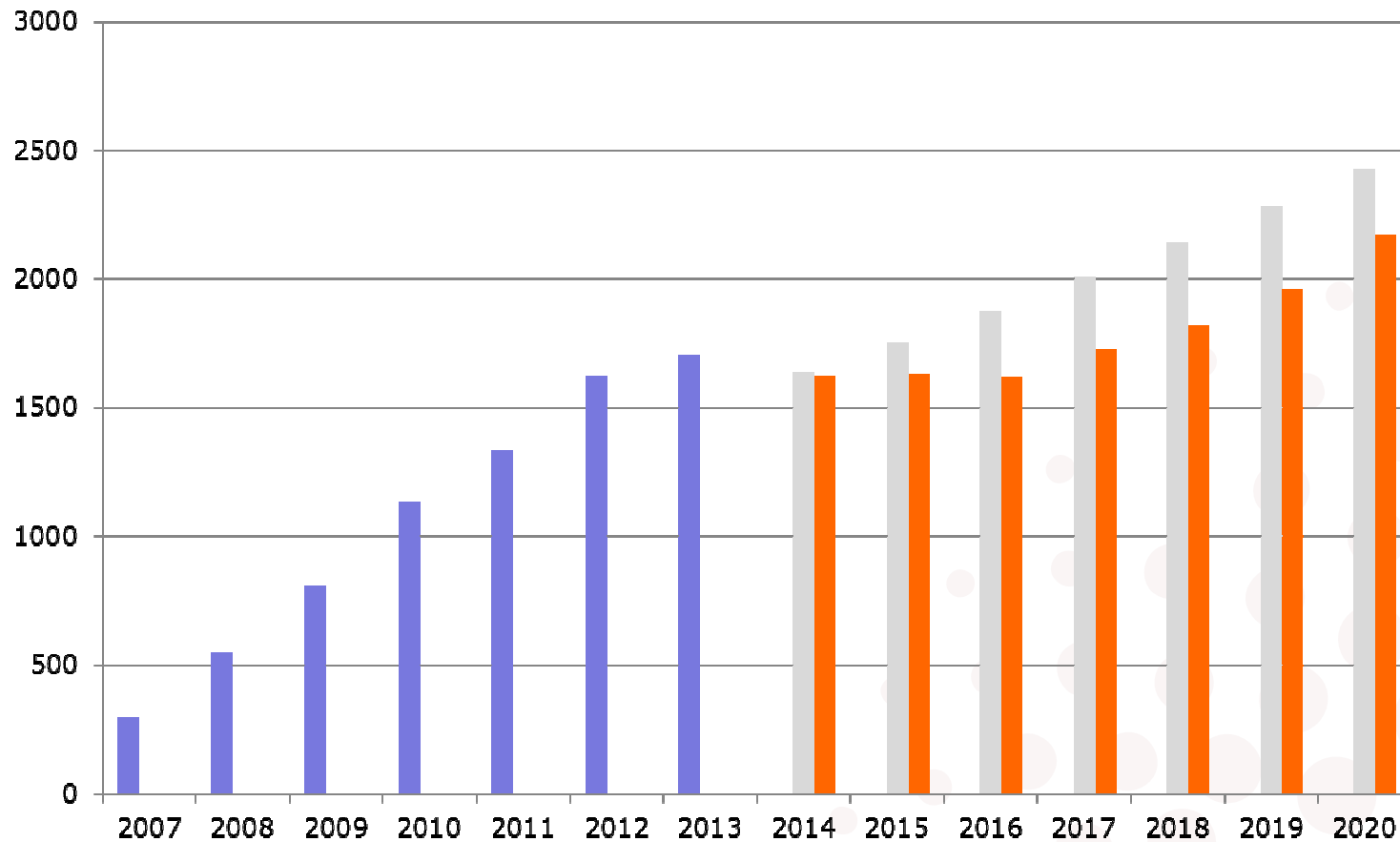
ERC in H2020

2014 – 2020 annual budget



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On these estimates the ERC's annual budget would return to 2013 levels in 2017.

ERC in H2020

Work program 2014, summary of main features



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- **Indicative publication date of first calls : December 11, 2013**
- **Three ERC frontier research grants will be available under Work Programme 2014: Starting; Consolidator; and Advanced Grants**
- The Scientific Council will analyse the pilot phase of the **ERC Synergy Grant** (calls were made under Work Programmes 2012 and 2013) before deciding on the scope and timing of future calls. No SyG call under Work Programme 2014
- **Extension of restrictions on applications will apply to the 2015 calls based on the outcome of the evaluation of the 2014 calls**
- **ERC Principal Investigators will also continue to be able to apply for the Proof of Concept Grant, first introduced in 2011**
- **Overhead: 25%**
- **Indicative budget for 2015 to help the research community to plan applications**

ERC in H2020

Work programme 2014, indicative planning



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ERC calls	Budget	Call Publication*	Submission Deadline(s)*
Starting Grants ERC-2014-StG	485 M€	11 December 2013	25 March 2014
Consolidator Grants ERC-2014-CoG	713 M€	11 December 2013	20 May 2014
Advanced Grants ERC-2014-AdG	450 M€	17 June 2014	21 October 2014
Proof of Concept ERC-2014-PoC	15 M€	11 December 2013	DL1: 1 April 2014 DL2: 1 Oct. 2014

* Pending the adoption of the WP 2014

A few examples of ERC projects in Hungary



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GPS flight tracking to reveal rules of collective motion



Project: Complex structure and dynamics of collective motion (COLLMOT)
PI: Tamás Vicsek
HI: Eötvös Loránd University, Budapest
Call: Advanced Grant 2008
Funding: € 1.24 million for 5 years

Towards new antibiotics

Project: Dual exploitation of natural plant strategies in agriculture and public health: enhancing nitrogen-fixation and surmounting microbial infections (SYM-BIOTICS)
PI: Eva Kondorosi
HI: Biological Research Centre of the Hungarian Academy of Sciences
Call: Advanced Grant 2010
Funding: € 2.3 million for 5 years



The ERC grant gives me wings



Professor Tamás Vicsek from the Eötvös Loránd University in Budapest does not disguise the fact that the ERC grant he received in 2009 made a huge impact on his research in collective group behaviour.

Video: <https://vimeo.com/40487173>

Understanding our social nature

Project: Representational preconditions for understanding other minds in the service of human collaboration and social learning (REPCOLLAB)
PI: Ágnes Melinda Kovács
HI: Central European University, Budapest
Call: Starting Grant 2011
Funding: € 1.5 million for 5 years



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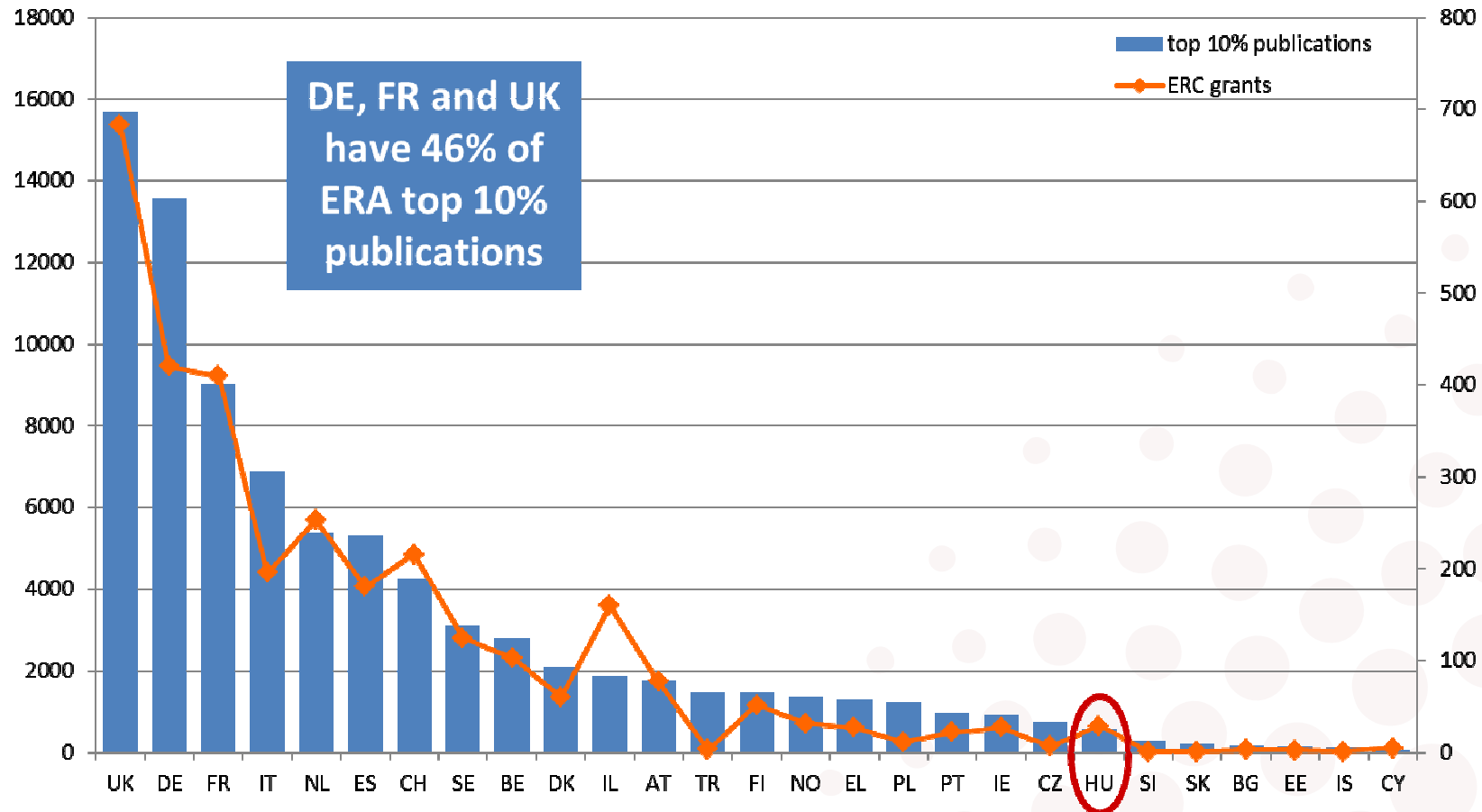
Thank you for your attention!

ERC grants to top 10% publications

The absolute number of ERC grants hosted in a country correlates very closely (0.97) with the absolute number of scientific publications within the 10% most cited worldwide.



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DE, FR and UK have 46% of ERA top 10% publications

ERC Grants by country of host institution: StG 2007, 2009, 2010, 2011, 2012 and AdG 2008, 2009, 2010, 2011. Showing all host countries. "ERA" is EU27 plus AC host countries. Scientific publications within the 10% most cited worldwide from Commission Innovation Union Competitiveness Report 2011 (2007 publications Science Metrix/ Scopus -Elsevier full counting method).

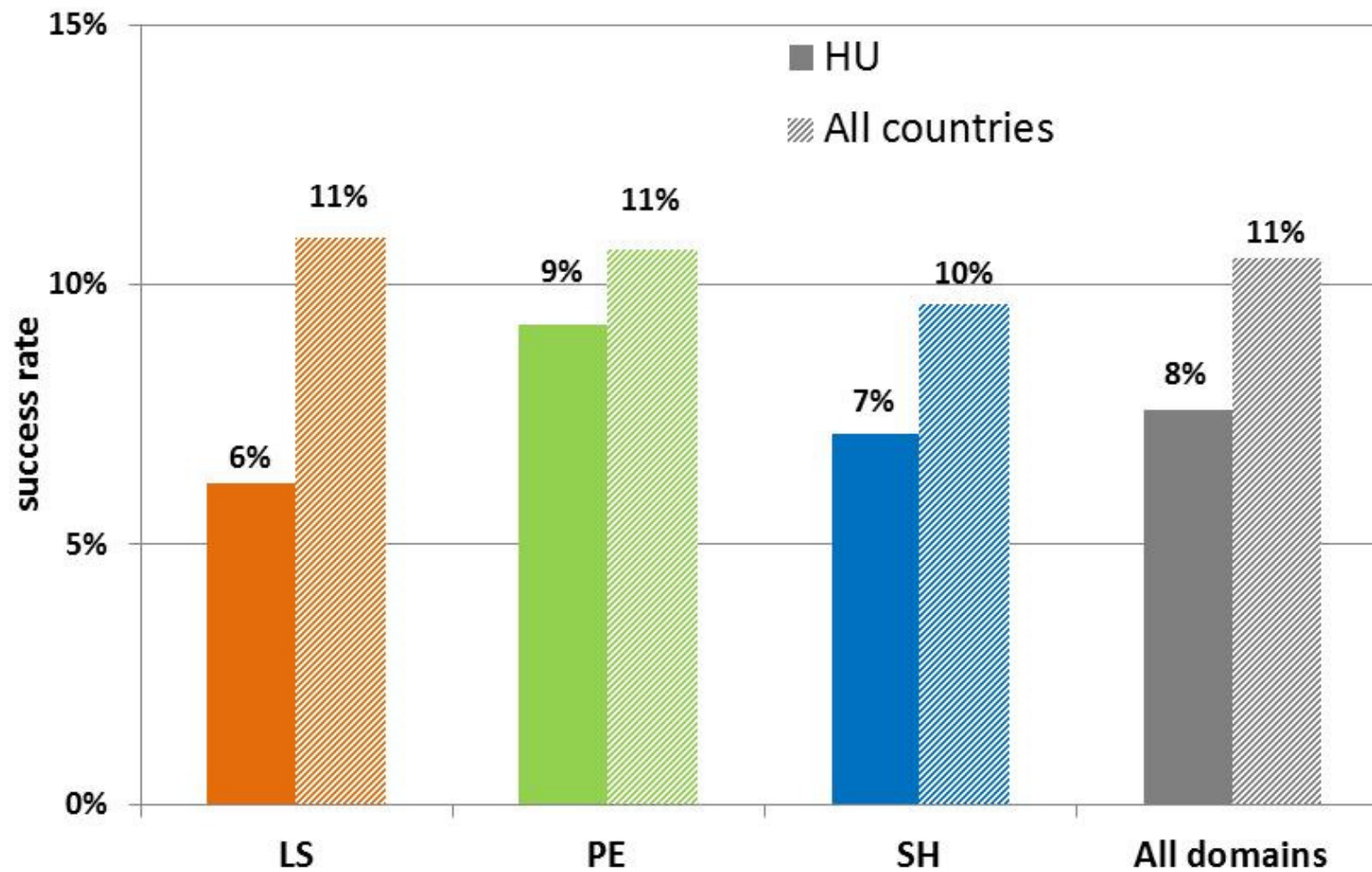
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Success rates per domain



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Hungary at ERC

Submitted proposals from newer Member States



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