

# Proposal for a SRNWP Research Training Network within the 6th FP of the EC

European Commission



THE SIXTH FRAMEWORK PROGRAMME

The Sixth Framework Programme covers Community activities in the field of research, technological development and demonstration (RTD) for the period 2002 to 2006

## GUIDE FOR PROPOSERS

### Marie Curie Actions Human Resources and Mobility Activity

*Structuring the European Research Area*

Fixed deadline call for proposals

Marie Curie Research Training Networks (RTN)  
An Interdisciplinary and Intersectorial Dedicated Call  
Call Identifier: FP6-2004-Mobility-1  
Closure Date: 2<sup>nd</sup> December 2004

Edition: September 2004  
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# Guidelines for RTN in FP6

*These [Networks] provide the means for research teams of recognised international stature to link up, in the context of a well-defined collaborative research project, in order to formulate and implement a structured training programme for researchers in a particular field of research. Networks will provide a cohesive, but flexible framework for the training and professional development of researchers, especially in the early stages of their research career. Networks also aim to achieve a critical mass of qualified researchers, especially in areas that are highly-specialised and/or fragmented; and to contribute to overcoming institutional and disciplinary boundaries, notably through the promotion of multidisciplinary research. They will also provide a straightforward and effective means to involve the less-favoured regions of the EU and Associated Candidate Countries in internationally recognised European research co-operation.*

Projects supported in this action will have to exploit the network structure to the best extent possible, typically combining local specialist training with network-wide, interdisciplinary/intersectorial training and research activities. The joint collaborative research training projects will aim at increasing the number of researchers in areas where there is an identified training need, addressing one or more of the following:

- Integrating different disciplines - bringing together and integrating different disciplines, especially towards the derivation of novel concepts, approaches and frameworks;
- Industry-academia cooperation - establishing or furthering co-operation in research and research training between academia and industry and/or other relevant economic actors;
- Overcoming fragmentation - overcoming fragmentation in areas where there is a lack of pan-European collaboration and integration or where the scientific community is too small and or dispersed to achieve a critical mass in research and research training, potentially hindering a significant advancement in knowledge.

# NETWORK

Decentralization mandatory

SRNWP framework, closer cooperation between consortia

More than 10 partners

Already volunteering :

- Austria
- Belgium
- Croatia
- Czech Republic
- France
- Hungary
- Netherlands
- Slovakia
- Switzerland
- United Kingdom ??

All consortia represented, but some imbalance ...

Rules for eligibility :

The EU Member States are: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, and United Kingdom. International organisations of European interest<sup>1</sup>, and the European Commission's Joint Research Centre (JRC) are considered on the same footing as legal entities established in an EU Member state.

The Candidate countries are: Bulgaria, Croatia, Romania and Turkey. All of these countries, with the exception of Croatia, have signed memoranda of understanding associating them with FP6. Other countries which are associated to the 6th Framework Programme are: Iceland, Israel, Liechtenstein, Norway and Switzerland

# TRAINING

## Training BY research : PhD grants

basis of the project

a lot of care for students

dimensioning factor for fundings

on average : 2 students per partners, 2 years grants

students from third countries allowed, up to 30%

supervision of PhDs not mandatory for each partner

## Training FOR research : open training courses

a general need for NWP teams

2 seminars a year ?

multidisciplinary and multi-model (teachers from all consortia)

proposed topics :

NWP classics : numerical techniques, dynamics and coupling,  
physics, data assimilation

predictability (emerging topic)

data management, code organization, ...

down- or upstream applications (hydrology, pollution, ...)

other proposals ?

refinements ?

involving SRNWP LC whenever possible ?

## Local training

# RESEARCH

Discussions led to an agreement on the following program :

NWP at very fine scales :

- dynamics, physics, coupling ... at 1-3 km resolution
- data assimilation :
  - 3d-var at 1-3 km resolution,
  - 4d-var at lower resolutions
  - more observations
- predictability at scales around 10 km

Background interactions (coupling, feedback, ...) with other research domains (hydrology, pollution, mathematics)

# DEADLINES

Shifted during summer 2004

## 1

### *Call Information for Marie Curie Research Training Networks for 2004*

1. **Specific Programme:** Structuring the European Research Area
2. **Activity:** Human Resources and Mobility activities
3. **Call title:** Call for proposals for Marie Curie Research Training Networks, “Interdisciplinarity” and “Intersectorial”.
4. **Call identifier:** <sup>44</sup>
5. **Date of publication**<sup>45</sup>: 11 September 2004
6. **Closure date(s)**<sup>46</sup>: 2 December 2004 at 17.00 (Brussels local time).
7. **Total indicative budget:** € 45 000 000
8. **Instruments:** See section 2.3.1.1 of the work programme.
9. **Minimum number of participants:** See the conditions specified in sections 2.3.1.1 of the work programme.
10. **Restrictions to participation** (types of organisation, type of activity, third countries): Limited to networks corresponding to the specific objectives described in the first two bullet points in section 2.3.1.1 under “Specific objectives of the action”; see also the conditions foreseen in the sections 2.3.1.1 and 2.5 of the work programme.

## 2

### *Call Information for Marie Curie Research Training Networks for 2005*

1. **Specific Programme:** Structuring the European Research Area
2. **Activity:** Human Resources and Mobility activities
3. **Call title:** Call for proposals for Marie Curie Research Training Networks
4. **Call identifier:** <sup>47</sup>
5. **Date of publication**<sup>48</sup>: 18 May 2005
6. **Closure date(s)**<sup>49</sup>: 08 September 2005 at 17.00 (Brussels local time).
7. **Total indicative budget:** € 220 000 000
8. **Instruments:** See section 2.3.1.1 of the work programme.
9. **Minimum number of participants:** See the conditions specified in sections 2.3.1.1 of the work programme.
10. **Restrictions to participation** (types of organisation, type of activity, third countries): See the conditions foreseen in the sections 2.3.1.1 and 2.5 of the work programme.

# Stronger constraints for the next call :

## Inter-disciplinary and inter-sectorial

- For this call, **interdisciplinary** is understood to be:

A project which approaches an issue from a range of disciplinary perspectives with an integrated contribution of the various disciplines or fields of study traditionally distinct in order to provide a holistic or systemic outcome. Alternatively such a project would be expected to incorporate knowledge around complex, heterogeneous domains, rather than in specific disciplines and subjects as usually organised in academic settings.

An effective interdisciplinary approach is expected to require new modes of thinking by researchers and cuts across the more traditional discipline-based academic structures.

The project should not be a bringing together of several sub-disciplines, instead it should form a cohesive partnership having an active and equitable involvement of researchers from the different disciplines. It should combine expertise from several knowledge domains and overcome communication problems among researchers from different disciplines in a synergistic manner. Typical, but not exclusive, examples of interdisciplinary developments are expected to involve areas such as the biotechnologies, nanotechnologies, biomedical, bioinformatics and communication sciences, complex environmental systems, humanities and social sciences.

- For this call, **intersectorial** is understood to be:

Open to academic and other stakeholders: private or public research institutions, governmental and non governmental organizations and any other commercial and non-commercial sectors in particular industrial partners, including SMEs, for which it is expected that there will be full and active commitment to the appointment or at least host secondments of researchers and to fully participate in training/ToK activities.

&  
Time ?

## Can we answer them ?

### Inter-disciplinary :

OK for the training program

What about the research program ?

### Inter-sectorial :

difficult to manage ?

**Or shall we further delay the proposal ? (or cancel ?)**

## research domains as defined in FP6

### *CHEMISTRY (CHE)*

Description
New Synthesis, Combinatorial Chemistry
Homogeneous and Heterogeneous Catalysis
Reaction Mechanisms and Dynamics
Biological, Pharmaceutical and Medicinal Chemistry
Instrumental Techniques, Analysis and Sensors
Theoretical and Computational chemistry
Surface Science and Colloids
Molecular Aspects of New Materials, Macromolecules, Supramolecular Structures, Nanochemistry
Environmental Chemistry

### *SOCIAL AND HUMAN SCIENCES (SOC)*

Description
Law (European or Comparative National)
Political Sciences (European or Comparative National)
Sociology
Psychology (Social, Industrial, Labour, or Education)
Education and Training
Linguistics (applied to: Education, Industrial Efficiency or Social Cohesion)
Media and Mass Communication

### *ECONOMIC SCIENCES (ECO)*

Description
Microeconomics
Macroeconomics
International Economics
Financial Sciences
Industrial Economics (incl. Technology and Innovation)

Public Sector Economics
Urban and Regional Economics (incl. Transport Economics)
Natural Resources and Environmental Economics
Labour Economics
Social Economics
Management of Enterprises (incl. Marketing)
Quantitative Methods
Research Management

***ENGINEERING AND INFORMATION SCIENCES (ENG)***

<b>Description</b>
Mechanical Engineering
Transport Engineering
Civil Engineering
Electrical Engineering
Electronics
Telecommunications
Automation, Computer Hardware, Robotics
Chemical Engineering
Bioengineering
Materials Engineering
Signals, Speech and Image Processing
Computer Graphics, Human Computer Interaction, Multimedia
Information Systems, Software Development and Databases
Knowledge Engineering and Artificial Intelligence
Systems, Control, Modelling and Neural Networks
Parallel and Distributed Computing, Computer Architecture

***ENVIRONMENT AND GEOSCIENCES (ENV)***

<b>Description</b>
Pollution, Waste Disposal and Ecotoxicology
Ecology and Evolution (incl. Population Biology)
Biodiversity and Conservation
Agriculture, Agroindustry and Forestry
Fisheries and Aquaculture
Environmental Engineering and Geotechnics
Natural Resources Exploration and Exploitation
Soil and Water Processes
Stratigraphy, Sedimentary Processes and Palaeontology
Geophysics, Tectonics, Seismology and Volcanology
Geochemistry and Mineral Sciences
Marine Sciences
Climatology, Climate Change, Meteorology and Atmospheric Processes
Physical Geography, Earth Observation and Remote Sensing

***LIFE SCIENCES (LIF)***

<b>Description</b>
Macromolecular Structures and Molecular Biophysics

Metabolism of Cellular Macromolecules
Biological Membranes
Enzymology
Bioenergetics
Metabolic Regulation and Signal Transduction
Genomics and General Genetics
Computational Biology and Bioinformatics
Genetic Engineering
Developmental Biology
Physiology
Cell Biology
Microbiology and Parasitology
Virology
Immunology
Cancer Research
Pharmacology and Toxicology
Neurosciences (incl. Psychiatry and Clinical Psychology)
Biomedicine, Public Health and Epidemiology
Medical Pathology

***MATHEMATICS (MAT)***

<b>Description</b>
Statistics and Probability
Algebra and Number Theory
Geometry and Topology
Analysis and Partial Differential Equations
Applied Mathematics and Mathematical Physics
Discrete Mathematics and Computational Mathematics
Logic and Semantics
Algorithms and Complexity

***PHYSICS (PHY)***

<b>Description</b>
Elementary Particles and Fields
Nuclear Physics
Atomic and Molecular Physics
Optics and Electromagnetism
Fluids and Gases
Plasmas and Electric Discharges
Statistical Physics and Thermodynamics
Astronomy, Astrophysics and Cosmology
Condensed Matter- Mechanical and Thermal Properties
Condensed Matter- Electronic Structures, Electrical and Magnetic Properties
Condensed Matter- Optical and Dielectric Properties
Surface Physics
Physics of Superconductors
Physical Chemistry, Soft Matter and Polymer Physics
Biophysics and Medical Physics
Non Linear Dynamics and Chaos Theory

# Summary

Partner	PhDs received	Training courses	PhDs sent	Preferred topics
Austria				
Belgium				
Croatia				
Czech republic				
France				
Hungary				
Netherlands				
Romania				
Slovakia				
Switzerland				
UK				

