



Growing
ideas
through
networks

COST

European Cooperation in Science and Technology

Introduction to the COST Framework Programme



Funded by the Horizon 2020 Framework Programme
of the European Union

Outline

- What is COST and how does it work?
- What are the COST Actions and how to participate in them?
- How to prepare a successful proposal?

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What is COST and how does it work?



What is COST?

COST (CO-operation in Science and Technology) is the longest-running European framework supporting cooperation among researchers, engineers and scholars by enabling them to jointly develop their own ideas and new initiatives across all fields in science and technology, including social sciences and humanities.

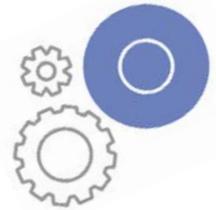
COST Features

- One networking instrument: the Action
- Open participation (involve all stakeholders, type of institutions, career levels, countries, at any time)
- Bottom-up approach (researcher driven, any topic/ multiple topics)
- Flexible (adaptable research and activities)

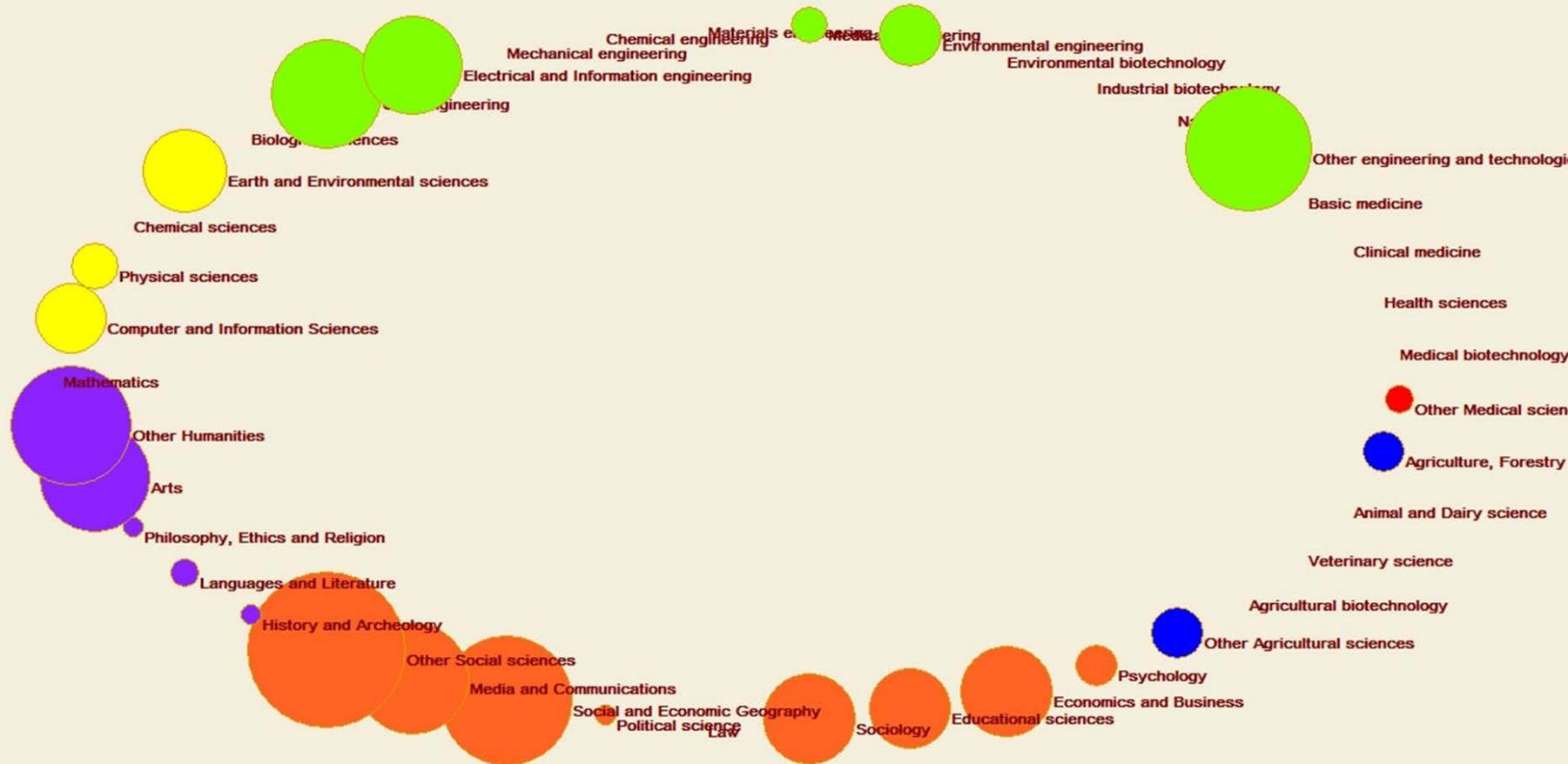
3 level scientific classification

6 Main Fields of Science:

- Natural Sciences,
- Engineering and Technology,
- Medical and Health Sciences,
- Agricultural Sciences,
- Social Sciences,
- Humanities
 - *41 Sub-fields of Science...*
 - *719 areas of expertise (research areas)*



Multi- and Inter-disciplinarity in Actions: TU1306



COST Features

- Output oriented (open science, wide sharing of knowledge and results, open access, open innovation)
- Why Networks? Knowledge sharing leads to...
 - Common understanding of problems at hand
 - Coordinated activities
 - Pooling resources
 - Reduced risks
 - Synthesis and re-combination of spread pieces of knowledge
 - Innovation
 - Synergies ($1+1>2$)

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What are the COST Actions and how to participate in them?

COST Actions – characteristics

- A network of researchers, engineers and scholars with nationally funded research
- From at least seven COST member Countries
- Collaborating in S&T fields of common interest
- Expandable to new participants



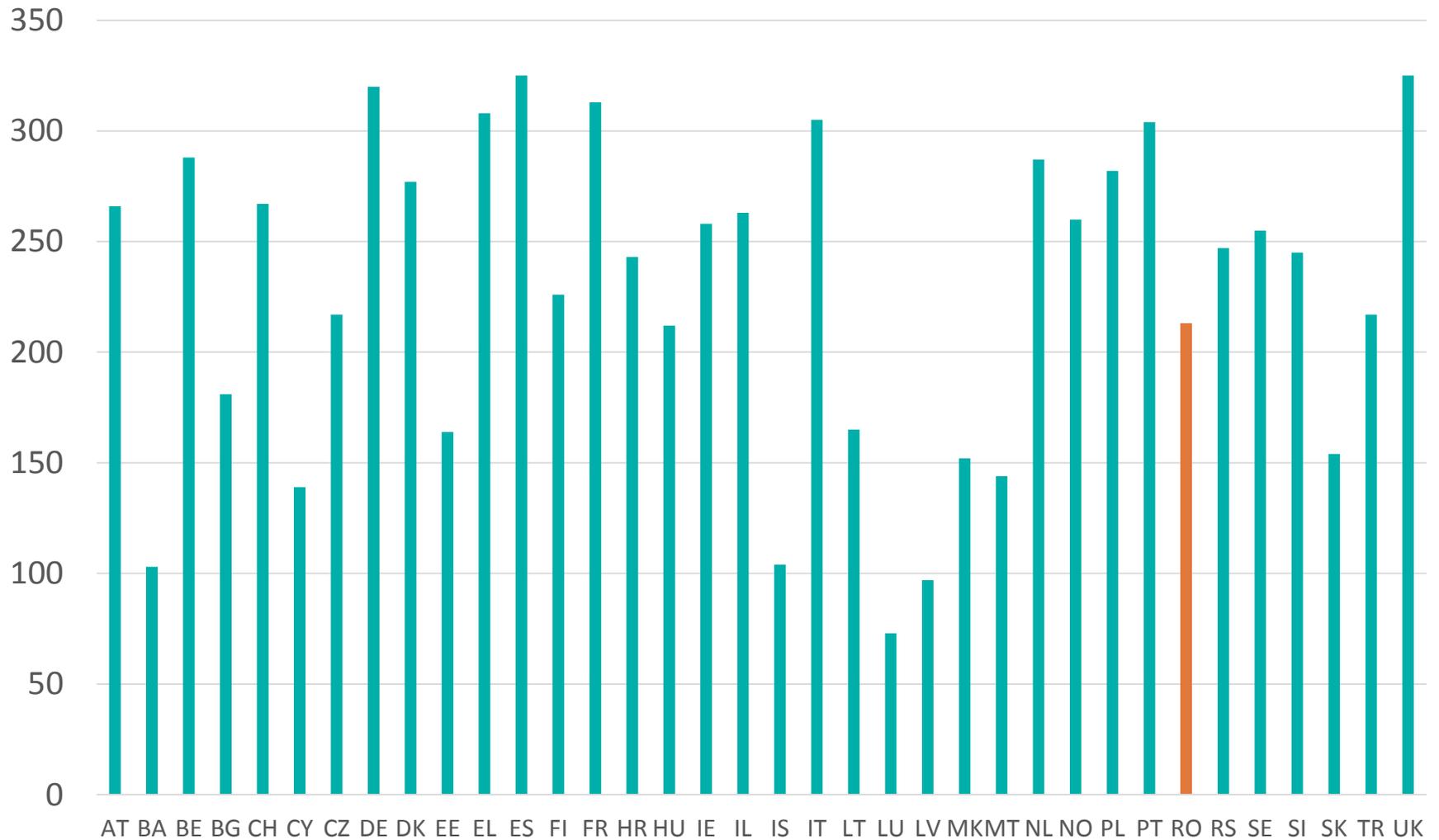
COST Actions – characteristics

- Based on a 4 years joint work programme (MoU)
- Submitted, evaluated and selected through an Open Call for proposals
- Implemented through a range of networking activities (Meetings, Workshops, Short Term Scientific Missions, Training Schools, etc.)
- Average annual support of EUR 129 000

Join an Action

- As a Management Committee (MC) member
- As a Working Group (WG) participant
- Short Term Scientific Missions
- Training school
- Workshop/Conference
- ...

COST members' Action participation in 2016



37 COST members

● EU 28

● EU Candidates and Potential Candidates

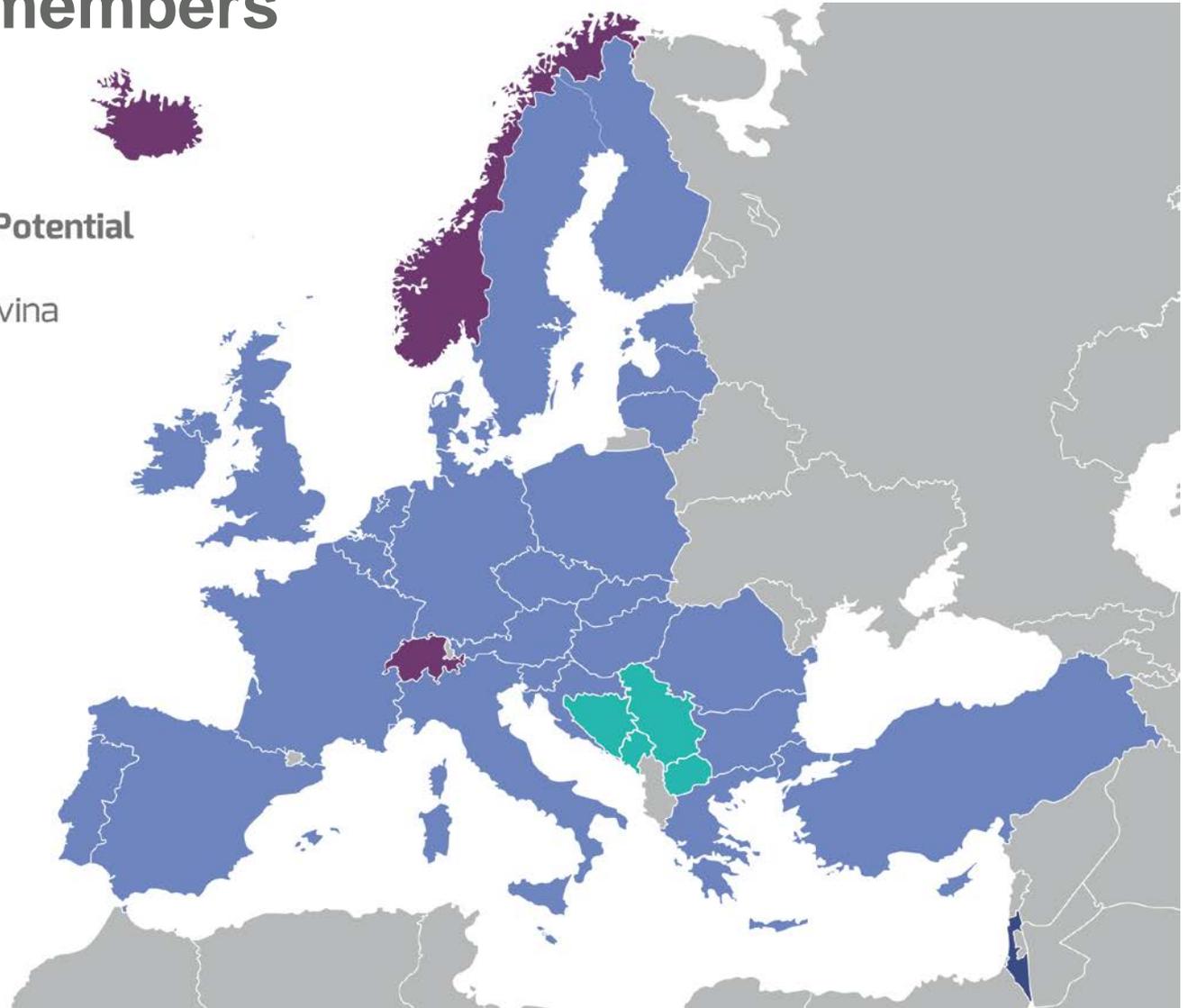
Bosnia and Herzegovina
fYR Macedonia
Montenegro
Republic of Serbia
Turkey

● Other countries

Iceland
Norway
Switzerland

● COST Cooperating Member

Israel



Core policies



Excellence and inclusiveness (widening the European research base)

- Strengthening the excellence through cross-border networking of researchers
- Promoting geographical, age and gender balance throughout its activities and operations

Specific objectives

- International cooperation (mutual benefit, NNC,...)
- Industrial dimension (dedicated dissemination and exploitation activities)



COST Inclusiveness Target Countries

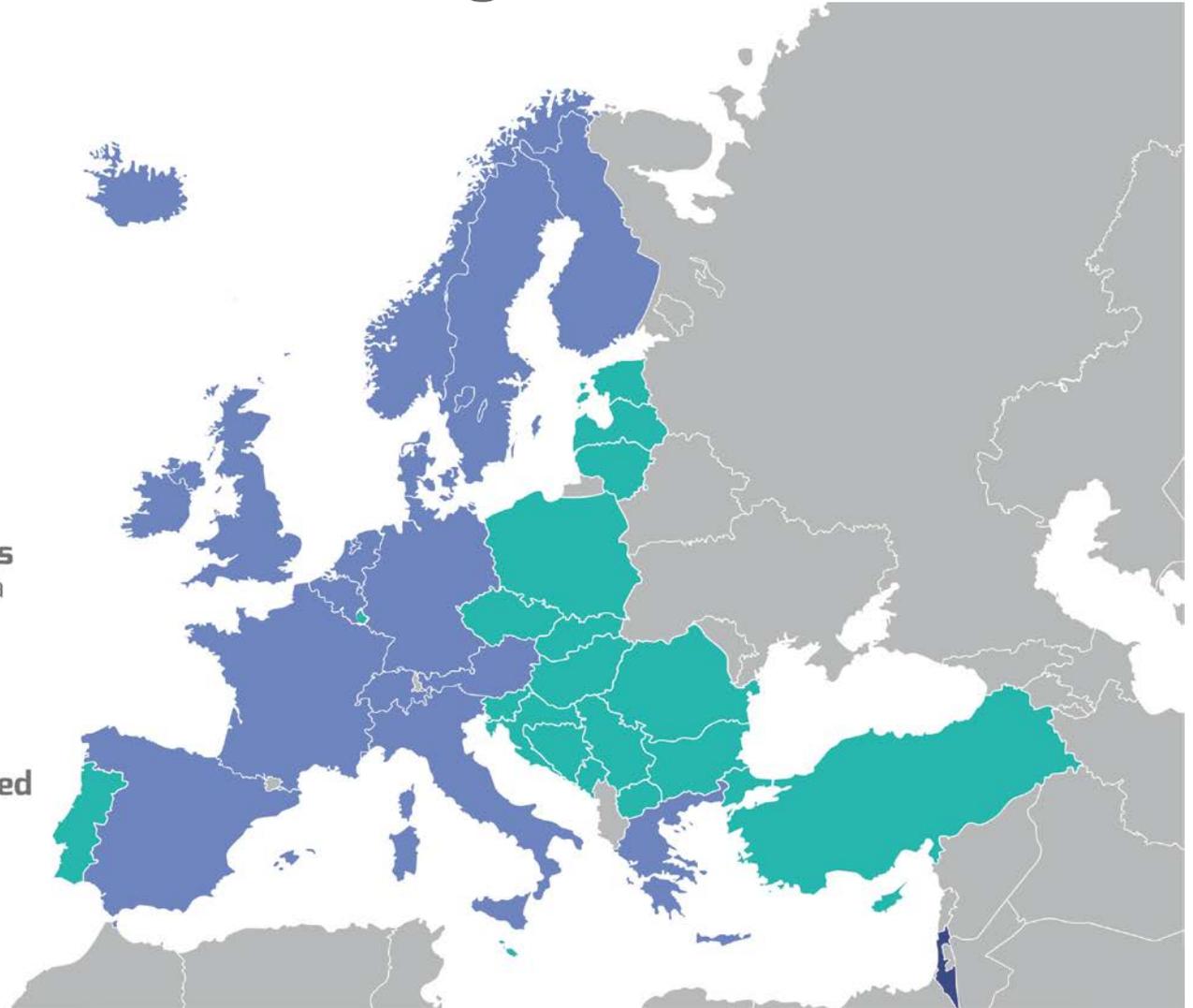
- **EU 13**
 - Bulgaria
 - Croatia
 - Cyprus
 - Czech Republic
 - Estonia
 - Hungary
 - Latvia
 - Lithuania
 - Malta
 - Poland
 - Romania
 - Slovakia
 - Slovenia

EU Candidates and Potential Candidates

- Bosnia and Herzegovina
- fYR Macedonia
- Montenegro
- Republic of Serbia
- Turkey

EU countries targeted by the European Commission:

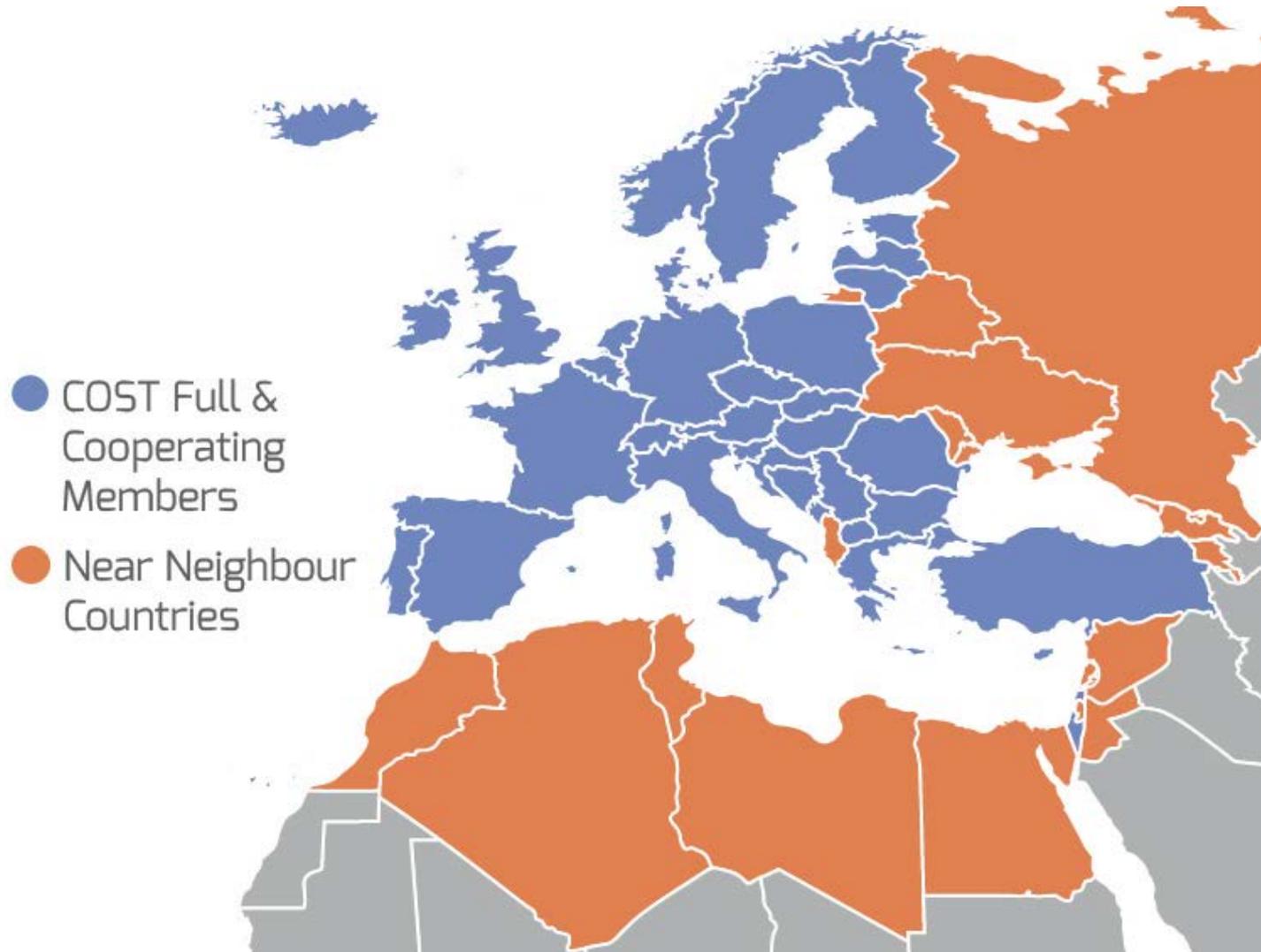
- Luxembourg
- Portugal



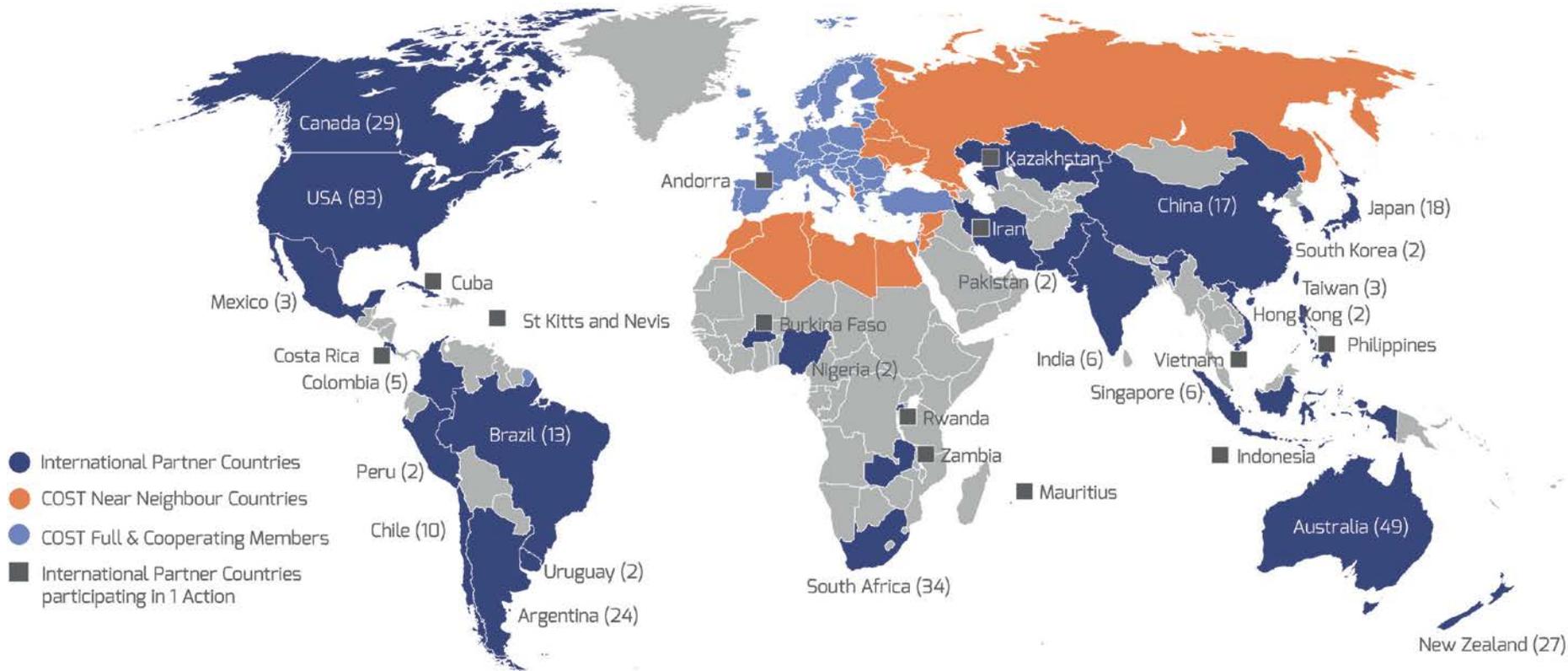
Task force measures to increase spending for researchers from ITC

- Require COST Action proposals to have a minimum of 7 countries represented in the proposal, as well as a minimum of ITCs amongst represented countries in the proposal, according to a lookup table
- Reserve at least 1 of the key Action position available for participants from ITCs
- Introduce a conference grant for PhD students and Early Career Investigators
- Examine the possibility for a mentoring scheme targeting young ITC researchers

Near Neighbour Countries

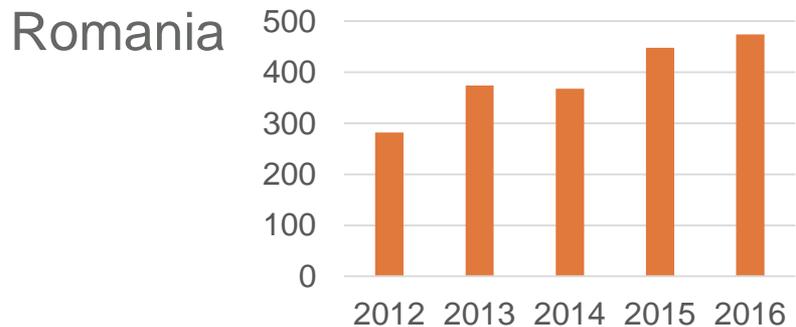
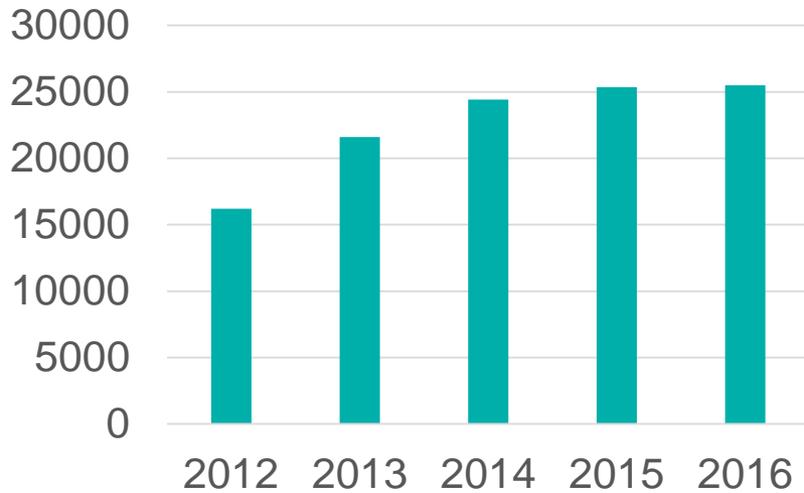


International Partner Countries



Key figures 2016

1) >25000 supported researchers

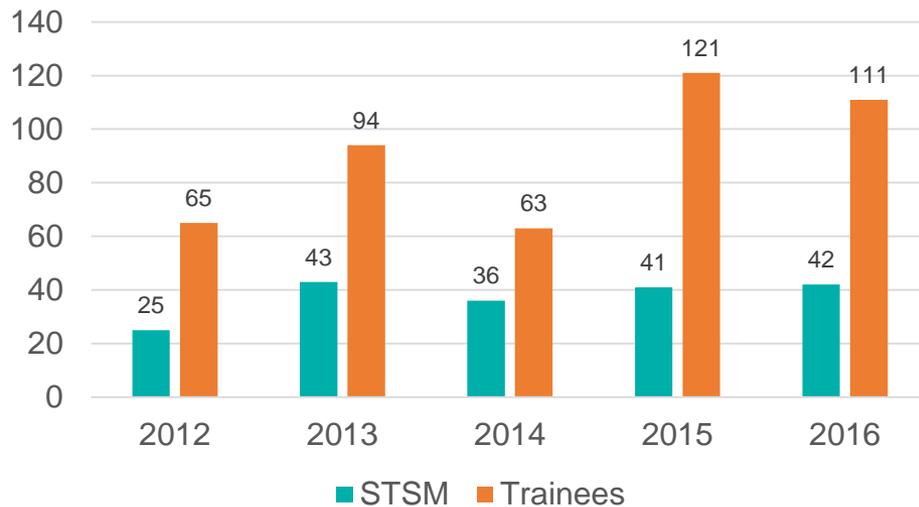


Key figures 2016

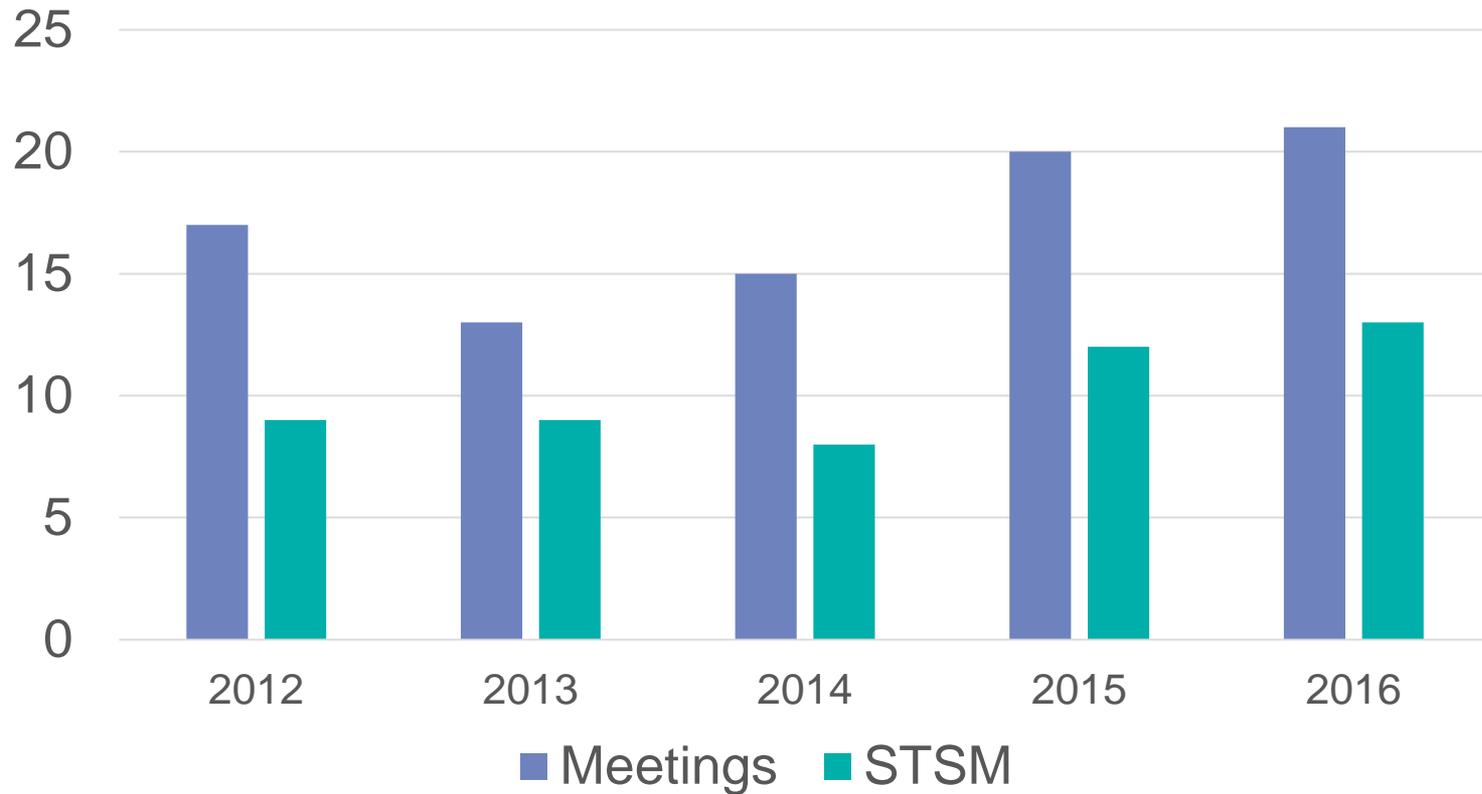
2700 Short Term Scientific Missions (STSM)

4500 Trainees in Training Schools

Romania



Meetings and STSM held in Romania



Stepping stone for young researchers

- 96% STSM participants indicated improved career opportunities as a consequence of their participation
- Springboard for further funding (ERC Grants and MSCA)



Romania's participation in COST Actions

- Management Committee level
 - Romania participates in about 65% of the COST Actions, signing the Memorandum of Understanding and nominating the MC members.
- COST Actions' leadership position
 - Based on December 2016 data, one active MC Chairs from Romania leading the Action BMBS TD1303.
- In networking activities
 - The participation in networking activities shows an increasing trend in the recent years (from 264 in 2011 to 478 in 2016).

Reasons for participation of SME's: Network and Information driven

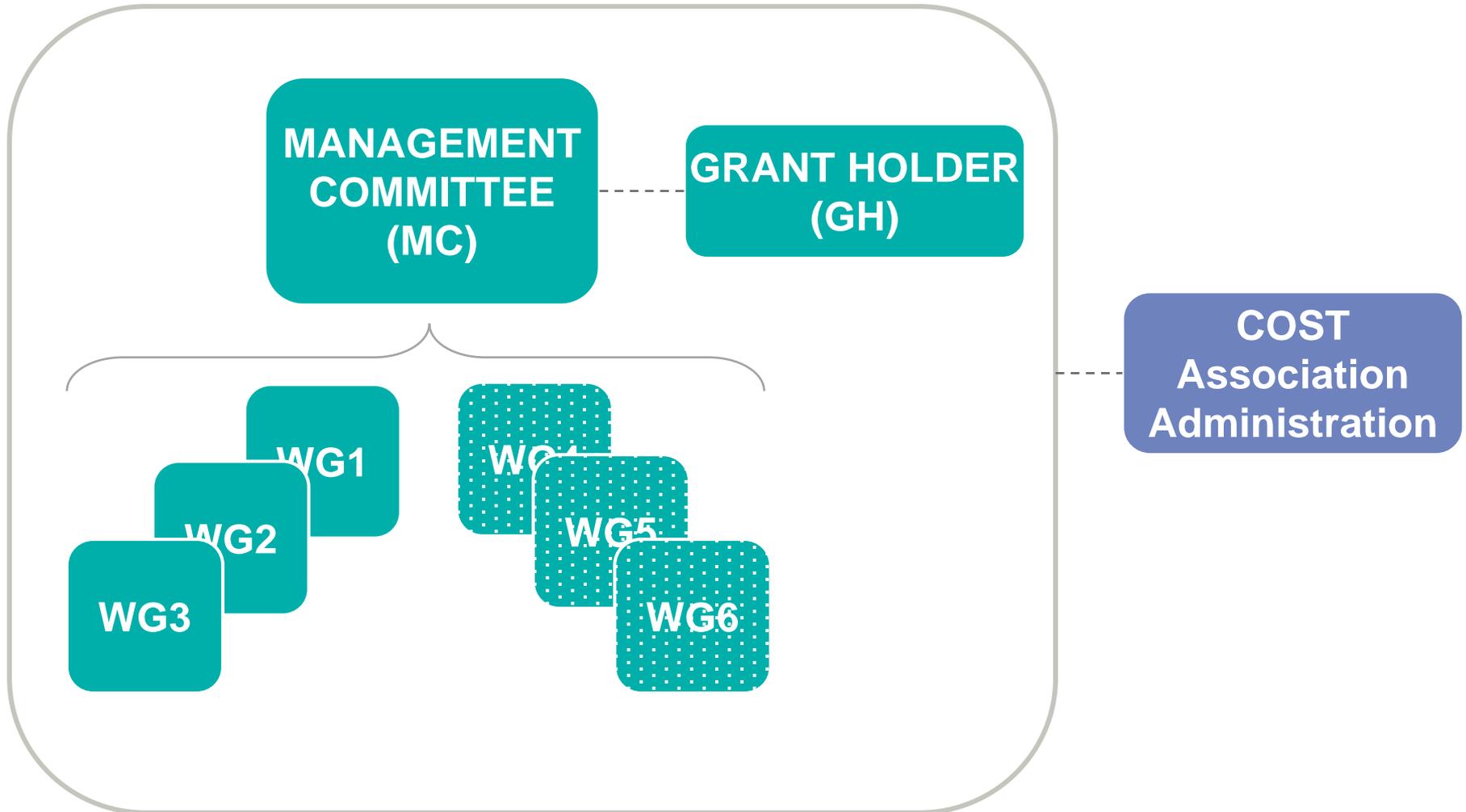
- Participation in COST Actions allow SME's
 - To find partners for research projects and proposals
 - To stay up-to-date with new research
 - To exploit new technologies
 - To retrieve first-hand information
 - To know the key researchers in a specific field
 - To increase European/international visibility
- 820 SMEs are currently involved in COST Actions

Targeted impact assessment of participation of non-academic partners in COST Actions (2016 Study)

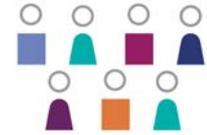
Examples of Industry and SMEs

- COST Action FA1305: The EU Aquaponics Hub - Realising Sustainable Integrated Fish and Vegetable Production for the EU:
 - In the Management Committee there are 5 MC members that are coming from SMEs
- COST Action FA1402: Improving Allergy Risk Assessment Strategy for new food proteins (ImpARAS)
 - The Vice Chair of the COST Action is from Unilever

COST Action Structure



Action Management Committee (MC)



- Decides and coordinates scientific & networking activities
- Supervises the allocation and use of funds
- Decides on international cooperation and dissemination strategy
- Implements COST policies (excellence and inclusiveness)
- Key roles: Chair, Vice-Chair, Grant Holder, WG leaders, Dissemination leader,...

Action Working Groups



- 3 to 6 WG as set in the proposal
- Perform specific research tasks as set in the Memorandum of Understanding
- Open to participating COST member countries and approved international participations
- Ad hoc meetings

Supported activities

- Meetings (participation and organisation)
- Short Term Scientific Missions (STSM)
- Training Schools
- Dissemination activities and meeting
- Reviewing (proposals/Actions)

Reimbursement rules: see [Vademecum](#)



Join an Action – who to contact?

- As a Management Committee (MC) member
 - Contact: CNC (and MC Chair)
- As a Working Group (WG) participant
 - Contact: national MC representative or WG leader
- Short Term Scientific Missions, Training schools, Workshops, ...
 - Contact: see Action website

Search an Action/contact



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

- ▶ COST Action Networking Tools
- ▶ All Actions

Home | COST Actions | COST Association | CA15104

CA COST Action CA15104

Inclusive Radio Communication Networks for 5G and beyond (IRACON)

Radio Communications have become one of the pillars on which our Society relies for performing many daily tasks. Today, the number of connected devices is increasing exponentially, reflecting not only enthusiastic smartphone adoption but also increasing connectivity of machines, sensors, vehicles and other devices for health and smart environments.

The Inclusive Radio Communications (IRACON) concept defines those technologies aimed to support wireless connectivity at any rates, for any communicating units, and in any type of scenarios. The Wireless Internet of Things beyond 2020 will require revolutionary approaches in Radio Access technologies, networks and systems. Some theoretical foundations have to be revisited and breaking technologies are to be discovered during the coming decade.

This COST Action aims at scientific breakthroughs by introducing novel design and analysis methods for the 5th-generation (5G) and beyond-5G radio communication networks. Challenges include i) modelling the variety of radio channels that can be envisioned for future inclusive radio, ii) capacity, energy, mobility, latency, scalability at the physical layer and iii) network automation, moving nodes, cloud and virtualisation architectures at the network layer, as well as iv) experimental research addressing Over-the-Air testing, Internet of Things, localization and tracking and new radio access technologies.

The group of experts supporting this proposal comes from both academia and industry, from a wide spread of countries all over Europe, with the support of some non-COST institutions and R&D associations and standardisation bodies worldwide. The proposers have also long experience on COST Actions in the Radiocommunications field.

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

COST Association COST Action CA15104

- ▶ Description
- ▶ Reviews
- ▶ Management Committee

General Information*

- Chair of the Action: [Prof Claude OESTGES](#) (BE)
- Vice Chair of the Action: [Prof Narcis CARDONA](#) (ES)
- Science officer of the Action: [Dr Ralph STUEBNER](#)
- Administrative officer of the Action: [Ms Nasrine MALANDA](#)

Downloads*

- Action Fact Sheet
[Download AFS as .RTF](#)
- Memorandum of Understanding
[Download MoU as PDF](#)

Websites*

- Action website:
<http://www.iracon.org/>

* content provided by e-COST.
Data is synchronised once per night.



Join an Action

- Search existing Actions in your topic from the COST website
- Browse the Action's own website – check their activities
- Find if your country participates and, if yes, who is/are the national representatives
- Contact the relevant person

Grant Holder



- Elected by the Management Committee
- Signs the yearly Grant Agreement with the COST Association
- Receives and administers the Grant according to the Work and Budget plan (3 instalments)
- Average Grant: EUR 129.000/year
- May retain up to 15% of the yearly expenses
- Financial reporting to COST
- Reimburse the individual participants according to the Vademecum

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How to prepare an Action proposal



Open Call for proposals

- in all S&T fields
- contributing to the scientific, technological, economic, cultural or societal knowledge advancement and development of Europe
- closing the gap between science, policy makers and society throughout Europe and beyond
- providing for knowledge share and creation
- being open and output oriented
- responding to COST Excellence and Inclusiveness Policy

Open Call for proposals

- anytime submission
- next collection: 7 Sept.2017 - 12:00 noon (CET)
- 25 to 40 Actions approved in each collection, subject to budget availability
- one-stage online submission
- by a Main Proposer (on behalf of a network)
- 7~8 months evaluation period
- guidelines and template on cost.eu/opencall

Open Call for proposals – key documents

e-COST

e-COST is a portal for COST Action participants' registration and financial reporting

▶ Link to e-COST portal

Source: cost.eu/opencall

- Online submission
- Guidelines
- Proposal template

Key Documents

▶ COST Open Call – Submission, Evaluation, Selection and Approval (SESA) Guidelines (PDF, 236 kB)

▶ Technical Annex (DOCX, 176 kB)

Open Call for proposals - eligibility

- coordinated by a main proposer in a COST Full or Cooperating Member state
- represent a network of proposers from at least 7 COST Full/Cooperating Member states (min. ICT)
- anonymous: no reference to the participants in the network of proposers
- peaceful purposes
- respect the word or page limits
- written in English

Online submission tool (e-COST)*

Overview

General Features

Technical Annex

References

COST Mission and Policies

Network

Documents

« My Proposals

Main Proposer Institution *

Title (Maximum 12 words) *

Acronym *
(max 60 characters)

Keyword 1 *
(max 60 characters)

Keyword 2 *
(max 60 characters)

Keyword 3 *
(max 60 characters)

Keyword 4
(max 60 characters)

Summary: Maximum 250 words

About five percent European citizens suffers from organ malfunctioning. Living donor transplantation is often the most effective treatment and the alternative of deceased donor transplantation is severely limited by availability. As approximately 50% of living donors are incompatible with their specified recipient, several European countries have independently developed organ exchange programmes.

Exchange programmes aim to match donors optimally to recipients for organ exchange within the population of recipient-donor pairs.

p Words: 68

AREAS OF EXPERTISE NEEDED FOR EVALUATION

Science Field

Research Area

Proposal Reference:
OC-2017-1-21892

Proposal Status:

Draft

Checklist:

- General Features
- Technical Annex (1 issue)
- COST Policies
- Network (1 issue)

[Generate PDF](#)

[Ready to submit?](#)

Open Call for proposals - submission

SECTIONS		
GENERAL FEATURES	Online tool	<ul style="list-style-type: none"> ▪ Expertise needed for Evaluation
TECHNICAL ANNEX	PDF upload	<ul style="list-style-type: none"> ▪ MAX 15 Pages ▪ Figures and Pictures - Copyright
REFERENCES (optional)	Online tool	<ul style="list-style-type: none"> ▪ 500 words
COST POLICIES & SPECIFIC OBJECTIVES	Online tool	<ul style="list-style-type: none"> ▪ 1000 words ▪ Excellence and Inclusiveness <ul style="list-style-type: none"> ▪ International Cooperation ▪ Industrial Dimension
NETWORK of PROPOSERS	Online tool	<ul style="list-style-type: none"> ▪ Minimum 7 researchers from 7 COST Member/Cooperating State (ICT share) ▪ Statistical Information used for evaluation

Open Call for proposals - submission

SECTIONS	SUB-SECTIONS
S&T EXCELLENCE	<ul style="list-style-type: none">▪ Challenge▪ Objectives▪ Progress beyond the State-of-the-art and Innovation Potential▪ Added value of networking
IMPACT	<ul style="list-style-type: none">▪ Expected Impact▪ Measures to Maximise Impact
IMPLEMENTATION	<ul style="list-style-type: none">▪ Description of the Work Plan▪ Management Structures & Procedures▪ Network as a whole

Thank you

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