

## QuantERA Call 2017

### Projects Recommended for Funding

The projects listed below are recommended for funding to the national research funding organisations of QuantERA by the Call Steering Committee of QuantERA Call 2017.

Important: The final funding decision will depend on national regulations and inspection of the formal proposals to be submitted to the national funding organisations. Each national funding agency will then take a formal decision on the projects to be supported.

No.	Acronym & Title of the Project	Coordinator/Institution	Countries in Partnership (in bold, coordinating country)
1.	<b>CEBBEC:</b> Controlling EPR and Bell correlations in atomic Bose-Einstein condensates	<b>Christoph Westbrook</b> Institut d'Optique, Laboratoire Charles Fabry	Austria, <b>France</b> , Germany, Italy, Spain
2.	<b>CUSPIDOR:</b> CMOS Compatible Single Photon Sources based on SiGe Quantum Dots	<b>Thomas Fromherz</b> Johannes Kepler University, Institute of Semiconductor and Solid State Physics	<b>Austria</b> , Czech Republic, Ireland, Italy
3.	<b>ERYQSenS:</b> Entangled Rydberg matter for quantum sensing and simulations	<b>Markus Hennrich</b> Stockholm University	Bulgaria, France, Germany, <b>Sweden</b> , UK
4.	<b>HiPhoP:</b> High dimensional quantum Photonic Platform	<b>Pascale Senellart</b> CNRS Center For Nanoscience and Nanotechnology	Austria, <b>France</b> , Italy, Slovakia
5.	<b>HYPER-U-P-S:</b> Hyper-entanglement from ultra-bright photon pair sources	<b>Ana Predojevic</b> Stockholm University	Austria, Czech Republic, Denmark, Germany, <b>Sweden</b>
6.	<b>InterPol:</b> Polariton lattices: a solid-state platform for quantum simulations of correlated and topological states	<b>Marzena Szymanska</b> University College London, Department of Physics and Astronomy	France, Germany, Israel, Poland, <b>UK</b>
7.	<b>MICROSENS:</b> Microwave quantum sensing with diamond color centers	<b>Thierry Debuisschert</b> Thales Research and Technology	Austria, <b>France</b> , Germany
8.	<b>NanoSpin:</b> Spin-based nanolytics – Turning today's quantum technology research frontier into tomorrow's diagnostic devices	<b>Jens Anders</b> University of Ulm, Institute of Microelectronics	Belgium (Flanders), Czech Republic, <b>Germany</b> , Hungary, Netherlands

No.	Acronym & Title of the Project	Coordinator	Countries in Partnership (in bold, coordinating country)
9.	<b>NAQUAS:</b> Non-equilibrium dynamics in Atomic systems for QUantum Simulation	<b>Jérôme Beugnon</b> Laboratoire Kastler Brossel	<b>France</b> , Germany, Italy, Poland, Switzerland, UK
10.	<b>ORQUID:</b> ORganic QUantum Integrated Devices	<b>Costanza Toninelli</b> National Institute of Optics	France, Germany, <b>Italy</b> , Netherlands, Poland, Spain, UK
11.	<b>Q-Clocks:</b> Cavity-Enhanced Quantum Optical Clocks	<b>Filippo Levi</b> Istituto Nazionale di Ricerca Metrologica	Denmark, France, <b>Italy</b> , Poland, Spain
12.	<b>Q_Magine:</b> Scalable Electrically Readout Diamond Spin Qubit Technology for Single Molecule Quantum Imagers	<b>Milos Nesladek</b> University Hasselt, Dept. Physics, Institute for Materials Research	Austria, <b>Belgium (Flanders)</b> , Germany, Hungary
13.	<b>QCDA:</b> Quantum Code Design and Architectures	<b>Earl Campbell</b> University of Sheffield	France, Germany, Netherlands, <b>UK</b>
14.	<b>QTFLAG:</b> Quantum Technologies For Lattice Gauge theories	<b>Simone Montangero</b> Saarland University	Austria, <b>Germany</b> , Italy, Poland
15.	<b>QuantAlgo:</b> Quantum algorithms and applications	<b>Jérémie Roland</b> Université Libre de Bruxelles	<b>Belgium</b> , Denmark, France, Latvia, Netherlands, UK
16.	<b>QUANTOX:</b> QUANTum Technologies with 2D-Oxides	<b>Marco Salluzzo</b> SuPerconducting and other INnovative materials and devices institute SPIN	France, Israel, <b>Italy</b> , Netherlands, Spain, Sweden
17.	<b>QuaSeRT:</b> Optomechanical quantum sensors at room temperature	<b>Francesco Marin</b> Dipartimento di Fisica e Astronomia, Università di Firenze	Austria, France, Germany, <b>Italy</b> , Netherlands, Norway
18.	<b>QuompleX:</b> Quantum Information Processing with Complex Media	<b>Mehul Malik</b> Institute for Quantum Optics and Quantum Information	<b>Austria</b> , Italy, Netherlands

No.	Acronym & Title of the Project	Coordinator	Countries in Partnership (in bold, coordinating country)
19.	<b>RouTe:</b> Towards Room Temperature Quantum Technologies	<b>Thomas Ebbesen</b> University of Strasbourg & CNRS/ISIS	Finland, <b>France</b> , Germany, Poland, Spain, Switzerland
20.	<b>Si QuBus:</b> Long-range quantum bus for electron spin qubits in silicon	<b>Lars Schreiber</b> RWTH Aachen University	France, <b>Germany</b> , Netherlands, Poland
21.	<b>SQUARE:</b> Silicon Photonics for Quantum Fibre Networks	<b>Karsten Rottwitt</b> Technical University of Denmark, Department of Photonics Engineering	<b>Denmark</b> , France, Italy, Turkey, UK
22.	<b>SUMO:</b> Scaling Up quantum computation with MOlecular spins	<b>Fernando Luis</b> CSIC Instituto de Ciencia de Materiales de Aragón	Austria, Germany, Italy, <b>Spain</b> , UK
23.	<b>SuperTop:</b> Topologically protected states in double nanowire superconductor hybrids	<b>Szabolcs Csonka</b> Budapest University of Technology and Economics, Department of Physics	Denmark, France, <b>Hungary</b> , Italy, Netherlands, Switzerland
24.	<b>TAIOL:</b> Trapped Atom Interferometers in Optical Lattices	<b>Franck Pereira dos Santos</b> Observatoire de Paris, SYRTE	<b>France</b> , Germany, Italy, Poland
25.	<b>TheBlinQC:</b> Theory Blind Quantum Control	<b>Florian Mintert</b> Imperial College, Physics Department	Austria, Czech Republic, Germany, Poland, Portugal, <b>UK</b>
26.	<b>Topoquant:</b> 2D hybrid materials as a platform for topological quantum computing	<b>Klaus Ensslin</b> ETH Zurich, Physics Department	Denmark, Germany, Sweden, <b>Switzerland</b>

Contact: National Science Centre, Poland [www.quantera.eu](http://www.quantera.eu)

Scientific Coordinator: Prof. Konrad Banaszek [Konrad.banaszek@ncn.gov.pl](mailto:Konrad.banaszek@ncn.gov.pl)

Programme Coordinator: Sylwia Kostka [Sylwia.kostka@ncn.gov.pl](mailto:Sylwia.kostka@ncn.gov.pl)

QuantERA Officer: Marlena Wosiak [Marlena.wosiak@ncn.gov.pl](mailto:Marlena.wosiak@ncn.gov.pl)

*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 731473.*

