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Nano-systems for the conservation of immovable and moveable polymaterial Cultural Heritage in a changing environment

Fact Sheet

Project Information

NANOMATCH

Grant agreement ID: 283182

[Project website](#) 

Project closed

Start date

1 November 2011

End date

31 October 2014

Funded under

Specific Programme "Cooperation": Environment
(including Climate Change)

Total cost

€ 3 082 933,62

EU contribution

€ 2 522 698,46

Coordinated by

CONSIGLIO NAZIONALE DELLE
RICERCHE



Italy

This project is featured in...



Tackling diabetes in Europe

Objective

Government authorities, restoration architects and conservation scientists have always had to face the problem of deterioration of historic building materials, in particular stone, wood and glass; an issue that has become more and more urgent since climate change has worsened natural decay and the impact of atmospheric pollution. In addition in recent years socio-economic requirements have claimed for a more sustainable use of existing building heritage. On these premises, the NANOMATCH project will address this issue through the development of a class of innovative consolidants to be specifically designed to meet the requirements of the historic substrates and to identify high performance products to renovate the market dedicated to the conservation of the built heritage.

Alkaline earth and semi-metal alkoxides precursors will be synthesized tuning their properties on the basis of the stone, wood and glass-substrate characteristics and the specific functionality to be addressed, leading to a new generation of nano-structured materials tailored specifically for historic materials in a climate change context, merging from the most recent advanced research in the fields of nanotechnologies and conservation science. The development of suitable products for treatment of historic materials will finally halt the current use of inappropriate commercial products, especially polymers, that were designed for completely other purposes than the conservation of cultural heritage and that, in the recent years, show the detrimental effects due to their fast deterioration, that hampers the treated material too.

Central in the project is the synthesis of molecular precursors, nano-coating deposition and related properties assessment finalized to the production of innovative products to update the market of conservation products as a real alternative for unfitting traditional ones. The basis for their production and introduction on the market will be developed during the project.

Fields of science (EuroSciVoc) 

[engineering and technology](#) > **[materials engineering](#)**

[natural sciences](#) > [earth and related environmental sciences](#) > [environmental sciences](#) > **[pollution](#)**

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

[natural sciences](#) > [earth and related environmental sciences](#) > [atmospheric sciences](#) > [climatology](#) > **[climatic changes](#)**

[agricultural sciences](#) > [agriculture, forestry, and fisheries](#) > **[forestry](#)**



Programme(s)

[FP7-ENVIRONMENT - Specific Programme "Cooperation": Environment \(including Climate Change\)](#)

Topic(s)

[ENV-NMP.2011.3.2.1-1 - Development of advanced compatible materials and techniques and their application for the protection, conservation and restoration of cultural heritage assets](#)

Call for proposal

FP7-ENV-NMP-2011

[See other projects for this call](#)

Funding Scheme

[CP - Collaborative project \(generic\)](#)

Coordinator



CONSIGLIO NAZIONALE DELLE RICERCHE

EU contribution

€ 550 186,57

Total cost

No data

Address

PIAZZALE ALDO MORO 7

00185 Roma



Region

Centro (IT) > Lazio > Roma

Activity type

Research Organisations

Links

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

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

[HORIZON collaboration network](#)

Participants (13)



NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO

Netherlands

EU contribution

€ 184 296,89

Address

ANNA VAN BUERENPLEIN 1
2595 DA Den Haag

Activity type

Research Organisations

Links

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

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

[HORIZON collaboration network](#)

Total cost

No data



FUNDACION TECNALIA RESEARCH & INNOVATION

Spain

EU contribution

€ 191 125,00

Address

PARQUE CIENTIFICO Y TECNOLOGICO DE BIZKAIA, ASTONDO BIDEA, EDIFICIO 700
48160 DERIO BIZKAIA 

Region

Noreste > País Vasco > Gipuzkoa

Activity type

Research Organisations

Links

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

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

[HORIZON collaboration network](#) 

Total cost

No data



Cercle des partenaires du patrimoine-Laboratoire de recherche des monuments historiques

 France

EU contribution

€ 192 840,00

Address

rue de Paris 29
77420 Champs-sur-Marne 

Activity type

Other

Links

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

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

[HORIZON collaboration network](#) 

Total cost

No data



FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV

 Germany

EU contribution

€ 187 900,00

Address

HANSASTRASSE 27C
80686 Munchen 

Region

Bayern > Oberbayern > München, Kreisfreie Stadt

Activity type

Research Organisations

Links

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

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

[HORIZON collaboration network](#) 

Total cost

No data



ASOCIACION DE INVESTIGACION DE LAS INDUSTRIAS DE LA CONSTRUCCION

 Spain

EU contribution

€ 183 870,00

Address

CALLE BENJAMIN FRANKLIN 17 PARQUE TECNOLOGICO SN
46980 PATERNA VALENCIA 

Activity type

Research Organisations

Links

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

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

[HORIZON collaboration network](#) 

Total cost

No data



R.E.D. SRL

 Italy

EU contribution

€ 233 160,00

Address

VIA GIULIO CESARE SCALIGERO 20
35136 Padova Pd 

Region

Nord-Est > Veneto > Padova

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

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

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

[HORIZON collaboration network](#) 

Total cost

No data



NANOTEGO NANO TEKNOLOJIK URUNLER ARASTIRMA GELISTIRME KIMYA
SANAYI VETICARET ANONIM SIRKETI 

 Türkiye

EU contribution

€ 29 520,00

Address

KEMAL NEHROZOGLU CAD GOSB
41480 GEBZE KOCAELI 

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

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

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

[HORIZON collaboration network](#) 

Total cost

No data



BOFIMEX BOUWSTOFFEN BV

Netherlands

EU contribution

€ 157 500,00

Address

LISSEVELD 9

4941 VK RAAMSDONKSVEER

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

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

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

[HORIZON collaboration network](#)

Total cost

No data



METROPOLITANKAPITEL DER HOHEN DOMKIRCHE KOLN DOMBAUVERWALTUNG

Germany

EU contribution

€ 81 600,00

Address

RONCALLIPLATZ 2

50667 KOLN

Region

Nordrhein-Westfalen > Köln > Köln, Kreisfreie Stadt

Activity type

Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)

Links

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

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

[HORIZON collaboration network](#)

Total cost

No data



OPERA DI SANTA CROCE

 Italy

EU contribution

€ 66 360,00

Address

PIAZZA SANTA CROCE 16

50122 FIRENZE 

Activity type

Other

Links

[Contact the organisation](#) 

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

[HORIZON collaboration network](#) 

Total cost

No data



ESCHLIMANN ATELIER DE RESTAURATION-PEINTURE SAS

 France

EU contribution

€ 186 060,00

Address

RUE ETTORE BUGATTI

67150 ERSTEIN 

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

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

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

[HORIZON collaboration network](#) 

Total cost

No data



TOP OBERFLACHEN GMBH

Germany

EU contribution

€ 162 040,00

Address

**FRIEDRICHSTRASSE 10A
97082 WUERZBURG**

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

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

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

[HORIZON collaboration network](#)

Total cost

No data



DUCT SRL

Romania

EU contribution

€ 116 240,00

Address

**STRADA FERROVIARILOR 55 ETAJ 3 AP 13 Sector 3
012206 BUCURESTI**

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

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

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

[HORIZON collaboration network](#)

Total cost

No data

Last update: 23 February 2022

Permalink: <https://cordis.europa.eu/project/id/283182>

European Union, 2025

