



Colloidal Nanomaterials for Smart Applications

Fact Sheet

Project Information

COMPASS

Grant agreement ID: 691185

[Project website](#)

DOI

[10.3030/691185](https://doi.org/10.3030/691185)

Project closed

EC signature date

30 November 2015

Start date

1 March 2016

End date

29 February 2020

Funded under

EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions

Total cost

€ 859 500,00

EU contribution

€ 859 500,00

Coordinated by

FONDAZIONE ISTITUTO
ITALIANO DI TECNOLOGIA
 Italy

Objective

"The COMPASS project unites key players in Europe and the US with the aim to advance the field of colloidal nanocrystal (NC) synthesis and assembly and their exploitation in photonics, sensing, energy conversion and medicine. COMPASS aims to (i) develop colloidal NCs with desired properties by controlling their size, shape and composition, and to demonstrate routes allowing for large production volumes with nearly identical size and shape; (ii) develop approaches for NC self-assembly in ordered superlattices constituting NC solids with novel properties; (iii) understand the optoelectronic properties of novel NC-based materials by advanced optical and scanning probe spectroscopy methods, and explore pathways for their

implementation in light emission, sensing, energy conversion and medicine; (iv) establish a consolidated network between leading EU and US institutes to provide a stimulating international environment for talented young researchers; (v) advance the level of R&D in Europe and the US and foster technology transfer and dissemination; (vii) raise the awareness of the general public on the prospects of NC materials in future technologies. Young scientists will be formed by "training by research" in long term stays at host labs and by lecture series held in the network that cover specific research topics, technology transfer and management/communication skills, leading to an interdisciplinary and international formation. The exchange will consolidate existing initial links between some of the lead scientists in COMPASS and establish a long lasting network that will have strong impact on science and education with significant repercussions in industry. The work plan is divided in 5 strongly linked workpackages that deal with Management, NC Fabrication, Self Assembly and Surface Functionalization, Photonics and Optoelectronics, and Energy Conversion. COMPASS will be guided by an executive board that consists of the coordinator and the lead PIs of the partners."

Fields of science (EuroSciVoc)

[engineering and technology](#) > [electrical engineering](#), [electronic engineering](#), [information engineering](#) > [electronic engineering](#) > [sensors](#) > **[optical sensors](#)**

[natural sciences](#) > [chemical sciences](#) > [inorganic chemistry](#) > **[inorganic compounds](#)**

[engineering and technology](#) > [nanotechnology](#) > [nano-materials](#) > **[nanocrystals](#)**

[engineering and technology](#) > [environmental engineering](#) > [energy and fuels](#) > **[energy conversion](#)**

[engineering and technology](#) > [environmental engineering](#) > [energy and fuels](#) > [renewable energy](#) > [solar energy](#) > **[photovoltaic](#)**



Programme(s)

[H2020-EU.1.3. - EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions](#)

MAIN PROGRAMME

[H2020-EU.1.3.3. - Stimulating innovation by means of cross-fertilisation of knowledge](#)

Topic(s)

[MSCA-RISE-2015 - Marie Skłodowska-Curie Research and Innovation Staff Exchange \(RISE\)](#)

Call for proposal

[H2020-MSCA-RISE-2015](#) 

[See other projects for this call](#)

Funding Scheme

[MSCA-RISE - Marie Skłodowska-Curie Research and Innovation Staff Exchange \(RISE\)](#)

Coordinator



FONDAZIONE ISTITUTO ITALIANO DI TECNOLOGIA

Net EU contribution

€ 324 000,00

Total cost

€ 324 000,00

Address

VIA MOREGO 30

16163 Genova

 **Italy** 

Region

Nord-Ovest > Liguria > Genova

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Participants (3)



LUDWIG-MAXIMILIANS-UNIVERSITAET MUENCHEN

 **Germany**

Net EU contribution

€ 207 000,00

Address

GESCHWISTER SCHOLL PLATZ 1
80539 MUNCHEN 

Region

Bayern > Oberbayern > München, Kreisfreie Stadt

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 207 000,00



UNIVERSITEIT GENT

 Belgium

Net EU contribution

€ 225 000,00

Address

SINT PIETERSNIEUWSTRAAT 25
9000 Gent 

Region

Vlaams Gewest > Prov. Oost-Vlaanderen > Arr. Gent

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 225 000,00



UNIVERSITEIT UTRECHT

 Netherlands

Net EU contribution

€ 103 500,00

Address

HEIDELBERGLAAN 8

3584 CS Utrecht 

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 103 500,00

Partners (3)



PARTNER



TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK

 United States

Net EU contribution

€ 0,00

Address

AMSTERDAM AVENUE 1210 ROOM

10027 7003 New York 

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 108 000,00



PARTNER 

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

 United States

Net EU contribution

€ 0,00

Address

FRANKLIN STREET 1111 12 FLOOR
94607 Berkeley 

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 90 000,00



PARTNER 

CORNELL UNIVERSITY

 United States

Net EU contribution

€ 0,00

Address

PINE TREE ROAD 373
14850 Ithaca Ny 

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 45 000,00

Last update: 6 September 2024

Permalink: <https://cordis.europa.eu/project/id/691185>

European Union, 2025

