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EURON

European Robotics Network

Network of Excellence

Information Society Technologies

DR.17.5

Assessment of Quality of Integration

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Duration: 48 months

Organisation name of lead contractor for this deliverable:

KTH

Revision: final

Dissemination Level: PU

1 Introduction

As part of the initial work programme a number of indicate performance metrics were specified for evaluation of progress and degree of integration. The outlined metrics were (directly from the annex 1 to the contract):

Measures for “Integration Activities”

- Road-mapping: delivery of comprehensive state-of-the-art reports and research roadmaps as a foundation for future decision- and policy-making concerning European R&D in robotics.
- Benchmarking: number and quality of benchmark sets developed for comparing research results, and their diffusion into and impact on research and industry.
- Inter-project activities: number of inter-project collaborative activities generated and degree of cooperation achieved between IPs and with nationally funded programmes.

Measures for “Joint Research”

- number of proposals submitted to the Calls for Activities; range of EU coverage of proposals submitted and degree of participation from the new membership countries; number of complaints in selection procedures.
- take up of results: number of publications originating from sponsored projects, and influence on the integrated projects under “Beyond Robotics”.

Measures for “Education and Training”

- Summer schools: numbers of students and researchers trained in summer schools and similar educational activities; numbers of students and researchers trained coming from new membership countries.
- Model curricula: delivery of robotics-related model curricula; number of Universities in Europe where these are diffused and level of their assimilation – impact of efforts for creating pan-European robotics curricula.
- Other activities: numbers of students and researchers exchanged between institutions for limited or extended periods of time.
- Gender Action Plan: delivery of a mentoring programme and number of female researchers attracted to the programme and, more generally, into robotics-related activities.

Measures for “Industrial Links”

- Biennial events for Industry: Number of SMEs participating per event
- White Papers: Delivery of white papers on Robot Automation and Service Robotics and their degree of circulation among European SMEs.
- SME Awards: number of award submissions; range of EU coverage of awards and degree of participation from the candidate countries.

Measures for “Dissemination”

- number of researchers and students that participate in EURON organised activities.
- number of events organised that involve new membership countries.
- degree of visibility achieved by EURON in Europe and internationally (participation in international conferences and fairs, publications, etc.).
- setup of a press club involving a number of relevant science journalists.
- Number of articles and press appearances in the general media and popular science publications.

We will briefly try to discuss each of these metrics in relation to the work undertaken.

2 Integration Activities

Road-mapping A revised roadmap is not yet available. However a process has been initiated for the generation of a roadmap. Both a WiKi based system for community involvement and a draft structure have been defined. Consequently an important activity for the second year is the completion of the roadmap. Good progress has been made with respect to a revision of the roadmap from EURON-1.

Benchmarking A first inventory of benchmarks across a number of potential applications has been generated. The synthesis and evaluation of the use of benchmarks in the IP projects is still an open question that must be addressed during the second year.

Inter-project activities A joint advisory committee meeting has been organised. In addition each of the IP projects had a workshop in association with the annual meeting to provide information to the overall research community. In addition contact has been discussed/presented to the French ROBEA community. Mechanisms for discussion of joint problems/issues have been setup and a fruitful dialogue is in place.

As planned the first year has been used for initiation of the activities and it is too early to access the actual impact of these activities.

3 Joint Research

Proposals Two calls for proposals have been issued, as planned. The calls have generated 22 Prospective Research Project Proposals, 5 Research Atelier proposals, and 14 Topical research Studies Proposals. The evaluations has been changing in reaction to guidelines from the commission. One complaint over the reviews has been received. The reviewers were unanimous and consequently the decision was not changed. The proposals have included three of the new membership countries. The evaluations of proposals and organisation of contracts etc has required much more resources than initially anticipated. The future of the programme is at present discussed internally in the network.

Takeup of results The funded projects have barely begun their activities. It is too early to determine if/how the projects will have an impact on the IP-projects.

4 Education and Training

Summer Schools Four summer schools have been organised with participation of around 185 students. In addition formal evaluation mechanisms have been put in place for generation of feedback. Overall the schools have been a major success. At some of the schools close to 50% of the students were women, and at 2 out of 4 schools female teachers have been involved.

Model curricula Definition of a database for generation of an inventory of courses has been organised. The effort took longer than expected and it has consequently not been possible within the reporting period to perform a synthesis of model curricula. At the same time the educational committee is not convinced that it is possible to define “the” model curricula for robotics. This remains a challenge for the coming year.

Other activities Exchange of students across institutions has not been formally organised. The funded research projects have just been initiated, and at the same time there are no extra funds available to sponsor such exchanges. Consequently the volume of exchanges is expected to be limited.

Gender Action Plan No explicit gender action plan has been organised. Some topics in terms of summer schools have been chosen to attract female researchers and it is encouraging to see that the Human Robot Interaction Schools had a balanced participation and a majority of the teachers were women. Consequently it might be considered if the selection of topics can be promoted for areas in which women have a particular interest.

5 Industrial Links

Industry Events Several very high profile industry events have been organised incl the UNECE World Robotics Meeting on Everyday Robotics. In addition a major meeting within manufacturing robotics was organised at FhG-IPA.

White-Paper White papers on manufacturing and service robotics have been drafted in a joint effort with the EUROP initiative. Overall progress on white papers is ahead of schedule.

Award 10 proposals were received for the technology transfer award. The quality was in general very good. In the end it was decided to have a split of the first prize between an SME company and a major robotics provider. The proposals received covered 8 different countries, which is considered satisfactory.

6 Dissemination

Involvement The annual meeting involved close to 200 people and all membership nations. The turnout was larger than initially expected and the interest is very significant. In addition the involvement of 185 students at the summer schools is a good indication of the interest that EURON has generated.

Visibility EURON is highly visible as a co-sponsor of a very significant number of workshops and the regular column in the IEEE Robotics and Automation Magazine. In addition the biggest robotics conference (ICRA) was organised in Europe during 2005, by UPC. The visibility of EURON was very significant.

Press Club A formal press club has not been setup. However a long-term contact has been established with an experienced journalist Michael Kenwood. He is at present preparing a popular flyer on EURON and making sure information is fed into the information services normally utilized the press services.

Press Coverage Two press released have been issued, one for the PhD Award and another for the technology transfer award. The exact distribution is not known, but it was picked up by many of the popular science/engineering news papers across Europe.

7 Summary

In many cases the performance metrics are directed at the long-term effect of the network on the research community. As such the EURON initiative has not yet had a deep impact on the community. However due to the continuation of the FP5 NOE there is already a very significant impact of the community both at the national levels as an international player. Today EURON is internationally regarded as a model for how community integration can be achieved for the area of robotics, which is highly satisfactory given that the community was highly fragmented less than 5 years ago.