



*News Article*

## **COST: Matchmaking for Researchers**

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### **1 Introduction: What is COST?**

As many researchers are aware, while the EU offers a huge variety of funding possibilities, many of the funding mechanisms are tied to projects which require consortia made up of partners from different countries. Many researchers based in Malta, especially younger researchers, query on how one gets invited to participate in such consortia. In addition, the complex funding and administrative procedures involved in many of these EU projects, may put off several local scientists and researchers from applying for such funds.

COST, Cooperation in Science and Technology, offers a facilitated mechanism which tackles and overcomes these hurdles. Since the early 1970s, COST, European COoperation in Science and Technology, has brought researchers from various countries together to promote transnational coordination of nationally-funded research. This is a unique approach which enables the sharing of research interests across thirty-five European countries, and has even attracted the participation of many non EU countries such as Australia and Canada. COST not only supports the organization of the networking meetings, but also other activities as described later on. It attracts scientists and experts working not only within academia and industry, but also from NGOs and the public sector. Moreover, COST involves very simple administrative and funding procedures.

COST is indeed a unique research tool since it connects and acts as a 'matchmaker' for scientists across Europe and internationally, and enables the creation of

communities of research in various fields. The COST networking platform allows researchers to meet and build consortia which can lead to the submission of transnational project proposals for future funding such as the EU's Framework Programme, now Horizon 2020. COST also funds publications and promotes the dissemination of information collected from these networking events. This increases the impact of the outcomes of COST Actions on policy-makers and other decision-making bodies.

### **2 How does COST work?**

COST, [www.cost.eu](http://www.cost.eu), is an intergovernmental framework based at European Council, which allows the coordination of nationally-funded research on a European level. As already explained, COST contributes to reducing and opening the European Research Area to cooperation worldwide and thus makes it possible for the various national facilities, institutes, universities, public sector and private industry to work jointly on a wide range of activities. COST is based around the funding of so called COST Actions. COST is unique in that the objectives of these COST Actions are the result of a bottom-up approach to research in the ten key domains: Biomedicine and Molecular Biosciences (BMBS); Chemistry and Molecular Sciences and Technologies (CMST); Earth System Science and Environmental Management (ESSEM); Food and Agriculture (FA); Forests, their Products and Services (FPS); Individuals, Societies, Cultures and Health (ISCH); Information and Communication Technologies (ICT); Materials, Physical and Nanosciences (MPNS); Transport and Urban Development (TUD) and also Transdomain Proposals (TDP-SAB).

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Each COST Action lasts for four years and requires a minimum participation of five COST Member countries. Proposals for new COST Actions can be submitted by any type of institution, through a twice-yearly open call for proposals with deadlines usually in March and September. These proposals are evaluated by the relevant Domain Committee, through a number of steps, including peer-review of full proposals and organisation of oral presentations. The Committee for Scientific Officers (CSO), which consists of high level officials from each member state, then takes the final decision as to which COST Actions are funded. The whole process takes around eight months from the proposal-collection date.

Following approval by the CSO, the COST Action usually starts within three months from the date of approval. The activities of each COST Action are setup and organised by the Management Committee (MC) which is appointed once the Action is launched. Presently the COST Office and European Science Foundation (ESF) support services are responsible for both the administration and scientific coordination of the COST Actions and handling the reimbursement procedures.

### 3 How can a researcher based in Malta apply to participate in COST?

What is so attractive about COST is that researchers from different countries, who were not involved in the original consortium which submitted the original proposal, can also apply to join the COST Action, once it has been approved by CSO. This is done on a national level, whereby researchers submit an application to their COST National Contact (CNC). Indeed, in Malta, over ninety percent of the participations by researchers and scientists in COST Actions is the result of an application to an already approved COST action, and the researchers did not form part of the consortium who submitted the application.

In Malta, applications from local researchers and scientists to participate in COST Actions, require very minimal administration. The best way to get involved in COST is to undertake an online search, using such tools as the search engine on the COST website [http://www.cost.eu/domains\\_Actions/all\\_Actions](http://www.cost.eu/domains_Actions/all_Actions), in order to find ongoing or new COST Actions that match one's expertise and research interests. The researcher is then required to fill in a simple application form available on the MCST website <http://www.mcst.gov.mt/networking/cost> and submit it as a soft copy to the Malta COST National Contact (CNC) as indicated on the application form.

These applications are then evaluated by the Malta CNC and the relevant Malta Domain Committee (DC) Representative to ensure that the researcher's expertise 'matches' the aims of the COST action. If positively evaluated, the Malta CNC and Malta DC forward their recommendation to the Executive Board of the Malta Council for Science and Technology (MCST), which manages COST in Malta. The whole process is usually complete in about two weeks from submission of the application.

Once the researcher's application is approved by MCST, the CNC then submits a request to the COST office based at the European Council, in order that Malta formally accepts the Memorandum of Understanding of the COST Action. This is done since, it is to be highlighted that through participation in COST Actions, the researcher is representing their country (and not themselves). The participant's details are then uploaded on the e-COST website by the CNC, and the participant is then formally nominated as a COST Management Committee (MC) member. S/he is then able to participate fully in the COST action and its working groups, will be informed of all meetings, and will also be reimbursed for travel and subsistence expenses related to the attendance of COST meetings.

Thus, in COST, there are no funds for research as such, but participants are reimbursed for expenses in conjunction with flights and accommodation to COST meetings. It leads to excellent contacts (meetings are generally held 2-3 times per year) and thus one can establish excellent relations over the four years of the COST action.

What makes COST even more attractive in the local Maltese context is that, for once, our small size is an added advantage. Indeed, irrespective of the country size, every COST country is allowed to nominate two members on the Management Committee of each COST action, together with a number of substitute MC members. This gives Malta an added advantage, since it puts Malta COST MC members en par with the MC members from much larger countries.

In the last three years, the number of Maltese participants taking part in COST Actions has taken an exponential leap: from six participants in 2009, to over 130 Malta COST MC members at the end of 2012. Table 1 lists just a few of the COST Actions, researchers based in Malta are participating in. While some COST Actions look at very basic research such as those on quantum physics and black holes MP0905 Black Holes in a Violent Universe, others have a more practical basis such as Action IS0804 Language Impairment in a Multilingual Society: Linguistic Patterns and the Road to Assessment. As can be seen from Table 1, a whole variety of areas are investigated, attracting participants

from outside the traditional academic research community. These include COST Actions such as IS1005 Medieval Europe, FA1004 Conservation Physiology of Marine Fishes and IS1102 Social Services, Welfare State

And Places. The restructuring of social services in Europe and its impacts on social and territorial cohesion and governance to mention just a few.

BM 1105 GnRH deficiency: Elucidation Of The Neuroendocrine Control Of Human Reproduction:	Prof Josanne Vassallo, Dr Robert Formosa, Faculty of Medicine and Surgery, University of Malta
BM 1106 The Genes in Irritable Bowel Syndrome Research Network Europe (GENIEUR):	Dr Mario Vassallo, Department of Medicine, Mater Dei Hospital
BM 1201 Developmental Origins of Chronic Lung Disease:	Dr Cynthia Jones, Dr Brendan Caruana Montalto, Department of Medicine, Mater Dei Hospital
FA 1105 Towards a Sustainable and Productive EU Organic Greenhouse Horticulture:	Mr Mario V. Balzan, Institute of Applied Science, Malta College of Arts, Science and Technology
FA 1202 A European Network For Mitigating Bacterial Colonisation and Persistence On Foods and Food Processing Environments:	Dr Vasilis Valdramidis, Department of Food Studies and Environmental Health, University of Malta
FA 1208 Pathogen-Informed Strategies for Sustainable Broad-Spectrum Crop Resistance:	Mr Mark Causon, Ms Katarina Kohutova, Europe Direct Malta
FP 1204 Green Infrastructure Approach: Linking Environmental with Social Aspects in Studying and Managing Urban Forests:	Dr Joseph Buhagiar, Department of Biology, University of Malta
ES 1104 Arid Lands Restoration and Combat of Desertification: Setting Up a Drylands and Desert Restoration Hub:	Mr Daniel Sultana, Malta Environment and Planning Authority
ES 0905 Basic Concepts for Convection Parameterization in Weather Forecast and Climate Models:	Dr Charles Galdies, Institute of Earth Systems, University of Malta
ES 1106 Assessment of EUROpean AGRiculture WATER Use And Trade Under Climate Change (EURO-AGRIWAT):	Dr. Eman Calleja, Institute of Applied Sciences, Malta College of Arts Science and Technology,
ES 1206 Advanced Global Navigation Satellite Systems Tropospheric Products For Monitoring Severe Weather Events And Climate (GNSS4SWEC)	Dr Charles Galdies, Institute of Earth Systems, University of Malta
MP 1204 TERA-MIR Radiation: Materials, Generation, Detection and Applications:	Dr. Louis Zammit Mangion, Prof. Charles Sammut, Department of Physics, University of Malta
MP 1209 Thermodynamics in the Quantum Regime:	Dr André Xuereb, Faculty of Science, University of Malta
MP 1210 The String Theory Universe	Dr Ivan Debono, International Research Fellow, European Space Agency
IS 1105 NETwork of experts on the legal aspects of MARitime SAFETY and security (MARSAFENET):	Capt Anand Dayal, Maritime Institute, Malta College of Arts, Science and Technology
IS 1106 Offender Supervision in Europe	Dr Sandra Scicluna, Department of Criminology, University of Malta; Ms Mariella Camilleri, Department of Probation and Parole, Ministry of Justice, Dialogue and the Family
IS 0907 Childbirth Cultures, Concerns, and Consequences: Creating a Dynamic EU Framework For Optimal Maternity Care:	Ms Marika Connor, Department of Primary Health, Ministry for Health, the Elderly and Community Care; Dr Rita Borg Xuereb, Department of Midwifery, University of Malta
IS 1104 The EU in the New Complex Geography of Economic Systems: Models, Tools and Policy Evaluation:	Prof Joseph Falzon, Dr Frank Bezzina, Faculty of Economics, Management and Accountancy, University of Malta.



Figure 1: Group Conference on Joint-Conference, COST Quantum Malta 2012: Fundamental Problems in Quantum Physics.

IS 1202 Dynamics of Virtual Work:	Dr Mark Micallef Department of Computer Science, University of Malta, Dr Anna Borg, Centre for Labour Studies, University of Malta; Dr Patrick Camilleri, Mathematics, Science and Technical Education, University of Malta
IS 1203 Transcultural Migration:	Dr Simon Mercieca, Mediterranean Institute, University of Malta
IS 1205 Social Psychological Dynamics Of Historical Representations In The Enlarged European Union	Dr Emmanuel Buttigieg, Department of History, University of Malta; Dr Gordon Sammut, Department of Psychology, University of Malta
IS 1208 Collaboration of Aphasia Trialists (CATs)	Dr ienne Grima, Department of Communication Therapy, University of Malta
IS 1209 Comparing European Prostitution Policies: Understanding Scales and Cultures of Governance (ProsPol)	Mr. Trevor Calafato, Department of Criminology, University of Malta
IS 1201 Disaster Bioethics: Addressing Ethical Issues Triggered by Disasters	Prof Pierre Mallia, Department of Family Medicine, University of Malta; Dr Ray Zammit, Department of Moral Theology, University of Malta
IC 1203 European Network Exploring Research into Geospatial Information Crowdsourcing: software and methodologies for harnessing geographic information from the crowd (ENERGIC)	Dr Maria Attard, Institute of Sustainable Development, Dr Matthew Montebello, Department of Intelligent Computer Systems, University of Malta

IC 1201 Behavioural Types for Reliable Large-Scale Software Systems (BETTY):	Dr Adrian Francalanza, Department of Computer Science, University of Malta
IC 1205 Computational Social Choice:	Dr Patrick J Camilleri, Faculty of Education, University of Malta; Dr Ernest Cachia, Department of Computer Information Systems, University of Malta
IC 1206 De-identification For Privacy Protection In Multimedia Content:	Prof Joseph Cannataci, Department of Information Policy and Governance, University of Malta
IC 1207 PARSEME: PARSing and Multi-word Expressions. Towards Linguistic Precision And Computational Efficiency In Natural Language Processing:	Ms Claudia Borg, Institute of Linguistics, University of Malta; Dr Mike Rosner, Department of Intelligent Computer Systems, University of Malta
TU 1104 Smart Energy Regions:	Perit Reuben P. Borg, Construction and Management Unit, University of Malta
TU 1102 Towards Autonomic Road Transport Support Systems:	Dr. Kenneth Scerri, Department of Systems and Control Engineering, University of Malta
TU 1209 Transport Equity Analysis: Assessment and Integration of Equity Criteria in Transportation Planning (TEA):	Ms Deborah Mifsud, Institute of Sustainable Development, University of Malta
TD 1201 Colour and Space in Cultural Heritage (COSCH):	Dr Claire Baluci, Conservation Division, Heritage Malta; Ms Jacqueline Micallef Grimaud, Institute of Business and Commerce, Malta College of Arts, Science and Technology, Mr Herman Bonnici, International Institute for Baroque Studies, University of Malta
TD 1203 Food Waste Valorisation For Sustainable Chemicals, Materials	Fuels (EUBis) and Dr Everaldo Attard, Mr Adrian Bugeja Douglas, Institute of Earth Systems, University of Malta
TD 1202 Mapping and the Citizen Sensor,	Dr Matthew Montebello, Department of Intelligent Computer Systems, University of Malta
TD 1206 Development and Implementation of European Standards on Prevention of Occupational Skin Diseases (StanDerm):	Prof Joseph Pace, Founder President Maltese Dermatology Association
TD 1209 European Information System for Alien Species:	Prof Patrick Schembri, Department of Biology, University of Malta
TA 1201 Gender, Science, Technology and Environment (genderSTE)	Prof Marie Therese Podesta Camilleri, Department of Anatomy University of Malta; Dr Marion Zammit Mangion, Department of Physiology and Biochemistry, University of Malta
IS 1103 Adapting European health systems to diversity (ADAPT),	Dr Sandra Buttigieg, Faculty of Health Sciences, University of Malta; Dr Claire Bellia; Dr Maria Pisani, Integra Foundation (newly appointed in 2012)
IC 1106 Integrating Biometrics and Forensics for the Digital age:	Mr Ramon Cassar, Forensic Lab Malta Police ; Ms Joanna Vella, Lab of Molecular Genetics, University of Malta

**Table 2: COST Malta National Contacts and and Malta COST DC members.**

Malta COST CNC and CSO	Dr Janet Mifsud
MCST International Relations and Policy Executive	Dr Claire Bellia
Malta DC Biomedicine and Molecular Biosciences (BMBS)	Prof Giuseppe de Giovanni
Malta DC Chemistry and Molecular Sciences and Technologies (CMST)	Prof Joe Grima
Malta DC Earth System Science and Environmental Management (ESSEM)	Prof Ray Ellul
Malta DC Food and Agriculture (FA)	Dr Anna McElhatton

Malta DC Forests, their Products and Services (FPS)	Mr Larry Shoemake
Malta DC Individuals, Societies, Cultures and Health (ISCH)	Prof Helen Grech
Malta DC Information and Communication Technologies (ICT)	Eng Saviour Zammit
Malta DC Materials, Physical and Nanosciences (MPNS)	Prof Luciano Mule Stagno
Malta DC Transport and Urban Development (TUD)	Dr Maria Attard
Malta DC Transdomain Proposals Standing Assessment Body (TDP-SAB)	Prof Vincent Buhagiar

## 4 What types of activities are funded by COST?

There are four main Action activities which are funded by COST:

- Meetings: The Management Committee can organise meetings in any of the COST countries participating in the Action. These include Management Committee meetings, Working Group meetings, Workshops, and Conferences. Indeed to date an average of 4 such meetings have been held every year, in Malta, since 2011.
- Short-term Scientific Missions (STSMs): Scientists participating in a COST Action have the opportunity to participate in missions or exchange visits to institutions or laboratories in another COST country. These allow participants to build collaborations, learn new techniques, or access instruments or methods not available in their country. These STSMs are particularly targeted to early stage researchers.
- Training Schools: These activities allow training or re-training for researchers, particularly those at an early stage of their career, in a new emerging subject relevant to the Action. These are usually hosted by institutions or laboratories which have the equipment or know-how to support the training.
- Dissemination, Publications: COST also disseminates outcomes of COST Actions through publications, electronic media, news, events, success story releases, and e-mail notifications. The dissemination of information on Action activities is key to ensure awareness of these activities by international scientific communities and to reach policy-makers and decision-making bodies.

## 5 The COST Organization in Malta

In Malta, MCST is the managing authority for COST. The author of this paper was appointed as COST CNC and CSO by MCST in 2010. In the last year, the co-

author was asked to help with the increased workload due to the huge interest COST is having among the local research community. MCST has also appointed Domain Committee (DC) representatives following an open call for applications in 2010. These represent Malta in the various Domains (see Table 2).

While in 2010, Malta was participating in only 6 COST Actions, in 2011 the number increased to 19 COST Actions with the participation with 30 researchers. In 2012, Malta began to participate in 38 new COST Actions, with the new involvement of a further 56 researchers, bringing a total of nearly sixty new Malta participations in COST Actions since 2010.

Researchers from Malta have also contributed to COST publications and organization of training schools and conferences. Malta was the host of three COST events in 2012.

The SPLASHCOS Training School, held in Malta in November 2012, was organised as part of the SPLASHCOS COST Action TD0902 by Dr. Timothy Gambin, Department of Classics and Archaeology, University of Malta. The goal of this COST action is to promote the coordination of the work of archaeologists, marine geoscientists and heritage managers.

Two COST Actions were brought together during ‘Quantum Malta 2012’ in 24-27th April 2012. This joint conference saw the convergence of around 200 of the world’s leading theoretical physicists to our Island to discuss foundational problems with our understanding in the nature of reality. The event was organized by two COST actions: MP1006 - Fundamental Problems in Quantum Physics and MP0905 - Black Holes in a Violent Universe. The organisers included Mr. Jackson Said, Department of Physics, Malta (see Photo 1).

In April 2012, the Department of Civil and Structural Engineering at the University of Malta hosted an International Conference on Fire Engineering, followed by a PhD Training School as part of International Fire Engineering and Response COST Action TU0904. This

included a European research group made up of experts from 23 countries, including academics and representatives of fire brigades from different European countries. The conference and the PhD Training School were coordinated by Perit Ruben Paul Borg of the Department of Civil and Structural Engineering of the Faculty for the Built Environment, University of Malta.

## 6 Conclusion

Deciding to participate in COST may seem a small step to some, an added administrative burden to others, and yet more travel commitments to others. Indeed many researchers in Malta hesitate and require persistent prodding, reminders and one to one meetings in order to persuade them of the unique advantages COST offers. Yet once a researcher takes this decision,

the unique opportunities which open up to them can really lead to a huge cascade effect and open wide new avenues of opportunities and networking. The internationalization of research based in Malta is essential if Malta is to achieve the critical mass needed for excellent research. COST offers the response to the conundrum of how to overcome our physical (and perhaps in some instances also mental) insularity. You should not let this opportunity pass...

*Note:*

*COST in Malta is managed by the Malta Council for Science and Technology. For more information see <http://www.mcst.gov.mt/networking/cost> or email the National Contact Point Dr Janet Mifsud [janet.mifsud@um.edu.mt](mailto:janet.mifsud@um.edu.mt) or [cost.mcst@gov.mt](mailto:cost.mcst@gov.mt)*