

H2020 Focused Group Training

"Legal and Financial Issues"

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Deputy Team Leader
Project "Turkey in Horizon 2020"

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

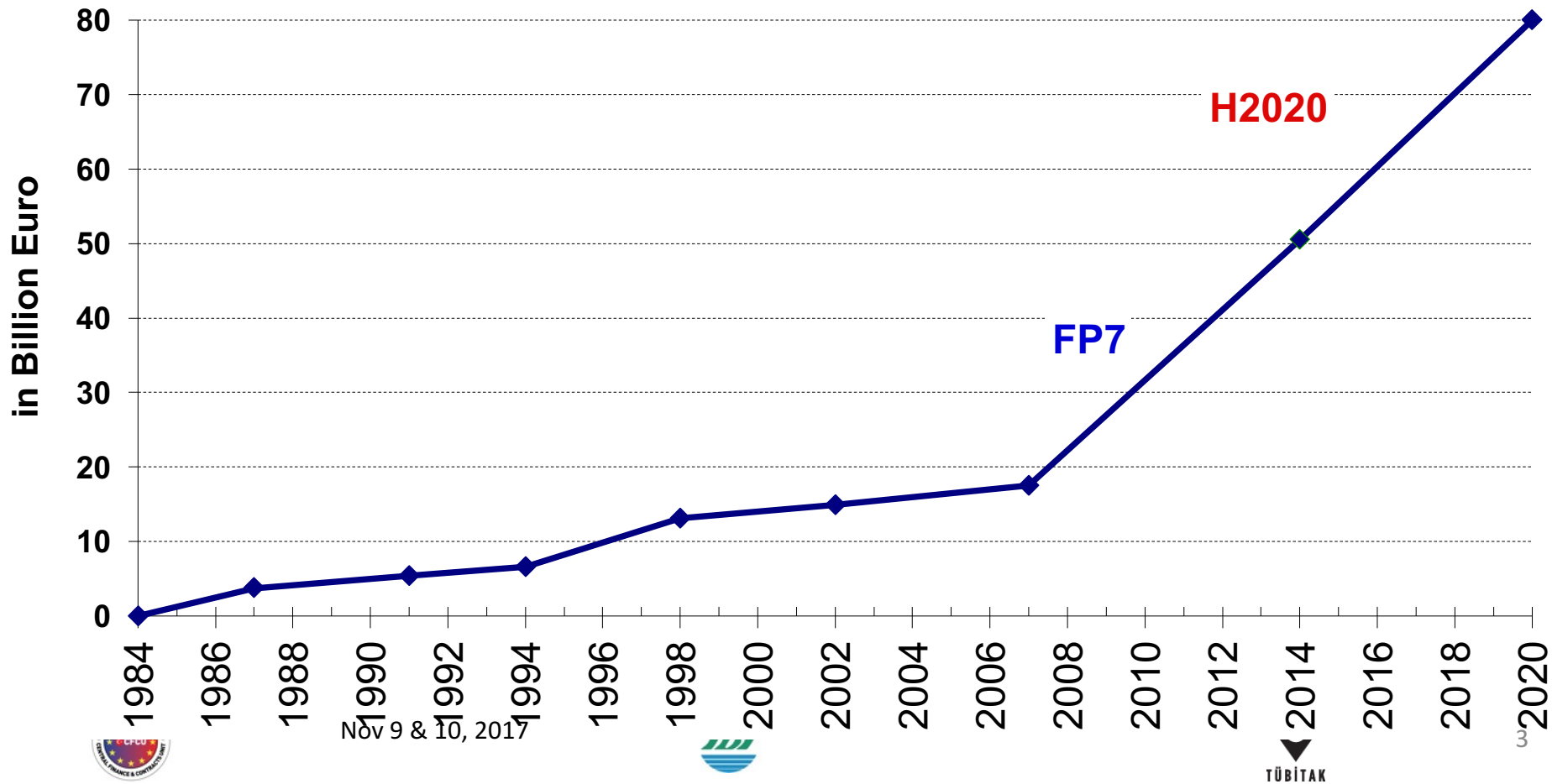
HORIZON 2020

The logo for Horizon 2020 features a stylized globe of the Earth positioned between the words 'HORIZON' and '2020'. A bright sunburst or starburst effect emanates from behind the globe, creating a sense of energy and innovation. The entire graphic is set against a dark blue background with a subtle pattern of light rays.

The EU Funding Programme for Research and Innovation

FP Budget Development

- Horizon 2020 has nearly €80 billion Euro of funding available over 7 years (2014 to 2020).



Principles of EU R&D&I Activities

- Transnational collaboration (min. 3 partners/3 countries from MS or AC)
- Open to all: Industry, SMEs, Universities,...)
- Based on strategic objectives - programme oriented
- Consortia are selected by Calls for Proposals
- Innovative, based on science & technology excellence
- Competitive - competition of the best teams in EU
- Project results are the property of the participants

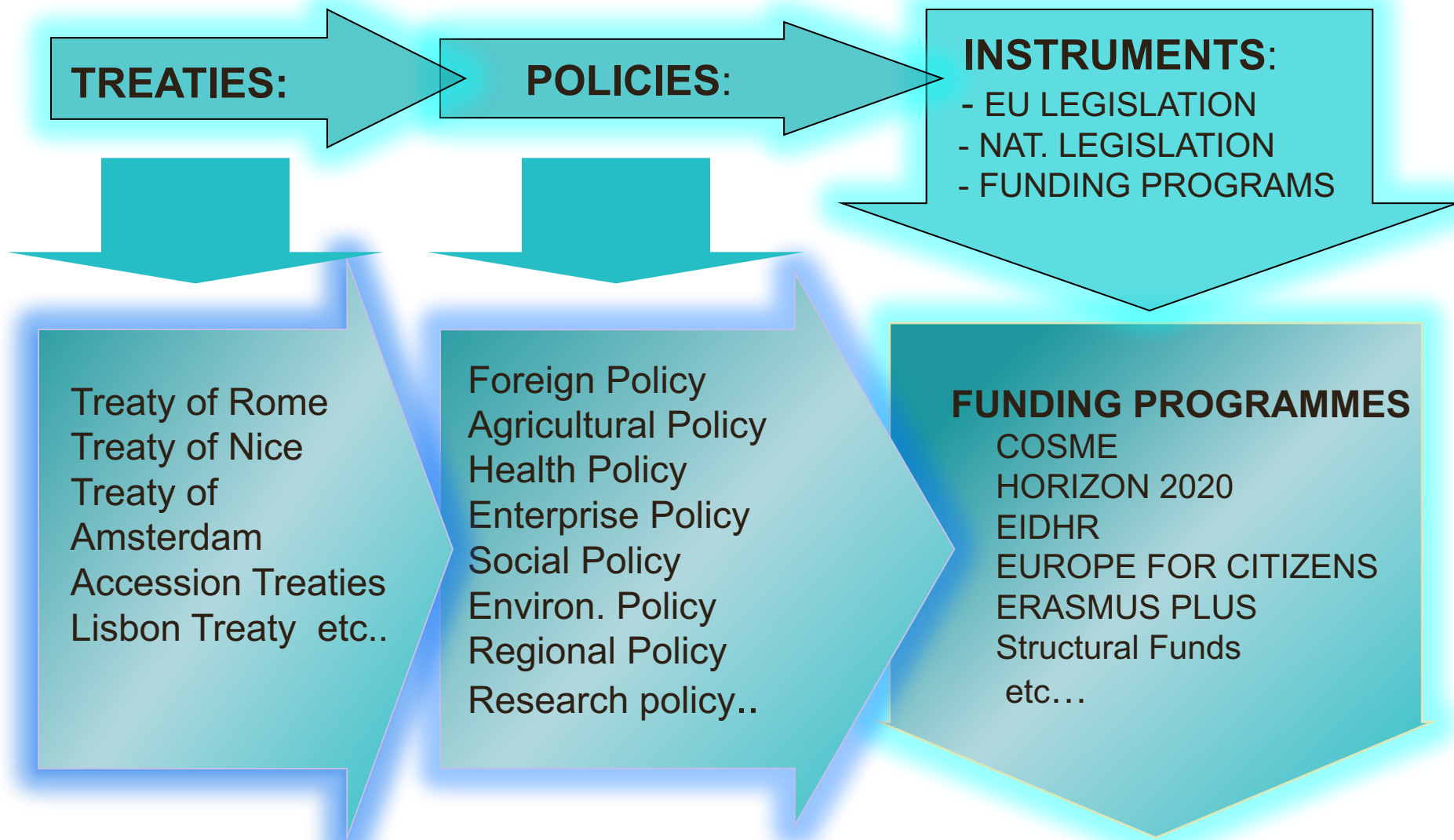
28 (27) Member States and 16 Associated Countries



Associated Countries

- Iceland
- Norway
- Albania
- Bosnia and Herzegovina
- The former Yugoslav Republic of Macedonia
- Montenegro
- Serbia
- **Turkey**
- Israel
- Moldova
- Switzerland
- Faroe Islands
- Ukraine
- Tunisia
- Georgia
- Armenia

The logic of EU funding programmes



THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020

The logo for Horizon 2020 features the word "HORIZON" in a white, sans-serif font, with the letter "O" replaced by a small, detailed globe of the Earth. To the right of "HORIZON" is the year "2020" in the same font. The text is set against a vibrant blue background that depicts a view of the Earth's horizon from space, with a bright light source creating a lens flare effect behind the globe.

What it is about

What is HORIZON 2020

Horizon 2020 focuses on Research and Innovation.

It does not cover, for example, Education or Arts.

It addresses 3 main areas ("Pillars"):

- Technologies to strengthen Industrial Leadership.
- Excellent Science to make European research and innovation system more competitive.
- Societal Challenges, responding to the priorities of the EU2020 Strategy.

The H2020 Structure – 3 Pillars

24%

Leadership in Enabling and Industrial Technologies – LEIT

ICT
Nanotechnologies
Advanced materials
Biotechnology
Advanced Manufacturing
& Processing
Space
The SME Instrument

33%

Excellent Science

ERC
FET
Marie Curie
Research Infrastructures

43%

Societal Challenges

Health and wellbeing
Food
Energy
Transport
Environment
Reflective societies
Secure societies

Spreading excellence and widening participation

Science with and for society

Remember: H2020 is called

Framework Programme for Research and **Innovation**



What is Innovation ?

What is INNOVATION and why is it so important?

- New ideas ?
- New knowledge ?
- New research results ?
- New methodologies ?

Of course, but ...

What is Innovation ?

- Innovation = Invention (research) + **exploitation**
- A new way of doing things, which is commercialized.
- Schumpeter said “an idea that finds its way to the market”

Innovation relates to **Products, Processes,**
or **Business Models**

... or as Steve Jobs said:

"One of the ways that I believe people express their appreciation to the rest of humanity is to make something wonderful and put it out there."

INNOVATION

- Innovation is **not improvement**, it is doing something **different**
- Innovation results in a **significant impact**
- Innovation is **invention applied**
- Innovation can be **disruptive**

Let's look at some examples ...

INNOVATION



**Is this idea from
1956 Innovation?**

No!

**It never went past
this first stage.**

INNOVATION



1979

Was this SONY walkman an Innovation?

Yes!

A completely new concept that was highly successful on all markets!

Was it a Disruptive Innovation?

No!

There was nothing comparable to it before.

INNOVATION



Are MP3 players an Innovation?

Yes!

A new concept (small, light, no moving parts) that is highly successful on all markets!

Was it a Disruptive Innovation?

YES!

It killed the tape-based walkman!

INNOVATION

What is next?



Streaming to mobile devices!

**Disruptive?
At least a serious
threat to MP3 players
but also to CDs.**

The Innovation Chain

Research &
development

Covered by H2020

Prototyping,
'plans' for new
products

Market
development

Market
replication

Research and Innovation

Calls in **Industrial Technologies** and **Societal Challenges** either address

- Research and Innovation (RIA),
- Innovation (IA), or
- Coordination and Support (CSA)

For Innovation calls, the research part has been done previously and some prototype of a certain matureness must exist.

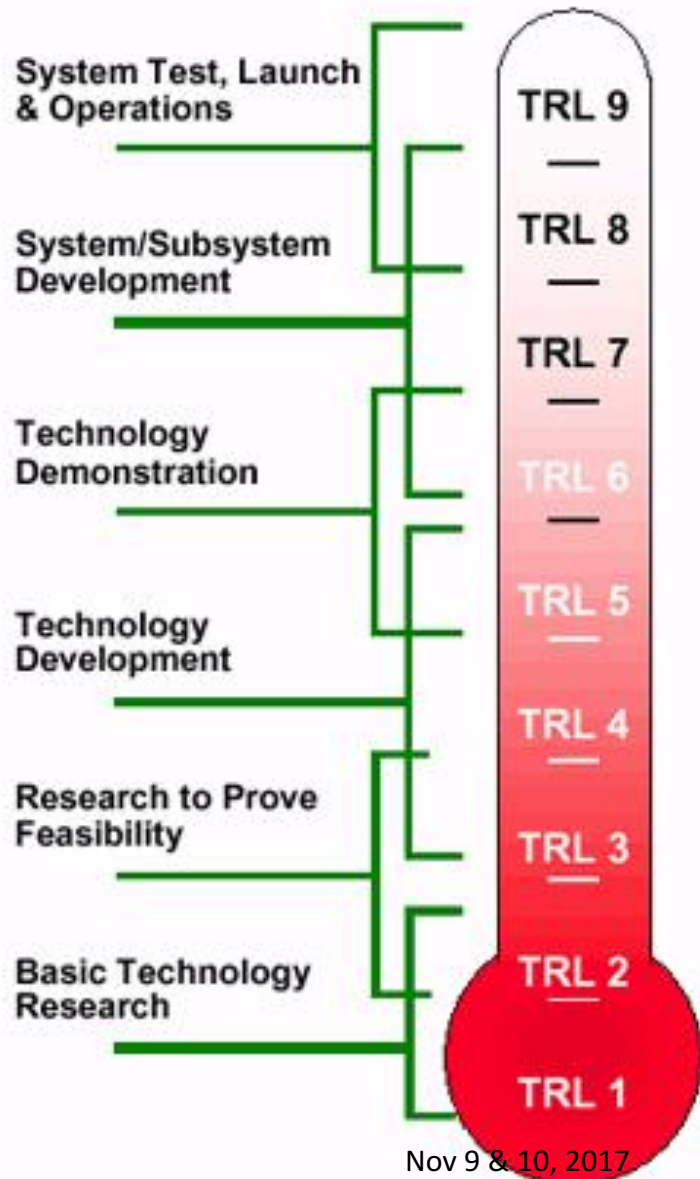
How can we measure such maturity?

Measuring Technology Maturity

Technology Readiness Levels (TRLs)

- The use of TRLs as a measurement of the maturity level of particular technologies is a new development in Horizon 2020.
- TRLs provide a common understanding of a technology development status
- Many of the call topics have a defined TRL at which the implementation of the proposal is intended to start. For example a project has to start at TRL 3 and end at TRL 5.

A measurement of the maturity level of technologies: a new development in H2020



Nov 9 & 10, 2017

TRL9 – actual system proven in operational environment

TRL8 – system complete and qualified

TRL7 – system prototype demonstration in operational environment

TRL6 – technology demonstrated in relevant environment

TRL5 - technology validated in relevant environment

TRL4 – technology validated in LAB

TRL3 – experimental proof of concept

TRL2 – Technology concept formulated

TRL1 - Basic principles observed

Innovation and the Private Sector

To ensure that innovation is happening in H2020

SME participation become obligatory in most projects. Around 20% of the total budget for Societal Challenges and LEITs must go to SMEs.

This is good news for SMEs, of course !

It is also an important message for universities: purely academic consortia in these 2 areas are out !

Work Programmes

What are these Work Programmes and what do they contain?

The Participants Portal:

Where to find them:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/>

HOME

FUNDING OPPORTUNITIES

HOW TO PARTICIPATE

EXPERTS

SUPPORT ▾

Search PP

EU Programmes 2014-2020

Search Topics

Call Updates



Calls



H2020

Research Fund for Coal & Steel

COSME

3rd Health Programme

Consumer Programme

Calls for Proposals




Horizon 2020

- ☐ Future and Emerging Technologies (FET)
- ☐ Marie-Sklodowska-Curie Actions
- ☐ Research Infrastructures
- ☐ **Industrial Leadership**
 - ☐ Leadership in enabling and industrial technologies (LEIT)
 - ☐ Information and Communication Technologies
 - ☐ Nanotechnologies
 - ☐ Advanced materials
 - ☐ Biotechnology

http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html

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 **RESEARCH & INNOVATION** Participant Portal





European Commission > Research & Innovation > Participant Portal > Reference Documents

HOME FUNDING OPPORTUNITIES HOW TO PARTICIPATE PROJECTS & RESULTS EXPERTS SUPPORT LOGIN REGISTER

Reference Documents

Beneficiary Register

 **Work Programmes**

-  2014-15
-  2016-17
-  2018-20
 -  **Main WP**
 1. Introduction 2018-20 >
 2. Future and Emerging Technologies (FETs) 2018-20 >
 3. Marie Skłodowska-Curie actions (MSCA) 2018-20 >
 4. Research infrastructures (including e-Infrastructures) 2018-20 >
 5. Introduction to Leadership in enabling and industrial technologies (LEITs) 2018-20 >
 - 5i. Information and communication technologies (ICT) 2018-20 >
 - 5ii. Nanotechnologies, advanced materials, advanced manufacturing and processing, biotechnology 2018-20 >
 - 5iii. Space 2018-20 >



EN

Horizon 2020

Work Programme 2018-2020

*5.ii. Nanotechnologies, Advanced Materials, Biotechnology and
Advanced Manufacturing and Processing*

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DT-NMBP-02-2018: Open Innovation Test Beds for Safety Testing of Medical Technologies for Health (IA)	12
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DT-NMBP-03-2019: Open Innovation Test Beds for nano-enabled surfaces and membranes (IA)	14
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DT-NMBP-04-2020: Open Innovation Test Beds for bio-based nano-materials and solutions (IA).....	16
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DT-NMBP-05-2020: Open Innovation Test Beds for functional materials for building envelopes (IA)	16
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DT-NMBP-06-2020: Open Innovation Test Beds for nano-pharmaceuticals production (IA)	16
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1.2 MATERIALS CHARACTERISATION and COMPUTATIONAL MODELLING. 16	
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DT-NMBP-07-2018: Open Innovation Test Beds for Characterisation (IA)	17
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DT-NMBP-09-2018: Accelerating the uptake of materials modelling software (IA)	19
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DT-NMBP-11-2020: Open Innovation Test Beds for Materials Modelling (IA)	22
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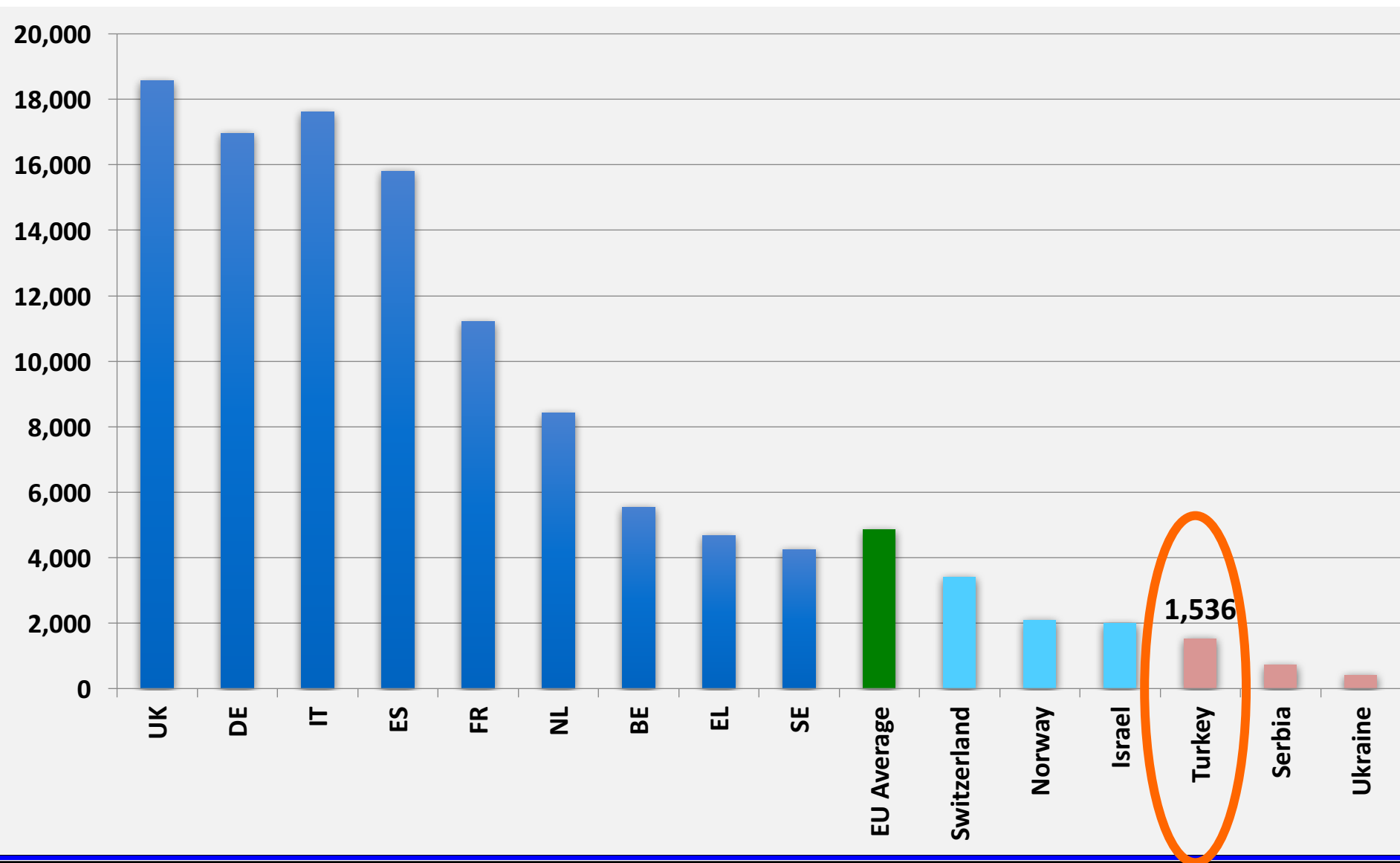
The background of the slide is a deep blue gradient. In the center, there is a glowing horizon line. Above the horizon, a small globe of the Earth is positioned, with bright light rays emanating from behind it, creating a lens flare effect. The text 'HORIZON 2020' is written in large, white, sans-serif capital letters, with the globe acting as the letter 'O' in 'HORIZON'.

The first two years

KEY FACTS AND FIGURES

- Over **76,400 proposals** were submitted in the first two years, requesting a total contribution of €125.4bn.
- Around **9,200 proposals** were retained for funding. The overall success rate was **11.8%**.
- Over **9,000 grant agreements** were signed by 1/9/16, with a budget allocation of over **€15.9bn** funding.

Proposals submitted in the first Two Years



Success Rates

Average for 2014 and 2015: **11.8 %**

Newcomers to H2020: **49%**

The 20% budget target for the funding of SMEs was achieved: **23.7%**



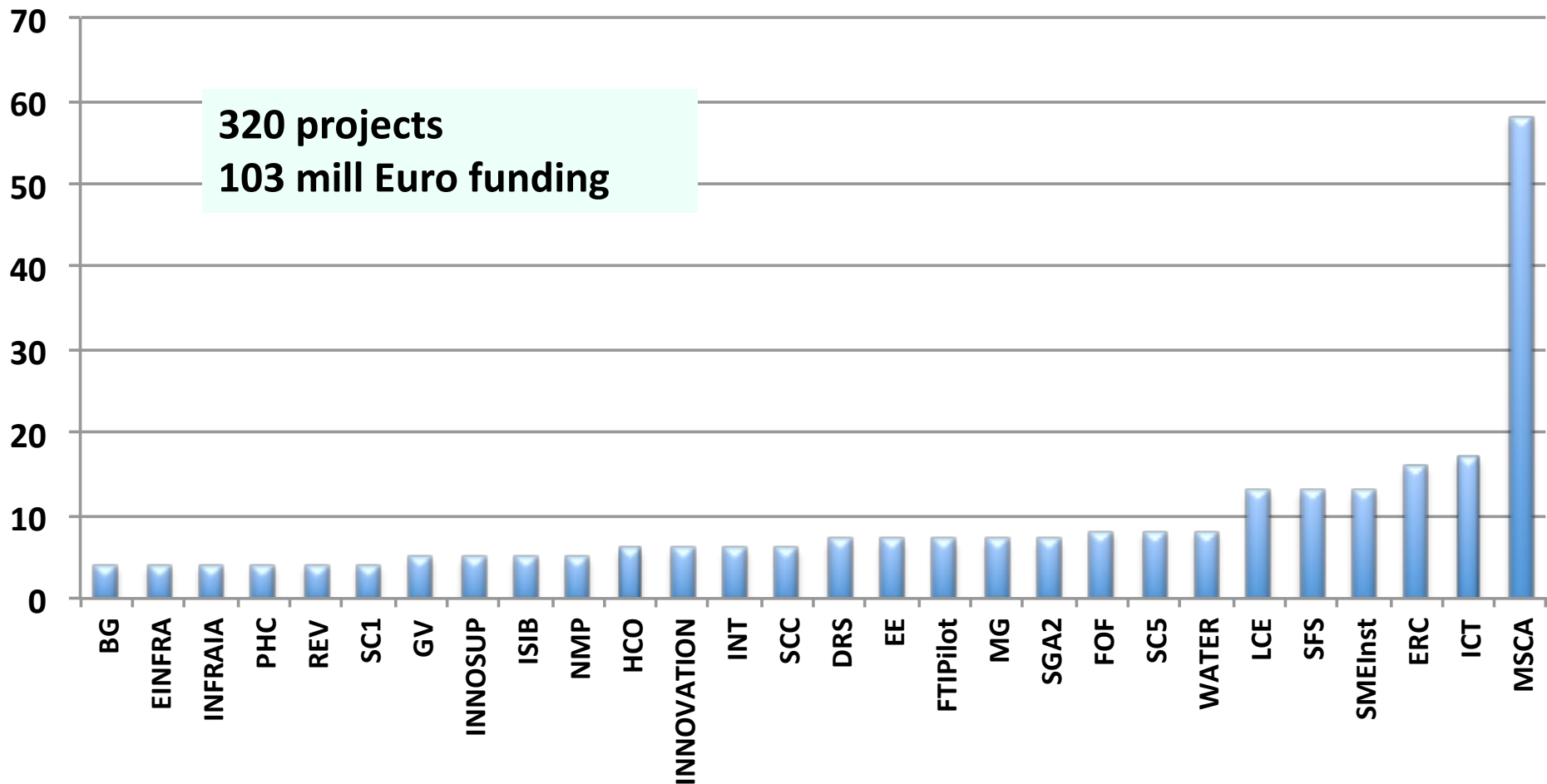
How about Turkey?



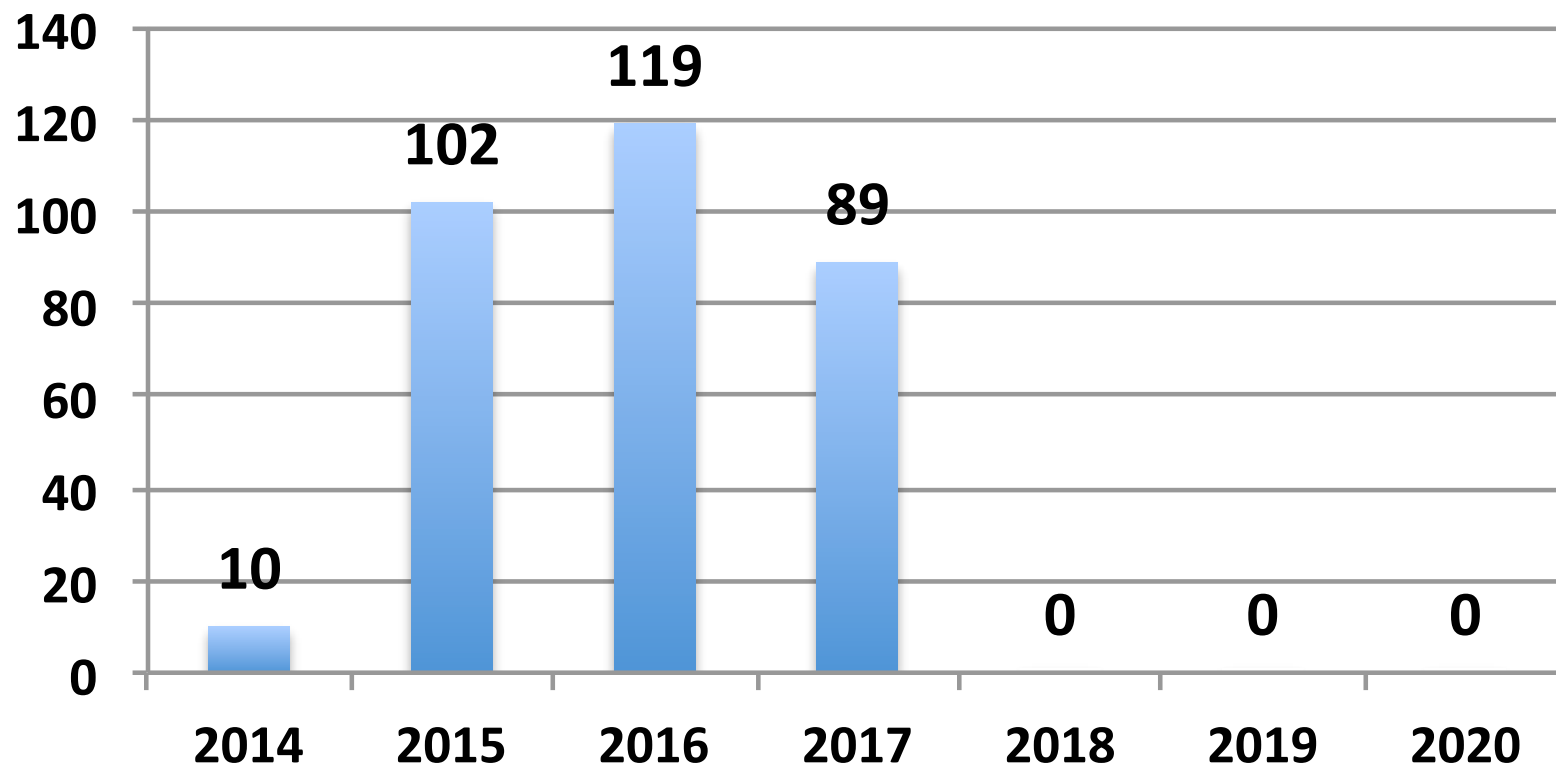
Turkey in H2020

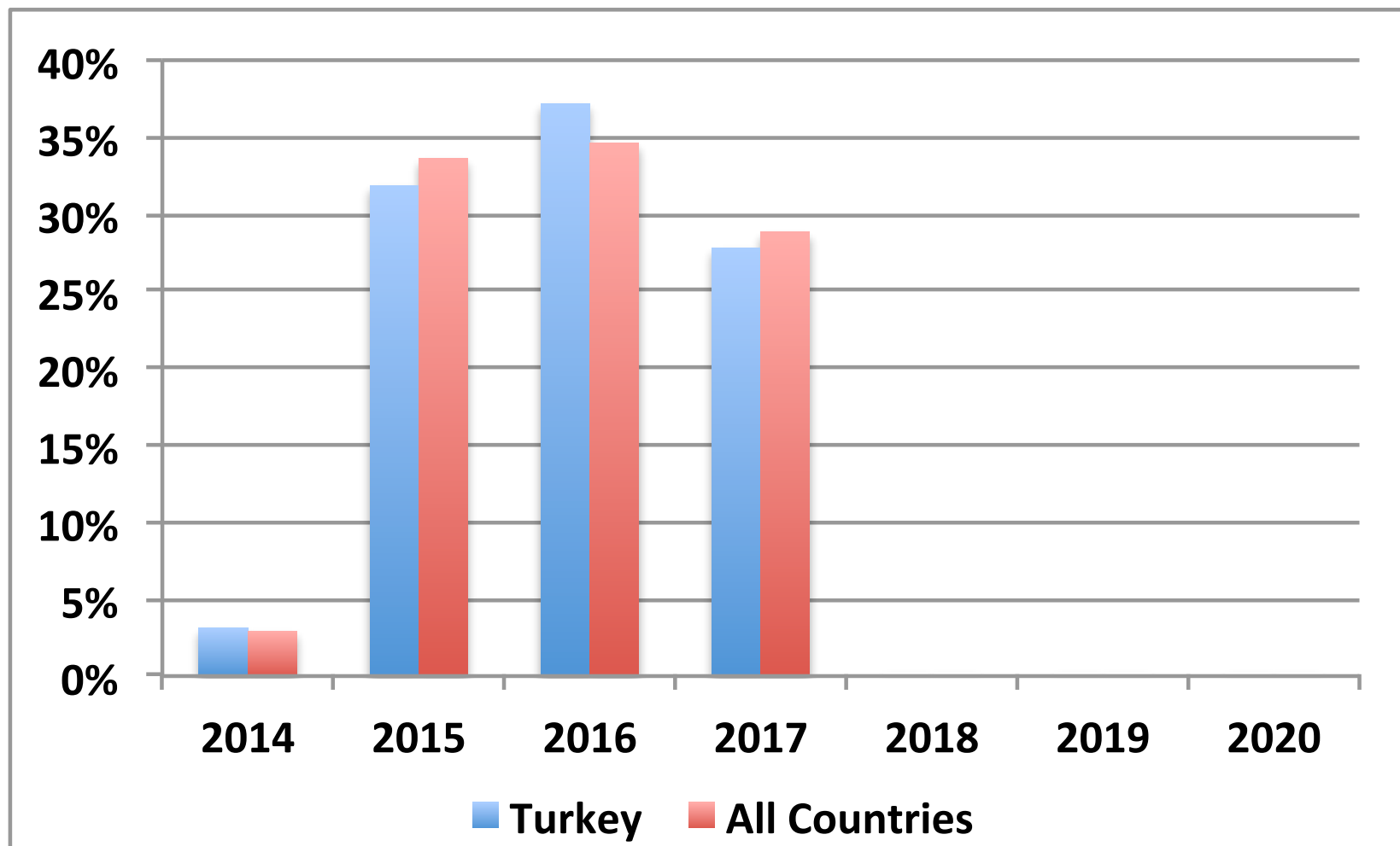
H2020 Project with Turkish Participation (Oct 17)

320 projects
103 mill Euro funding



Turkey: New projects per year





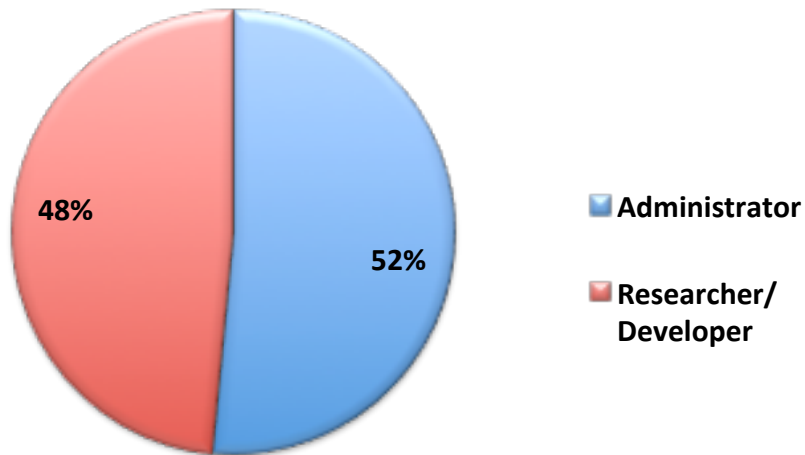
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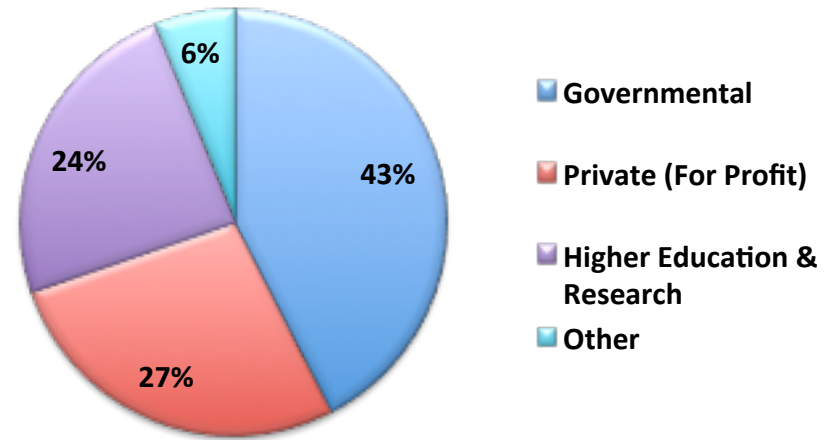
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Our Event today:

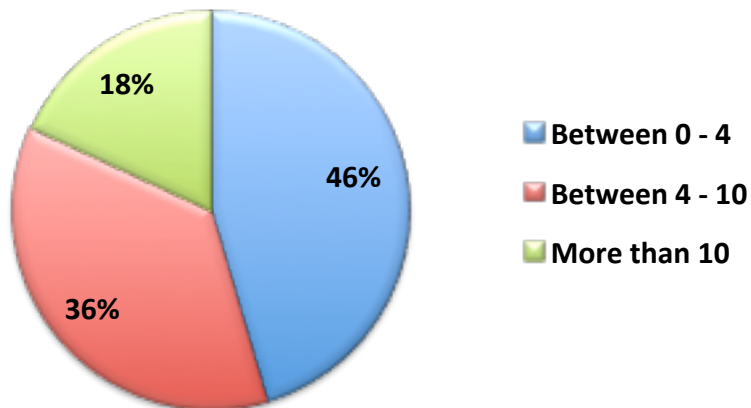
Role in the Organisation



Type of Organisation



For how many years have you been a researcher?



Knowledge about EU Programmes

