

FP6-507728

EURON

European Robotics Network

Network of Excellence
Information Society Technologies

DR.11.1 – DR.11.2
Information Sheet about EURON and Beyond Robotics

Due date of deliverable: 31/10/2004

Actual submission date: 30/11/2004

Start date of project: May 1st, 2004

Duration: 48 months

Organisation name of lead contractor for this deliverable:

UNINA

Revision: V.1.

Dissemination Level: PU



EURON

European Robotics Network

<http://www.euron.org>

FET, the Unit of the European Commission dealing with Future and Emerging Technologies (<http://www.cordis.lu/ist/fet>) acting as the pathfinder of the IST (Information Society Technologies) program by exploring new science and technology frontiers, has launched within the 6th Framework Programme a **Network of Excellence** in the area of **Robotics**, **EURON** (FP6-IST-507728).

Europe is already today the leader in industrial robotics while at the same time experiences a significant aging of society. This change in demographics will have consequences on industry, style of living, entertainment, etc. A key contributor to the development of aids for everyday life (at the workplace and in the homes) will be robotics technology. In addition the area is not only in need of new research and development, but also human resources to participate and drive the innovation process.

The principal aim of EURON is to provide a fruitful basis that allows Europe to remain at the forefront of robotics both in terms of research and industrial products. And this is going to happen by developing a roadmap to ensure continued progress. The roadmap will provide the required background for deciding on potential future programmes in robotics. Service robots are seen as innovative, high added-value products with significant future market potential and thus constitute a unique opportunity for Europe to gain a competitive edge. To ensure that the economic growth in robotics remains in Europe there is a need to unite the R&D, teaching and dissemination activities across the entire union and associated states.

Experience from the EURON network under FP5 demonstrates that effective dissemination and training are best achieved through Graduate Education Activities and through the mechanism of Links to End-User Industries. More particularly, Graduate Education will be achieved through the organization of focused activities such as one-week summer schools on well-defined topics. An effort also will be undertaken to define a model curriculum in robotics and to define a standard package of courses. Moreover, every year, the best theses will be honoured with the 'Best European PhD theses in Robotics' award and will be published in the STAR book series (<http://www.springeronline.com/sgw/cda/frontpage/0,10735,5-175-69-1236378-0,00.html>). The award and the associated publishing activities will increase international visibility of excellent European research in Robotics. As far as concerned the Links to End-User Industries, it is necessary for robot manufacturers and systems integrators to take advantage of the latest technologies which aim at new dimension in flexibility, productivity, cost-effectiveness and user-friendliness of robot automation.

The objective is to implement and maintain a network of excellence that allows co-ordination of research, teaching and education, academic-industry collaboration and publications and conference in the area of robotics, to facilitate addressing of issues of interest to institutions and companies throughout Europe.

EURON is part of the **Beyond Robotics** initiative (<http://www.cordis.lus/ist/fetro.html>) which has recently supported three **Integrated Projects**:

- **COGNIRON** (The Cognitive Robot Companion □ <http://www.cogniron.org>) involving 10 partners from 7 countries, with a duration of 4 years and a budget 8 M€, is aimed at studying the perceptual, representational, reasoning and learning capabilities of embodied robots in human-centered environments.
- **NEUROBOTICS** (The fusion of Neuroscience and Robotics for augmenting human capabilities □ <http://www.neurobotics.info>) involving 16 partners from 7 countries, plus one partner from US and one from Japan, with a duration of 4 years and a budget of 6.7 M€, is aimed at exploring the area of Hybrid Bionic Systems to deeply investigate the theme of human augmentation.
- **I-SWARM** (Intelligent Small World Autonomous Robots for Micro-manipulation □ <http://www.i-swarm.org>) involving 10 partners from 8 countries, with a duration of 4 years and a budget of 5 M€, is aimed at investigating the technologies towards building artificial "ant robots" which closely co-operate as a self-organizing swarm system.

EURON is organized into 4 strategic **Key Areas: Research Coordination, Education, Industry, Dissemination**. Each Key-Area has a well defined agenda with an associated committee in charge of promoting activities and events.

In addition to the traditional **Summer Schools** offering topical graduate education by world class lecturers, three types of ad-hoc activities are sponsored after a competitive call twice a year:

- **Prospective Research Projects** are expected to provide support to research within the subject area of the Beyond Robotics initiative and be of an exploratory nature, or test rapidly the credibility of new research ideas and concepts. They complement the research undertaken by the Integrated Projects, bridge the gaps, consolidating the initiative and its position at the forefront of research.
- **Research Ateliers** are expected to gather researchers from a number of different institutions and/or companies over a limited period of time in a single venue. The result of an atelier can be a roadmap or a focused study of a particular topic, with a recommendation for close cooperation with the launched Integrated Projects.
- **Topical Research Studies** are expected to provide a very reactive and flexible funding scheme to support the investigation of innovative ideas. The aim is to generate input to the research roadmap or explore research issues of relevance to the Integrated Projects or the community in general.

The **EURON Board** is in charge of approving the various activities. This is composed by the Key Area Chairs, along with a number of representatives from the Member Countries.

A strategic feature of the network is to devote 30% of the activities in the new Member Countries. The next annual meeting will be held in Warsaw in February 2005.

EURON is co-ordinated by **Kungliga Tekniska Högskolan**, Sweden. The EURON Consortium consists of more than 150 universities and companies.

In brief

Project Type: Network of Excellence

Duration: 48 months since May 2004

EC Project Funding: 3.34 M€

Contact Person: **Henrik I Christensen** (hic@nada.kth.se)

EURON FP6-IST-507728

November 2004