

# EUREKA PROJECT E!2694 - EUROCARE2000

## 1. General description

<b>Project</b>	E! 2694 - EUROCARE2000	<b>Status</b>	Announced - 28-JUN-2002
<b>Title</b>	<b>European Project On Conservation, Restoration/Maintenance (Umbrella: Generates Projects And Networks Of Excellence).</b>		
<b>Class</b>	Umbrella	<b>Technological area</b>	Environment
<b>Start date</b>	01-JAN-2002	<b>End date</b>	01-JAN-2006
<b>Duration</b>	48 months	<b>Total cost</b>	Meuro
<b>Partner sought</b>	Yes		
<b>Summary</b>	New Industrial Products And Technologies As Well As Craft Skills For Conservation And Restoration Work. Establishment Of Technical Standards And Outlines For Examination And Treatment Of Objects And Monuments.		

## Budget and duration

Phase	Budget(Meuro)	Duration (Months)
<b>Total</b>		<b>48</b>

## Member contribution

Member	Contribution	Position	Since
<b>Austria</b>	%	<b>Contact Member</b>	<b>06-SEP-2001</b>
Belgium	%	Participating Member	28-JUN-2002
Czech Republic	%	Participating Member	28-JUN-2002
Germany	%	Participating Member	28-JUN-2002
Spain	%	Participating Member	28-JUN-2002
Greece	%	Participating Member	28-JUN-2002
Hungary	%	Participating Member	28-JUN-2002
Italy	%	Participating Member	28-JUN-2002
Latvia	%	Participating Member	26-JUN-2003
Norway	%	Participating Member	28-JUN-2002
Sweden	%	Participating Member	28-JUN-2002
Slovenia	%	Participating Member	28-JUN-2002
Slovak Republic	%	Interested	05-DEC-2001
Turkey	%	Interested	05-DEC-2001

## Participants

Company	Country	Type	Role
<b>Schloss Schoenbrunn Kultur Und Betriebsges. M.B.H.</b>	<b>Austria</b>	<b>SME</b>	<b>Main</b>
Svuom Praha A.S.	Czech Republic	Research Institute	Partner
Cdti - Centre For The Development Of Industrial Technology	Spain	Governm./Nat. Admin.	Partner

## Participants

Company	Country	Type	Role
Institut Fuer Chemie Und Biologie Des Meeres (Icbm) Carl-Von-Ossietzky Universitaet Oldenburg	Germany	University	Partner
Ntua-School Of Chem. Engineering, Mat. & Engineering Dept. National Technical University Of Athens	Greece	University	Partner
University Of Latvia/Institute Of Polymer Mechanics	Latvia	University	Partner
Ait - Angeandte Informationstechnik Forschungsgesellschaft Mbh	Austria	Governm./Nat. Admin.	Partner
C.N.R. - Consiglio Nazionale Delle Ricerche	Italy	Research Institute	Partner
Chalmers University Of Technology	Sweden	University	Partner
Aristotle University Of Thessaloniki/Archaeology Dept.	Greece	University	Partner
Politecnico Di Milano/Hypermedia Group Laboratory (Iset)	Italy	University	Partner
Hungarian National Heritage Board	Hungary	Governm./Nat. Admin.	Partner
Ljubljana University/Fac. Of Civil And Geodetic Engineering	Slovenia	University	Partner
Directorate For Cultural Heritage	Norway	Governm./Nat. Admin.	Partner
Rug - Vakgroep Architectuur En Stedenbouw Rijks Universiteit Gent	Belgium	University	Partner
Royal Institute For The Study And Conservation Of Belgian Artistic Heritage (Kik-Irpa)	Belgium	Research Institute	Partner

## 2. Project outline

### Project description

The EUROCARE project aims to develop Industrial and other kinds of application and market-oriented products and technologies which are currently not available as well as best practices for conservation and restoration work based on and supported by scientific knowledge. The objective of the project is to support and enable advanced technical standards and European guidelines for the evaluation, analysis and treatment of cultural assets.

EUROCARE aims to:

- develop new materials and substances
- improve the analytical and treatment techniques to be applied in the conservation sector (to cultural assets)
- promote the exchange of Information between scientists and Industry in all participating countries
- generate a market for advanced applications and high technology products and processes In the field of conservation and related domains,
- establish and support information systems which are recognising state of the Information and Communication Technologies (interoperability, modern communication means, etc.) and standards,
- build up networks of existing expertise all over Europe (e.g. in terms of Centres of Excellence) and open the communication to non European countries, and
- cooperate with other relevant networks and activities at the European (e.g. Framework Programmes of the EUROPEAN UNION) and non-European level.

Keywords: material science, conservation, information science.

### Technological development envisaged

EUROCARE structure:

Initial phase:

Industry, scientists and users agree that the currently available chemicals, analytical methods and standards for the treatment of deteriorating objects exposed to environmental pollution are inadequate and short-lived and may even contribute to further damage. Therefore, the participating working groups have defined the most urgent and promising fields of R & D.

The materials and parameters which are to be examined will be defined before pilot studies are initiated in zones of different climatic and pollution conditions In Europe. In this connection, International cooperation has already started and Interdisciplinary sub-projects and working groups have been set up with a view to treating the topics selected. These working groups are to include partners from Industry as well as from the scientific and users' communities.

The operative objective is to organise 'centres of excellence', based on intense international cooperation, exchange and competition. Collaboration with similar 'networks of excellence' (especially within the R & T Framework Programme of the EUROPEAN UNION) will be established. To facilitate and support the operation of

this network state of the art Information and Communication facilities will be established. The resulting information infrastructure will also be suitable to host information banks as well as information services related to domain-specific projects of EURO CARE.

#### Execution Phase:

The development of Industrial products, methods and techniques is to be achieved by taking the following steps:

- scientists, conservators and art historians are to make a general evaluation of material damage by applying traditional and novel criteria as well as to render a visual description with the aid of new techniques.

- the development of industrial products based on the results yielded by the initial testing phase is required.

These new chemicals and methods are to ensure a more effective conservation of the relevant objects.

- studies on conservation materials and techniques are to be carried out using artificial structures, in situ structures, mural paintings and other test surfaces.

- plans have been made for the development of instruments for a special - and in particular an advanced, non-destructive analysis (e.g. by means of laser optics, infrared spectroscopy, biosensors, CCD photogrammetry, micro-seismology, micro-climatography and miniaturized gas chromatography equipment for field work).

- when carrying out the various sub-projects, appropriate information and documentation systems as well as information services will be established and adapted to the respective sub-project in order to minimize analytical work and at the same time maximize the success of analysis and treatment. In addition, the lasting effect of new materials and methods of conservation is to be checked.

- computerised services will be accessed via a service portal which also enables access to knowledge bases and references to relevant experts and best practices (including digitisation of relevant materials and objects) in the field of Cultural Heritage. This portal provides

communication facilities for cooperation activities within the 'EURO CARE network of excellence' which can be considered as business-to-business (B2B) processes.

- The 'EURO CARE Network of Excellence' will provide an open and competitive structure, based on 'clusters' organised by temporary consortia of participating companies and research institutions, and coordinated by nodes in regions where this is realistic to organise.

#### Final Phase:

A) The Information and technology transfer among interested institutions from EUREKA countries, in particular between training centres for conservators and craftsmen, is to be enhanced by pooling the relevant information hosted within different information systems and made accessible by relevant information services. The established networks of excellence will be turned into a professional and possibly self-sustainable operation.

B) European standards and guidelines for conservation and restoration are to be established under Interdisciplinary sub-projects with Governmental Institutions taking an active part. This procedure is aimed at bridging the gap which currently separates Industry, scientists and the often sceptical conservators and restorers.

Note under Relationship to other EU Programmes:

FP5-TP4 Cultural Heritage, COST G7: Conservation of artworks by means of laser. Unspecified links with

environmental and material programs of the CEC.

## Markets application and exploitation

The materials, methods and services are to be developed in such a way that they can be applied in all fields of conservation and restoration of materials and objects which are exposed to natural environmental factors as well as to pollution.

Some of the products and methods will be appreciated above all by public institutions which are charged with the protection of the cultural heritage; others will be suited for broad application in the building and materials production industries. Some products will however, be too specialised and expensive for general application. The developed information systems will be continued as professional and commercially-oriented operation.

## Project codes

**BSI**

**NACE**

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**Organisation type** SME  
**Participant role** Main

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Contribution to project

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Expertise

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Contribution to project

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## Expertise

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**Organisation type** Governm./Nat. Admin.  
**Participant role** Partner

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## Contribution to project

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## Expertise

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**Organisation type** University  
**Participant role** Partner

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## Contribution to project

Development of new techniques for the detection of biodeteriorative agents.

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## Expertise

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**Participant role** Partner

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## Contribution to project

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## Expertise

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**Organisation type**  
**Participant role**

University  
Partner

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Contribution to project

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Expertise

- Polymer coating materials - Thermal insulation - Cultural monuments.

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Contribution to project

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## Expertise

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**Organisation type** Research Institute  
**Participant role** Partner

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## Contribution to project

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## Expertise

Microbiology, Molecular Ecology, Material Testing, Biocide development and application.

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### 4. Partner

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**Participant role** Partner

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Contribution to project

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Expertise

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Contribution to project

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Expertise

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Contribution to project

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Expertise

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**Participant role** Partner

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Contribution to project

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Expertise

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**Organisation type**  
**Participant role**

University  
Partner

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Contribution to project

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Expertise

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Contribution to project

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Expertise

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**Participant role**                  Partner

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Contribution to project

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Expertise

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Partner

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Contribution to project

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Expertise