



Transnational call for collaborative proposals in nanoscience

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 proposals 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).

SCOPE OF 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.

The call is open to applicants from Austria, Finland, France, Germany, Ireland, Israel, Italy, Netherlands, Poland, Portugal, Slovakia, Spain and the United Kingdom.

For more information on the eligibility criteria and application procedure, go to: www.nanoscience-europe.org.

Deadline for submission (Letters of Intent): March 27, 2008.

