# The European Research Council



#### The ERC:

a Success Story for the EU Isabelle Vernos

ICREA research Professor

CRG

BIST founding Conference March 31st, 2017





### Celebrating ERC-10 in Europe and beyond



- ✓ ERC Week: 13-19 March
- √ >140 events in 35 countries
- ✓ Twitter: #ERC10yrs
- ✓ More information: erc.europa.eu/ERC10yrs/erc-week





#### Beyond the first 10 years



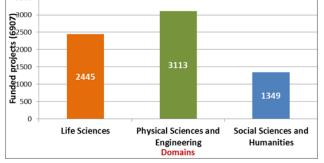


#### The ERC in a Nutshell



- Set up in 2007 by the EU, the ERC funds ambitious projects in frontier research. It aims at:
  - Supporting high quality excellent frontier research throughout Europe in all scientific domains: Life Sciences (LS), Physical Sciences and Engineering (PE), and Social Sciences and Humanities (SH)

Retaining and attracting the best scientific talent to Europe, by offering very substantial grants for up to 5 years



#### **ERC Governance**





#### **The European Commission**

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

#### The FRC Scientific Council

- •22 prominent researchers proposed by an independent identification committee
- President appointed following recommendation of an independent search committee
- Appointed by the Commission (4 years, renewable once)
- •Establishes overall scientific strategy; annual work programmes; peer review methodology; selection and accreditation of experts
- Controls quality of operations and management
- 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
- Administers scientific and financial aspects and follow-up of grant agreements
- Carries out communications activities and ensures information dissemination to ERC stakeholders

#### The ERC Scientific Council



European Research Council
Established by the European Commission



President

BOURGUIGNON Jean-Pierre



Vice President

BOCK Klaus



Vice President

KONDOROSI Eva



Vice President

STOKHOF Martin



BOVOLENTA Paola



BUCKINGHAM Margaret



CLARK Christopher



CRONE Eveline



DONALD Athene



JAJSZCZYK Andrzej



JUNGWIRTH Tomas



KRAMER Michael



MEHLHORN Kurt



ROMANOWICZ Barbara



STENSETH Nils



SUPERTI-FURGA Giulio



TAVERNARAKIS Nektarios



THORNTON Janet



VERNOS Isabelle



VEUGELERS Reinhilde



WIEVIORKA Michel



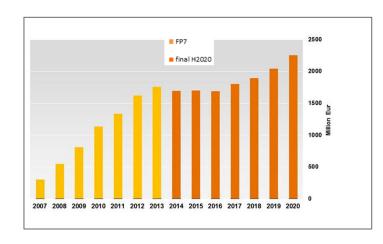
ZWIRNER Fabio

#### The ERC in a Nutshell



- ✓ The ERC is a key component of Horizon 2020, the EU programme for Research and Innovation
- ✓ €13 billion budget for 2014-2020 (i.e. 17% of the Horizon 2020 budget)
- ✓ Over 60,000 applications received around 7,000 projects funded
- ✓ Highly competitive calls:

  success rate is around 11%





#### The ERC in a Nutshell



- Three core funding schemes:
  - Starting Grants, Consolidator Grants and Advanced Grants
- For top researchers of any nationality and age who wish to carry out their frontier research in EU Member States or associated countries
- 1 project, 1 Principal Investigator, 1 Host Institution, 1 selection criterion



#### Beyond the first 10 years



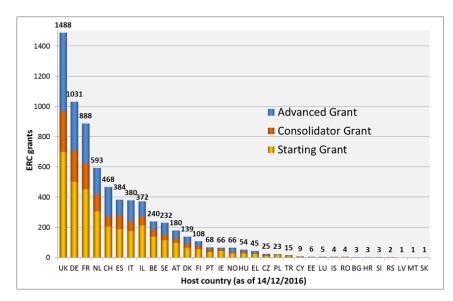






- √ 7,000 "research champions" and their teams supported
- √ 50,000 team members, mostly PhDs and postdocs, working on ERC projects

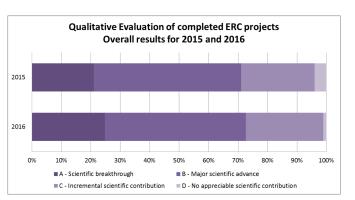




### 2. Advancing the Frontiers of Knowledge



- √ 73% of a sample of completed ERC projects resulted in scientific breakthroughs or major advances
- ✓ ERC grantees won prestigious awards:6 Nobel Prizes, 4 Fields Medals, 5 Wolf Prizes...







Europe's premier funding agency measures its impact http://www.nature.com/news/europe-s-premier-funding-agency-measures-its-impact-1.2032811

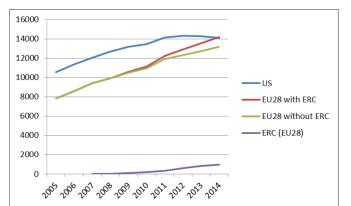
# 3. Enhancing Visibility of European Research Results



√ 100,000 publications resulting from ERC projects

√ 7% of these publications rank in the top 1% most cited worldwide. Also thanks to this, in 2014 Europe surpassed the US for the first time in this

top 1%.





### 4. Attracting Scientific Talent



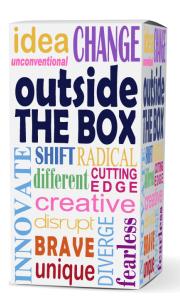
- ✓ The ERC tackles the brain-drain by making Europe a more attractive place for bright minds
- Around 17% of the ERC team members are from non-EU countries
- ✓ 9 countries (including US, China, Korea, Brazil) have signed specific agreements with the EU that allow ERC grantees to cooperate with young scientists from around the world



### 5. Promoting Innovation



- There is no innovation without frontier research!
- ✓ Almost 600 Proof of Concept Grants awarded
- ✓ ERC projects have led to 800 patent applications and setting up 75 new ventures (2007-2013)



### 6. Addressing Societal Challenges



- ✓ The ERC funds projects related to major health challenges, energy efficiency, demographic changes, etc.
- ✓ ERC-funded research contributes to economic growth and benefits the society at large



### 7. Inspiring Reforms in Europe



- The ERC has set the benchmark of competitive funding of basic research
- New scientific councils and funding schemes launched in EU Member States
- 17 countries have introduced initiatives to finance their best unfunded applicants



### 8. Leading the Scientific Community



- ✓ Research integrity
- Open access
- Gender balance
- Widening European participation



### 9. Boosting Research Careers



- √ 2/3 of ERC grants go to early career researchers
- ✓ ERC grants have a strong, positive effect on grantees' careers
- They contribute to the consolidation of research teams
- ✓ Key role in training and developing a new generation of top scientists



### 10. Engaging with Audiences around the World



European Research Council

#### Wide **media** coverage





10.000 articles in the media every year



**Events** around the world



> 500.000 visitors of the **ERC** website per year



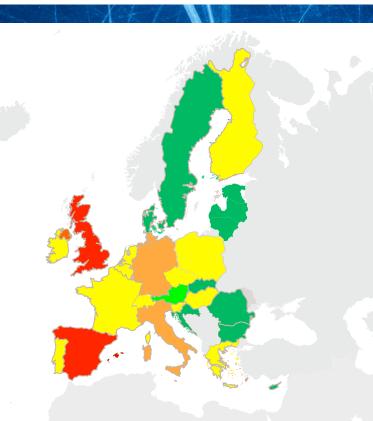


European Union funding Commission | for Research & Innovation

### Media Monitoring | 1 Jan - 31 Dec 2016



- Total coverage around 10,521 media items
- Geographic spread
  - 1000 and more: ES, UK
  - 700 999: DE, IT
  - 400 699: AT
  - 100 399: BE, CH, CZ, FI, HU, EL, IR, FR, NL, PL, PT, SL
  - less than 100: BG, CY, DK, EE, HR, LU, LV, LT, MT, RO, SK, SE







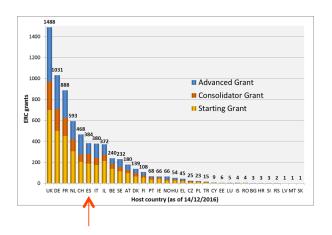
#### Beyond the first 10 years

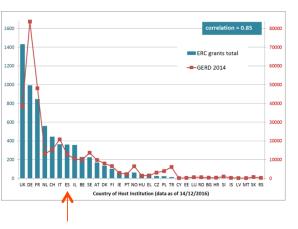


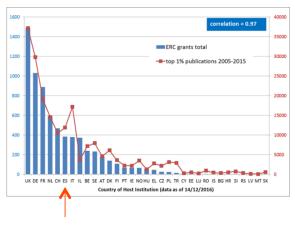


# The ERC in Spain





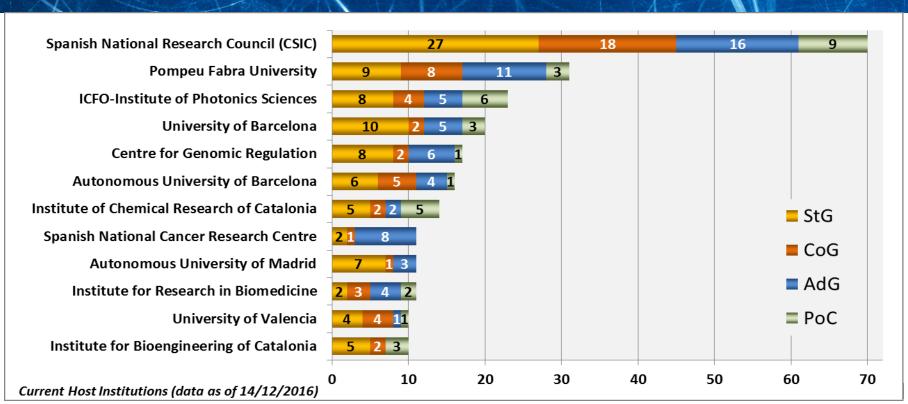




### **Top Host Institutions in Spain**

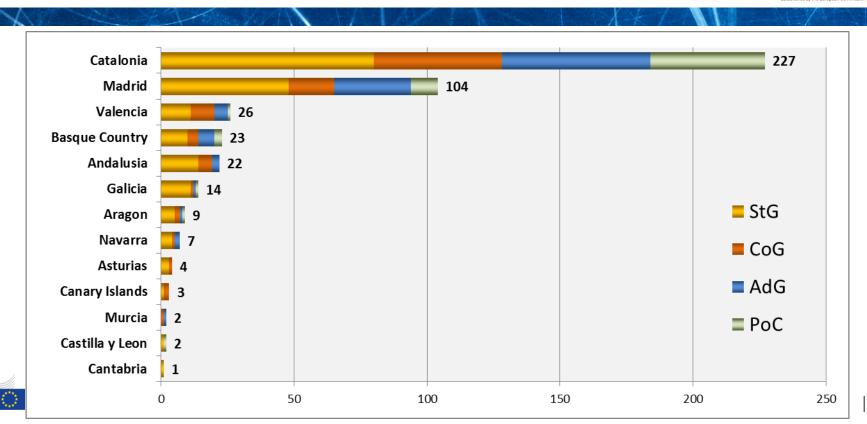


Established by the European Commission



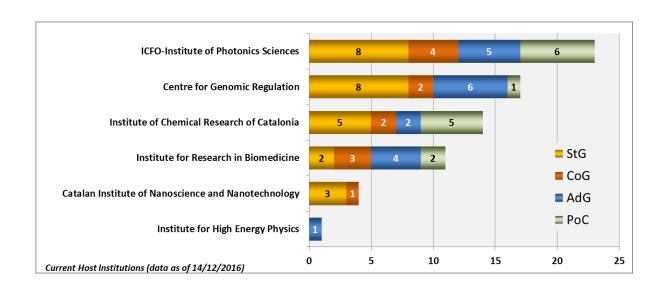
### **ERC Grants by Region**





#### **ERC Grants at the BIST Institutes**







#### Beyond the first 10 years





#### The secrets of a success



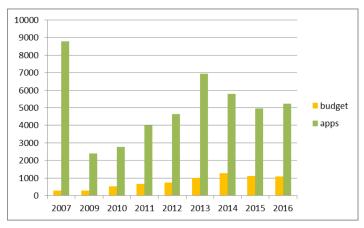
- ✓ The Scientific Council: 22 renowned scientists as decision makers.
- The evaluators: high-level scientists from all over the world
- ✓ Strict bottom-up approach: no thematic priorities, all disciplines eligible
- Scientific and financial independence of the grantees
- ✓ The size of the grants: €1.5 million for Starting Grants, €2 million for Consolidator Grants, €2.5 million for Advanced Grants
- ✓ The simplicity of the schemes and of the procedures
- ✓ A very efficient management by the executive agency (ERCEA)



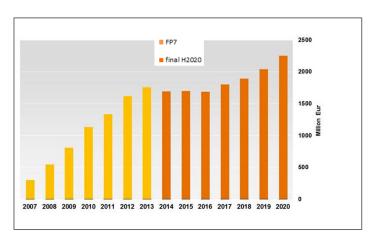
### **Future Challenges**



Need for an enhanced budget for research in the next framework programme



1300
"A" scored
proposals unfunded
already in Horizon
2020



60 000 applications (less than 5% of public sector researchers)



### **Future Challenges**



- Enough room for curiosity-driven research in a bottom-up approach
- Schemes welcoming interdisciplinarity
- Need to preserve ERC main features and specificities
- Coordination with the programmes of national agencies
- Need to promote the impact of the ERC outside the scientific community



# Thank you!



European Research Council Established by the European Commission



**7,000** top researchers funded

50,000

researchers & other professionals hired in ERC teams

with €12 billion



Open to the World

international initiatives for non-EU talent to join ERC teams



73%

of completed projects led to breakthroughs/major advances



Prestigious prizes, e.g.

6 Nobel Prizes

Wolf Prizes

4 Fields Medals



> 5,500

articles among 1% most cited scientific journals



ERC as model

15

EU countries set up ERC-like structures/funding schemes