

# NanoSci-E+

**Transnational Call  
for Collaborative Proposals (2008)**



## **Announcement of a Transnational Call for Collaborative Proposals in Nanoscience**

### **Preamble**

Nanoscience research is a multidisciplinary knowledge-generating activity that aims at an understanding of the laws that govern the behaviour of nano-scale objects of physical, chemical, or biological interest. It studies the fundamental principles of these objects and the phenomena and laws that are particular to this length-scale, and which are usually not encountered in larger (macroscopic) scales. The progress of nanoscience strongly rely on a converging approach to scientific issues where conventional disciplines venture in a new territory and jointly contribute to the building of nanoscience. Inter-disciplinary collaborations are therefore essential and in order for ideas and competencies to associate freely and efficiently, barriers to transnational collaborations must be lowered.

NanoSci-E+ is a body created specifically for the implementation of a transnational call for collaborative projects in nanoscience wherein research agencies from 13 countries of the European Research Area (ERA) participate. NanoSci-E+ is affiliated to NanoSci-ERA, a consortium pursuing the broader objectives of promoting the integration of the national research communities in nanoscience throughout the ERA as well as the coordination of programmes supporting research in this domain.

NanoSci-E+ is herewith announcing the opening of a transnational call for collaborative proposals. A minimum of 16 M€ will be distributed for the funding of high-quality projects, possibly complemented by an additional 8 M€ (subject to contract with the European Commission). The aim of this Call is to enable scientists working in nanoscience in different countries in the ERA to build an effective collaboration on a common research project based on ambitious and original ideas at the frontier of knowledge. Novel and multidisciplinary projects in fundamental research are encouraged.

Member organisations of NanoSci-E+ are:

Fonds zur Förderung der Wissenschaftlichen Forschung (FWF), Austria  
Suomen Akatemia, Finland  
Centre National de la Recherche Scientifique (CNRS), France  
Agence Nationale de la Recherche (ANR), France  
Deutsche Forschungsgemeinschaft (DFG), Germany  
Science Foundation Ireland (SFI), Republic of Ireland  
Israel Science Foundation (ISF), Israel  
Consiglio Nazionale delle Ricerche (CNR), Italy  
Stichting voor Fundamenteel Onderzoek der Materie (FOM), Netherlands  
Stichting voor de Technische Wetenschappen (STW), Netherlands  
Narodowe Centrum Badań i Rozwoju (NCBiR), Poland  
Fundação para a Ciência e a Tecnologia (FCT), Portugal  
Slovenska Akademia Vied, Slovakia  
Comunidad de Madrid – Fundación para el Conocimiento madrimsd (fmi+d), Spain  
Ministerio de Educación y Ciencia, Spain  
The Engineering and Physical Sciences Research Council (EPSRC), United Kingdom

### **1 Scope of the call**

A key objective of nanoscience is to use functional nano-objects as elemental units of smarter functional arrays/devices. Before two functional nano-objects or nano-materials can communicate, a whole science of interfacing and interconnecting must be invented.

The present call is limited to **ground-breaking research projects that address the issue of interfacing functional nano-objects or nano-materials.**

It covers primarily the controlled formation of contacts and the study of coupling or communication/exchange mechanisms between nano-objects. The emphasis is on interfacing rather than on interfaces. Also included are studies dealing with the functional coupling between a nano-object and a larger object through an identified nano-specific gateway (e.g. between a nano-particle and a living cell through a protein of the membrane).

The characterization studies of nano-interfaces, and especially hard-soft interfaces (e.g. for spintronics or molecular electronics) are within the scope of the present call, as long as they represent enabling/critical steps towards nano-object interfacing.

Excluded are studies of interfaces not meant to achieve a functional mediation (e.g. between a nano-material and a biological tissue to achieve bio-compatibility) or nano-structured surfaces not acting as functional interfaces but rather used for their high-effective surface areas.

Through this call, NanoSci-E+ is seeking to fund high potential impact projects in fundamental research whose developments are mid-long term or cannot be clearly evaluated.

## 2 Application

### 2.1 Applicants' eligibility criteria

Applicants entitled to request funding must:

- 1) be based for their research in Austria, Finland, France, Germany, Ireland, Israel, Italy, the Netherlands, Poland, Portugal, Slovakia, Spain or the United Kingdom. These countries are referred hereinafter as Consortium countries.

AND

- 2) fulfil national eligibility rules for research grant application as set by the participant agency of the country where they are established for their research. Clarifications on national rules can be obtained from the National Contact Persons listed at the end of this Announcement.

Applicants not established in one of the Consortium countries may enter a proposal, if the coherence of the project so requires. However, they cannot request funding from NanoSci-E+ and must declare that they have available all the necessary resources for carrying out the project.

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In addition, the following eligibility restrictions apply:

- Each applicant must have a steady position in his/her institution for the duration of the project. In countries where rules allow it, the applicant may hold a temporary position whose funding is requested as part of the proposal. In such a case the applicant must provide a letter from the hosting institution certifying that the candidate will have access to all resources necessary for carrying out the project.
- Each applicant must obtain the approval to apply to this call by the person authorized to legally commit the applicant's institution.
- In countries where it is so required, the official applicant may be the researcher's institution. In such a case, the details on the researcher must be explicitly given in the application form.

Violation of any of the above conditions will cause the proposal to be disqualified.

### 2.2 Structure of the collaboration

The following features are mandatory:

- Each collaborative proposal must involve co-applicants based for their research in at least 3 different participating countries. The maximum number of co-applicants in a project is 5. No more than 2 co-applicants may come from the same country.
- Applicants from the same laboratory cannot be co-applicants in a proposal.

- A proposal must include at least a Young Researcher as one of the co-applicants. A Young Researcher is a researcher whose PhD degree was granted in the past 8 years (thesis defence date after January 1, 2000). An allowance corresponding to the duration of the career break will be granted in case of parental leave and military or civil service but not for part-time employment. A Young Researcher must provide evidence of scientific independence and initiative, such as being the leader of a small research group.
- An applicant cannot enter more than one proposal.
- Proposals should not duplicate the work carried out in other ongoing research contracts, but can further those projects by proposing additional new research.
- Proposals must have well-identified collaboration vectors (e.g. common PhD students, post-docs, samples circulating among project partners) demonstrating clearly the added value of transnational collaboration. Parallel-run national projects with little interaction are not acceptable.

The following features are encouraged:

- Participation of female applicants
- Proposals building on new partnerships.

### 2.3 Contents of proposals

For each proposal, co-applicants designate a Project Leader who is responsible for submitting the proposal on their behalf.

The application procedure consists of two stages:

1. Letters of Intent must be submitted in electronic form through the Electronic Submission System (ESS) dedicated to the present call (<http://www.nanoscience-europe.org>) where detailed instructions and application forms may be downloaded. Letters of Intent must be submitted **no later than 5:00 p.m. (CET) on March 27, 2008**.
2. Full Proposals may be submitted only by applicants who will be explicitly invited to participate to the second stage of submission, following the positive evaluation of their Letters of Intent. Full proposals must be submitted **no later than 5:00 p.m. (CEST) on July 23, 2008** both in an electronic version through the ESS and in a signed paper version sent by regular mail to the Joint Secretariat (postal address to be communicated later).

All material must be in English.

## 3 Funding

Funding provided within this call is intended to enhance the capacity of the applicants to collaborate. Funding will therefore be provided mainly in support of the collaboration vectors and of the local research that is necessary for the collaboration. Projects will be funded for up to three years, starting on January 1, 2009.

Extension for one additional year with no additional funding is possible upon request, particularly for projects involving applicants from countries where national academic rules require 4-year PhD studentships.

### 3.1 Eligible budget items:

- Stipend or salary for a PhD student, salary for a post-doctoral fellow (i.e. a temporary position for up to 3 years, financed according to national gross wages). In countries where national rules allow it, the salary of the Young Researcher may be included.
- Consumables.
- Small equipment ( $\leq$  € 50,000).
- Travel and visiting costs.
- User charges for facilities.

- Subcontracting (e.g. for the fabrication of samples at a specialized facility) if its need is demonstrated, according to national rules.
- Overheads and VAT according to national rules.

All budget items must conform to the national rules relevant for each applicant. National rules can be obtained from the contact persons whose details are given at the end of this Announcement.

### 3.2 Funding maxima

The maximum amount that each applicant in a proposal can request depends on the country where s/he is established for her/his research. The following maxima apply:

| Country  | 3-year project | 2-year project |
|--|----------------|----------------|
| Austria, France, Germany, Israel, Italy, Netherlands, Republic of Ireland, Spain, United Kingdom | 220,000        | 140,000        |
| Finland  | 110,000        | 70,000         |
| Poland, Portugal, Slovakia   | 100,000        | 70,000         |

Notes:

- The salary for the fourth year of a PhD studentship may be included within the amount given above.
- For applicants established in the United Kingdom, the EPSRC will provide the complementary funding necessary to cover 80% of the full economic cost associated to the applicants' eligible costs, in accordance with standard practice in the UK.

### 4 Time Schedule:

|                       |   |
|-----------------------|---|
| January 3, 2008       | Announcement of Call                                      |
| March 27, 2008        | Deadline for the submission of Letters of Intent          |
| May 22, 2008          | Selected projects invited to submit Full Proposals.       |
| July 23, 2008         | Deadline for the submission of Full Proposals             |
| September 25, 2008    | Reviews sent to Project Leaders for rebuttal              |
| October 8, 2008       | Deadline for receiving rebuttals                          |
| December 2008         | Communication of results of evaluation to Project Leaders |
| First quarter of 2009 | Start of funded projects                                  |

### 5 National Contact Persons

For information on the call or the national rules regarding the submission of a proposal, please contact:

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