



# European Integration Policy



# Horizon 2020 Research & Innovation funding



HORIZON 2020



# Context Horizon 2020

- Development European Single & integrated market.

Unmet needs:

- Smart innovation
- Smart mobility
- Smart governance

- US preferred partner ( Roadmap for cooperation/ TTip)

- EU and US count for 58% of all global R&D
- EU and US count for 18 of the top 20 knowledge regions in the world

Creating global competitive advantages through partnerships

# Horizon 2020 compared to FP7 more complex!

## EU Ambition

Innovation Union by 2020

## Understanding EU complexity

Economic and Societal obligations , transdisciplinary collaboration, transsectoral collaboration

## Strategic EU- agenda 2020

Smart, sustainable and inclusive growth.  
Creating global competitive advantage.  
IT main driver.

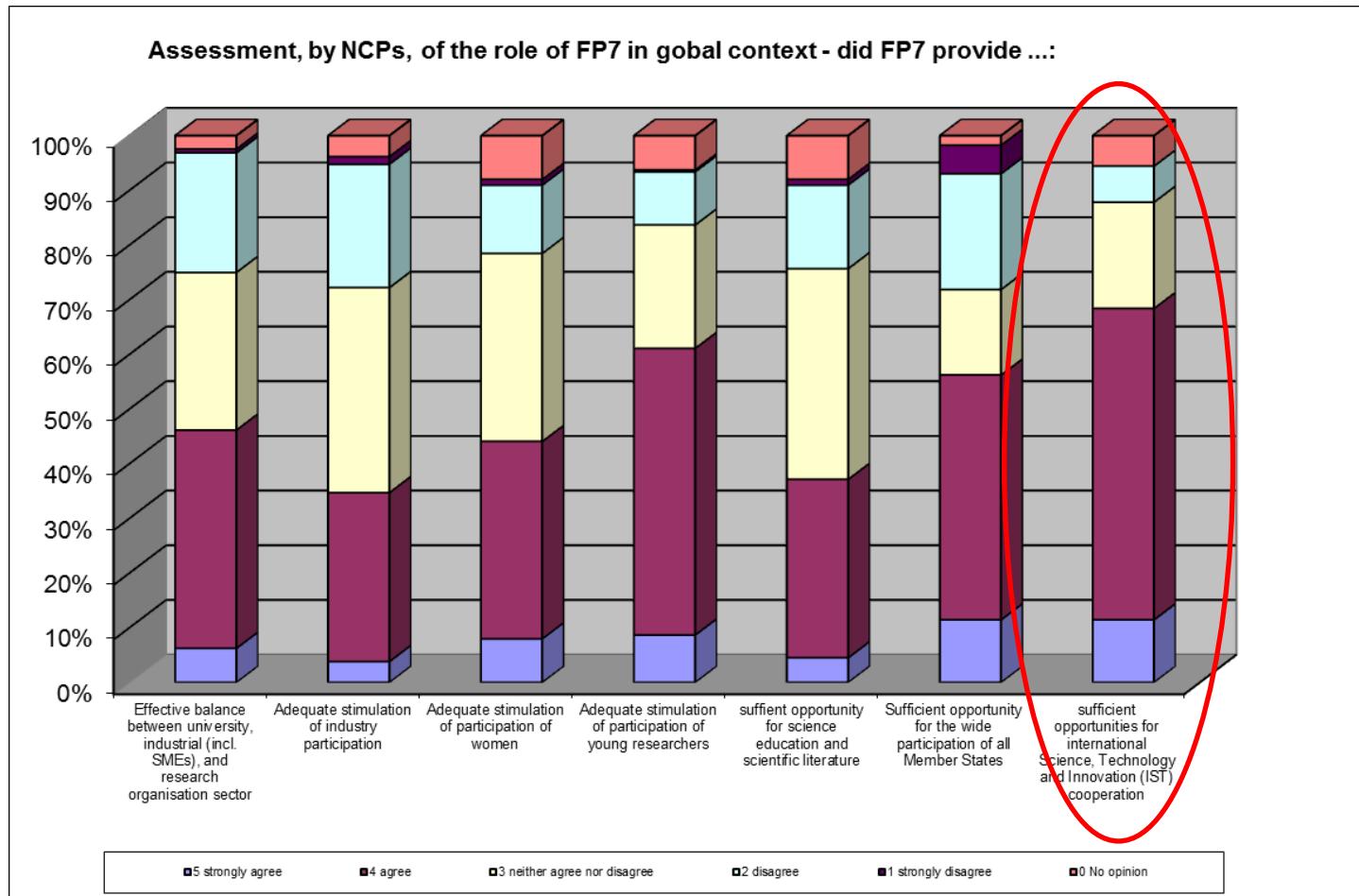


## **Institutional challenge**

“Creating adaptive strategies for supporting EU-US research collaboration”

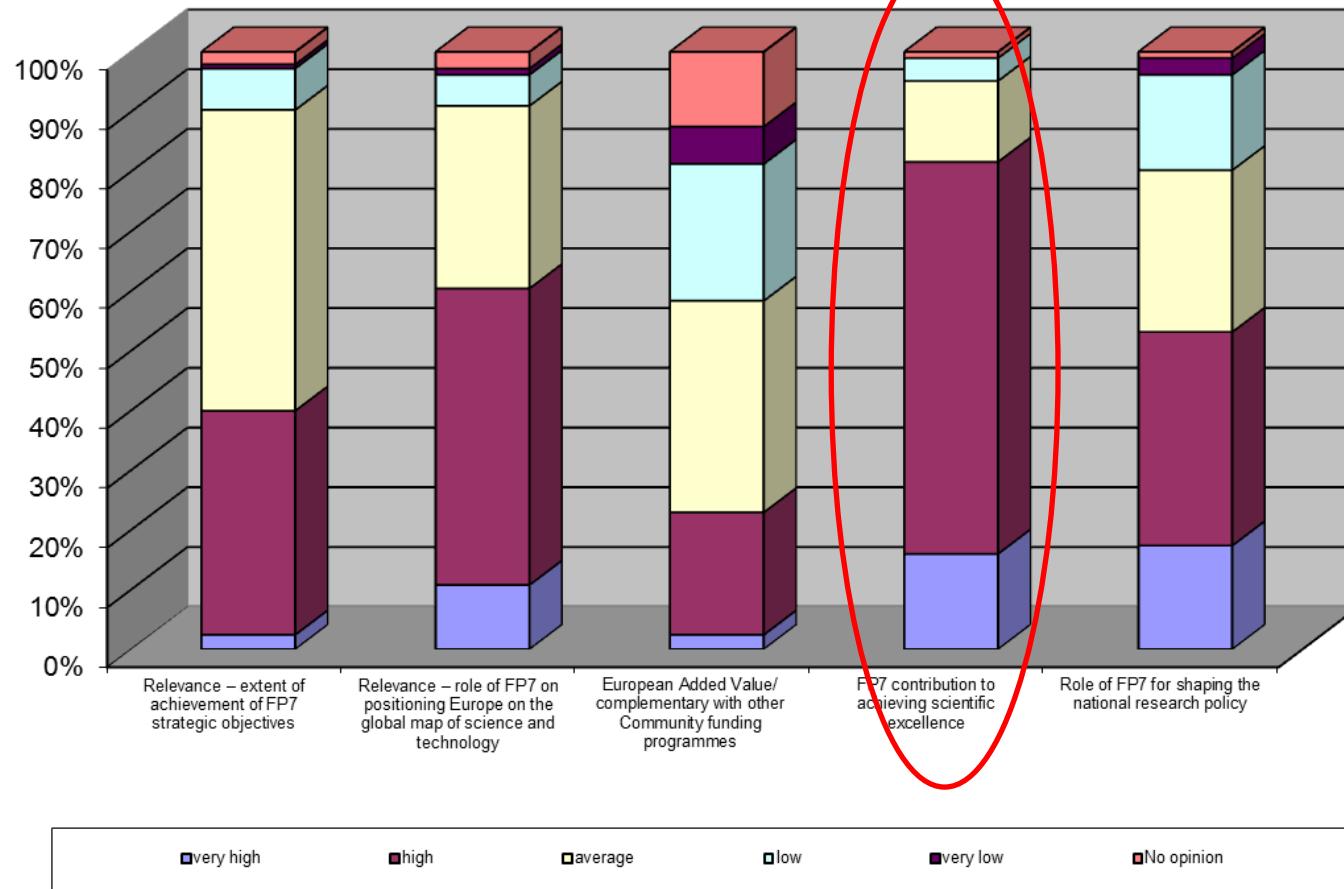
# Relevance EU Globally

## Science & Research

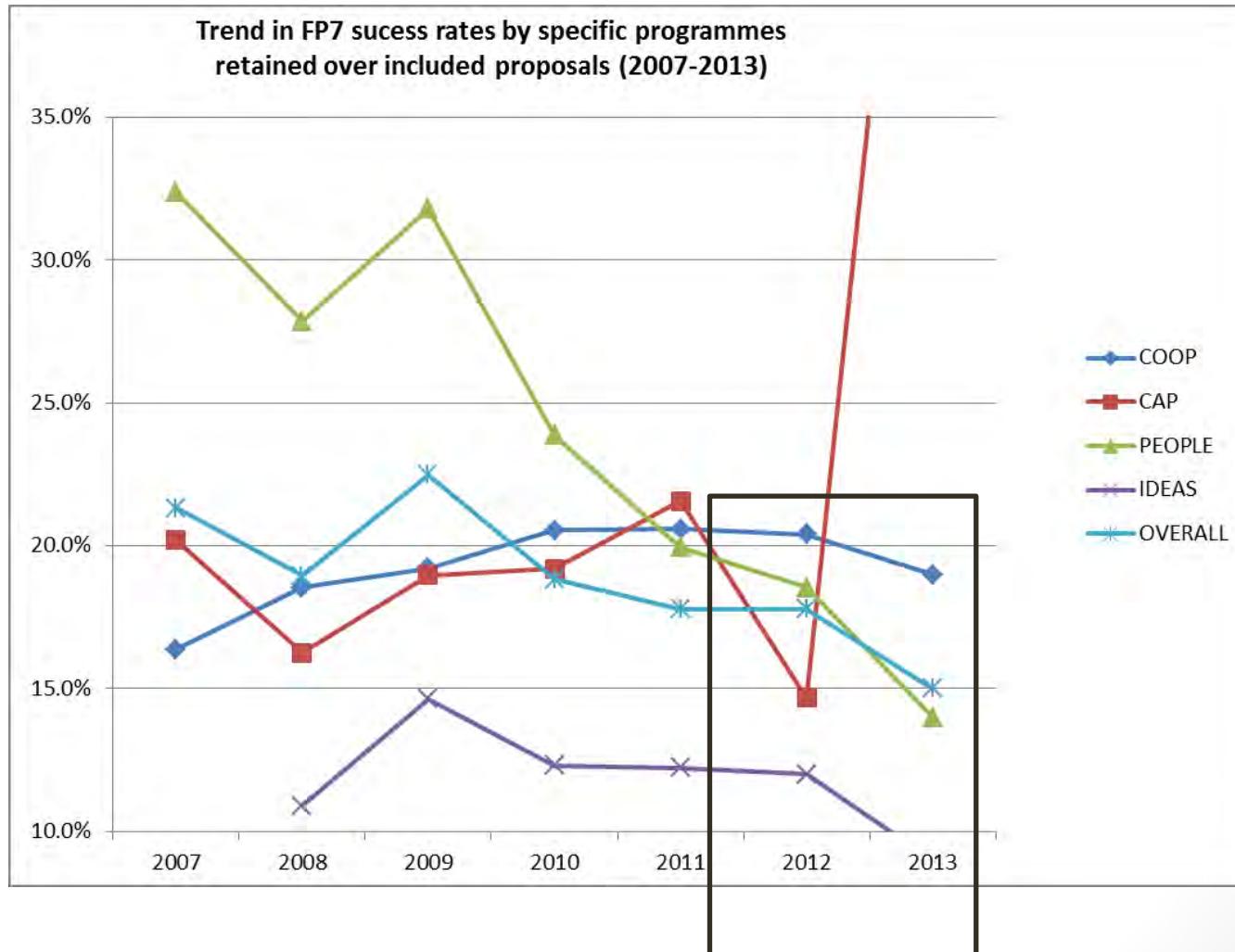


# Excellence under FP7

FP7 relevance, European Added Value, Scientific Excellence and shaping research policy



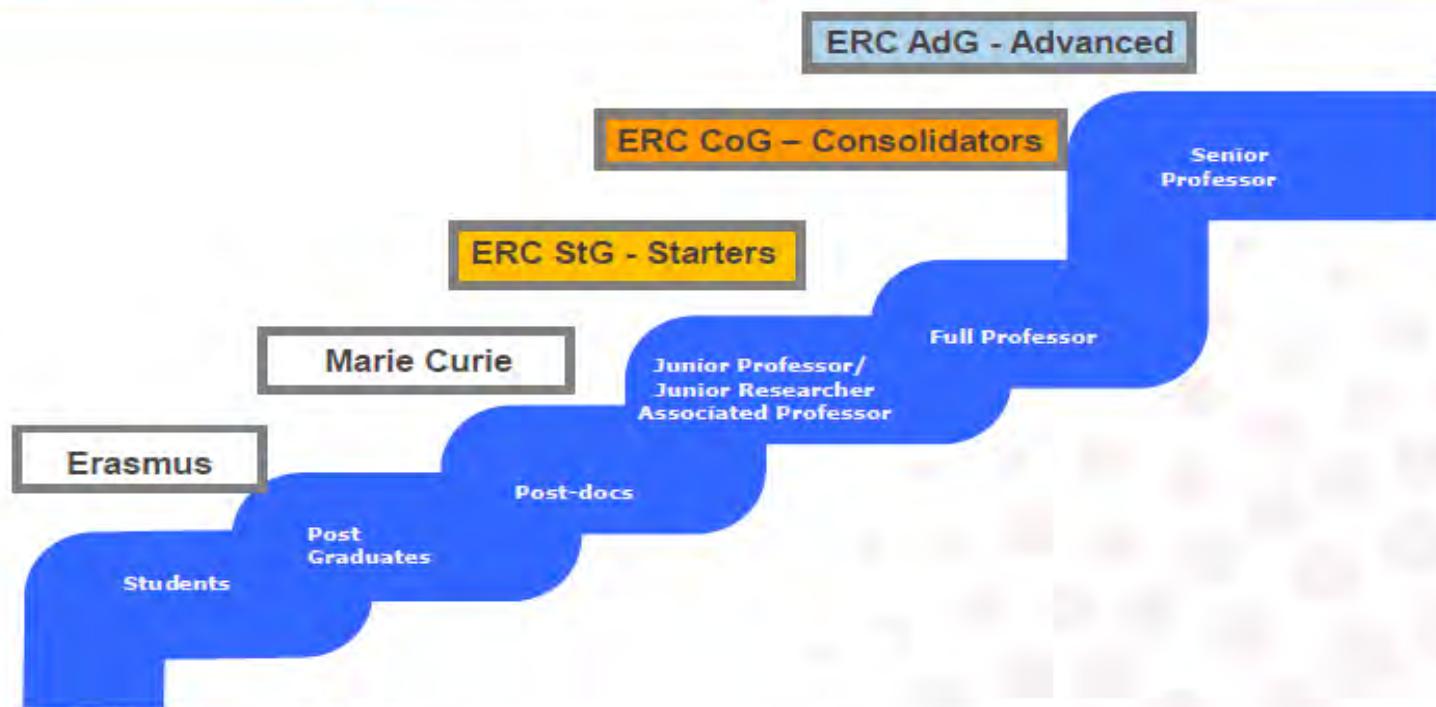
# Success rates in FP7 dropped.





European

# Researchers career development and complementary funding schemes



European  
Commission

Horizon 2020  
European Union funding  
for Research & Innovation

# Institutional Research Strategy

## Gains working with EU grants

- 1 Top transnational research collaboration globally
2. High output (ERC first year publication ratio 35%)

## Drivers for research policy

1. Money
2. Research career development
  - Strengthening Research capacity
  - Strengthening Network capabilities.

# ERC Grant schemes

## Starting Grants

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

## Consolidator Grants

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

## Advanced Grants

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

## Proof-of-Concept

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

# ERC-NSF Arrangement:*Types of visits*

## NSF CAREER Awardees:

- Single and long-term (6-12 months) or
- Multiple short-term visits: should aggregate to an agreed-upon minimum (e.g., 6 months).

## NSF POSTDOCTORAL Fellows:

- Single and long-term research visits (6-12 months).
- Time spent in Europe will be in addition to (rather than in lieu of) their NSF-funded postdoctoral fellowship.



# Marie Skłodowska-Curie Actions

Optimum development and dynamic use of Europe's  
intellectual capital

**Excellence**

**Research**

**Knowledge**

**Training**

**Innovation**

**Skills**

**Mobility**

> € 6.16 billion in  
2014-2020

(€ 745 million  
in 2015)

# Marie Skłodowska Curie Awards

## Innovative Training Networks (ITN)

- Job opportunities in a research/doctoral training programme offered by an international network of organisations
- Multidisciplinary approach
- Possibility for an industrial doctorate or a joint doctorate

## Your own fellowship (IF)

- Directly to the annual IF call for proposals
- With a hosting institution in EU or AC that will manage the grant.

## Experienced researchers

In possession of a doctoral degree, or have 4 years of full-time research experience at the time of the call deadline

# Innovative Training Networks (ITN)

Creativity

Excellence

Entrepreneurship

Innovation

*For doctoral candidates*

Skilled

Employable

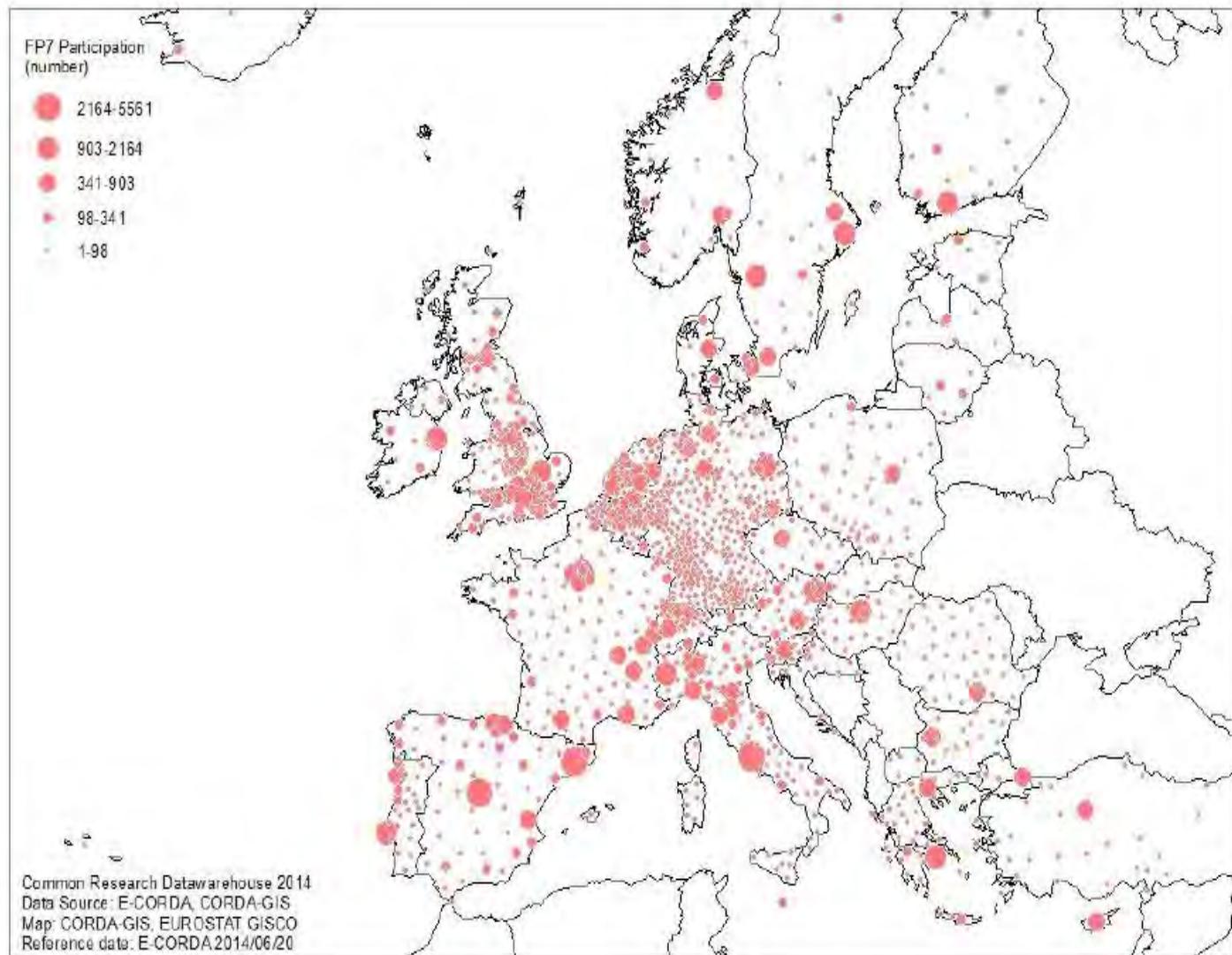
Mobile





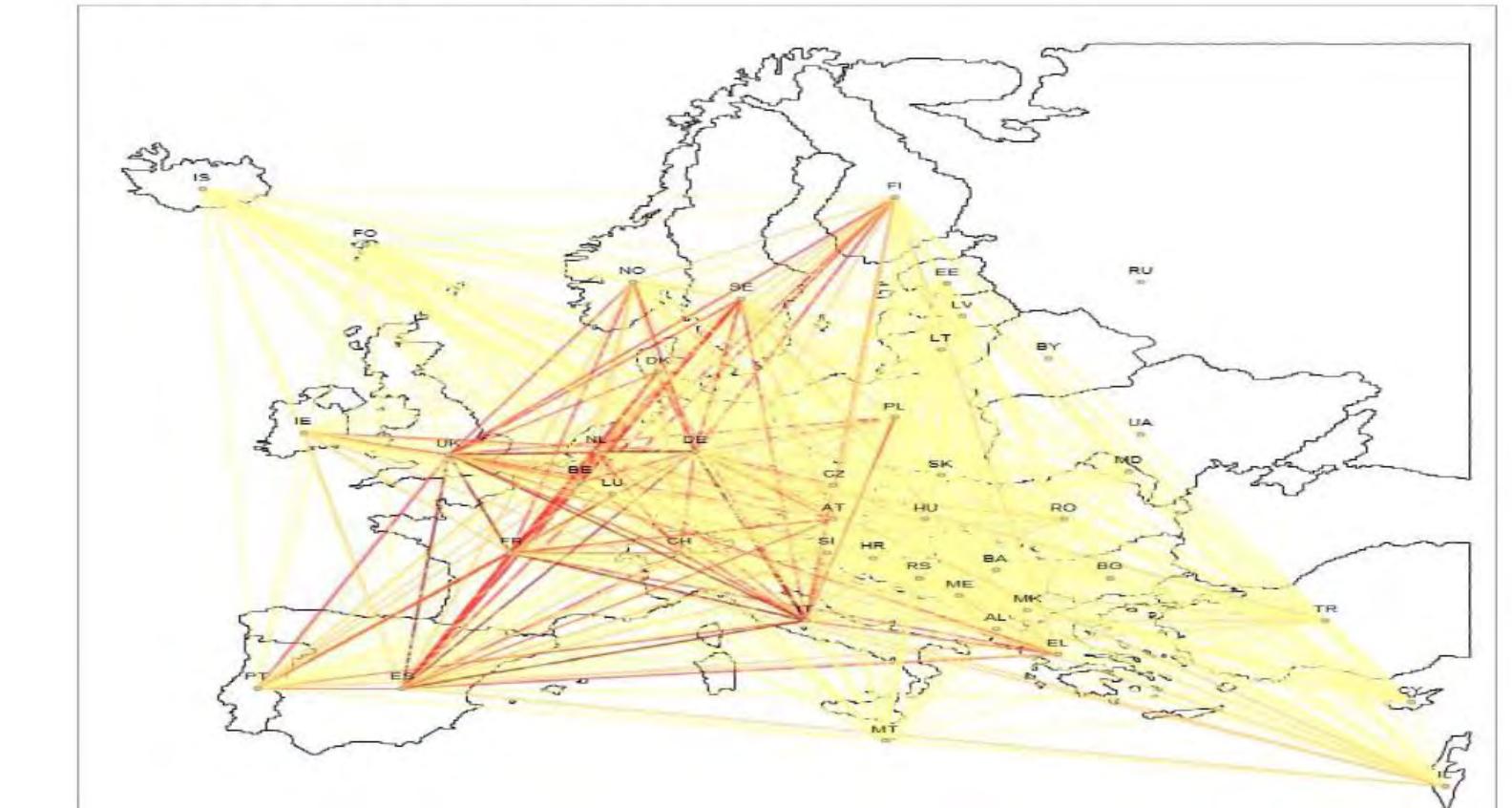
# How to select your partner in Europe?

- Institutional strategy.
- Excellence driven approach
- Transnational research networks

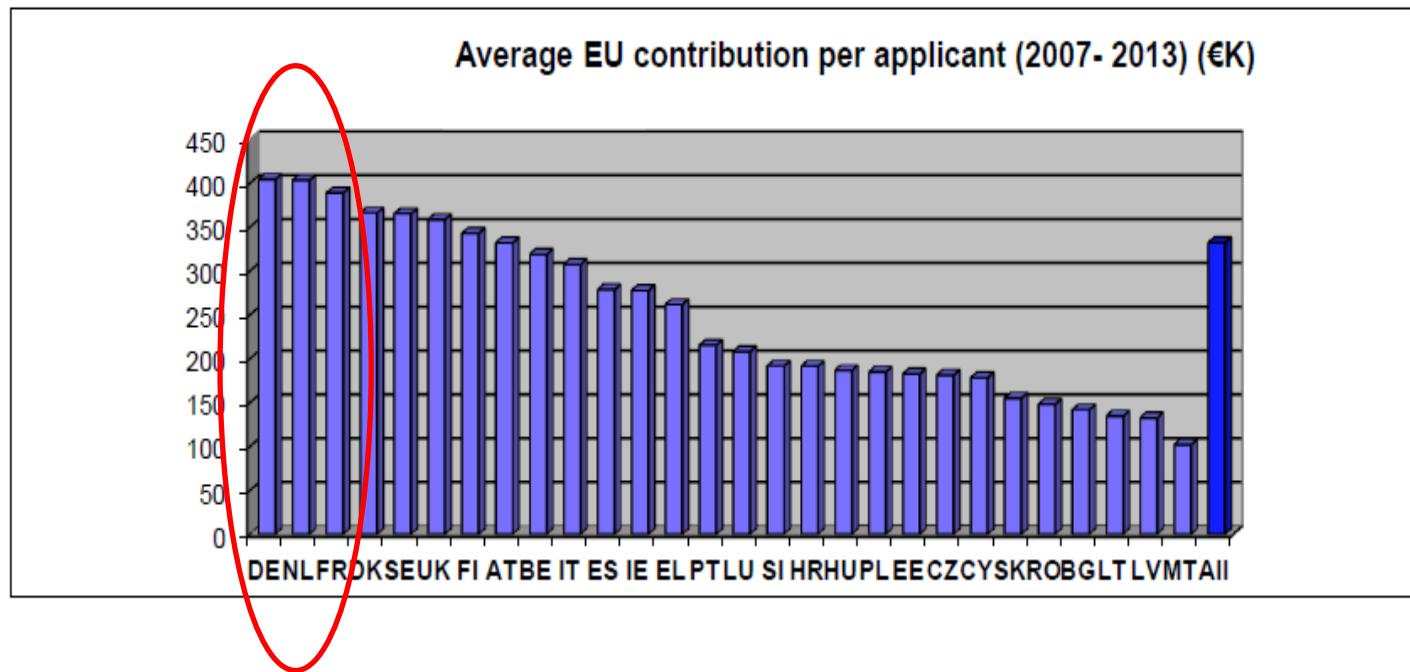


# Collaborative density

Map B1: EU28 Collaborative links for all programmes



**Figure 14:** Requested EU financial contribution per applicant (in € thousand) in retained proposals for FP7 calls concluded in 2007-2013 by country.



#### 2.4.2 Candidate and Associated Countries

For FP7, there are 14 Associated Countries, mainly European countries, currently associated, including all of the Western Balkan States. This makes FP7 a true Pan-European programme and strongly underpins the objective of building a wider ERA.

Figures 15-17 present the situation in terms of numbers of applicants and requested EU

# Thank you

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Fogarty International Center

# The National Institutes of Health

HORIZON 2020:  
SOME OBSERVATIONS  
MAY, 2015



Fogarty International Center

# **U.S. INSTITUTIONS/ENTITIES INVOLVEMENT IN FRAMEWORK PROGRAM 7 (FP) PROJECTS/CONSORTIA FUNDED BY THE EUROPEAN COMMISSION BY SUBJECT AREA**

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## **FP7 (2007-2013): 408 Total involving U.S. institutions/entities**

- [FP7-ENERGY](#) (16)
- [FP7-ENVIRONMENT](#) (26)
- [FP7-EURATOM-FISSION](#) (10)
- [FP7-HEALTH](#) (125) – 30.6% of overall total
- [FP7-ICT](#) (63)
- [FP7-IDEAS-ERC](#) (15)
- [FP7-INCO](#) (4)
- [FP7-INFRASTRUCTURES](#) (22)
- [FP7-JTI](#) (3)
- [FP7-KBBE](#) (39)
- [FP7-NMP](#) (22)
- [FP7-PEOPLE](#) (9)
- [FP7-SECURITY](#) (7)
- [FP7-SIS](#) (10)
- [FP7-SME](#) (1)
- [FP7-SPACE](#) (12)
- [FP7-SSH](#) (15)
- [FP7-TRANSPORT](#) (9)

(Source: [cordis.europa.eu/projects/result](http://cordis.europa.eu/projects/result)  
Downloaded: 29 April 2015)

# DAVID VS. GOLIATH?

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**FP7**  
**(2007 to 2013)**

**National Institutes of Health**  
**FY2014**

**408 project all fields  
(125 health area)**

**EU members: 3235 Projects  
Non-EU members: 390  
Israel: 185**



# **FRAMEWORK PROGRAM 7**

## **2007-2013**

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### **Medical Projects involving U.S entities/institutions**

**125 with 156 partners cited**

**Public Universities:**                   **35**

**Private Universities:**                   **34**

**Private Sector:**                       **34**

**Non-Academic Institutes:**           **49**

**(Includes U.S.-based Associations  
and U.S. Private Hospitals)**

**Non-U.S.:**                              **4**

**(PAHO, UN Population Fund, Sihanouk Hospital, etc.)**

# NSF by the Numbers

\$7.3 billion FY 2015 appropriation

94% funds research, education and related activities

48,100 proposals



11,000 awards funded



1,826 NSF-funded institutions



320,900 NSF-supported researchers



All S&E disciplines funded



Funds research into STEM education

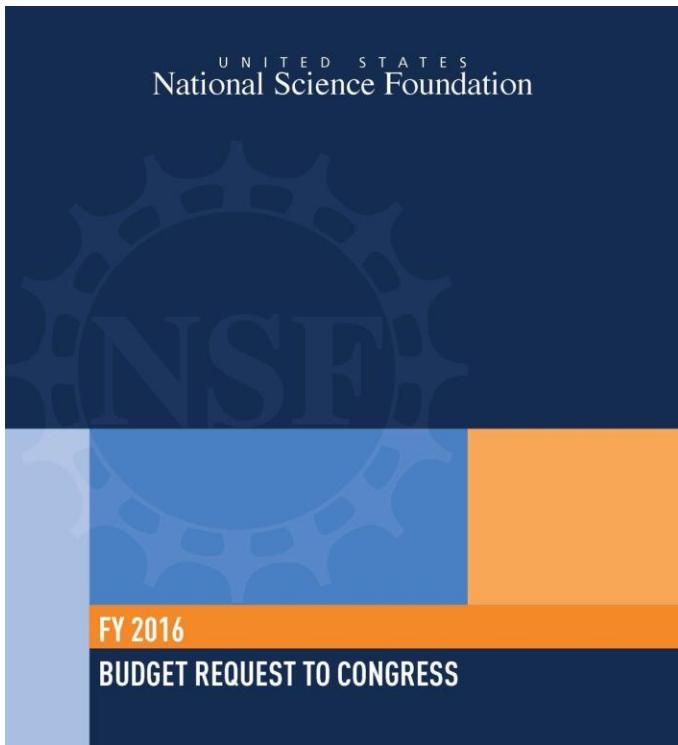


214 Nobel Prize winners

*Other than the FY 2015 appropriation, numbers shown are based on FY 2014 activities.*



# FY 2016 Budget Request

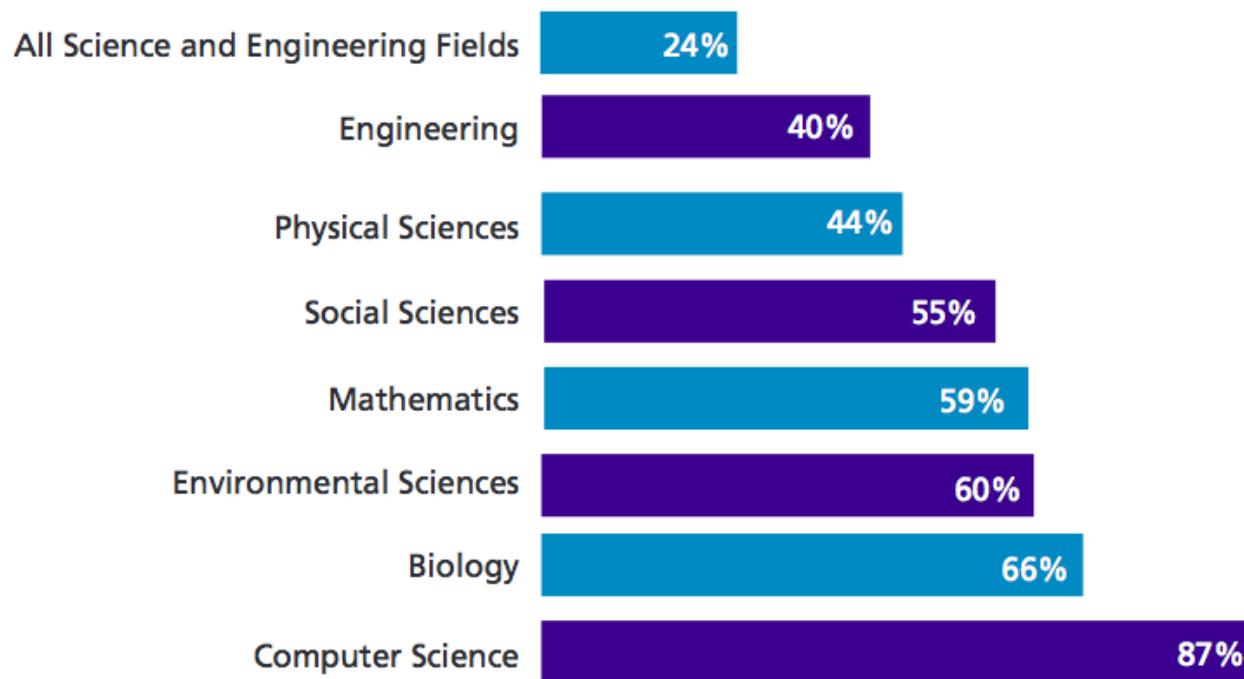


- **NSF**
  - FY 2016 Budget Request: \$7723.55 Million
  - Increase over FY 2015 Est: \$379.34 Million, +5.2%
  - FY 2016 request is shaped by investments in ***core research, education, and infrastructure programs,*** as well as critical investments ***in NSF cross-directorate priorities and programs.***



# NSF Support of Academic Basic Research in Selected Fields

(as a percentage of total federal support)



Note: Biology includes Biological Sciences and Environmental Biology; excludes National Institutes of Health.

Source: NSF/National Center for Science and Engineering Statistics, Survey of Federal Funds for Research & Development, FY 2011



# National Priorities



**Understanding  
the Brain**

Image Credit: ThinkStock



**Risk &  
Resilience**

Image Credits: Texas A&M University



Image Credit: NASA

**Food-Energy-  
Water Systems**



**Health &  
Wellbeing**

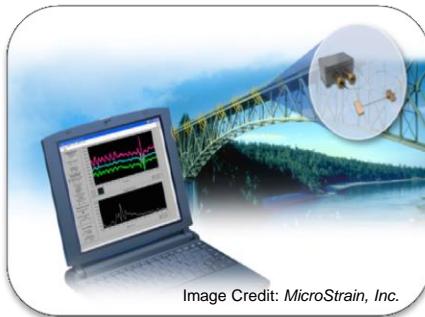


Image Credit: MicroStrain, Inc.

**Manufacturing,  
Robotics, &  
Smart Systems**



**Secure  
Cyberspace**

Image Credit: ThinkStock



Image Credit: Georgia Computes! Georgia Tech

**Education and  
Workforce  
Development**

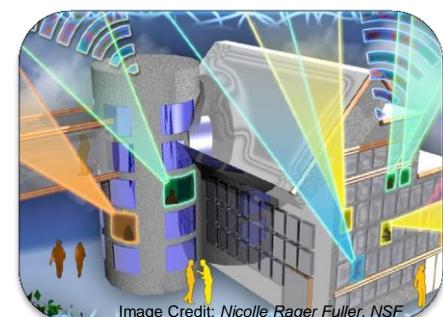


Image Credit: Nicolle Rager Fuller, NSF

**Broadband &  
Universal  
Connectivity**



# Qualities of NSF Supported International Activities

- Competitively reviewed for technical merit and broader impacts.
- Partnerships demonstrate true intellectual collaboration, balanced and benefiting both sides.
- Synergy from combined strengths, expertise, facilities, and data of counterparts.
- Integration of research and education by engaging students and junior researchers, our future.



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*Thank you!*

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PROFESSIONALS**

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