

COST

European **C**ooperation in **S**cience and **T**echnology

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COST CSO and COST EB

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COST and its main functions in a nutshell

- **Networking of already funded R&D** - essential building block of the European Research Area; *“Growing ideas through networks”* (294 active COST actions in 2019, average 30 countries)
- **pre-portal to the main key initiatives** (e.g. MSCA and ERC grants as well as large collaborative projects) -> higher success rate in H2020 (37%)
- **Pathfinder function** – develop new research fields through collaboration through highly inter- and transdisciplinary and intersectoral networks
 - Examples: (1) nanomaterial toxicity, (2) health and migration...
- **Promoting and spreading excellence**, skills and knowledge transfer
- **Boosting careers** of young researcher, **capacity building**: early career researchers, widening participation

COST and its important role in European R&D

- Established as the **first European intergovernmental framework for collaborative research**
 - COST Ministerial Resolution of 22-23 November 1971
 - **2021: COST celebrates its 50th birthday!**
- The **leading networking instrument in the European Research Area**, where true pan-European collaborations are expanded globally
- based on the diversity of collaborations of researchers **across its 38 COST Members** and Cooperating Member Israel
- enabling knowledge to be turned into innovation with societal impact
- promote Europe as a strong, open and inclusive ecosystem

COST Ministerial Conference 2021

- **Highest political event** related to COST
- **Research Ministers renew their commitment to COST (previous COST Ministerial 2006)**
- **COST ministerial declaration** by research ministers of COST countries
- The Ministerial Conference in 2021 will be a milestone in the governance of COST, as it will ensure **commitment to the programme at a ministerial level while guaranteeing its relevance in the long run. Renewal of the ERA and the growing importance of brain circulation** will be crucial ingredients for science and innovation in the years to come. COST will play an indisputably important role in these debates, a role that needs to be strengthened and supported by all its members in the near future.

COST mission and strategic priorities

- “COST provides **networking opportunities for researchers and innovators** in order to strengthen Europe’s capacity to address scientific, technological and societal challenges.”
- The **three strategic priorities**:
 - Promoting and spreading excellence
 - Fostering interdisciplinary research for breakthrough science
 - Empowering and retaining young researchers and innovators
- COST implements its mission by **funding bottom-up, excellence-driven, open and inclusive networks**
- for peaceful purposes in all areas of science and technology

COST impact

- 95% of COST participants say their **careers developed and their prospects improved** due to their participation
- For example FP7: COST Actions led to the **interconnection of 5 billion €** of national research and technology projects
- With a success rate of less than 10% competition for COST Actions is intense -> indication of **excellence and high demand**
- COST Actions contribute to **diversity in science**: 30% of participants are young researchers, half the Actions include industry, all include researchers *from at least five countries – and the average is 22.*
- About half of the current COST Actions have participants that are from **large or small enterprises** - higher impact, research results being taken up by industry

COST Actions have a high impact in their fields, a few examples

- **COST Action on photosynthesis** ->Development of a new class of biosensors to monitor the environment and check food quality development of d a new kind of light-harvesting cell for energy production.
- **Cost Action on food safety and distribution** -> further 29 research projects with EUR10 million in funding, and a significant advance in food packaging technologies, involving 13 companies together with researchers
- **Cost Action on honey-bee colony loss** ->Development of a manual for studying this problem and creation of an international association for action
- **Cost Action MI-NET, involving mathematicians and industry** together from 30 countries -> new applications of mathematics in business in metal moulding, in delivery of healthcare services, in modeling for air pollution, weather or nuclear safety.

Impact of COST Actions on career development

- **Impact Assessment Study by ERDYN and ZSI** commissioned in 1/2019 (online survey and phone interviews, 10.000 researchers in COST Actions between 2015 and 2017, 4,543 answered!
- **88.5% of respondents** to the online survey declared that they see a highly **positive impact** of their participation in the COST Actions on their career (marks 4 and 5 with 5 being the highest)
- COST Actions have a positive impact on researchers' career **more in an indirect way** (by helping them establish new connections, start new collaborations and enhancing their reputation in the scientific community) than in a direct way (new professional opportunities)
- COST Actions have a **stronger positive impact** on the career of younger researchers, female researchers and academics from Inclusiveness Target Countries
- **Room for improvement:** administrative effort for managing COST actions, selection of Management Committee members.

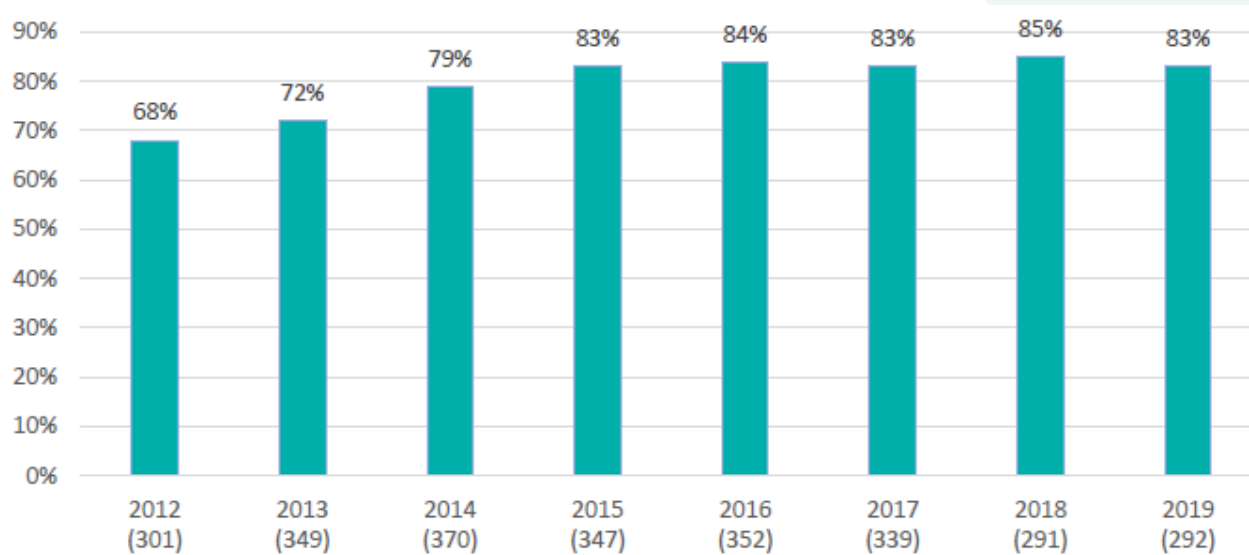
COST – the players in Europe

- **European and international R&I community, researchers, institutions**
- **38 COST Member Countries, COST Cooperating Member Israel and COST Partner Members**
- **Committee of Senior officials (CSO)** –member states representatives, main governing body
- **COST and CSO President**, nominated by a COST MS and rotating every 2 years
- **COST and CSO Vice President**, elected among the Members of the CSO
- **COST Executive Board**, 5 – 7 elected members of the CSO for a period of 3 years, can be renewed once
- **COST Association** in Brussels as the administrative body of COST (Director, units and staff)
- The **COST Scientific Committee** advises about the Open Call, its quality and procedures

COST - the players in Austria

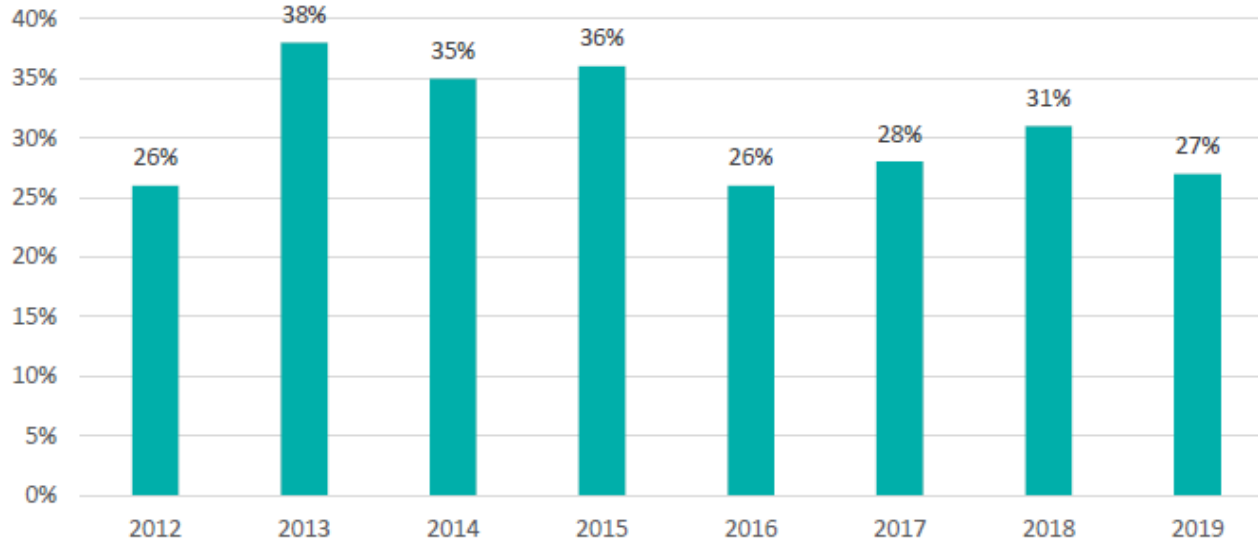
- **Austrian R&I community, researchers and institutions**
 - COST is widely used **across disciplines and generations of researchers**
 - by academia and (not so seldom) by industry
 - COST is a substantial element of the Austrian R&D portfolio
- **FFG** (Austrian Research promotion Agency)
 - CSO, CNC, one-stop-shop with services for R&D community
- **BMK**
- Ministry in charge of COST, COST Ministerial, CSO, COST-Executive Board

COST - high Austrian participation in running COST Actions

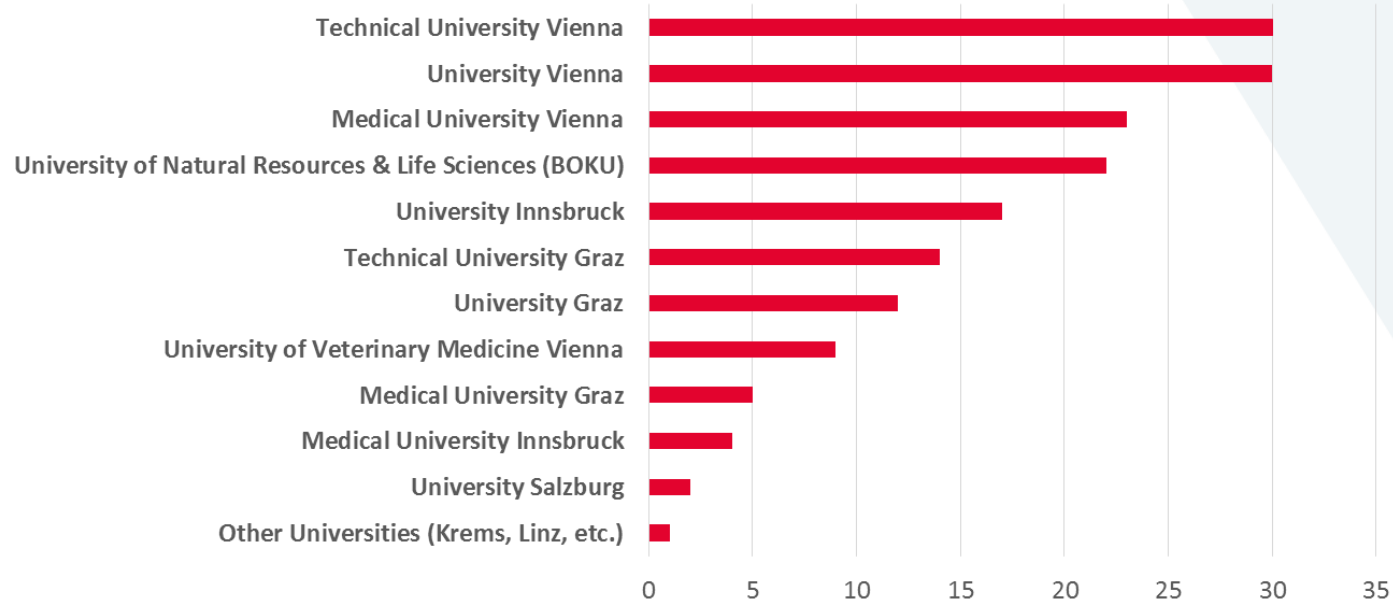


Graph 1. National participation in running Actions % (total number of running Actions in bracket)

COST - participation in networking activities by ECIs from Austria



Austrian R&D-institutions active in COST



COST in Horizon Europe

- **Säule 4: Widening participation and strengthening the European Research Area**
- “Activities will also foster brain circulation across ERA through **mobility of researchers and innovators**, to address current imbalances, and will **support the development of networks** of scholars, scientists, researchers and innovators, policy makers and research managers to put all their (intangible) assets to the service of the ERA and by supporting the development of domain-specific science roadmaps.”
- “The goal is an Union, where **knowledge and a highly-skilled workforce circulate freely, research outputs are shared rapidly and efficiently, researchers benefit from attractive careers and gender equality** is ensured, where Member States and associated countries develop common strategic research agendas, aligning national plans, defining and implementing joint programmes, and where the outcomes of R&I are understood and trusted by informed citizens and benefit society as a whole.”

COST in Horizon Europe /2

- **Framework Partnership Agreement (COST Association) in the Horizon Europe work programme**
- COST Association will organise **competitive open calls for COST Actions** and an independent evaluation and selection procedure
- a mandatory conditionality to spend at least 50% of the budget at the benefit of researchers from countries eligible from the Widening countries and to run 80% of the activities with a significant **widening dimension**
- maximum amount to be granted to each third party is EUR 500 000

COST in Horizon Europe /3

- **Increase participation of widening countries** (inclusiveness target countries (ITC)) in European research activities and higher success rates;
- **Contribute towards improving the R&I culture of the widening country** (indicators such as research intensity, innovation performance, values towards R&I);
- **Improve scientific capabilities of widening countries** to increase their chances in participating and successfully obtaining competitive funding from the EU and other international sources; Trigger scientific breakthroughs and new research strands by pooling interdisciplinary resources across Europe;
- Boost the **career of young and female researchers** by networking and brain circulation in line with ERA principles and the development of leadership skills;
- Strengthen the **research management capacities and administrative skills** of participating researchers;
- Develop **operational synergies with other widening actions and create links to thematic parts of Horizon Europe**, notably Pillar 2.

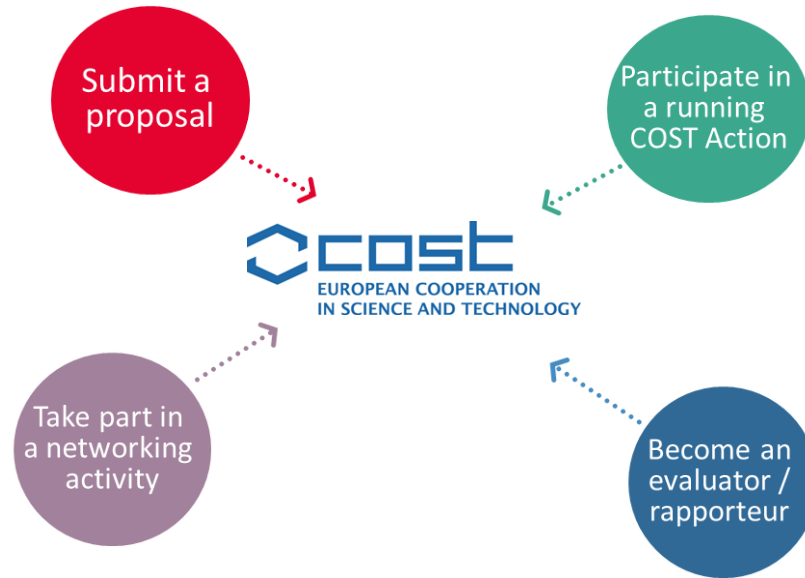
The Implementation of COST

- **COST Action** as the main instrument
 - **Networking tools** (Meetings, workshops and conferences) These are organised by the COST Action management committees in any COST country participating in the network, open to the entire scientific community.
 - **Short-term scientific missions** (STSMs, 2055 in 2019)
 - **Training schools** (196 in 2019)
 - **Dissemination activities** – (publications, electronic media, news releases, events, success story releases, etc.)
 - **Conference grants** (PhD students and early-career investigators from Inclusiveness Target Countries to attend conferences that are not organised by a COST Action; 547 in 2019)

The Implementation of COST /2

- **stewardship to the COST Actions and value added actions** to create new opportunities to make researchers grow through networking and knowledge sharing, and to enhance its impact on society
- **COST Innovators Grant (CIG)**
- **COST Connect**
- **COST Academy**
- **COST Cross Cutting Activities** (e.g. Cross-Cutting Activity on Science Communication)

Participate in the COST Programme



Thank you!

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