

**euCognition**

*The European Network for the Advancement of  
Artificial Cognitive Systems*

# Inaugural Meeting

16-17 February 2006

Hèrmes Auditorium  
Nice-Acropolis Convention Centre

[www.euCognition.org](http://www.euCognition.org)

## DAY 1: INVITED TALKS

- 09:00 Registration
- 09:30 Horst Forster, Director, European Commission Directorate E – Content: *Welcome and Introduction to euCognition*
- 09:45 Concetta Morrone, Università Vita-Salute San Raffaele: *Neurophysiological Models of Cognitive Mechanisms*
- 10:30 *Coffee*
- 11:00 Liz Spelke, Harvard University: *Core Knowledge of Number and Geometry*
- 11:45 Jiří Wiedermann, Academy of Science of the Czech Republic: *One Computer Theorist's View of Cognitive Systems*
- 12:30 *Lunch*
- 14:00 Ronald Arkin, Georgia Tech and LAAS/CNRS Toulouse: *Behavioral Development for a Humanoid Robot – Towards Life-long Human-robot Partnerships with QRIO*
- 14:45 Scott Kelso, Florida Atlantic University: *The Coordination Dynamics of Brains and Behavior*
- 15:30 *Coffee*
- 16:00 John Shawe-Taylor, Southampton University: *Learning in Cognitive Systems: Inference of Representations & Grounding through Interaction*
- 16:45 Panel and Audience Discussion
- 18:00 Close

## DAY 2: THE EU COGNITION NETWORK

- 09:00 Overview of the euCognition network
- Goals
  - Activities
  - Outcomes & on-line resources: the euCognition website

09:30 Introduction to the Executive Committee

- 09:40 Operational Matters
- Becoming a member
  - Claiming Costs
  - Applying for Network Action funding
  - Becoming a contractor

10:10 Call for Proposals for Advanced Robotics

10:30 Coffee

11:00 PARALLEL SESSIONS: Objectives & Activities

<b>Gallieni 2</b>	<b>Gallieni 3</b>	<b>Gallieni B</b>
Scientific Outlook	Outreach	Education & Training
Outreach	Education & Training	Scientific Outlook

01:00 Lunch

14:30 PARALLEL SESSIONS: Objectives & Activities

<b>Gallieni 2</b>	<b>Gallieni 3</b>	<b>Gallieni B</b>
Education & Training	Scientific Outlook	Outreach

- 15:30 Feedback & Discussion
- Key issues in each activity
  - Follow-up actions

16:30 Close

Goals

## Goals

### What is euCognition?

FP6 Project 26408 (Coordination Action)

Funded by the European Commission  
Unit E5 - Cognition



Duration: 1/1/06 → 31/12/08

Budget: €1.6 m

## Goals

### What do we do?

Foster inter-disciplinary interaction

Build the scientific & engineering foundations of cognitive systems

Facilitate

- Workshops
- Conferences
- Courses
- Exchanges of staff and students
- Development & dissemination of training material
- Access to development platforms
- Research planning
- ... but not research

## Goals

### Who is it for?

Open to anyone doing research in the many disciplines that address the issues of creating artificial cognitive systems including (but not limited to)

- Neuroscience
- Psychology
- Cognitive science
- Machine Learning
- Autonomous systems theory
- Cognitive robotics
- Mathematical modelling
- Cognitive Vision
- ...

AI  
Psychology  
Neuroscience  
Non-linear dynamical  
systems theory  
Synergetics  
Autonomous systems theory  
Machine learning  
Pattern recognition  
Computer vision  
Haptic sensing  
Cybernetics  
Neural networks  
Epistemology  
Philosophy  
Language  
Semiotics  
Robotics  
Manipulation  
Communication  
...

Problems:

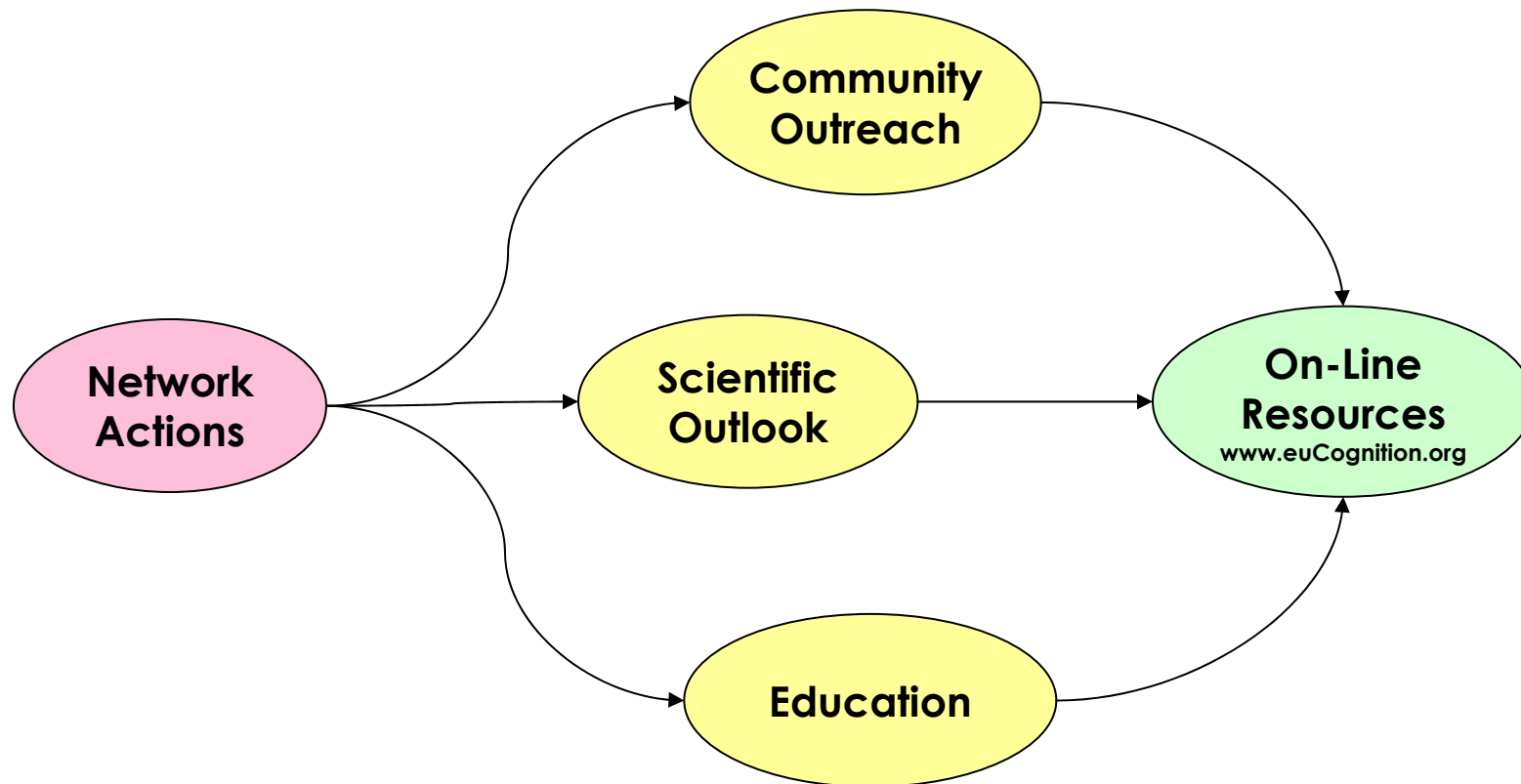
- Different perspectives
- Different languages
- Hard & Soft Science

Mathematical Models



## Goals

How does it work?



*Activities*

## Network Activities

### Community Outreach

- Inter-project collaboration
- Involvement of new blood from both academia and industry
- Exchanges, esp. with those not yet involved in funded projects
- Provide resources for new pilot initiatives (e.g. providing access to platforms for experimental work in embodied cognition)

## Network Activities

### Scientific Outlook

- Research planning
- Technology watch
- Refining and developing the our characterization of cognition
- Key focus: cross-fertilization of ideas

## Network Activities

### Education

- Alleviate difficulties posed by the multi-disciplinary nature of the area
- Bridge gaps between sub-disciplines
- Targetted at
  - Research practitioners
  - Graduate students
- Summer schools (cf. commitments of intergrated projects)
- Creation of teaching material

# Outcomes & On-line Resources

## Outcomes

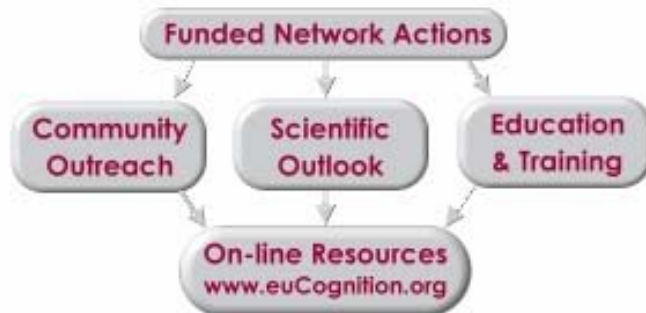
Example Events to be Organized	Example Resources to be Produced
<b>Outreach</b>	
<ul style="list-style-type: none"> <li>- Inaugural meeting</li> <li>- Six-monthly meetings</li> <li>- Inter-project workshops</li> <li>- Extra-network workshops</li> <li>- Special sessions at conferences</li> <li>- Awareness forums at trade fairs &amp; science fairs</li> <li>- Short-term exchange/visits of research staff</li> <li>- Short-term exchange/visits of post-graduate students</li> <li>- Pilot test-bed evaluation of basic cognitive functions</li> <li>- Best demonstration prizes in Cognitive Systems</li> </ul>	<ul style="list-style-type: none"> <li>- Repository of demonstrations of example systems (video clips, images, etc.)</li> <li>- Special issues in journals</li> <li>- Member profiles, indexed by area, interests, physical location, name, etc.</li> <li>- Repository of application-oriented demonstration scenarios to drive R&amp;D</li> <li>- Articles for general readership</li> <li>- Multimedia production for general viewing</li> <li>- Comprehensive dynamic website</li> </ul>
<b>Scientific Outlook</b>	
<ul style="list-style-type: none"> <li>- Thematic Workshops</li> <li>- Conferences</li> <li>- Access to research platforms</li> <li>- Best paper prizes in cognitive systems</li> </ul>	<ul style="list-style-type: none"> <li>- Survey papers on constituent areas</li> <li>- Position papers on topical issues</li> <li>- Research monographs on constituent areas</li> <li>- Research roadmap</li> <li>- Identification or creation of common development environments</li> <li>- Repository of Open Source software</li> <li>- Directory of sources of materials or components, with specifications</li> <li>- Repository of test scenarios, test sets, to assist in quantitative evaluation</li> <li>- Access to / creation of prototype components (hardware &amp; software)</li> </ul>
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## On-line resources

[www.euCognition.org](http://www.euCognition.org)

- Dynamic repository of resources: outreach, outlook, education
- Cognitive systems community
  - Research
  - Education
- Visibility in the greater community
- Show-case results & example validation experiments
- Forum for sharing information





What is euCognition? What does it do?

Who is it for? Why should I join?

# People and Forums

Four principal bodies are involved in the running of the network:

1. The Executive Committee
2. A Project Coordinators Round-Table Forum
3. Assessment Panel
4. The European Commission Project Officers

Eva Benova  
Hans-Georg Stork

## Executive Committee

David Vernon	Università degli studi di Genova (network coordinator)
Fred Cummins	University College Dublin
Markus Vincze	Technische Universitaet Wien
Tom Ziemke	Högskolan i Skövde
Erik Hollnagel	Linköpings Universitet
Christoph von der Malsburg	Ruhr-Universitaet Bochum
Bill Sharpe	The Appliance Studio Ltd.
Guy Tiberghien	Centre National de la Recherche Scientifique (CNRS)
Juergen Jost	Max Planck Institute for Mathematics in the Sciences
Andreas Engel	University Medical Center Hamburg-Eppendorf
Peter F. Dominey	Centre National de la Recherche Scientifique (CNRS)
Matthias Scheutz	Notre Dame University

## Project Coordinators Round-Table Forum

CoSy  
JAST  
RobotCub  
COSPAL  
MACS  
SPARK  
Mind  
RACES  
GNOSYS

BACS  
CASBlIP  
CLASS  
Decisions-in-Motion  
DIRAC  
eTRIMS  
euCognition  
HERMES  
ICEA  
MATHESIS  
PACO-PLUS  
POP  
RASCALLI  
SENSOPAC

Becoming a Member

## Membership

- All those that are part of an FP6 cognitive systems project automatically members
  - Need an application form to collect member data
- All members of ECVision ([www.ECVision.org](http://www.ECVision.org)) are automatically eligible for membership
  - Need an application form to collect member data
- Membership open to all other who are active in the domain of cognitive systems
  - Submit membership application form
  - Subject to reviewed by Executive Committee

## Applicant Information

Title:	
First Name:	
Last Name:	

<i>Bank information for reimbursement of travel and other allowable costs</i>	
IBAN:	
BIC/SWIFT:	
Bank Sort Code:	
Account Number:	
Bank Name:	
Bank Address:	
Account Holder Name:	
Account Holder Address:	



## **Appendix I: Membership Criteria**

The primary criterion for membership is that the applicant must be qualified<sup>2</sup> and active in the area of cognitive systems and any of its constituent sub-disciplines. In addition, the contribution that the applicant will make to the network should be of interest to the other members and, in particular, it must help in achieving our goal of advancing the scientific and engineering foundations of artificial cognitive systems.

The qualification 'artificial' is important: it does not preclude applicants who work on natural cognitive

## Membership

- Non-labour costs incurred by member
  - Reimbursed directly by the coordinating contractor
  - Send in claim with travel receipts, reimbursed by electronic transfer within a month (or less)
- Labour costs
  - Either member becomes a contractor (preferred option)
  - Or reimbursed via a subcontract (avoid if possible)

## **Membership**

- All members eligible to claim travel costs associated with official euCognition event
  - As advertized on the website
  - Subject to guidelines (more later)
- Eligible to apply for limited funding for Network Actions
  - Reviewed by Executive Committee
  - Final approval from Commission PO

## **Membership**

All members commit themselves to making a contribution to the network within the first year

## Appendix II: euCognition Activities

### Typical Member Contributions

Example Events to be Organized	Example Resources to be Produced
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Note: attendance at a meeting does not constitute a contribution that satisfies the requirements of the Membership Agreement; a contribution should be of interest to other members and also be in a form that can be placed on the euCognition website.

# Claiming Costs

## **Request for Reimbursement of Costs**

*Please read the attached guidelines before completing this form.*

NAME OF PERSON MAKING CLAIM:	
NAME OF MEMBER (IF DIFFERENT FROM ABOVE):	
MEMBERSHIP NUMBER:	
ADDRESS:	
SUMMARY OF CLAIM: (SPECIFY DETAILS ON PAGE 2)	TRAVEL COSTS (€): OTHER COSTS (€): <b>TOTAL COSTS (€):</b>

## **Guidelines for Submitting a Request for Reimbursement of Costs**

### **1. Currency**

All costs will be reimbursed in euro and all claims must be in euro. The relevant exchange rate must be shown where appropriate. You should use the exchange rate for the day the costs were incurred. Official euro exchange rates for any given date can be found in the Official Journal of the European Union (see the first item in the 'C-Information and notices' series).

<http://europa.eu.int/eur-lex/lex/JOIndex.do?ihmlang=en>

Exchange rates are published daily by the ECB:

<http://www.ecb.int/stats/exchange/eurofxref/html/index.en.html>



## **2. Eligible Costs**

This form is to be used only for reimbursement of travel and other allowable costs. It is not to be used for labour costs which can only be reimbursed to contractors by completing an annual Financial Statement (Form C), and to sub-contractors by submitting an invoice for services.

*No costs will be reimbursed unless the member has completed, signed, and submitted the Membership Agreement. Costs incurred before membership comes into force are not eligible for reimbursement.*

Unless specified otherwise by the Network Coordinator, all costs must have prior written approval.

### 3. Procedure for Claiming Travel and Other Allowable Costs



Travel and other allowable costs may be claimed by completing this claim form. All claims must be accompanied by appropriate supporting documentation (original receipts, paid invoices, etc.).

Please submit receipts in a form that makes photocopying easy (e.g. by pasting them to an A4 sheet of paper).



#### 3.1 Travels Costs

Travel costs relate to transportation, accommodation, and subsistence expenses incurred in connection with an euCognition-related trip, such as attendance at the six-monthly network meeting, visiting a member site as part of a Network Action or as part of an area coordination meeting. In this respect, the following guidelines apply:

- The maximum cost per trip per member is €1000 (to include all travel, subsistence, and accommodation; additional funding may be made available in exceptional circumstances subject to prior written approval). 
- The maximum allowable subsistence rate per day is the same as the normal Commission allowance of €150 per day and subject to the same rules (see below). 
- Members may send delegates to meetings if they are unable to attend.

## **Notes on Subsistence**

A daily subsistence allowance may be claimed, depending on the duration of the trip, as follows:

- 1 day trip, destination < 50km from place of origin: €75.
- 1 day trip, destination > 50km from place of origin: €150.
- 2 day trip (*i.e.* one overnight stay): €150.
- Each additional day / overnight stay: €150.

*Applying for Network Action funding*

# European Network for the Advancement of Artificial Cognitive Systems

## Network Action Proposal

Title:	
Membership number(s)	
Member name(s)	
Member institute/company name(s)	
Goals of the action	
Principal activity to which it contributes <ul style="list-style-type: none"> <li><input type="checkbox"/> Outreach</li> <li><input type="checkbox"/> Scientific Outlook</li> <li><input type="checkbox"/> Education</li> </ul>	
Concrete outcomes of the action	
Effort in person-days that will be charged to the Network Action (if any)	
Expected start and duration in months	
The requested funding, under the following headings: <ul style="list-style-type: none"> <li><input type="checkbox"/> Travel Costs</li> <li><input type="checkbox"/> Other Costs (check with the Network Coordinator if you aren't sure about eligibility of these costs)</li> <li><input type="checkbox"/> Labour Costs (identify the number of person-days and the rate per day).</li> </ul>	
Please identify any other sources of funding that contribute to this Action	

## Network Actions

- 2-1: Student Support for Inaugural Meeting
  - Fred Cummins, University College Dublin
  - Up to 20 travel grants for PhD student
  - €8,000 (€400 per student, max.)
- 17-1: AISB '06 Symposium: Architecture of Brain and Mind
  - Aaron Sloman, Birmingham University
  - Travel costs for 10 speakers
  - €10,610
- 68-1: Neuro/Psycho Extension to CVOnline
  - Robert Fisher, University of Edinburgh
  - Introductory neurophysiology of the human vision system
  - Introductory psychophysics of human vision system
  - €4,000

## Network Actions

- Every action
  - (meeting, student exchange, tutorial, ...)
- Must have a concrete output in a persistent form
  - (document, video, commentary, ... )
- Archived on the eCognition website
- Reimbursement of costs conditional on submission

# Becoming a Contractor



## Appendix I: Admission of New Contractors

The following is extracted from Annex I to the euCognition contract, p. 16, a copy of which is available on the euCognition website at [www.eucognition.org](http://www.eucognition.org).

### Admission of New Contractors

Members are not obliged to become a party to the Contract. However, any member wishing to become a contractor may do so at any point in the lifetime of the project. To become a contractor after the contract has come into force, the member completes Form B - REQUEST FOR ACCESSION OF A NEW CONTRACTOR TO THE CONTRACT (this is a part of the model contract) and submits three signed copies to the Coordinator together with two enclosures: ← 1

- 1) Contract Preparation Form (CPF) duly completed and signed by the new contractor. ← 2
- 2) Modified Annex I to the contract describing the work to be performed by the new contractor: this is simply the specification of the contribution the member committed to making in the original membership application form (see Section *Special Conditions for Membership of euCognition* above). ← 3

Any member that becomes a contractor undertakes all the responsibilities of a contractor, including the requirement to produce an audit certificate for all costs incurred. Note that under Special Clause 39 of the Contract, an audit certificate is not required until the end of the contract if the total amount of costs to be claimed is less than €150,000. ← 4

# Call for Proposals for Advanced Robotics

Directorate E - Content  
Unit E5 - Cognition[Home](#)[Strategic Objectives](#)[Calls](#)[Projects](#)[Documents & News](#)[Publications](#)[Events](#)[Contacts](#)[Project participants](#)

## Calls

## Open calls

## Call for Proposals for Advanced Robotics

The EU's IST programme for research and development has published a **Call for Proposals for Advanced Robotics** on 22nd December 2005 with a closing date 25th April 2006. Full details can be found [here](#) under the Call identifier FP6-2005-IST-6. Contact points in the European Commission are [Pekka Karp](#) (FET unit) or [Franco Mastroddi](#) from the Cognition unit.

## Work Programme Extract

## IST Strategic Objective 2.6.1: Advanced Robotics

## Objectives

The objective is to address some of the key challenges for the paradigm shift of robotic equipments in their evolution from a specific industrial technology to a broad enabler for a wide range of products and services that are entering the consumer, home and entertainment markets. The work will address the development of more intelligent, flexible, cost-effective, modular, safe, dependable, robust and user-driven robot systems. This will pave the way to the future massive introduction of robots in everyday human environments and their close cooperation with people. As robots are moving out of the shop-floor, robot technologies should be able to couple further the world of information and