

PAST, PRESENT AND FUTURE OF COST

1. COST in brief

COST - "European CO-operation in the field of Scientific and Technical Research" - is the longest running and widest European intergovernmental mechanism for cooperation in research.

Established by an exchange of letters in 1969-1970 followed by the Ministerial Conference of 19 European States on 22-23 November 1971, COST currently helps the scientific communities of 35 European countries (including all EU Member States and candidate countries)¹ cooperate in common research projects (Actions), supported by national funds.

COST is a cornerstone for the development of the European Research Area (ERA) and instrumental in achieving the objectives set by the Lisbon Agenda. It is a unique instrument with a clear role in the ERA which notably provides:

- a European "exploratorium" of new ideas in the most promising fields of research, thus functioning as a generator of initiatives in the Framework Programmes and as a potential source of industrial applications, for instance in EUREKA;
- a high-level scientific network able to tackle problems of societal importance;
- a framework able to ensure scientific excellence in networking European researchers;
- an effective tool to coordinate nationally funded research activities, encouraging synergy and work sharing and avoiding duplication and gaps, thus allowing a more efficient use of national resources. A "multiplier effect" is achieved: with the funds provided for COST networking a volume of research activities worth about 100 times more;
- an active partner in the European "neighbourhood" policy towards the scientific communities of the EU's neighboring countries;
- an asset for the EU RTD policy in its relation to the rest of the world.

The confirmed confidence and enthusiasm in the COST research community, and the support assured from the EU's Framework Programmes, represent an important opportunity for the scientific community on a world basis also in the future.

2. COST Characteristics

- "Bottom up approach" (the initiative of launching a COST Action comes from the European researchers themselves)
- "à la carte participation" (only countries interested in the Action participate)
- "coordination of research capacity" using the network of national coordinators and Domain Committees
- "openness to non-European participation"

¹ COST member states: Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, former Yugoslav Republic of Macedonia, Malta, Netherlands, Norway, Poland, Portugal, Romania, Republic of Serbia, Slovenia, Slovakia, Spain, Sweden, Switzerland, Turkey, United Kingdom; COST cooperating state: Israel.

- “flexible structure” (easy implementation and light management of the research initiatives)

are the main characteristics of COST. As a precursor of advanced multidisciplinary research COST has a very important role for the realisation of the European Research Area (ERA), anticipating and complementing the activities of the Framework Programmes, constituting a “bridge” towards the scientific communities of emerging countries, increasing the mobility of researchers across Europe and fostering the establishment of scientific excellence. COST is organised in nine domains:

- Biomedicine and Molecular Biosciences
- Chemistry and Molecular Sciences and Technologies
- Earth System Science and Environmental Management
- Food and Agriculture
- Forests, their Products and Services
- Individuals, Societies, Cultures and Health
- Information and Communication Technologies
- Materials, Physical and Nanosciences
- Transport and Urban Development

However, COST also supports and encourages "Trans-Domain" activities which do not readily fit in any single Domain. COST contributes to reduce fragmentation in research investments in Europe, and opening the European Research Area to cooperation on a world basis.

3. The COST Structure at present

The Committee of Senior Officials (CSO) is the main decision-making body and is composed of representatives from all COST Member States. The Domain Committees (DCs) are responsible for particular research domains, and are also made up of representatives of all COST countries. The Management Committees (MCs) - one for each Action - are formed by national experts nominated by the countries participating in the Action, and coordinate the activities of the Action, reporting to the relevant Domain Committee. The CSO secretariat is provided by the General Secretariat of the Council of the European Union, thus underlining the intergovernmental character of COST. The scientific and administrative Secretariat to the COST Domain Committees and to the COST Actions is provided by the COST Office in Brussels, run by the European Science Foundation (ESF) as the Implementing Agent of COST.

4. The COST Actions

"European Concerted Research Actions"- COST Actions - are networks centered around research projects nationally funded in fields that are of interest to at least five COST countries. COST Actions cover basic and pre-competitive research as well as activities of public utility.

Every COST Action has objectives, defined goals and clear deliverables. They achieve results through network building and coordination activities such as meetings, workshops, training schools and short-term scientific missions. COST Actions operate across a wide spectrum of scientific fields, are often multi-disciplinary in nature, and often continue beyond the normal four-year duration of COST funding. Today there are more than 200 ongoing COST Actions and there have been about 500 Actions over the years.

5. COST Open Call

A COST Open Call, with two collection dates per year, is used to attract the best proposals for new COST Actions. The call is thematically open and proposals playing a precursor role for other European programmes and/or initiated by early-stage researchers are particularly welcome, as are inter-disciplinary proposals not fitting readily into a single Domain.

Proposals are assessed in two stages. The top ranked Preliminary Proposals are invited to submit a Full Proposal, which is peer reviewed according to established assessment criteria. The time between the collection date and the approval of the best Full Proposals is approximately 6 months.

6. Scientific Quality Control

The scientific quality control of COST Actions is carried out by the COST Domain Committees assisted by the COST Office, according to the COST “Guidelines for Assessment, Monitoring, Evaluation and Dissemination of Results of COST Actions”, and is composed of the following four steps:

- Assessment of proposals for new Actions
- Monitoring of Actions in progress: an “Annual Progress Report” is presented by the MC Chair of each Action annually in a meeting with the relevant DC
- Evaluation of completed Actions
- Dissemination of results.

7. COST Funding

The funds provided by COST are obtained from the European RTD Framework Programmes. The support to COST Actions is less than about 1% of the total value of the research carried out in the Actions. During the 7th Framework Programme (FP7), with funding of around 30 million EUR per year, more than 30.000 European scientists are involved in COST networking, with their projects representing a total value exceeding 2 billion EUR per year.

COST funding covers the coordination costs associated with organising and attending meetings, workshops and conferences; short-term scientific missions; and publications and other dissemination activities. The research activities themselves (staff, infrastructure etc.) are supported through national funds and not by COST.

8. COST Results

The scientific importance and relevance of COST results is testified by the thousands of scientific papers published in the most important scientific journals and by the many doctoral degrees obtained by students working in COST Actions. COST results have also contributed to European competitiveness through many contributions to normative and standardisation bodies, the Small Enterprises originating in Europe from COST activities at the frontiers of modern technology, and the many examples of transfer of results to the European industry.

The societal importance of COST results concerning issues arising from pressing societal needs has also to be underlined. The contribution of COST to the ERA is also particularly important; COST is in many instances a precursor of research projects and activities in the Framework Programmes.

9. COST contributes to reduce fragmentation of national research efforts in the ERA

The mission of COST is to be a flexible, fast, effective and efficient tool to network and coordinate nationally funded research activities at project level (Actions), bringing motivated scientists together under light strategic guidance and letting them work out their ideas. This is particularly important to contribute to reduce fragmentation of national research efforts in Europe where about 95% of the investments in research are done at a national level and only 5% is managed at the European level.

10. COST contributes to increase cooperation on a world basis

One of the key features of COST is its openness towards the rest of the world on the basis of mutual benefit. Institutions from non-COST countries can join individual COST Actions on a case- by- case basis, once the mutual benefit has been ascertained, without the need for any formal arrangements at government or agency level. With such easy accessibility and light and fast procedures, COST has thus always been a “bridge” for the scientific communities both of the European neighbouring countries and the world. Some 300 Institutions from non-COST countries are currently participating in COST Actions.

In general, researchers from institutions in non-COST countries do not receive economic support from COST. However, COST has established a particular strategy to encourage participation in COST Actions by researchers from the "near-neighbouring countries"²: Up to two researchers from an institution in these countries may be reimbursed for attendance at the meetings of any COST Action, and are eligible to be supported to participate in other activities decided at the level of individual Actions. In July 2007 two reciprocal schemes entered into force to facilitate participation by researchers from Australia and New Zealand in COST Actions. Drawing on dedicated funds from their respective governments, these support the travel and subsistence costs of researchers from Australia and New Zealand who participate in COST Actions. Within ten months of the launch of these schemes participation from these two countries had more than tripled. In 2009, similar arrangements were concluded with South Africa. India, Morocco and Argentina are currently also looking at the possibility of similar arrangements.

11. COST IN FP7

In December 2006 the EU Council decided to allocate to COST up to 250 million Euro for the duration of the EU 7th Framework Programme (2007-2013). This increase of about 80% in financial support to COST compared to the 6th Framework Programme is an acknowledgment of the excellence of COST, and a reward of paramount importance for the entire COST community. In particular it is a recognition of the participants in the COST Actions, the real “raison d’être” of COST and, in general, for the entire European scientific community, with their overwhelming response to the COST Open Call confirming the vitality of the COST framework.

COST will continue to contribute to the development of the ERA while maintaining its principal values, adapting its structures and therefore contributing to the development of Europe's competitiveness on the world scale.

² The Balkan and Eastern European countries (Albania, Armenia, Azerbaijan, Belarus, Georgia, Moldova, Russia, Ukraine) and the Mediterranean and north African countries (Algeria, Egypt, Libya, Lebanon, Morocco, Syria, Tunisia, Jordan and the Palestinian Authority).

12. THE FUTURE OF COST

COST Vision 2020 is framed by the Strategic 2020 Vision for the European Research Area (ERA). There are several modes of cooperation and instruments to fulfil the mission of ERA. One of them is COST - "European Cooperation in the field of Scientific and Technical Research" - with long and unique experience in the coordination of nationally funded research activities.

COST activities have been continuously developed in response to the needs of the European scientific community and the COST member states, whilst however maintaining its principal values and characteristics. A series of reforms has influenced and changed the whole COST system. Its structure now encourages more multidisciplinary. The COST Actions have become more objective driven. Open calls have been included. Scientific quality control has been reinforced. Dissemination of results has been diversified. Global participation in COST Actions has increased significantly and early stage researchers have gained a stronger role. These and further adaptations will continue to adjust COST to a changing environment and demonstrate COST's dynamism and ability to adapt to the changing needs of international cooperation.

In Europe's balanced multitude of different systems for the support of research, education and innovation, COST continues to play a very distinct role and to complement other actors in the ERA, providing openness and equality of access to activities in a unique way. There continues to be a strong demand for coordination of bottom-up research activities, and the basic principles of COST – flexibility and openness – are widely recognised. Therefore the level of COST's activities has been maintained and those activities broadened. COST's Vision of its place in the European Research Area in 2020 is:

- **COST continues to be a flexible, fast, effective and efficient tool to network and coordinate nationally funded research activities at project level, bringing motivated scientists together under light strategic guidance and letting them work out their ideas, thus contributing to overcome the fragmentation of research in the ERA. A significant share of the European scientific community is involved, directly or indirectly, in COST activities.**
- **COST responds to future needs; it acts as an *exploratorium* for ideas and addresses emerging and unforeseen developments. It addresses ambitious goals and more complex questions and has enhanced its precursor role. COST Actions are objective-driven and often multidisciplinary. Their objectives are clearly defined and information arising from COST Actions provides well-structured evidence-based input for policy making and they contribute to Europe's competitiveness and socio-economic development. Whilst maintaining its bottom-up character, COST is open to support longer-term planning processes in the development of new COST Actions.**
- **COST acts as a catalyst for long-term networking and in particular supports early career scientists and newly established research groups, strengthening their future participation in European and other international research initiatives.**
- **COST provides a framework for pre-normative cooperation leading to international norms and standards.**

- **COST is an inclusive and flexible international framework for the benefit of the European scientific community. COST has a worldwide geographical coverage which will be further extended in a pragmatic way by continuing to involve non-member countries in its Actions and through a more structured series of collaborative arrangements.**