

# The European Research Council

## La performance italiana in ERC: oltre le statistiche

Università di Padova

30/11/2020

**Angela Liberatore**

*Head of Unit*

*Social Sciences and Humanities, ERCEA*



# What is special about ERC ?

## Scientific Governance

- Independent Scientific Council with 22 members including the ERC President
- Full authority over funding strategy and evaluation
- Support by a Dedicated Implementation Structure (ERC Executive Agency)
- Part of 'pillar 1' of the EC Framework Research Programme

## Scientific Freedom

- Scientific quality as the only criterion for selection
- Support to the individual scientist – no consortia
- No predetermined subjects (bottom-up)
- Support to Frontier Research in all fields of Science and Humanities
- International peer-review

# ERC funding schemes

## Starting Grants

1 Principal Investigator  
(2-7 years after PhD)  
up to € 1.5 +1.0 Mio  
for 5 years

## Consolidator Grants

1 Principal Investigator  
(7-12 years after PhD)  
up to € 2.0 +1.0 Mio  
for 5 years

## Advanced Grants

1 Principal Investigator  
up to € 2.5+1.0 Mio  
for 5 years

## Synergy Grants

2 – 4 Principal Investigators  
up to € 10.0+4.0 Mio for 6 years

Not in WP 2021

## Proof-of-Concept

Exploring the innovation potential  
Lumpsum €150,000 for ERC grant  
holders

# ERC Panel structure

## *(including two new panels as of 2021)*

### Physical Sciences & Engineering (PE)

- PE1 Mathematics
- PE2 Fundamental Constituents of Matter
- PE3 Condensed Matter Physics
- PE4 Physical & Analytical Chemical Sciences
- PE5 Synthetic Chemistry and Materials
- PE6 Computer Science and Informatics
- PE7 Systems and Communication Engineering
- PE8 Products and Processes Engineering
- PE9 Universe Sciences
- PE10 Earth System Science
- *PE11 Materials Engineering*

### Social Sciences and Humanities (SH)

- SH1 Individuals, Markets and Organisations
- SH2 Institutions, Values, Environment and Space (*Institutions, Governance and Legal Systems –as of 2021*)
- SH3 The Social World, Diversity, Population (*The Social World and its Diversity –as of 2021*)
- SH4 The Human Mind and Its Complexity
- SH5 Cultures and Cultural Production
- SH6 The Study of the Human Past
- *SH7 Human Mobility, Environment, and Space*

### Life Sciences (LS)

- LS1 Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics
- LS2 Genetics, 'Omics', Bioinformatics and Systems Biology
- LS3 Cellular and Developmental Biology
- LS4 Physiology, Pathophysiology and Endocrinology
- LS5 Neuroscience and Neural Disorders
- LS6 Immunity and Infection
- LS7 Applied Medical Technologies, Diagnostics, Therapies, and Public Health
- LS8 Ecology, Evolution and Environmental Biology
- LS9 Applied Life Sciences, Biotechnology and Molecular and Biosystems Engineering

# Excellence is the sole evaluation criterion

## Excellence of the Research Project

- ✓ Ground breaking nature
- ✓ Potential impact
- ✓ Scientific Approach

## • Excellence of the Principal Investigator

- ✓ Intellectual capacity
- ✓ Creativity
- ✓ Commitment

Note: Quality of the PI's institution (where they come from / where they go to) is not evaluated

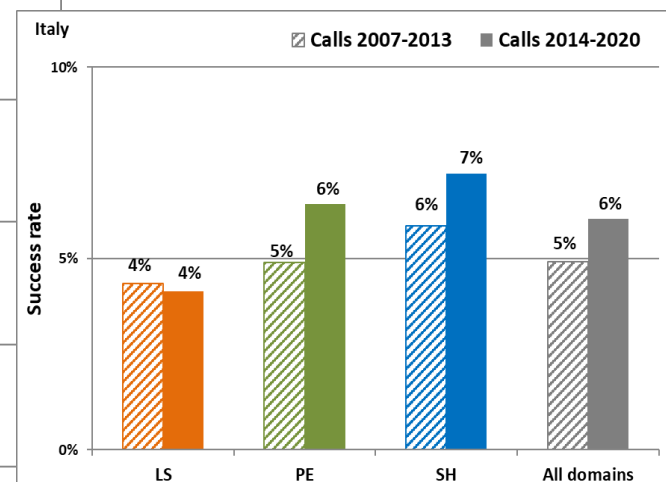
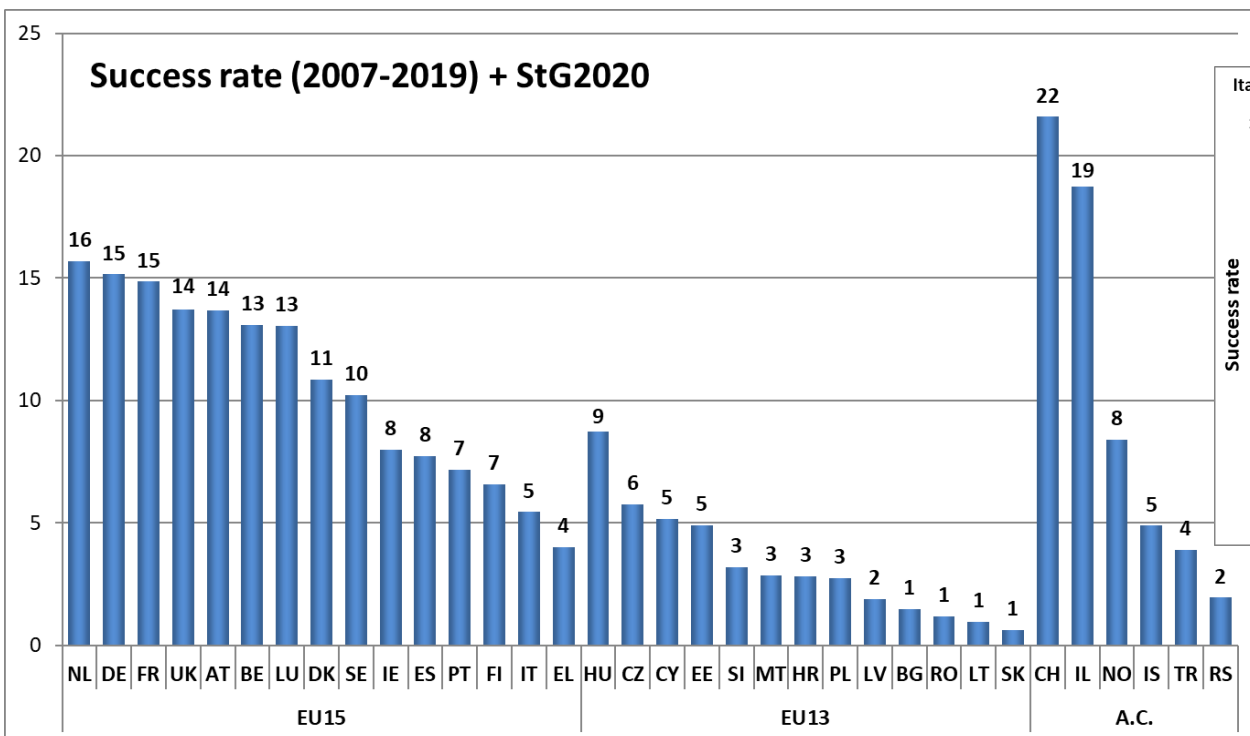
# ERC applications from Italy, success rate



European Research Council

Established by the European Commission

Researchers based in Italy have made 10,007 applications to the ERC's main calls from 2007 – 2020 with 544 selected for funding. **Researchers based in Italy have the lowest success rate of all researchers based in the EU15 except for researchers based in Greece, with small improvement as compared to FP7.**

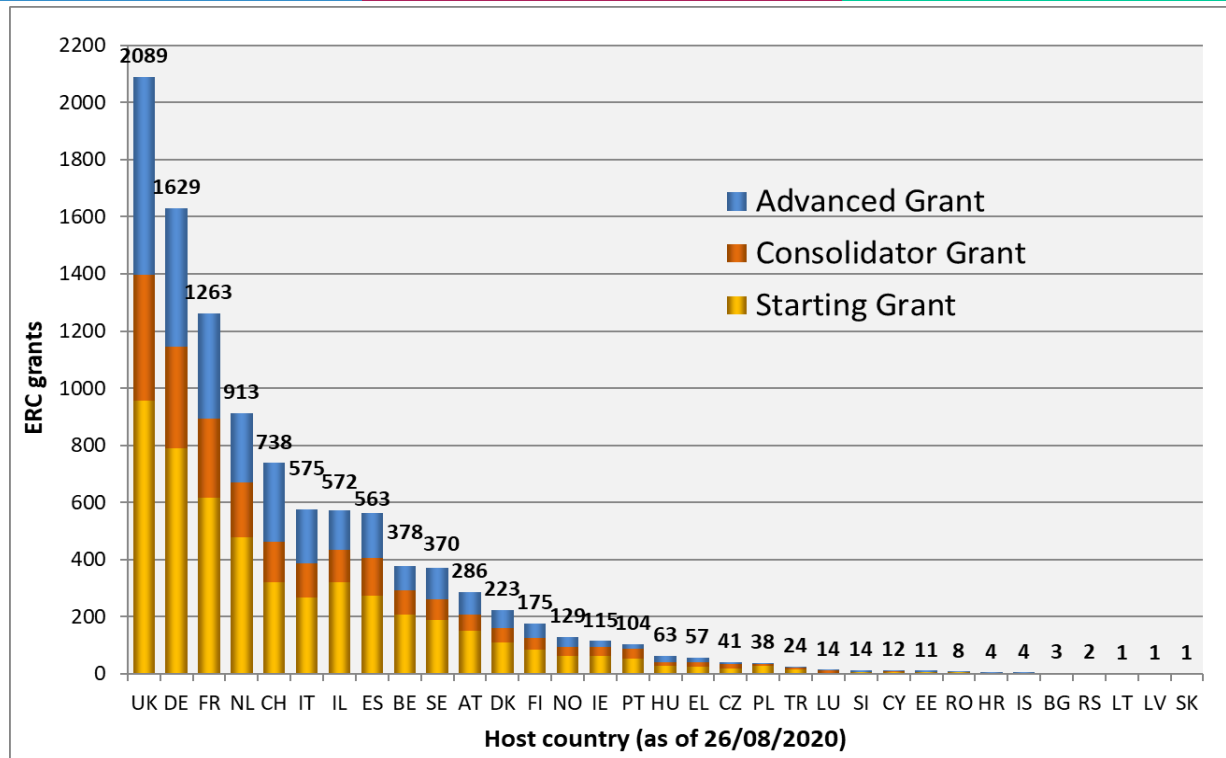


# ERC grants hosted in Italy



European Research Council

Established by the European Commission



Of the 575 grantees based in Italy following calls 2007-2019 and StG2020, **96 (17%) were resident abroad at the time of application and moved to Italy with the ERC grant.** 'Only' 49 researchers resident in Italy at the time of application are now based outside Italy with the grant.

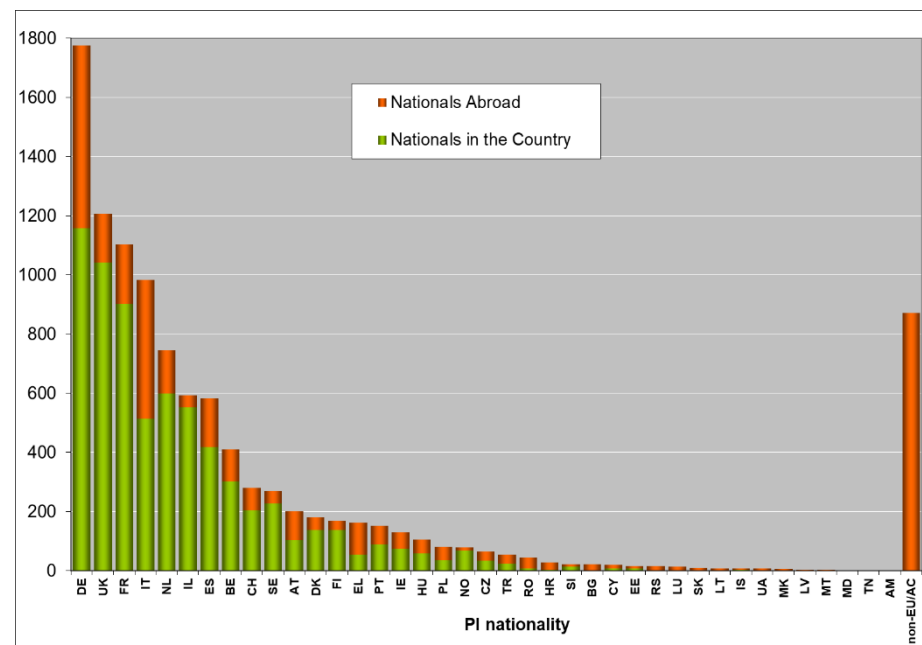
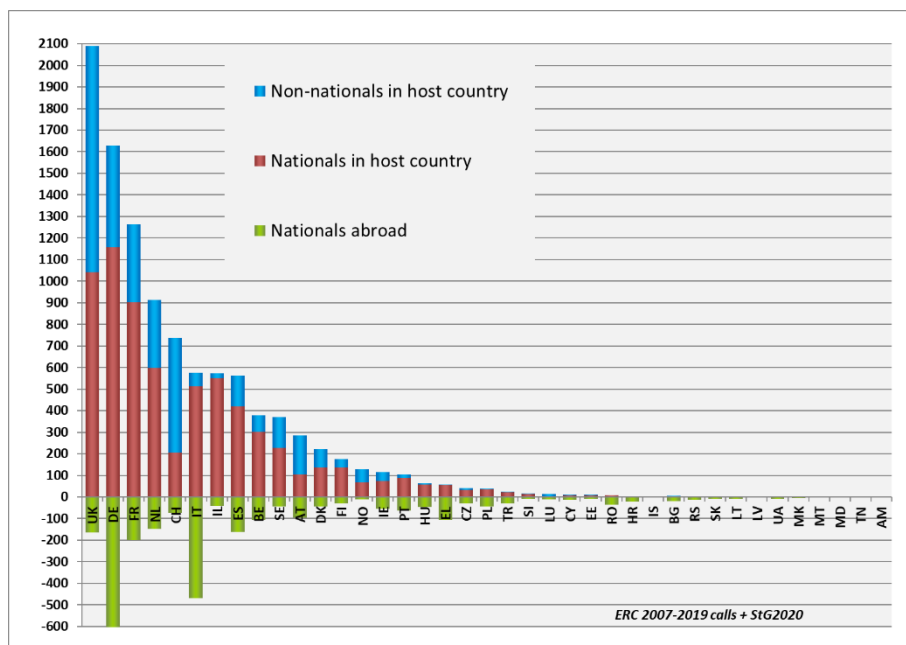
# Attractiveness to non-nationals



European Research Council

Established by the European Commission

There are **513** Italians with ERC grants in Italy and **469** Italians with ERC grants outside Italy. There are also **62** non-Italians with ERC grants in Italy.





# Research domains and ERC schemes by grantees in Italy



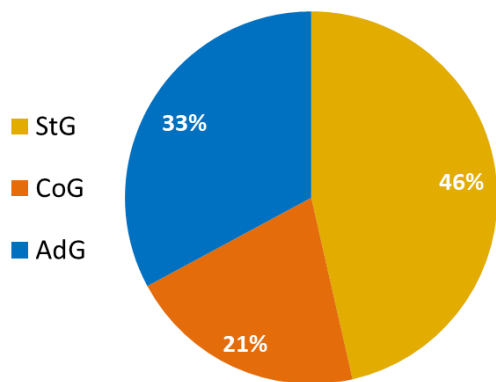
European Research Council

Established by the European Commission

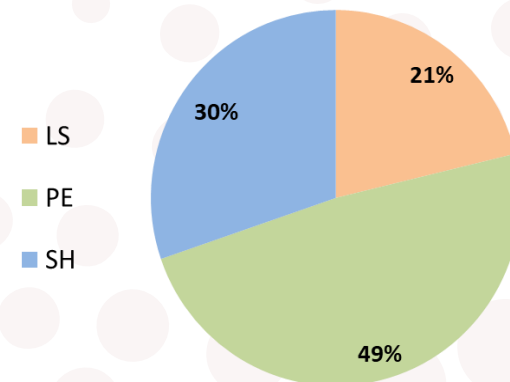
Two thirds of the ERC grantees based in Italy are early-stage Principal Investigators, as it is the case for the general population of grantees.

Almost half of the ERC grantees based in Italy are working in Physical Sciences and Engineering.

Women grantees in Italy are less than 1/3 as compared to men grantees (average of women grantee StG around 37%, CoG around 30%, AdG around 20%)



Italy	F	M	Total
1_StG	95	172	267
2_CoG	34	85	119
3_AdG	36	153	189
<b>Total</b>	<b>165</b>	<b>410</b>	<b>575</b>

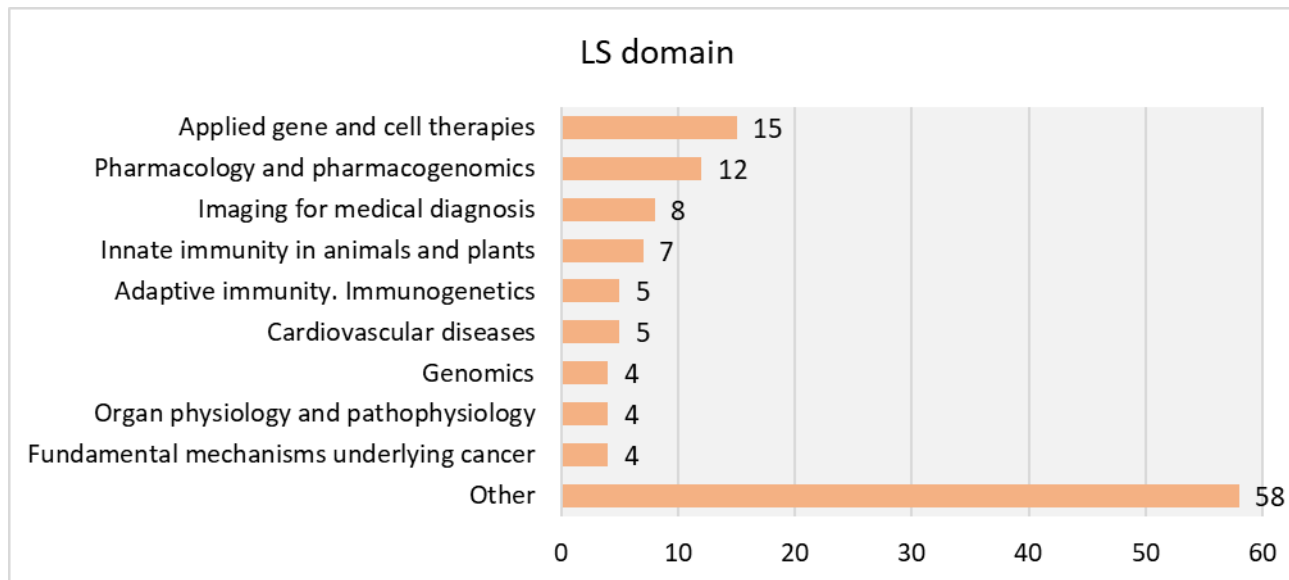


# First project-keyword distribution of ERC main grants based in Italy by domain (LS)



European Research Council

Established by the European Commission

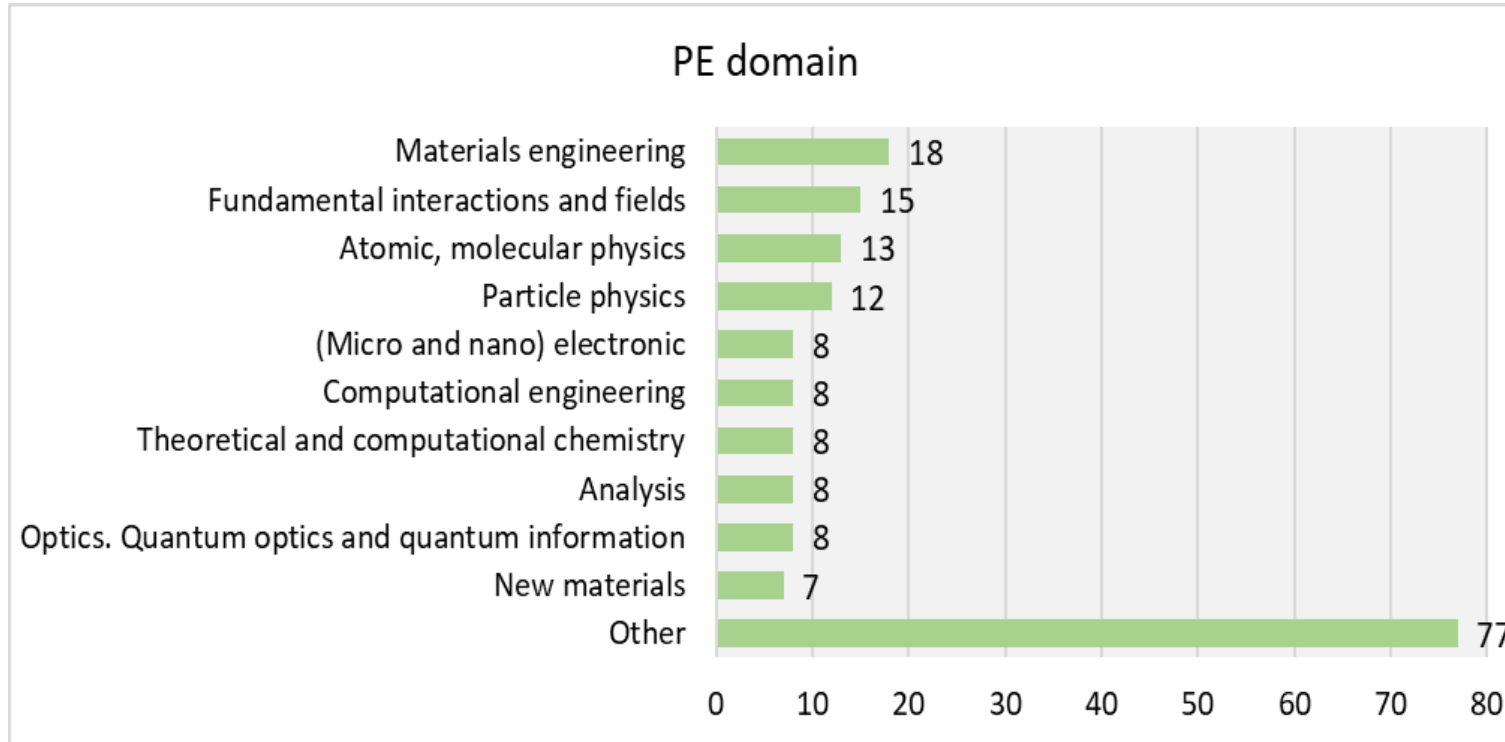


# First project-keyword distribution of ERC main grants based in Italy by domain (PE)



European Research Council

Established by the European Commission

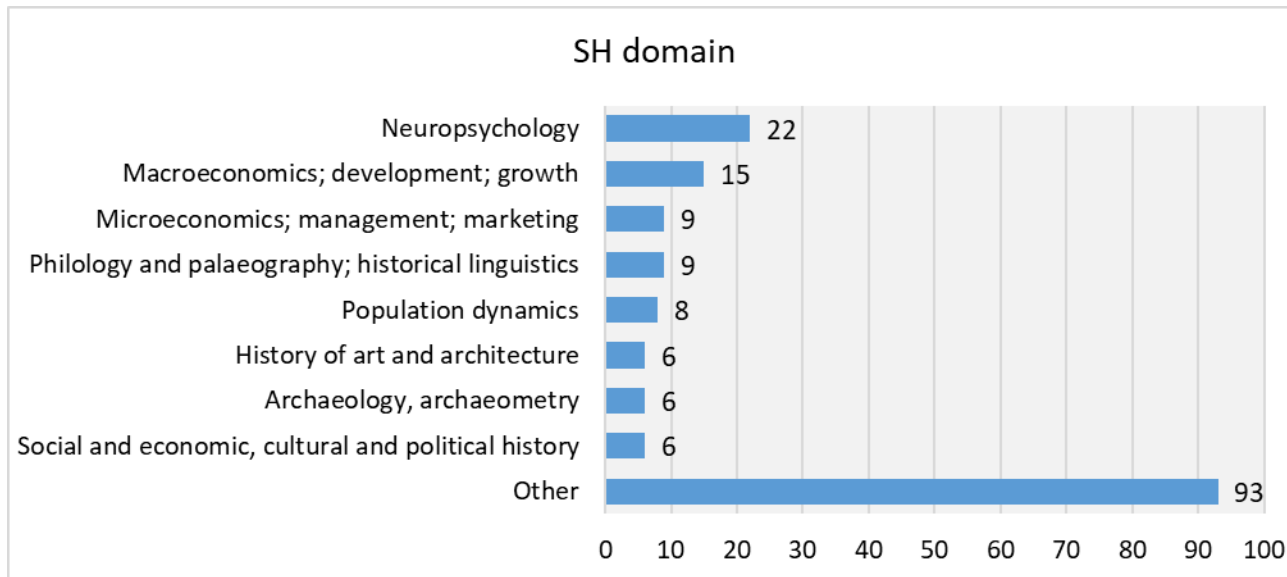


# First project-keyword distribution of ERC main grants based in Italy by domain (SH)



European Research Council

Established by the European Commission



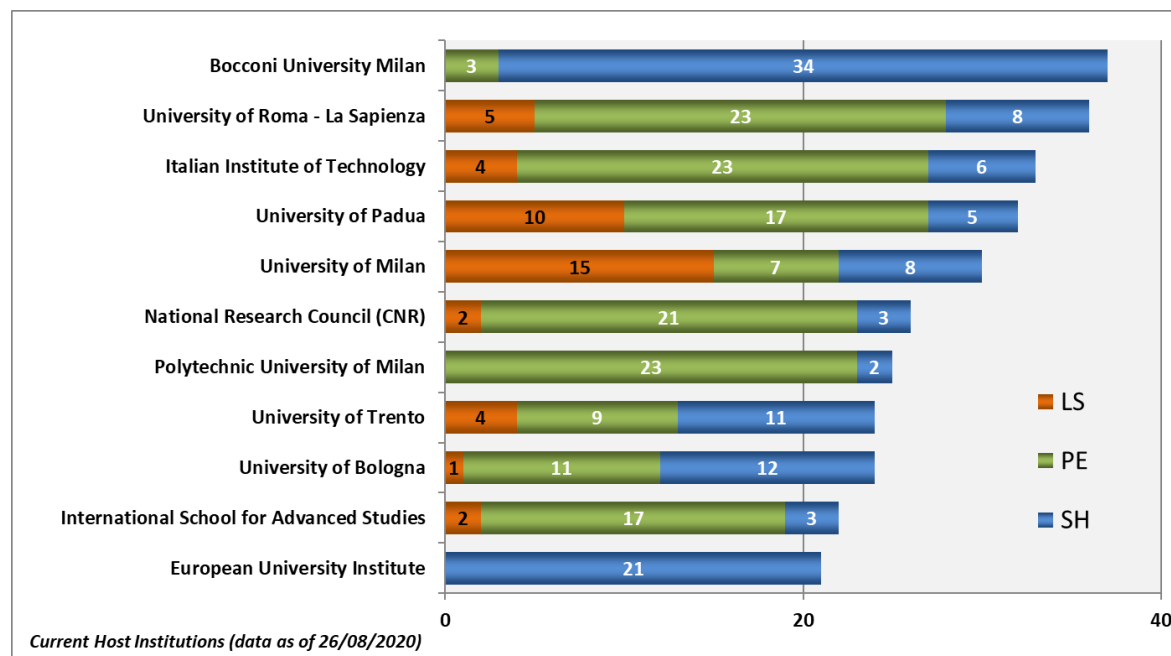
# Top Host Institutions in Italy



European Research Council

Established by the European Commission

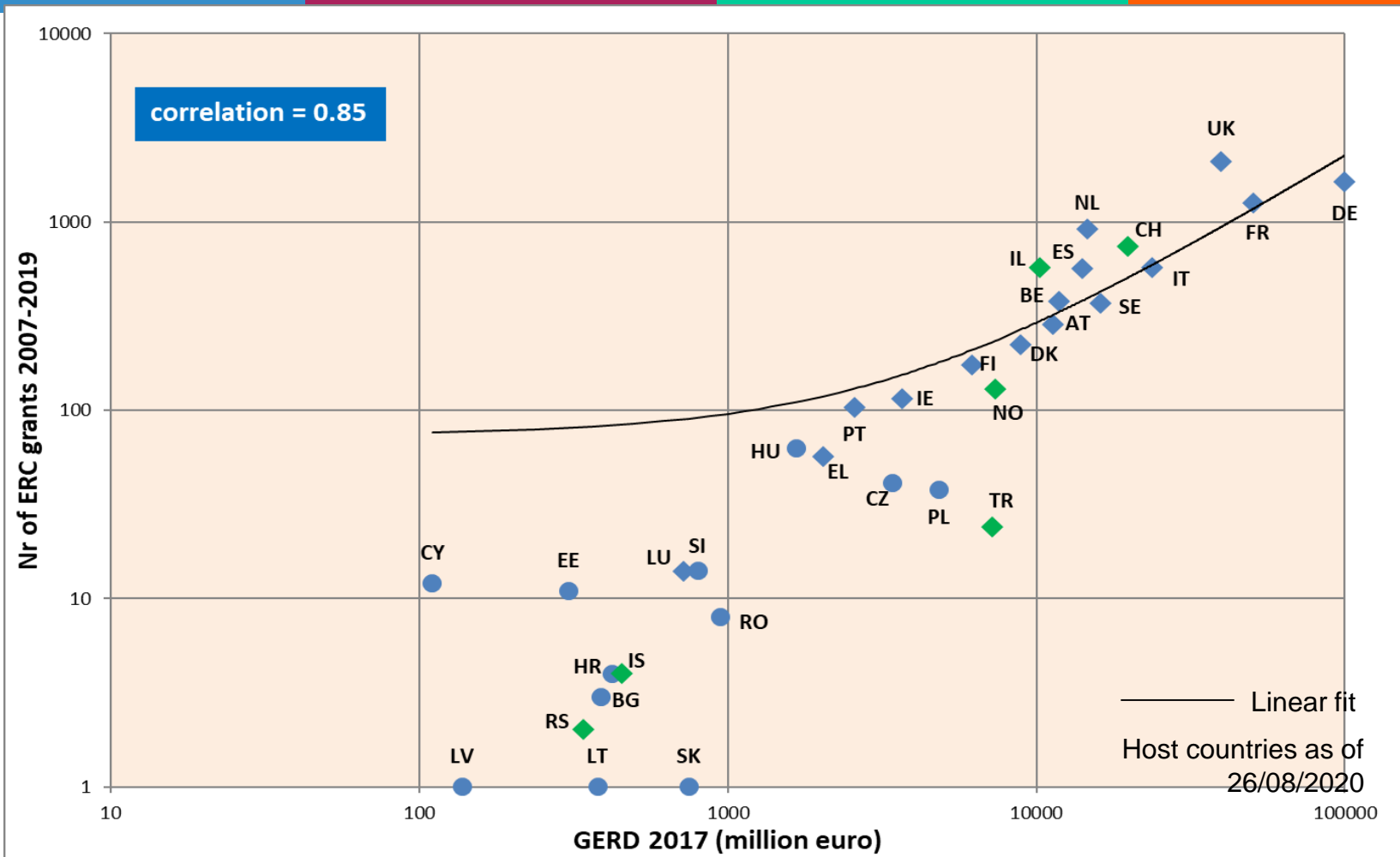
75 institutions host ERC main grants in Italy. The top Host Institutions in Italy are Bocconi University Milan with 37, University of Roma – La Sapienza with 36, the Italian Institute of Technology with 33, University of Padua with 32 grants.



# ERC Grants versus National Research Funding



European Research Council  
Established by the European Commission



# Career impact study 2017-2019



European Research Council

Established by the European Commission

## ■ Objective:

Provide a comprehensive overview of the impact of ERC funding

- on the careers of ERC PIs and their team members,
- on the ERC funded teams as units linked to a research activity,
- on ERC Host Institutions and their practices in promoting the careers of their researchers.

## ■ Scope: all ERC frontier research grants funded under FP7

## ■ Contractor: ICF with subcontractors CHEPS, Vitae, Elsevier

# ERC grantees – career expectations fulfilled

of ERC Starting/Consolidator grantees\*:

**62%** had their group become more visible internationally

**61%** gained academic independence

**59%** improved their status in the scientific community

**27%** were nominated for membership of scientific academies,  
learned societies or editorial boards

of ERC Advanced grantees\*:

**52%** had their group pushed to world-leader status

**52%** could focus more on research activities

**25%** were nominated for membership of scientific academies,  
learned societies or editorial boards

(\* ) share of respondents reporting that that the impact was achieved to a large extent



# Team members after the ERC grant

## Career after the project

**95%** of TMs currently employed (2% unemployed)

**36%** of PhD students experienced career progression

35% still doing their PhD

9% exited research/innovation or work

**35%** of post-docs experienced career progression

42% moved on as post-docs

5% exited research/innovation or work

## Geographical mobility

**32%** experienced cross-border mobility when getting involved with the project (while 51% came from the same country)

**26%** moved between countries after the project (while 64% stayed in the same country)

## Sectoral mobility

After involvement in the project:

**65%** are at a university

**18%** are in public or private ROs

**6%** moved to the business sector (? : Bias in reaching TMs outside academia)

**Inter-sectoral mobility** was greatest amongst team members from LS and PE domains: **21%** and **18%** (12% for SH domain).

# Impact on research environments

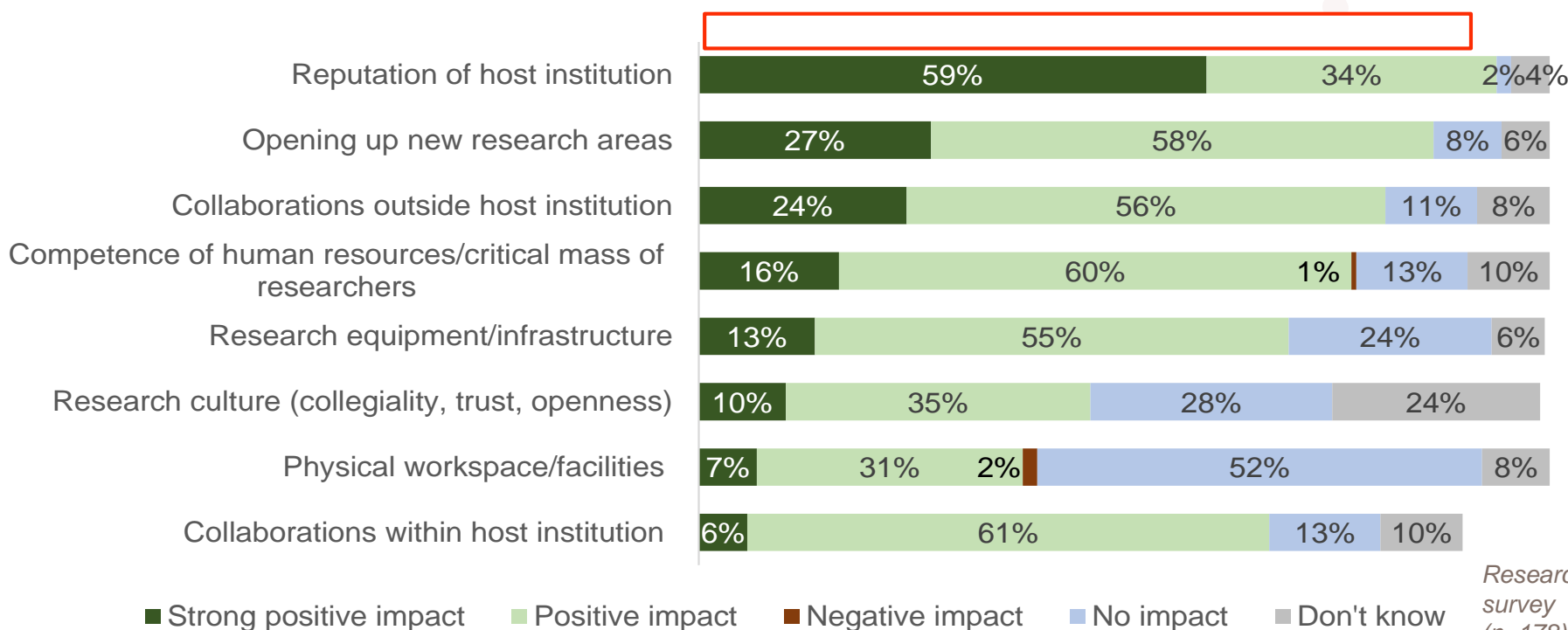


European Research Council

Established by the European Commission

- Impact on host institution's reputation was by far the most commonly reported impact of ERC projects (93% strong positive or positive)
- This can lead to leverage of other grant funding for investment (61%)

If and how hosting an ERC project impacted on the research environment at the host institution (% of research offices)



Research office survey (n=178)

# Horizon Europe: structure

(budget € 75.9 billion +5 +4 ? Tbc !..)



European Research Council

Established by the European Commission



## Pillar 1 Excellent Science

European Research Council

Marie Skłodowska-Curie  
Actions

Research Infrastructures



## Pillar 2 Global Challenges and European Industrial Competitiveness

Clusters

- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre



## Pillar 3 Innovative Europe

European Innovation Council

European innovation  
ecosystems

European Institute of  
Innovation  
and Technology

## Widening Participation and Strengthening the European Research Area

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system

# Transition to Horizon Europe



European Research Council

Established by the European Commission

- Stability of ERC mission, continuity of rules and procedures
- **First calls can open only after the adoption of the 2021-2027 EU budget and of the Horizon Europe regulation**
- Eligibility periods for StG and CoG don't change
- Two new panels (PE11, SH7)
- Interviews also for AdG
- Suspension of Synergy Call in 2021 -will start again in 2022

# Some novelties in Horizon Europe



European Research Council

Established by the European Commission

- **Exploitation and dissemination (art. 35):**
  - Provisions on **Open Access**: new rules apply to the ERC with implementation aspects to be in the Model Grant Agreement
  - Obligation to establish a research **Data Management Plan**, no opt-out possible
  - ERC Work Programme will continue bottom-up, light-weight implementation approach with *no requirement for an exploitation and dissemination plan*
- **Security (art. 16):** protection of classified information against unauthorised disclosure.
  - *“Where appropriate, proposals shall include a security self-assessment identifying any security issues and detailing how these issues will be addressed in order to meet the relevant national and Union law”*
  - *“Where appropriate, the Commission or funding body shall carry out a security scrutiny for proposals raising security issues.*

# Attractiveness: a ERC survey (2014 but still actual..)



European Research Council

Established by the European Commission

- **(Un)attractiveness of the research environment:** scientific isolation, missing culture of scientific excellence, lack of open and merit-based reward system.
- **Low international profile of researchers:** lack of international dynamics and mobility, lower levels of international exposure.
- **Poor career perspectives:** lack of career building programmes and long-term research career prospective, non-merit based recruitment practices.
- **Low national research investments:** low salaries for top scientists, lack of additional and sustainable funding (ERC top-up, ERC runners-up, ERC exit programmes).
- **Inadequate research funding systems:** ex: lack of open competitions, project-based funding, and/or funding to individuals.
- **Lack of support to ERC applicants and grantees:** by host institutions, National Contact Points, colleagues and peers.

# The European Research Council



European Research Council

Established by the European Commission

Grazie/Thank you !

[Angela.Liberatore@ec.europa.eu](mailto:Angela.Liberatore@ec.europa.eu)

More information on: [erc.europa.eu](http://erc.europa.eu)

Follow us on:



EuropeanResearchCouncil



ERC\_Research