Nanoscale Systems for Optical Quantum Technologies

Grant Agreement No: 712721
Start Date: 1st October 2016 - Duration: 36 months

D4.2 Web site and logo

Deliverable:	D4.2
Work package:	WP4 Management, dissemination and exploitation
Task:	4.2 Dissemination, communication and exploitation of knowledge
Lead beneficiary:	CNRS
Type:	Websites, patents filling, etc.
Dissemination level:	Public
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Author(s):	P. Goldner (CNRS-CP)

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Version history

Version	Date	Author(s)	Description
V1	21/11/2016	P. Goldner (CNRS-CP)	Submission to EC

Table of Contents

Deliverable Description

This deliverable corresponds to the release of the project's logo and dedicated website.

Website

NanOQTech website is available at the address http://www.nanoqtech.eu/. We tried to use an overall simple and elegant design built around the project logo and a single page layout. The website is the main access point to all information related to NanOQTech and is directed towards a broad range of visitors.

The following pages or sections (see Annex for screen shots) have been created:

Overview:
This is the home section which gives a short description of the project (context, vision, main objectives, consortium description, starting date, duration, budget). The funding by the EU H2020 FET Open programme is acknowledged in the first sentence. Links are also provided to NanOQTech fact sheet on Cordis and Zenodo repository. A link to a more detailed project page (see below) is also given. Finally, the EU H2020 logo is linked to the commission corresponding page.

Project:
This is a separate page that can be accessed by the 'learn more >' link from the overview/home section. Here NanOQTech vision is detailed, as well as the novelty and ambition of the project. The texts are adapted from the proposal.

News:
This section gathers the news related to the project: internal events (meetings, summer school, etc.), publications, presentations, dissemination towards the general public, etc. When available, links are provided towards materials on the Zenodo repository.

Consortium:
Partners are described in this part: a logo, a short text that emphasizes the partner's expertise and role in the project are shown together with a link to the group's homepage where details can be found. Each partner is responsible for his description.

Quantum technologies:
This a separate page that is meant to give general information on quantum technologies. A brief text describes what they are and the Quantum Manifesto can be downloaded from the page for more details. More information and/or links will be given soon.

Publications:
This section collects NanOQTech publications. Together with the reference, links to the journal paper and the Zenodo repository that hosts the open access version of the publication are given.

Deliverables:
Public deliverables can be downloaded from this section.

Contact:
The project coordinator's contact information can be found here.

Disclaimer:
A disclaimer is given on this page as well as copyright information and site editorial responsibility.

Logo

NanOQTech logo (see Annex) represents on its right a rare earth doped nanoparticle linked to an optical fiber from which light sparkles. The logo will be used whenever possible to highlight the project. In particular, it will be shown on the project's reports, presentations, posters, etc.

Conclusion

NanOQTech website is available for gathering all information related to the project. It will grow, as the project will develop, with publications, news, dissemination, general information and internal events.
The project's logo is available to maximize the project visibility on all related documents or presentations.

Annex

NanOQTech logo:

Website pages:

Overview/home page:

Project page:

NanOQTech

Nanoscale Systems for Optical Quantum Technologies

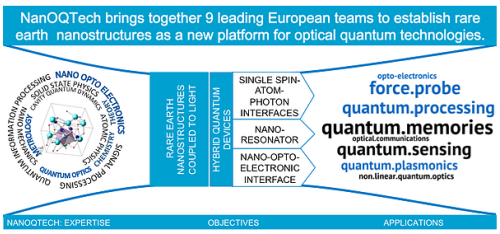
Overview News Consortium Quantum Technologies Publications Deliverables Contact

Our vision

Quantum technologies are developed to overcome classical limits in communication and processing but also in new areas like sensing, imaging and simulations. They will impact all aspects of life by allowing e.g. ultra-secure communications, simulation of complex drug molecules, or new bio-medical imaging techniques.

Many quantum systems are investigated for specific tasks. The next major challenge is to overcome the limits of single systems by associating radically different quantum systems in hybrid architectures, each selected for its specific properties. Interconnection of these systems will also be necessary to further develop functionalities like distributed processing or extremely secure data exchange, in a global 'quantum internet'.

Our vision is that RE nanostructures will play a pivotal role in this scheme by offering a solid-state platform that can be coupled to other quantum systems, while incorporating a coherent spin-photon interface. This essential bridge functionality is expected to have a broad impact, especially since RE ions are extremely versatile systems. They span a wide range of optical transition frequencies from the UV to the infrared, including the 1.5 µm telecom wavelength, and they have electron and nuclear spin transitions. This offers possibilities of coupling between matter and electro-magnetic waves that are unmatched by other quantum systems.



News section:

NEWS

NanOQTech kick-off meeting
October 21, 2016

NanOQTech kick-off meeting was held on October 19 & 20, 2016 at Chimie ParisTech (Paris, France). It gathered all partners for about one day and a half to discuss recent scientific developments and the planning and coordination of the project.

Science Fair at Chimie ParisTech
October 17, 2016

A poster presented NanOQTech at the 2016 National Science Fair event that took place at Chimie ParisTech on October 15 and 16, 2016. It describes the H2020 NanOQTech project for a general (French) audience.

NanOQTech poster >

Consortium section:

CONSORTIUM

Centre National de la Recherche Scientifique - IRCP

The Institut de Recherche de Chimie Paris (IRCP) coordinates NanOQTech and is in charge of material development. The Crystal and Quantum State Dynamics group at IRCP has extensive experience in the design, growth, characterization and modeling of rare-earth doped bulk or nanoscale crystals for applications in photonics, including optical information processing. In these materials, the IRCP team focuses on controlling the relaxation dynamics of optical and spin transitions.

website >

Centre National de la Recherche Scientifique - Institut Néel

The Institut Néel is in charge of the nano-resonator hybrid systems in NanOQTech. The Institute is a leading laboratory in nanoscience. Within the Institute, the Nano-Optics and Force team specializes in optomechanics, hybrid quantum nanomechanical systems, nano-optics, and proximity forces measurements (Casimir forces, Atomic Force Microscopy and Magnetic Force Microscopy).

website >

Centre National de la Recherche Scientifique - SYRTE

The SYRTE Laboratory (Système de Référence Temps Espace – Space Time Reference System) is in charge of the optical measurements of the hybrid nano-resonators in NanOQTech. The laboratory is devoted to high precision measurement and modeling. It has extensive experience in ultra-high precision spectroscopic measurements, including state-of-the-art narrow-linewidth lasers both continuous waves and femtosecond (optical frequency combs).

website >

Karlsruher Institut für Technologie

The quantum optics group at KIT is in charge of the spin-atom-photon interfaces using micro-cavities in NanOQTech. The group focuses on exploring applications of optical micro- and nano-cavities in the fields of quantum optics with solid-state systems, optical sensing, microscopy, and spectroscopy. The work builds on a particularly promising cavity design that relies on micro-machined optical fibres for experiments that include cavity-enhanced single photon sources, cavity-enhanced Raman

Publication section:

PUBLICATIONS

2016

K. Mølmer, Y. Le Coq, and S. Seidelin, "Dispersive coupling between light and a rare-earth-ion–doped mechanical resonator," Phys. Rev. A 94, 053804 (2016).
Journal link >
Open access link >

Contact section:

CONTACT

Project Coordinator:

Dr. Philippe Goldner

Institut de Recherche de Chimie Paris
Chimie ParisTech
11, rue Pierre et Marie Curie
75231 Paris cedex 05

Email: philippe.goldner@chimie-paristech.fr
Phone: + 33 (0) 1 53 73 79 30
Website: http://www.cqsd.fr