

NATIONAL CONTACT POINTS

France - ANR

Mathieu Girerd
+33 1 7354 8213 • mathieu.girerd@agencerecherche.fr

United Kingdom - EPSRC

Andrew Lawrence
+44 (0) 1793 444234 • andrew.lawrence@epsrc.ac.uk

Italy - MIUR

Aldo Mascioli
+39 06 977 27 936 • aldo.mascioli@miur.it

Spain - MICINN

Rubén Martínez González
+34 916 037 252 • ruben.martinez@micinn.es

Germany - PT-DLR

Dr. Sebastian Reick
+49 2203 601 3924 • sebastian.reick@dlr.de

Austria - FWF

Dr. Stefan Mühlbacher
+43 1 505 6740 8408 • stefan.muehlbacher@fwf.ac.at

Poland - NCBiR

Maria Bojanowska
+48 515 061 549 • m.bojanowska@ncbir.gov.pl

Switzerland - SNSF

Alain Schenkel
+41 31 308 23 67 • aschenkel@snf.ch

Belgium - FNRS

Freia Van Hee
+32 (0)2 50493 09 • freia.vanhee@frs-fnrs.be

CHIST-ERA Call Secretariat

Mathieu Girerd
French National Research Agency (ANR)
+33 1 7354 8213
mathieu.girerd@agencerecherche.fr • www.chistera.eu

CONSORTIUM



PARTNERS



ASSOCIATE



Disclaimer: The information in this leaflet is provided as is and no guarantee or warranty is given that the information is fit for any particular purpose. The user therefore uses the information at its sole risk and liability.

FIRST CALL FOR PROPOSALS



European Coordinated Research on Long-term Challenges
in Information and Communication Sciences and Technologies

on

“Quantum Information Foundations
and Technologies”

and

“Beyond Autonomic Systems
– the Challenge of Consciousness”

Opening of the call: autumn 2010

The ERA-Net CHIST-ERA is a coordination and co-operation activity of the partner agencies in order to reinforce the transnational collaboration between member states in challenging multidisciplinary research in the area of Information and Communication Sciences and Technologies (ICST) with the potential to lead to significant breakthroughs.

Within CHIST-ERA, the partner agencies identify emergent scientific fields allowing European researchers to engage in high risk, high impact projects that will bring some advance in science by launching each year one or two transnational calls for proposals.

AIMS AND SCOPE OF THE CALL

CHIST-ERA is looking for highly innovative and multidisciplinary projects in ICST; and is open to new ideas and original solutions, involving interdisciplinary skills in order to strengthen a broader community in the merging of their understanding and their questioning. In addition, the transformative research done in CHIST-ERA will explore new topics with potential for significant scientific and technical impacts. In the first call, two completely different topics are addressed:

- ❶ Quantum Information Foundations and Technologies
- ❷ Beyond Autonomic Systems - the Challenge of Consciousness

Important note: not all countries participate in each topic!

❶ Quantum Information Foundations and Technologies

Participating countries: Fr, UK, It, Es, De, At, Pl, Ch, Be

The collaborative projects should address one or more of the following topics:

1. Quantum information theory, algorithms and paradigms: new fundamental understandings, new methods (e.g., quantum optimal control, quantum feedback), new quantum algorithms, computation paradigms and communication protocols
2. Scalability of quantum processing systems: devices realizing quantum algorithms with up to ten qubits, demonstration of fault tolerant computing and error correction on small scale systems
3. Long distance quantum communication: technologies able to overcome the current distance limitation of quantum communication, e.g., by developing quantum repeaters realizing reversible interconversion of different qubits types
4. Entanglement-enabled quantum technologies exploiting several qubits for performing ICT tasks with unprecedented characteristics, quantum simulators, quantum state engineering

❷ Beyond Autonomic Systems - the Challenge of Consciousness

Participating countries: Fr, UK, Es, At, Pl, Ch

In the context of this call we define a conscious system or context aware service as one which (see the Call Announcement for the whole list of attributes):

1. is aware of past and present actions and decisions and is capable of critical analysis of same;
2. possesses rich internal dynamics and through a variety of sensory modalities, is aware of the environment in which it resides;
- ...

CHIST-ERA accepts that the creation of conscious systems or context aware services will require substantial research and collaboration across many disciplines, including Computer Science, Automatics, Networks, Neurosciences, and others. In this call it seeks proposals which initiate research into systems that will exhibit at least two, and preferably more of the above characteristics and which propose new methodologies that will lay the foundation for the eventual achievement of these ambitious goals.

Application Procedure

Research project consortia are invited to submit transnational proposals electronically on www.chistera.eu. At the same time, every partner in the project must bear in mind the specific local application rules/requirements of each national funding organisation (see the Call Announcement or CHIST-ERA website). Therefore, it is strongly recommended to contact your National Contact Point.

The official templates for the fulfilment of proposals will be made available on www.chistera.eu.

Moreover, the CHIST-ERA website provides a tool for submitting Expressions of Interest, and to search and find collaborative partners for common projects.

Eligibility Criteria and Recommendations

The aim of this call is to fund smaller projects addressing a focussed topic, thus collaborative projects must fulfil the following criteria :

1. At least 3 partners from at least 3 different participating countries
2. Not more than 60% of the total eligible project costs should be incurred by any single organisation or by the organisations from a single participating country. If two or more project partners are institutions based in the same country, this rule refers to the total financial volume of all project partners from one country involved in the project consortium
3. It is recommended that a project consortium be comprised of at maximum around 4 to 6 project partners with a project volume in terms of total funding of at maximum around 1 to 2 million €
4. The projects should typically last between 2 and 3 years

CHIST-ERA employs a “virtual common pot” model, i.e. the individual project partners will be solely funded by the respective national funding organisation. Projects eligibility, together with details of eligible costs are subject to the individual administrative and legal requirements of each funding organisation and may therefore vary.

Evaluation and Funding

The evaluation of the proposals will be performed by an international Evaluation Panel assessing the following criteria:

1. Scope: the project must be within the scope of the call
2. Scientific Excellence
3. Potential Impact
4. Quality of the Consortium
5. Implementation and Management

The Evaluation Panel will compile a ranking list of the proposals. Based on this list, the CHIST-ERA Call Steering Committee will propose projects to be funded to the national funding organisations. Final decisions will be made at the national level. Applicants will be informed about the result of the evaluation and the final funding decision.