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EURON

European Robotics Research Network

Network of Excellence

Information Society Technologies Priority

DR 17.18

Periodic Activity Report—Year 4

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1 Overview

The key achievements in Year 4 are the continued success of:

- the summer schools (WP 7).
- the Springer Tracts in Advanced Robotics, which is largely driven by EURON members, and which is among the top series in engineering for Springer (WP 9).
- the quality of the Technology Transfer Award candidates (WP 15).
- the high number of submission to the Georges Giralt PhD Award, which allowed us to provide two prizes this year.
- the ongoing interaction with the industrial robotics players in Europe, via common “roadmapping” workshops, but also via more and more informal contacts.

In addition, a “new EURON” organisation has been set up.

2 Follow up of previous review

We think we have succeeded in implementing successful reactions to all major remarks of the previous review:

- A new activity has been created about “reaching out to the society at large” by creating a set of *robotics videos*.
- The network has finalized the discussions about its future after the end of the current EU funding, resulting in a newly elected EURON Board.
- Benchmarking and good experimental practices have been major focus points in all EURON activities this year, driven by the corresponding WP and by a newly created *Special Interest Group* (SIG).

3 Workpackage progress

3.1 WP 1: Research Roadmap

This WP was brought to a successful end, with [DR.1.4 Research Roadmap \(to be integrated into industrial Strategic Research Agenda\)](#), as the concrete result. In Year 4, the cooperation with the industrial roadmap was implemented. We had foreseen to be able to distribute a professionally edited and printed roadmap document on the last Annual Meeting, but the timing turned out to be too sharp, mainly because of the above-mentioned integration efforts.

3.2 WP 2: Research Benchmarks

The evolution of this WP runs parallel to that of WP 1, and further integration between both WP’s has been achieved. In this Year 4, the activities of this WP have been intensified by the creation of the *Special Interest Group on Good Experimental Methodology*. The result of this WP is [DR.2.7 Final version of benchmarking document](#).

3.3 WP 4: Joint Research

This activity has been cancelled, shortly after the Year 3 Review, because its goals were better achieved in the context of the recent *Call 3 of Challenge 2: Cognitive Systems, Interaction and Robotics* in Framework Programme 7 of the EC.

3.4 WP 5: Teaching Material

The activities in this WP were put in *maintenance mode*. The short deliverable on this WP is [DR.5.4 Final version of the Teaching Material Database](#).

However, a new activity was defined in this WP, resulting in the creation of a number of video documentaries that introduce robotics to the main public. The videos were developed with the following goals:

- they can reach the great public showing the possibilities and the reality of robotics.
- they present the possibilities and the reality of robotics in applications far beyond the classical industrial environment.
- they present robotics as a relevant component for the improvement of life quality, considering, both, professional labor and daily life.
- they give a glance of the technological and scientific research involved in the advances towards more intelligent robotics.

The resulting Deliverable is [DR.5.5 Educational video material](#).

3.5 WP 6: Robotics curricula

The activities in this WP were put in *maintenance mode*. The short deliverable on this WP is [DR.6.6 Final version of course database](#).

3.6 WP 7: Summer Schools

The Milestones of this WP have been reached: as in previous years, it has been no problem to find organizers for summer and winter schools of a high academic quality, and with a high appeal to PhD students.

The corresponding Deliverable is [DR.7.5 Summer Schools organised Year 4](#).

3.7 WP 8: PhD Award

The Milestone (M.8.4) has been reached by the announcement of the winners of the seventh *Georges Giralt PhD Award*, at the Annual Meeting in Prague. In contrast to all previous years, the record-breaking number of 27 submissions were received this year, and two Awards were given.

The corresponding Deliverable is [DR.8.4 Announcement of winners \(Yr 4\)](#).

3.8 WP 9: Book series

The Milestone (M.9.4) has been reached: during the last year, the following new volumes of the STAR book series have been realized:

- 8 volumes published (3 monographs and 5 edited collections)
- 4 volumes in production (2 monographs and 2 edited collections)
- 9 volumes accepted (5 monographs and 4 edited collection)

The corresponding Deliverable is [DR.9.4 Summary of Yr 4 STAR volumes](#).

3.9 WP 10: WWW site

The first Deliverable is [DR.10.5 Statistics on the web usage and its structure](#). The activity foreseen for the realisation of the second Deliverable, [DR.10.4 Web portal for European Robotics](#), had to be abandoned, mainly due to the problem of finding qualified personnel for such a rather short period.

3.10 WP 11: Information about EURON and the Beyond Robotics initiative

The Milestones (M.11.7, M.11.8) have been reached:

- Press club: 10 articles in printed and internet media with coverage of EURON and Annual General Meeting (March 2008).

The corresponding Deliverable is [DR.11.9 Updated information package about EURON](#).

- IEEE Robotics and Automation Magazine: 3 columns published.

The corresponding Deliverable is [DR.11.10 Yr 4 collection of IEEE RAM columns](#).

3.11 WP 12: Liaison with Organisations

Interaction with professional organisations was successfully continued in the fourth year of EURON:

- At **EUnited Robotics** meetings, EURON activities were reported to the member industries (for a listing of EUnited Robotics members: <http://www.eu-nited-robotics.net/members>). As the year before, EUnited Robotics agreed on sponsoring the TechTransfer Award (see WP 15). Furthermore, presentations of EURON activities were communicated at the International Federation of Robotics (IFR) and at the newly formed European professional organisation of service robotics manufacturers.
- Interaction with the **International Federation of Robotics** (IFR), which is also based on a *Memorandum of Understanding*, comprises mainly the regular preparation of the service robotics statistics which is published by the IFR Statistical Department (<http://www.worldrobotics-online.org>). The statistics (including service robotics technology reports, case studies and market forecasts) have become an important component of the World Robotics Yearbook and meanwhile serves a reference to the robotics community, business journalists and government bodies. The service robotics chapter was submitted in summer 2006 and presented to the press in October

2007. This chapter is widely acclaimed in the professional world for assessing the state of the art of service robots and for market analysis. The material has been distributed among the EURON web for use to the EURON community. The statistical scheme has been extensively modified for this years census and the mailing to all service robot manufacturers has been sent out recently.

- Interaction with the **EUROP European Technology Platform** has been less intense as expected in the last period as EUROP has been undergoing some changes. However activities have been intensified in fall 2007 by drafting the revised SRA which has been communicated within the EURON community. EURON members have been present at the work shops (thematic and consolidation meetings).

The corresponding Deliverables are: [DR.12.6 Contribution to statistics/forecasts/foresights](#), and [DR.12.7 Revision of the classification scheme according to the last surveys](#).

3.12 WP 15: Technology Transfer Award

The Milestone (M.15.4) has been reached. The Award is carried out as a joint activity by EURON and EUnited Robotics and has become in its fourth round a highlight of EURON annual meeting. The costs of the Award (cash money for the winners, trophies, distribution of a press release) is split between EURON and EUnited Robotics.¹ Again from eight submissions which have been received early February 2008, five have been selected as finalists for a special session at the EURON annual meeting in March 2008. Applications for the Sixth Tech-Transfer Award will be solicited in 2008. A English press release was formulated and distributed. Winners were as follows:

Presenter	Affiliation	Application-Short-Title	Rank
N. Canelli, G. Teti	RoboTech srl.	I-Droid 01: A programmable humanoid robot for edutainment robotics	1
N. Tomatis	BlueBotics SA	ANT: Autonomous Navigation Technology	2
T. Olsson, M. Haage, H. Kihlman	DELFOI, LTH, Linköping University	Cost-Efficient Drilling Using IR with High-Bandwidth Force Feedback	3

The Deliverable is [DR.15.4 Award ceremony and press release \(Yr 4\)](#).

3.13 WP 17: Management

All Milestones (M.17.7, M.17.8) were reached. The status of the management is more than satisfactory, from the point of view of the administrative and legal support.

The corresponding Deliverables are: [DR.17.16 Minutes of seventh board meeting](#), [DR.17.17 Minutes of eight board meeting](#), [DR.17.18 Periodic activity report 4](#), and [DR.17.19 Annual report on EURON—Yr 3](#).

¹<http://www.eu-nited-robotics.net/node/184>.

3.14 WP 18: Annual Meeting

This Milestone (M.18.4) has been reached: the meeting took place as planned, with all traditional components: formal and informal meetings of working groups, key notes, Technology Transfer Award, PhD Award, etc.

The corresponding Deliverable is [DR.18.4 Proceedings from EURON Annual Meeting—Yr 4](#).

3.15 WP 19: European Robotics Symposium

This Milestone (M.19.2) has been reached. The Symposium took place in Prague, on March 26th and 27th 2008, organised locally by Libor Přeučil from the Department of Cybernetics, Czech Technical University in Prague. The papers presented at the conference are published as Volume 44 in the STAR series (Springer Tracts on Advanced Robotics).

The corresponding Deliverable is [DR.19.2 Proceedings from EUROS 2008](#).

3.16 WP 22: Special Interest Groups

Two SIGs were active during Year 4: *Cooperative Robotics* and *Good Experimental Methodology*.

The Deliverable documenting their activities is [DR.22.3 Special Interest Groups—Yr 4](#).

3.17 WP 22: Towards a Durable European Robotics Entity

The WP has led to a “new EURON”, in a two-step approach via Milestones M.23.1 and M.23.2.

The corresponding Deliverables are [DR.23.2 Draft of concrete proposal](#) and [DR.23.3 Final concrete proposal](#).

4 Status of deliverables and milestones

4.1 List of Deliverables for Year 4

All Deliverables have been realised, except *DR.10.4: Web portal for European Robotics*.

Deliverable	Title
DR.1.4	Research Roadmap (to be integrated into industrial Strategic Research Agenda)
DR.2.7	Final version of benchmarking document
DR.4.5	Result of research proposals—Yr 4
DR.5.4	Final version of the Teaching Material Database
DR.5.5	Educational video material
DR.6.6	Final version of course database
DR.7.5	Summer Schools organised Year 4
DR.8.4	Announcement of PhD Award winners (Yr 4)
DR.9.4	Summary of Yr 4 STAR volumes
DR.10.4	<i>Web portal for European Robotics</i>
DR.10.5	Statistics on web-usage and structure
DR.11.9	Updated information package about EURON
DR.11.10	Yr 4 collection of IEEE RAM columns
DR.12.6	Contribution to statistics/forecasts/foresights
DR.12.7	Revision of the classification scheme according to the last surveys
DR.15.4	Award ceremony and press release (Yr 4)
DR.17.16	Minutes of seventh board meeting
DR.17.17	Minutes of eight board meeting
DR.17.18	Periodic activity report 4
DR.17.19	Annual report on EURON — Yr 4
DR.18.4	Proceedings from EURON Annual Meeting—Yr 4
DR.19.2	Proceedings from EUROS-08
DR.22.3	Special Interest Groups—Yr 4
DR.23.2	Draft of concrete proposal
DR.23.3	Final concrete proposal

4.2 List of Milestones for Year 4

The *emphasized* Milestones have not been reached.

Milestone	Title
M.1.5	Final integration with Strategic Research Agenda
M.2.7	Final version of research benchmarks
M.5.4	Final version of Teaching Material Database
M.5.5	Scenarios for video documentaries
M.6.8	Final version of course database
M.7.6	Last round of summer schools
M.8.4	Announcement of fourth round of PhD award winner
M.9.4	At least 8 new volumes in the STAR series
M.10.4	<i>Web portal for European Robotics</i>
M.10.5	<i>Finalise services for Robotics-in-Europe portal</i>
M.10.6	Launch new web interface
M.11.7	Media coverage for EURON
M.11.8	<i>Publication of 4 issues during the second year²</i>
M.17.7	Seventh EURON Board Meeting
M.17.8	Eight EURON Board Meeting
M.18.3	Fourth EURON Annual Meeting
M.19.2	Call for papers for EUROS-08
M.23.1	Adoption by the Board of draft proposal
M.23.2	Adoption by the Board of final proposal

5 Dissemination and use of the knowledge

EURON has provided ongoing dissemination in the following ways:

- The *Springer Tracts on Advanced Robotics* (START) book series.
- A column in the *IEEE Robotics and Automation Magazine*
- The website <http://www.euron.org>.
- The Annual Meeting.
- The summer and winter schools.