



# Introducing COST

NUI Maynooth  
3 December 2015

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# COST

## European CoOperation in Science and Technology

1. COST Introduction and background
2. COST Actions
3. COST in H2020 - changes
4. COST in H2020 – two ways to participate in COST
5. COST in H2020 – submission of proposal and evaluation
6. Conclusion - Q & A



# 1. What is COST?

European **Co**operation in **S**cience and **T**echnology

COST is the oldest and widest European intergovernmental framework for Cooperation in Science and Technology

COST has been supporting the networking of research activities across all 36 Member Countries and beyond for over **40 years**

COST is based on networks called COST Actions. Currently there are over **350** running Actions networking of around **30 000** researchers per year, worldwide.

# COST Mission Statement

COST enables breakthrough scientific and technological developments leading to new concepts and products.

It thereby contributes to strengthening Europe's research and innovation capacities.

technology  
future  
innovation  
inclusion  
inspiration  
science  
concepts



# COST Key Principles

- Inclusiveness and excellence
- Supporting highest quality in science and technology (S&T, including social sciences and humanities)
- Action proposals are S&T-driven (bottom-up)
- Early Career Investigators (formerly Early Stage Researchers) are a key target of COST support (8yrs)
- COST often used to leverage funding from nationally and regionally funded projects

# COST Strengths



COST supports the networking of researchers through science and technology networks called ‘COST Actions’ and is open to:

- Any novel and original idea (innovative)
- All fields of S&T (social sciences and humanities, including interdisciplinary, new and emergent fields)
- All partners (public and private, big and small)
- All career stages (young and senior researchers)
- All countries (small and big, leader and follower countries)

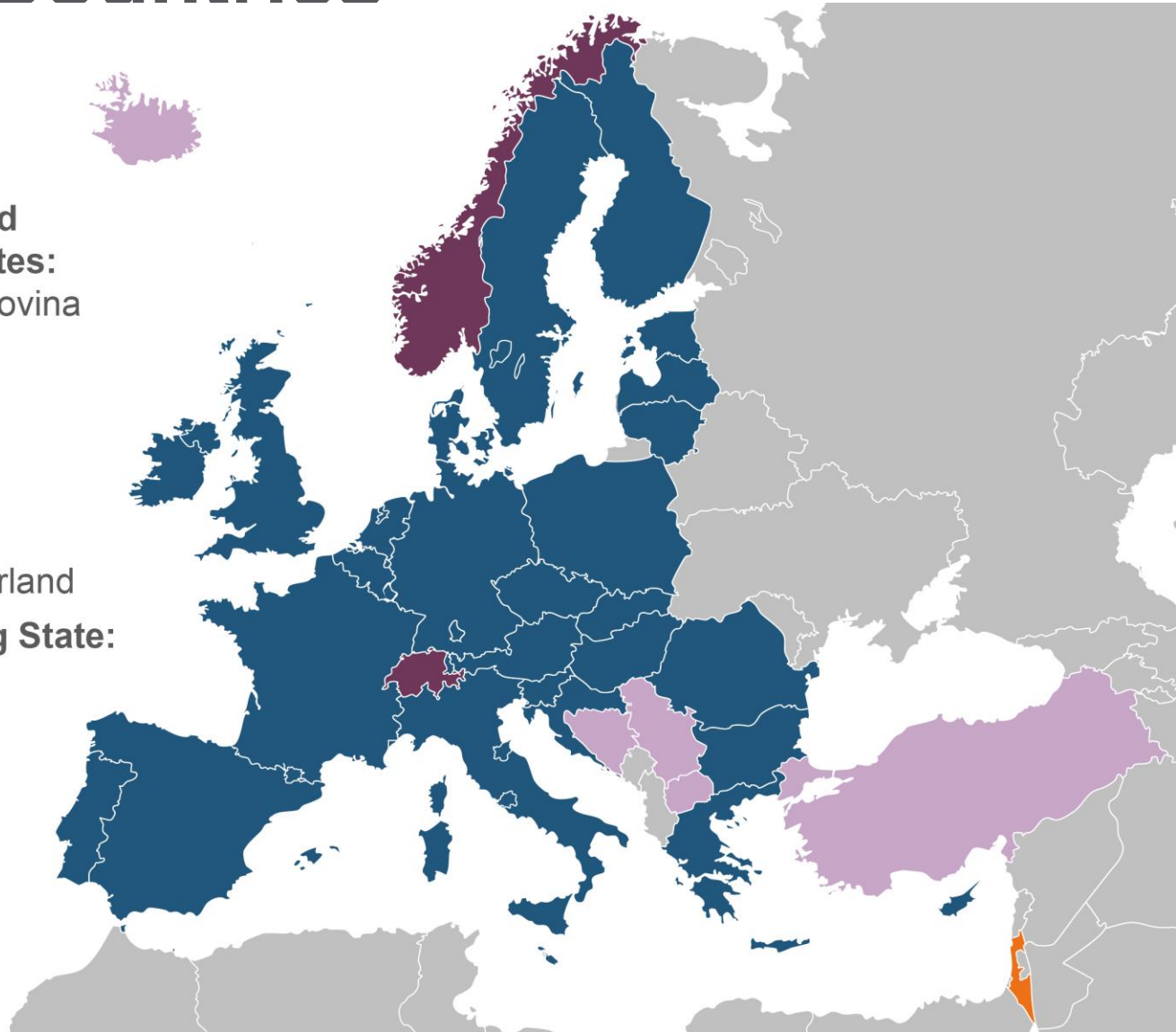
# COST Key Features



- Networking opportunities for researchers
- COST Actions aim primarily at sharing knowledge
- Open to global cooperation on the basis of mutual interest
- Open to all science and technology fields
- Transdisciplinarity particularly valued
- Capacity building
- Lean administration
- Easy implementation
- Easy procedures for joining running Actions

# COST Countries

- **EU 28**
- **EU Candidates and Potential Candidates:**  
Bosnia and Herzegovina  
fYR Macedonia  
Iceland  
Serbia  
Turkey
- **Other Countries:**  
Norway and Switzerland
- **COST Cooperating State:**  
Israel



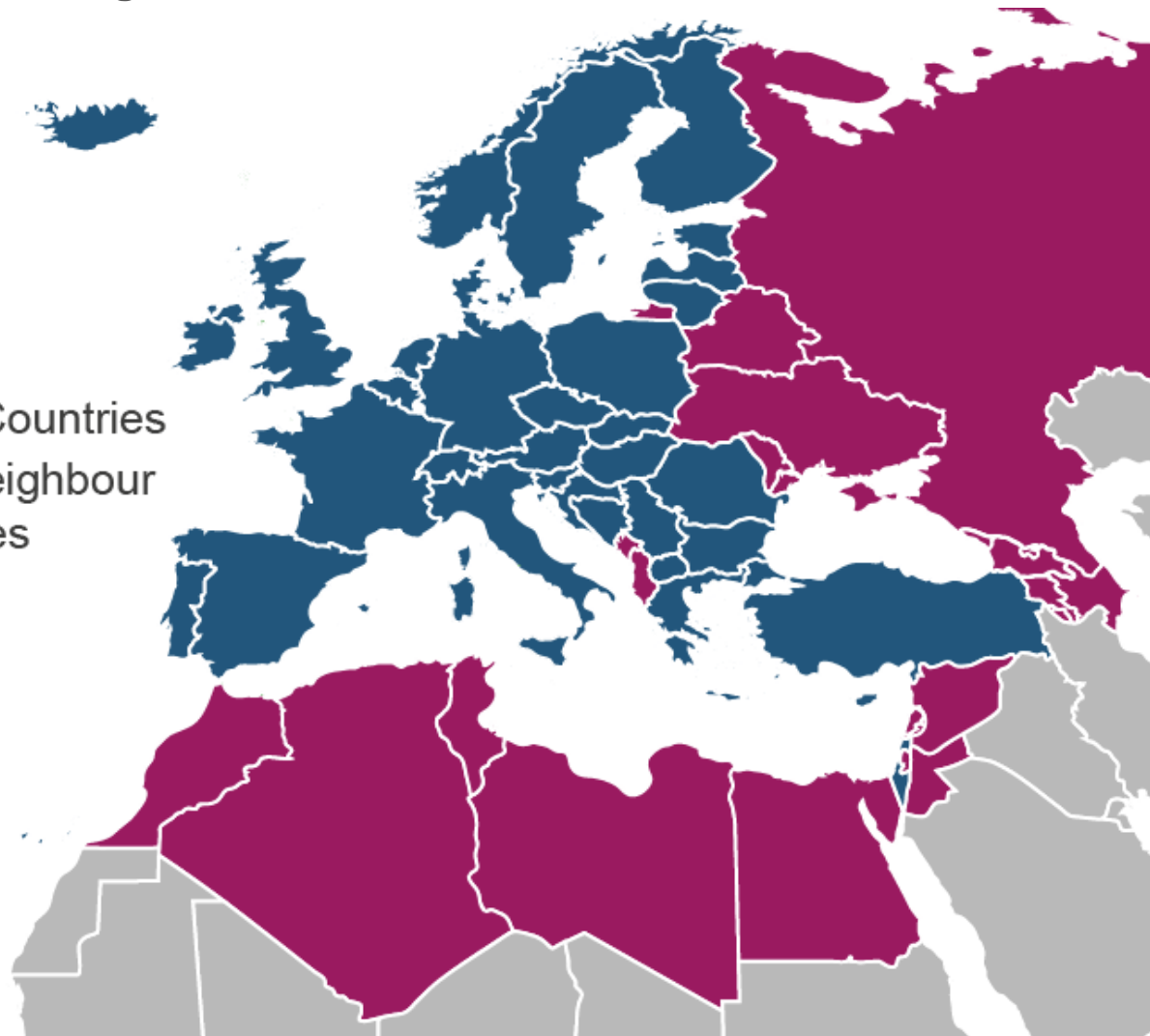


# COST Near Neighbour Countries Participation

206 participations in running COST Actions across 17 countries

- Albania (15)
- Algeria (7)
- Armenia (8)
- Azerbaijan (5)
- Belarus (6)
- Egypt (7)
- Georgia (5)
- Jordan (2)
- Lebanon (5)
- Moldova (5)
- Montenegro (12) full member 2015
- Morocco (13)
- Palestinian Authority (3)
- Syrian Arab Republic (2)
- Russia (51)
- Tunisia (14)
- Ukraine (46)

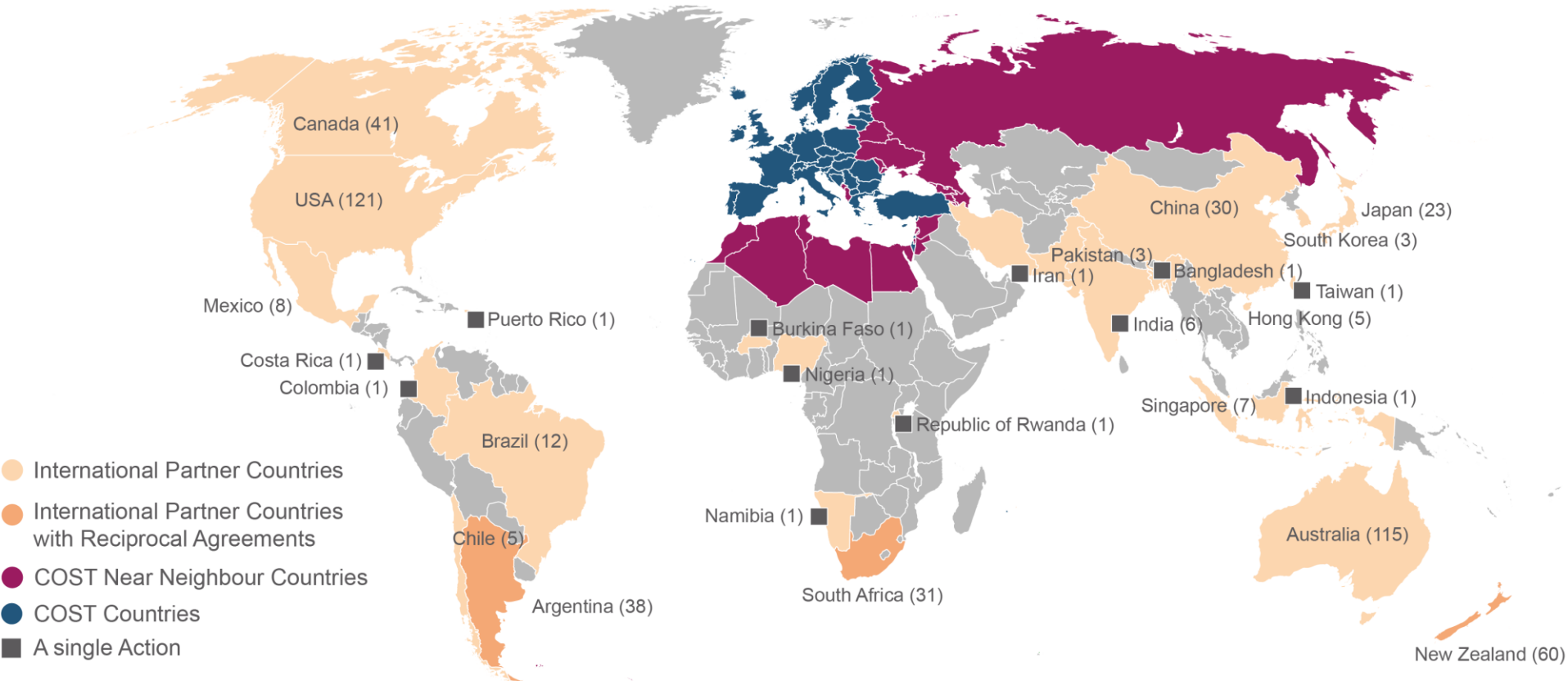
● COST Countries  
● Near Neighbour Countries



March 2014 data

# International Partner Countries

519 participations in running Actions across 27 countries



March 2014 data



## 2. What is a COST Action?

COST Actions are pan-European, bottom-up **science and technology networks** open to researchers from academia and industry or to policy stakeholders, supporting new ideas and knowledge sharing

COST does not fund research itself, but supports networking activities carried out within **COST Actions**.  
Transdisciplinary

Every COST Action lasts for up to **four years** and requires the participation of researchers from at least **5 COST Member Countries**. 130 000 EUR support for a COST Action featuring 20 participating countries on average

# How do COST Actions work?



Scientists and researchers network and collaborate within COST Actions using different networking tools:

- Management Committees
- Working Group Meetings
- Scientific Workshops and Seminars
- Training Schools
- Short-Term Scientific Meetings (STSMs)
- Dissemination and Publications

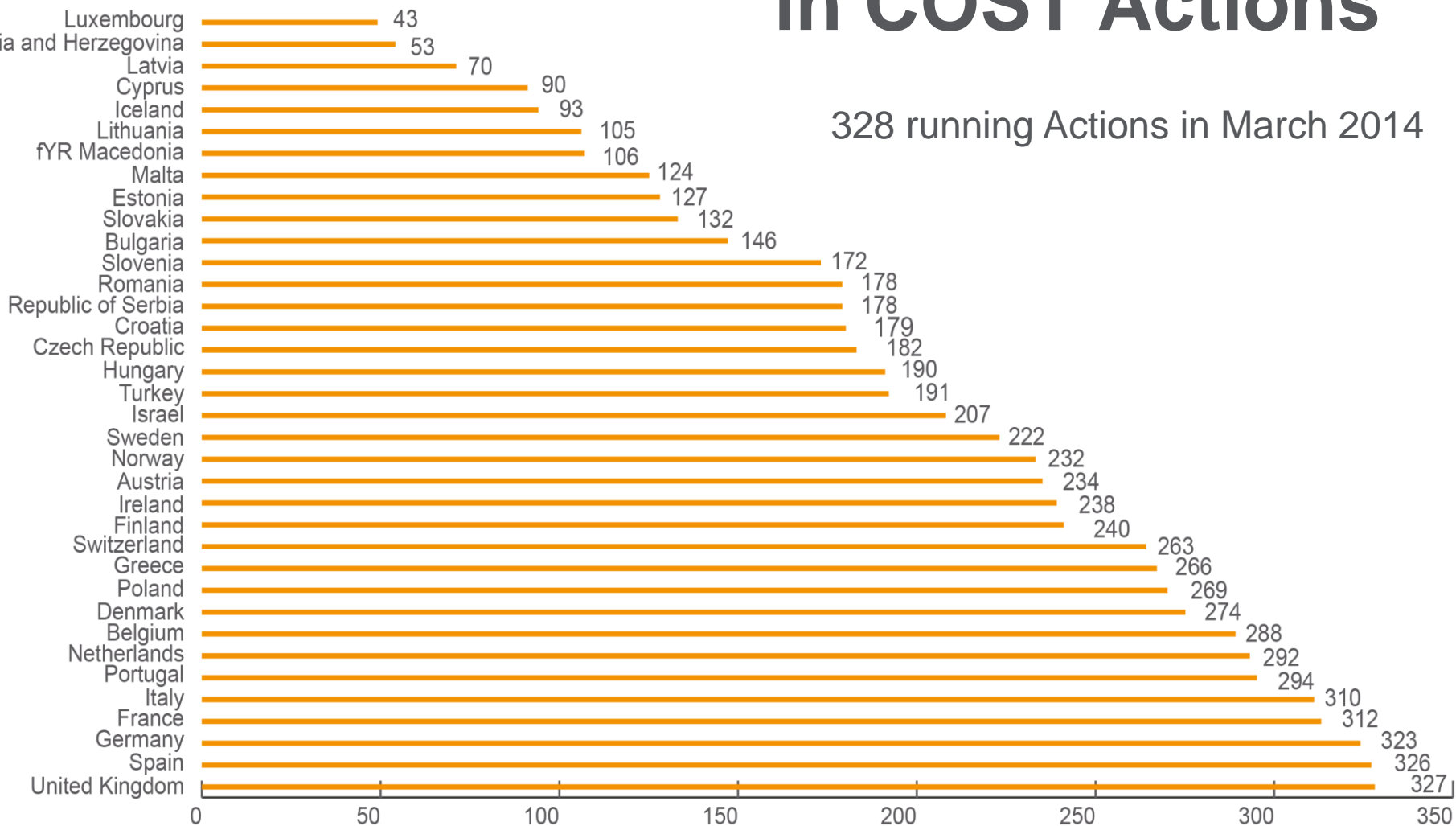
# COST Actions – 2014 Statistics

<b>328</b>	Actions running in 2014
<b>1050</b>	Actions since 1971
<b>&gt; 1297</b>	Scientific workshops and meetings
<b>&gt; 27 000</b>	Workshop and meeting participants
<b>2370</b>	STSMs
<b>3 weeks</b>	Average STSM duration
<b>&gt; 219</b>	Training schools
<b>&gt; 5000</b>	Training school participants

*\*March 2014 data*

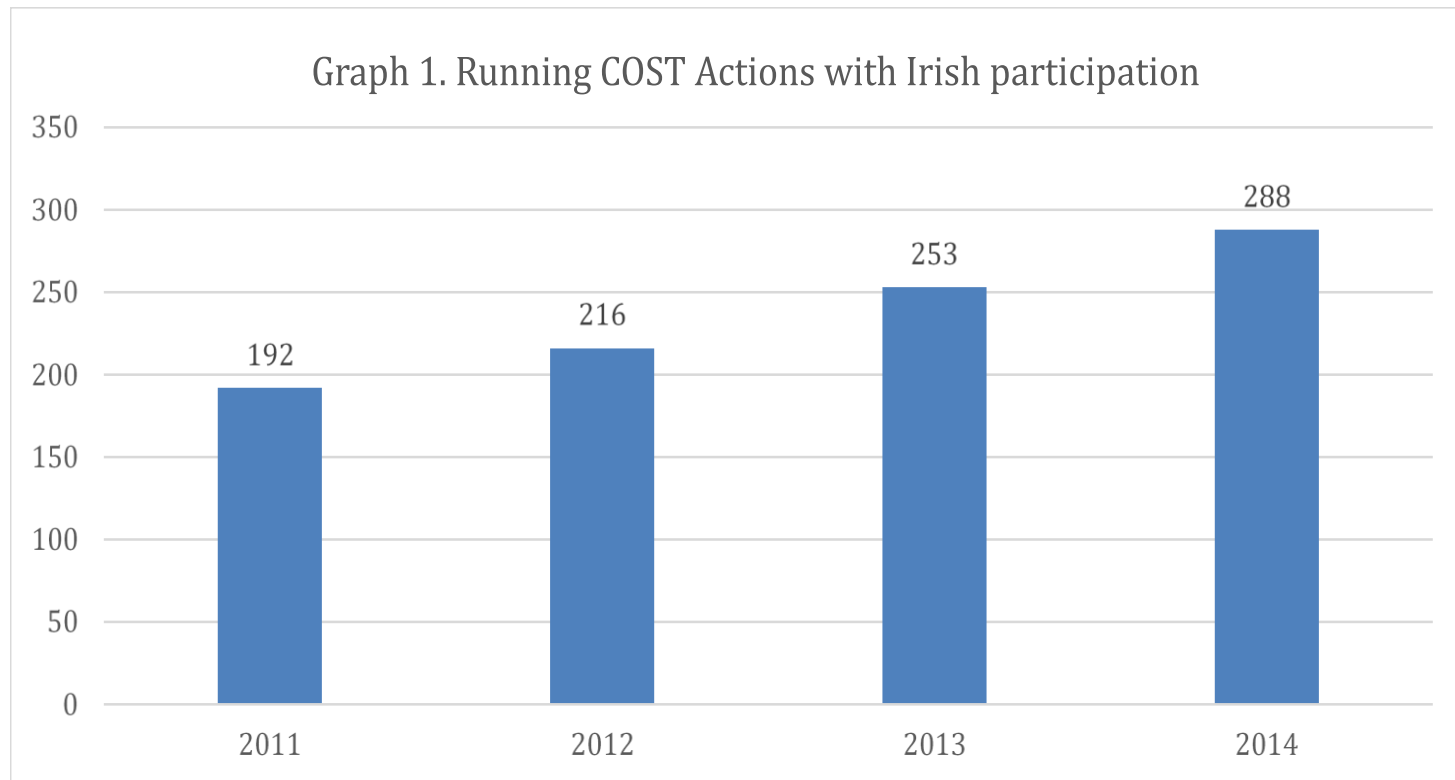
# Country participation in COST Actions

328 running Actions in March 2014



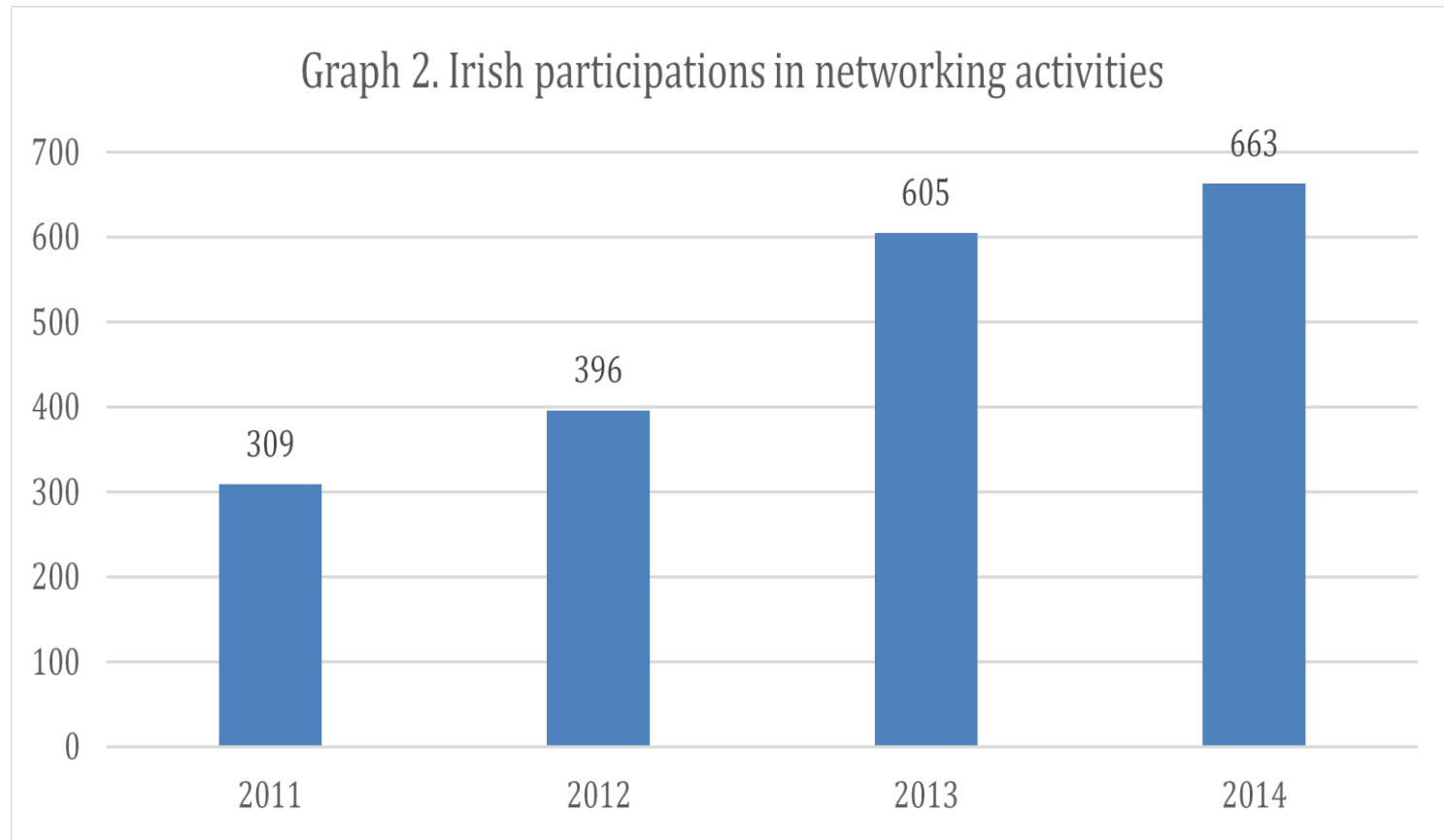
# Ireland – Statistics

## approx 370 running COST Actions in 2014



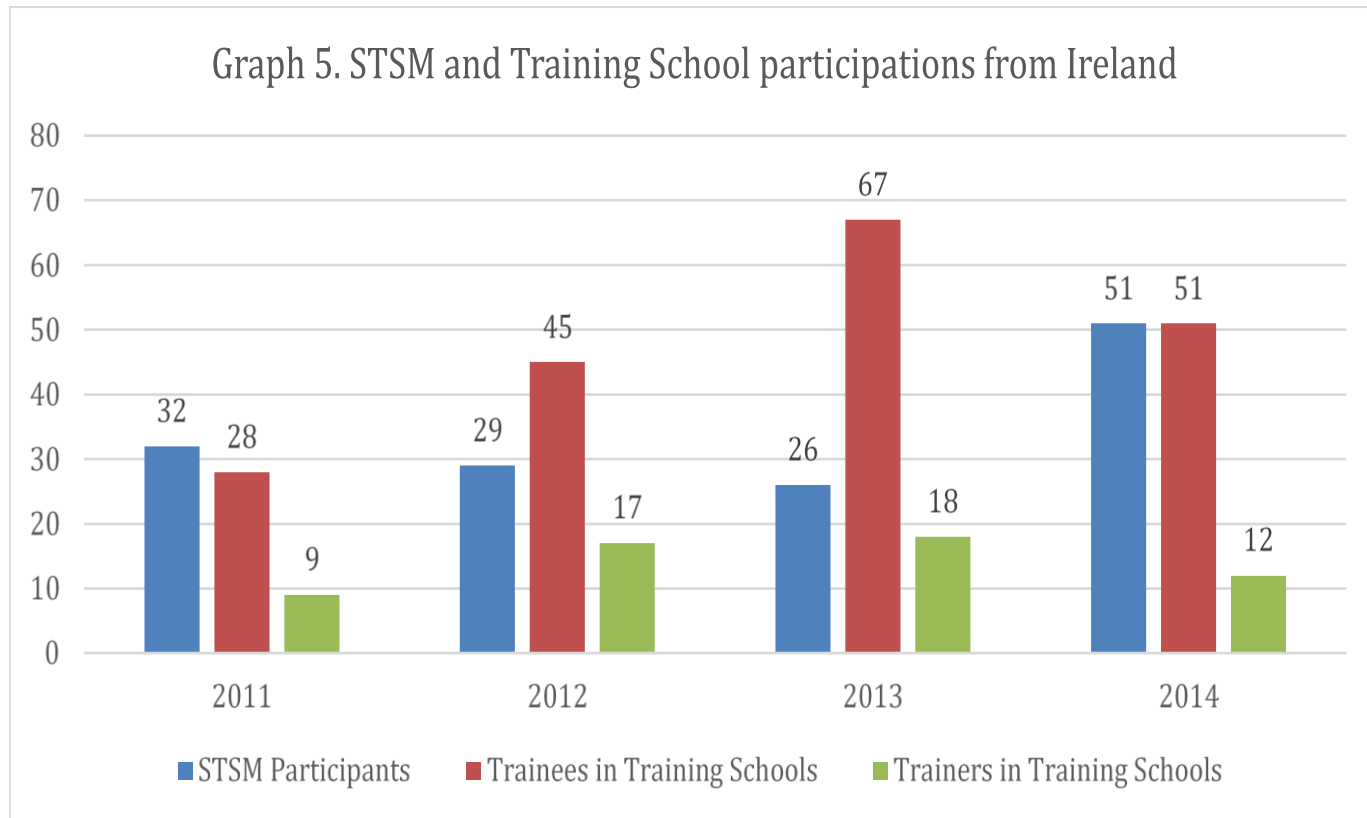
# Ireland - Statistics

## networking participation





# Ireland – Statistics



37 STSMs were held in Ireland



# Current COST Actions with Irish Participation on MCs

BMBS	26	1	CMST	26	1	ESSEM	26	3
FA	20	0	FFP	20	0	ICT	28	1
ISCH	40	4	MPNS	30	1	TUD	21	1
TD	33	3	TN	3	1			

**Total Actions 273 with Irish participation (78%)**

**Actions in 2014 = 463 MC participations in 267 Actions  
(plus 134 as subs to MC)**

Approx 350 Actions ongoing (June 2015)

**NUI Maynooth participation in 16 Actions (June 2015)**



# COST in Numbers

<b>5</b>	The minimum number of partners to start a COST Action
<b>9+1</b>	The number of COST scientific domains (in FP7 up to 2014)
<b>1971</b>	The year COST was constituted
<b>30 000</b>	The number of researchers benefiting from COST Actions every year
<b>130 000</b>	The average annual budget of a COST Action (EUR) averaging 20 countries
<b>250 million</b>	The COST budget over the 7 years of FP7 (EUR)
<b>5 billion</b>	The amount of national research funding leveraged by COST over 7 years of FP7 (EUR)

*\*March 2014 data*

### 3. COST in Horizon 2020

#### FP7

55 billion euro

250 million euro

ESF operating agent

(as COST not a legal entity)

COST Secretariat

COST Office in BxIs

Domain Committees

Reciprocal Agreements

TransDomain Pilot

#### Horizon 2020

budget 70.2 billion euro

COST budget 300 million euro

COST Association

COST Association

COST Administration in BxIs

Review Panels with one  
Scientific Committee

for review

for review





# 3. COST in Horizon 2020

**300 million**

**COST budget in Horizon 2020**

Societal Challenges III

6. Inclusive, innovative and secure societies

Spreading Excellence and Widening Participation

**COST Association**



# Spreading Excellence and Widening Participation

## Inclusiveness leading to scientific excellence

- Encouraging and enabling researchers from less research-intensive countries across Europe to set up or join COST Actions
- Counterbalancing research communities' unequal access to knowledge infrastructures, funding and resources distribution

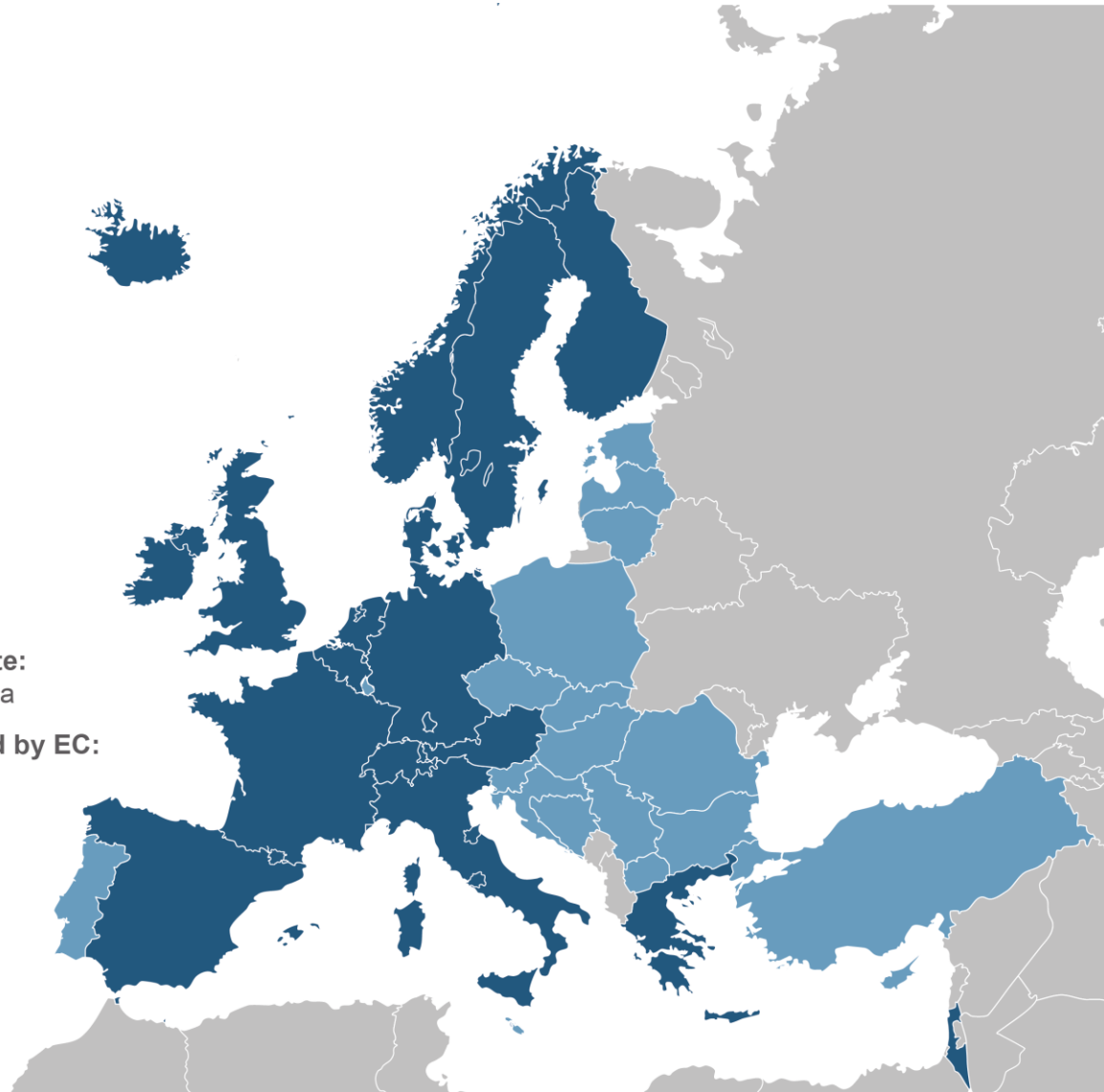
# COST “inclusiveness” Countries

- **EU 13:**  
Bulgaria  
Croatia  
Cyprus  
Czech Republic  
Estonia  
Hungary  
Latvia  
Lithuania  
Malta  
Poland  
Romania  
Slovakia  
Slovenia

- EU Candidates:**  
FYR Macedonia  
Republic of Serbia  
Turkey

- EU Potential Candidate:**  
Bosnia and Herzegovina

- EU Countries targeted by EC:**  
Luxembourg  
Portugal



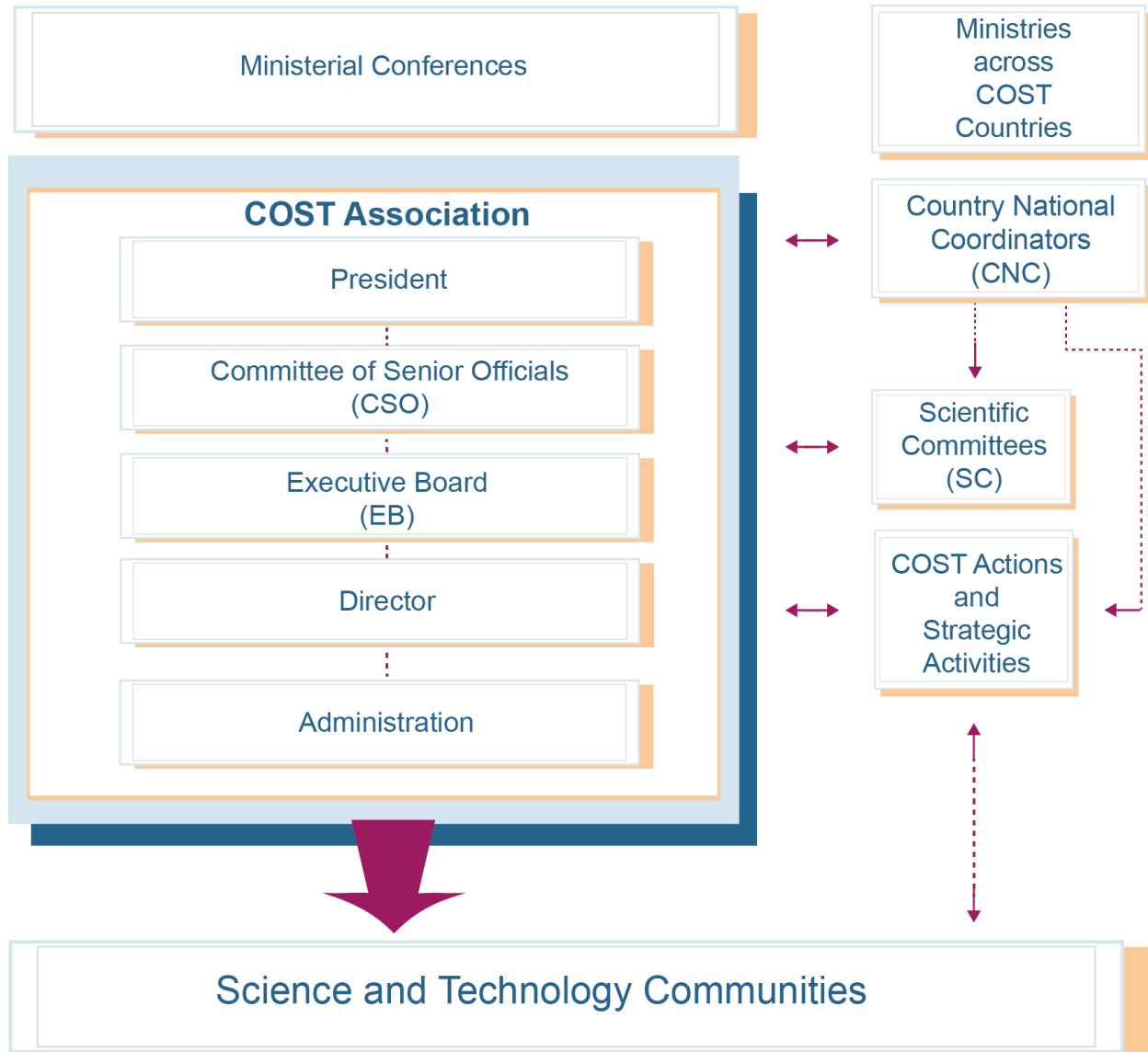


# Specific inclusiveness-oriented activities

- Raising awareness at various events
- Seeking target countries' full involvement by organising:
  - COST Info Days
  - Strategic events
  - Conferences
  - Workshops
- Seeking researchers' full involvement by taking up:
  - Partner roles in preparing proposals for COST Actions
  - Leadership roles in COST Actions
  - Initiator roles in scientific committees
  - Grant Holder role



# COST Organisation





## 4. COST in Horizon 2020

### Two ways to participate in a COST Action

#### 1. Join an existing COST Action

- Look at Actions on COST website [http://www.cost.eu/COST\\_Actions](http://www.cost.eu/COST_Actions)
- Look at Management Committee for a particular COST Action
- (MC members decide on participation in the working groups)
- If no Irish involvement on MC, contact Rita Ward (MoU needs to be signed, and MC member nominated)
- If one from Ireland on MC, a second person or substitute can be nominated (contact Rita Ward) **OR** if only want to participate in the working groups within the COST Action (contact the MC person direct)
- If two from Ireland on MC then contact these direct in order to participate in the working groups within the particular COST Action



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COST Home

- About COST
- COST Actions**
- Participate
- Events
- Media
- e-COST



Home | COST Actions | Earth System Science and Environmental Management (ESSEM) | Actions | ES1401

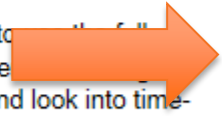
- All Actions
- Biomedicine and Molecular Biosciences (BMBS)
- Chemistry and Molecular Sciences and Technologies (CMST)
- Earth System Science and Environmental Management (ESSEM)**
  - In Detail
  - Actions**
- Food and Agriculture (FA)
- Forests, their Products and Services (FPS)
- Individuals, Societies, Cultures and Health (ISCH)
- Information and Communication

### ESSEM COST Action ES1401

## Time Dependent Seismology (TIDES)

Descriptions are provided by the Actions directly via e-COST.

Seismology is undergoing a revolution, as it is starting to use much longer length records of seismic events and background ambient noise, not only beyond still-life snapshots of the interior of the Earth, and look into time-dependent changes of its properties. Data availability has grown dramatically with the expansion of seismographic networks and data centers, so as to enable much more detailed and accurate analyses. The Action aims at structuring the EU seismological community to enable development of data-intensive, time-dependent techniques for monitoring Earth active processes (e.g., earthquakes, volcanic eruptions, landslides, glacial earthquakes) as well as oil/gas reservoirs. TIDES will network European laboratories in Academia and Industry with complementary skills and will organize a series of workshops and advanced schools to



### Earth System Science and Environmental Management COST Action ES1401

- Description
- Parties
- Management Committee



### General Information\*

Chair of the Action:  
[Dr Andrea MORELLI](#) (IT)

Vice Chair of the Action:  
[Prof Jean-Paul MONTAGNER](#) (FR)

Science officer of the Action:  
[Dr ...](#)



Home | COST Actions | Earth System Science and Environmental Management (ESSEM) | Actions | ES1401 | Management Committee

- ▶ All Actions
- ▶ Biomedicine and Molecular Biosciences (BMBS)
- ▶ Chemistry and Molecular Sciences and Technologies (CMST)
- ▶ **Earth System Science and Environmental Management (ESSEM)**
  - In Detail
  - **Actions**
- ▶ Food and Agriculture (FA)
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- ▶ Individuals, Societies, Cultures and Health (ISCH)
- ▶ Information and Communication Technologies (ICT)
- ▶ Materials, Physics and Nanosciences (MPNS)
- ▶ Transport and Urban (TUD)
- ▶ Trans-Domain Proposals



## ESSEM COST Action ES1401 Management Committee

<b>MC Chair</b>	▶ Dr Andrea MORELLI (IT)
<b>MC Vice Chair</b>	▶ Prof Jean-Paul MONTAGNER (FR)


■ Data registration in e-COST pending subject to online registration and nomination acceptance by nominee.

### COST Participants

Country	MC Member
Austria	▶ Prof Götz BOKELMANN
Bulgaria	▶ Dr Gergana GEORGIEVA
Czech Republic	▶ Dr Jaroslava PLOMEROVA
France	▶ Prof Jean-Paul MONTAGNER
France	▶ Prof Michel CAMPILLO
Germany	▶ Prof Heiner IGEL
Ireland	▶ Prof Christopher BEAN
Italy	▶ Dr Lucia ZACCARELLI
Luxembourg	▶ Dr Adrien OTH
Malta	▶ Dr Pauline GALEA
Malta	▶ Dr Matthew AGIUS
Netherlands	▶ Prof Jeannot TRAMPERT

**Earth System Science and Environmental Management COST Action ES1401**

- ▶ Description
- ▶ Parties
- ▶ **Management Committee**



**General Information\***

**Chair of the Action:**  
[Dr Andrea MORELLI \(IT\)](#)

**Vice Chair of the Action:**  
[Prof Jean-Paul MONTAGNER \(FR\)](#)

**Science officer of the Action:**  
[Dr Deniz KARACA](#)

**Administrative officer of the Action:**  
[Ms Tania GONZALEZ OVIN](#)

**Downloads\***

Action Fact Sheet  
[Download AFS as .RTF](#)

Memorandum of Understanding  
[Download MoU as PDF](#)

# 4. COST in Horizon 2020

## Two ways to participate in a COST Action

### 2. Submit a proposal for a COST Action

- Online submission
- Provisional template available at [http://www.cost.eu/participate/open\\_call](http://www.cost.eu/participate/open_call)
- The new Proposal Template (in electronic format) and the Guidelines for submitting COST Action proposals and evaluation criteria are available on website, submit on-line
- 2 collection dates per year – previously March and September
- EI Coordination support up to 3,000 euro available <http://www.horizon2020.ie/who-can-help/financial-assistance/>



# The “Open Call” System (FP7)

- “Open Call” = Thematically open (introduced in March 2006) – Domain changed in H2020 to OECD scientific fields
  - Encourages interdisciplinary proposals
  - Improves transparency
  - Ensures quality
  - Furthers competitiveness
- Emphasis on Early Career Investigators <8yrs (previously early stage researchers): their joint efforts bring improved recognition
- Selection criteria are public
- Specific collection dates ( two i.e. end March/September, 26 September 2014 postponed)
- 2-stage process / peer reviewed – changed in H2020
- Successful COST Actions proposals can expect to start activities within 9 months after the collection date

# 5. COST in H2020

## New submission and evaluation procedure

- **One stage submission process** (15 pages max)
- Open Call System – Collection date 24<sup>th</sup> March 2015 (prob 9 February 2016)
- [http://www.cost.eu/participate/open\\_call](http://www.cost.eu/participate/open_call)
- **Keywords important**, OECD scientific fields will be used for categorisation
  
- **Irish Coordinators can apply for financial support of up to a max of 3,000 euro for the preparation of a proposal for a COST Action. See coordinator support form at <http://www.horizon2020.ie/who-can-help/financial-assistance/>**
  
- **Two step evaluation process**
- **Step 1 – Evaluation: S&T excellence and implementation by External Experts**
- (anonymously and remotely evaluated by 3 External Experts taken from COST database)
  
- **Step 2 – Revision: Quality check and resolution of discrepancies by the Review Panels**
- The Ad Hoc Review Panels identify the top 10% proposals from those that are above the threshold after validation of their consensus and marks.
- (up to 3 experts per scientific field based on OECD (6 fields) per country, 2 year mandate).
  
- **To become an external evaluator and for possible nomination to the Review Panel, must register on the COST Database at <http://www.cost.eu/participate/experts>**



# Submission Process

## Single stage submission process (15 pages max)

Open Call System – Collection date 24<sup>th</sup> March and 8<sup>th</sup> September 2015  
(9<sup>th</sup> February 2016)

[http://www.cost.eu/participate/open\\_call](http://www.cost.eu/participate/open_call)

**Keywords important** - OECD scientific fields will be used for categorisation

## Criteria

- **S & T Excellence**
- **Impact**
- **Implementation**

**65 marks allocated, threshold is 45 marks**

Mention gender balance and early career investigators

should involve pan-European partners

## Financial assistance

financial support of up to a max of 3,000 euro is available for the preparation of a proposal for a COST Action. See coordinator support form at

<http://www.horizon2020.ie/who-can-help/financial-assistance>





# Submission – OECD Fields

- Natural Sciences
- Engineering and Technology
- Medical and Health Sciences
- Agricultural Sciences
- Social Sciences
- Humanities



# Submission – OECD Fields

- **Natural Sciences**
  - Mathematics
  - Computer and information sciences
  - Physical sciences
  - Chemical sciences
  - Earth and related environmental sciences
  - Biological sciences
  - Other natural sciences

# Submission - OECD Fields

- **Engineering and Technology**
  - Civil engineering
  - Electrical, electronic and Information engineering
  - Mechanical engineering
  - Chemical engineering
  - Material engineering
  - Medical engineering
  - Environmental engineering
  - Environmental biotechnology
  - Industrial biotechnology
  - Nano-technology
  - Other engineering technologies



# Submission - OECD Fields

- **Medical and Health Sciences**
  - Basic medicine
  - Clinical medicine
  - Health sciences
  - Medical biotechnology
  - Other medical sciences



# Submission - OECD Fields

- **Agricultural Sciences**
  - Agriculture, forestry and fisheries
  - Animal and dairy science
  - Veterinary science
  - Agricultural biotechnology
  - Other agricultural sciences



# Submission - OECD Fields

- **Social Sciences**
  - Psychology
  - Economics and Business
  - Educational sciences
  - Sociology
  - Law
  - Political science
  - Social and economic geography
  - Media and communications
  - Other social sciences

# Submission - OECD Fields

- **Humanities**

- History and archaeology
- Languages and literature
- Philosophy, ethics and religion
- Arts (arts, history of arts, performing arts, music)
- Other humanities

# Evaluation Process Step 1

## Remote evaluation using the following criteria:-

The identity of the Main Proposer and of the network of proposers will be kept anonymous, and evaluated by external experts **(threshold 45 marks)**

### **S&T EXCELLENCE (25 marks)**

- Soundness of the challenge (wow factor)
- Progress beyond the state-of-the-art and innovation potential (why COST, why now)
- Added value of networking (how COST will leverage existing activities and make research area “bloom“)

### **IMPACT (20 marks)**

- Scientific, technological and/or socio-economic impact (short and long term impacts)
- Measures to maximise impact
- Level of risk and level of potential innovation/breakthroughs (wide reaching effect, impact on industry(?) H2020 funding(?))

### **IMPLEMENTATION (20 marks)**

- Coherence and effectiveness of the work plan (describe planned activities “COST tools“)
- Appropriateness of management structures and procedures (Core Executive Group, WGs organised around topics, designed to include all members)
- Network as a whole (deliverables: what will COST be able to put its name to?)



# Evaluation Process Step 2

## Quality check and resolution of discrepancies by the Review Panels

- Ad Hoc Review Panels will be established every Collection Date based on the number and topics of received proposals
- Composed of a pool of active scientists nominated by the COST National Coordinator and registered on the COST database
- up to 3 experts per scientific field based on OECD (6 fields) with a mandate of 2 years
- Ad Hoc Review Panels identify the top 10% proposals from those that are above the threshold (45 marks) after validation of their consensus and marks
- Review Panels will check the quality of the independent External Expert evaluation outcome and resolving potential differences in their opinions
- Prepare a list of the top ranked proposals with their validated consensus report and marks for examination and selection by the Scientific Committee

# Evaluation Process Step 3

## Selection by Scientific Committee

- Scientific Committee composed by one high-level expert per COST country
- receives from each Review Panel the list of the top 10% proposals as input
- selects the top ranked proposals from each Review Panel (using the COST strategic criteria and based on how they respond to the need for a balanced portfolio of running COST Actions)
- Submits the final number of selected proposals to the CSO for approval
- The final number of proposals to be approved will depend on the budget available at each call

## Final step – Approval of Actions by CSO

# Conflict of Interest

Cases where a position is incompatible with evaluation, selection and approval steps

Steps	Main proposer and network	Independent External Expert	Review Panel Member	Scientific Committee Member
Step 1 evaluation external experts	X		X	X
Step 2 Revision Review Panels	X	X		X
Step 3 Selection Scientific Committee	X	X	X	
Final Approval CSO	X	X	X	X

**Incompatibilities X. Review Panel members cannot participate in any approved Action of the collection date where they were involved in Step 2**

# Conflict of Interest

Cases where a position is incompatible with monitoring and final assessment procedures

Procedure	Action MC Chair, Vice- Chair, Member	Review Panel Member	Scientific Committee Member
Monitoring	X	X	X
Final Assessment	X	X	X

## Incompatibilities X

As a principle CNC and Scientific Committee members, as well as CSO members cannot participate in any Action



# Early results

- OC-2015-1 collection date 24<sup>th</sup> March
  - 397 proposals submitted (14 Irish)
- OC-2015-2 collection date 8<sup>th</sup> September
  - 260 proposals submitted (15 Irish)
- OC-2016-1 collection date 9<sup>th</sup> February
- It is expected the time from submission to approval to be reduced to approx. 5 months



## 6. COST conclusion

### Benefits of COST participation

- development of international networks
- participation in leading edge research
- early access to developing technologies
- priming participants to undertake research in the EU Framework and other International programmes

[http://www.cost.eu/participate/open\\_call](http://www.cost.eu/participate/open_call)



# COST Contacts

**COST Office** – European Cooperation in Science and Technology  
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**[www.cost.eu](http://www.cost.eu)**

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<http://www.facebook.com/COST.Programme>



[www.youtube.com/user/COSTOffice](http://www.youtube.com/user/COSTOffice)



[www.twitter.com/COSToffice](http://www.twitter.com/COSToffice)



[www.linkedin.com/company/cost-office](http://www.linkedin.com/company/cost-office)

# Questions?

