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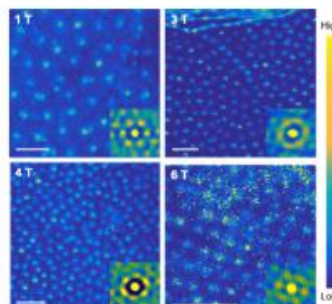
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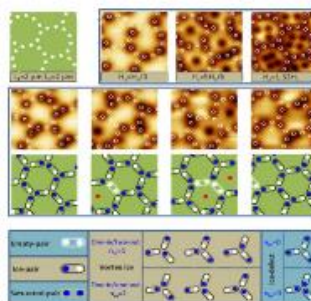
NANOCOHBRI is coordinated by:



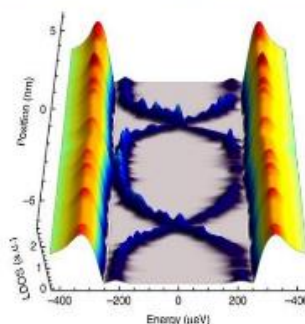
Below some examples of relevant results obtained by members of the action:



[www.journals.aps.org/prb/abstract/10.1103/PhysRevB.97.134501](http://www.journals.aps.org/prb/abstract/10.1103/PhysRevB.97.134501)



[www.journals.aps.org/prb/abstract/10.1103/PhysRevB.97.134506](http://www.journals.aps.org/prb/abstract/10.1103/PhysRevB.97.134506)



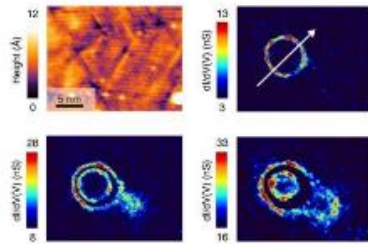
[www.nature.com/articles/s41467-017-02192-x](http://www.nature.com/articles/s41467-017-02192-x)



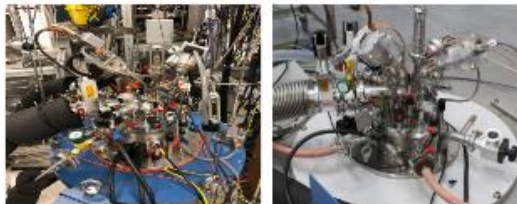
# NANOSCALE COHERENT HYBRID DEVICES FOR SUPERCONDUCTING QUANTUM TECHNOLOGIES



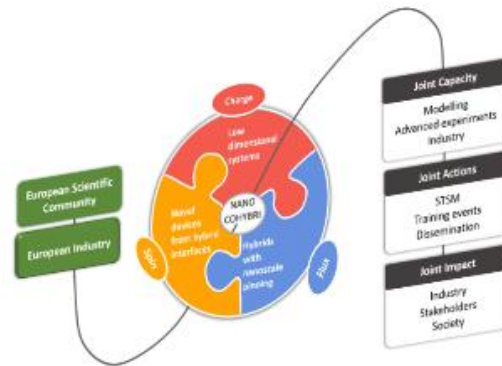
Superconducting technologies are prime candidates to ripen quantum effects into devices and applications. In the last few years, a new field has emerged where quantum behavior is controlled by interfacing superconductors with magnets, insulators, semiconductors or normal metals. These hybrid structures improve appliances taking advantage of quantum effects, be it for dissipationless transport of current, generation of high magnetic fields sensors or quantum information.



The accumulated knowledge in decades of work in understanding superconductivity allows scientists now to make experiments by design, controlling relevant parameters in devices. This new field is therefore expected to impact crucial areas for societal development, including energy, transport, medicine or computation.



The scientific and technical communities working in superconductivity, whose activities put Europe at the frontier of research, are traditionally small groups working independently. The NANOCOBYBRI COST Action addresses the pressing need for a common place to share knowledge and infrastructure and for developing new cooperative projects. To this end, we have set-up a program including networking activities with a proactive and inclusive approach promoting synergic collaboration among industry and academic researchers.



This will optimize European efforts in this area and improve the research outputs, avoiding duplication of resources and skills. By fulfilling its full potential, this consortium will help maintaining and developing Europe's leading position in superconducting quantum technologies.

The NANOCOBYBRI COST Action started in October 2017 and will last until October 2021.



Currently, 26 COST countries, 1 "Near Neighbour Country" and 5 "International Partner Countries" have joined the Network.

NANOCOBYBRI provides networking, training and career development opportunities to scientists wishing to contribute to the objectives of the action. It aims to promote, in particular, Early Career Investigators (those who have completed their PhD degree within the last 8 years), female researchers as well as researchers from COST "Inclusiveness Target Countries" (see [www.cost.eu/who-we-are/cost-strategy/excellence-and-inclusiveness](http://www.cost.eu/who-we-are/cost-strategy/excellence-and-inclusiveness)). Anyone willing to contribute to the objectives of the action is welcome to contact us.

Our instruments include:

- Schools, workshops and conferences
- Short-term Scientific Missions (STSMs)
- ITC Conference grants

For more information, please visit the NANOCOBYBRI website:

[www.nanocohybri.eu](http://www.nanocohybri.eu)