

Strategic Advisory Board (SAB)

SAB consists of 12 prominent researchers from the field of QT and representatives of industry. It provides advice on matters such as: the thematic scope of the QuantERA Call 2017 and potential future funding actions, the scientific aspects of QuantERA activities such as outreach or cooperation with non-European countries, new developments and issues related to research in quantum technology that may have a strategic impact on QuantERA activities.

Scientific Background

Quantum technologies form a new and fast developing scientific field that originated only 30 years ago when it was realized that quantum physics opens up radically new ways of quantum information processing and communication with no analogue in classical Information Technology. These discoveries represented only the beginning of totally new quantum technologies, which have the potential to bring qualitatively new approaches in many areas of science and technology by using specifically quantum effects such as superpositions and entanglement. Exemplary prospective applications include sensors, in particular for detecting extremely small forces and displacements, quantum imaging, especially in biological systems, enhanced-precision operation of atomic clocks, quantum simulators, and communication protocols guaranteeing unconditional security.



Research funding organisations from Europe and beyond are warmly invited to join QuantERA and participate in some of the network's activities. If your organisation is interested in joining QuantERA, please contact:

COORDINATOR



prof. Konrad Banaszek
Scientific Coordinator
konrad.banaszek@ncn.gov.pl

Sylwia Kostka
Programme Coordinator
sylwia.kostka@ncn.gov.pl

Marlena Wosiak
QuantERA Officer
marlena.wosiak@ncn.gov.pl

www.quantera.eu
[f](#) @QuanteraCoFund



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- ◆ QuantERA is a new European Research Area Network (ERA-NET) in the field of Quantum Technologies (QT) established as an answer to the growing need for collaborative endeavours and a common funding scheme in this field of research.
- ◆ Through joint efforts of research funding organisations QuantERA encourages transnational collaboration and leverages Europe's competitive advantage in the field of QT.
- ◆ QuantERA aspires to unlock the widely recognized industrial potential of QT in response to current societal needs and for the benefit of the public at large.

Era-Net Cofund in Quantum Technologies

www.quantera.eu

QuantERA Network

QuantERA is a consortium of 32 organisations from 26 countries, coordinated by the National Science Centre, Poland. With a budget of over EUR 34 M, including co-funding from the European Commission, QuantERA will support international research projects in the field of QT.

32 Partner Institutions from 26 Countries

Poland (Coordinator), NCN National Science Centre	Greece, GSRT General Secretariat for Research and Technology	Portugal, FCT Foundation for Science and Technology
Austria, FWF Austrian Science Fund	Hungary, NKFIH National Research, Development and Innovation Office	Romania, UEFISCDI Executive Agency for Higher Education, Research, Development and Innovation Funding
Austria, FFG Austrian Research Promotion Agency	Ireland, SFI Science Foundation Ireland	Slovakia, SAS Slovak Academy of Sciences
Belgium, FNRS Fund for Scientific Research	Israel, MATIMOP Israel Industry Center for R&D	Slovenia, MIZS Ministry of Education, Science and Sport
Belgium, FWO Research Foundation Flanders	Italy, MIUR Italian Ministry for Education, University and Research	Spain, MINECO-AEI Ministry of Economy and Competitiveness
Bulgaria, NBSF Bulgarian Science Fund	Italy, CNR National Research Council	Sweden, VR Swedish Research Council
Czech Republic, MEYS Ministry of Education, Youth and Sports	Latvia, VIAA State Education Development Agency	Switzerland, SNSF Swiss National Science Foundation
Denmark, IFD Innovation Fund Denmark	Netherlands, NWO Netherlands Organisation for Scientific Research	Turkey, TUBITAK Scientific and Technological Research Council of Turkey
Finland, AKA Academy of Finland	Norway, RCN Research Council of Norway	United Kingdom, EPSRC Engineering and Physical Sciences Research Council
France, ANR French National Research Agency	Poland, NCBR National Center for Research and Development	United Kingdom, InnovateUK Technology Strategy Board
Germany, BMBF German Federal Ministry of Education and Research		
Germany, VDI/TZ Technologiezentrum GmbH		

QuantERA Call(s)

QuantERA funding will be distributed among the best international research teams following the forthcoming Co-funded Call(s) for proposals to advance the research in the areas of:

- ◆ Exploitation of quantum phenomena such as entanglement and superposition to achieve new or radically enhanced functionality
- ◆ Critical analysis of the advantages offered by quantum-enabled or quantum-enhanced technologies in comparison to other available options based on conventional paradigms
- ◆ Exploration of QT in areas with scientific, industrial and societal potential



Additional Activities

Call(s) for proposals will be complemented by a range of additional activities aimed at:

- ◆ Exploring the possibilities of additional joint funding initiatives and future developments in the QT field
- ◆ Building industry leadership and developing industry connections to the QT research
- ◆ Responsible research and innovation in the QT
- ◆ Enhancing cooperation with other countries and stakeholders
- ◆ Mapping the development of public policies in QT throughout Europe and worldwide

Spreading Excellence

QuantERA aims at spreading research excellence across ERA by encouraging consortia to include partners from the widening countries participating in the network: Bulgaria, Czech Republic, Hungary, Latvia, Poland, Portugal, Romania, Slovakia, Slovenia, Turkey.

