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“European Efforts in Strengthening Academia-Industry Collaboration”
Workshop at IROS 2011, San Francisco, 30/09/2011

Introduction

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- Goal of this session: introduce you to some of the measures taken in Europe to strengthen academia-industry collaboration
- Goal of the day: allow us to learn from each other on how to strengthen industry-academia collaboration
- Overview
 - Why collaborate?
 - History in Europe
 - Status
 - What will happen today...

Potential benefits of close collaboration

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- Better understanding of
 - The needs of industry
 - The offerings of academia
- This can result in
 - Research more industrially relevant
 - Technology transfer from academia to industry
 - More money for research
 - More advanced products
 - Imp. aspects: “how to manage the knowledge transfer” & “people transfer”
 - Less duplication of work
 - More Spin-offs / start-ups

EURON – European Robotics Network

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- Vision
 - Improve robotics research in Europe
 - Create a European “knowledge pool” without boundaries
 - Create new robotics markets based on European robotics technology
- Goals
 - Networking opportunities for all academics
 - Common face to European robotics research
 - Inform about funding opportunities
 - Matchmaking for project consortia
 - Improve PhD level education & training



EUROP – European Robotics Technology Platform



- Vision
 - Maintain leadership in industrial robotics
 - Take lead in service and security markets
 - Develop a European robotics supply chain
 - Ensure public and personal security
 - Improve quality of life and expand scientific endeavours
- Goals
 - Promote European Robotics
 - Provide networking support for the European robotics community
 - Develop the Strategic Research Agenda of European Robotics and ensure its high quality and endorsement



CARE: Coordination Action for Robotics in Europe

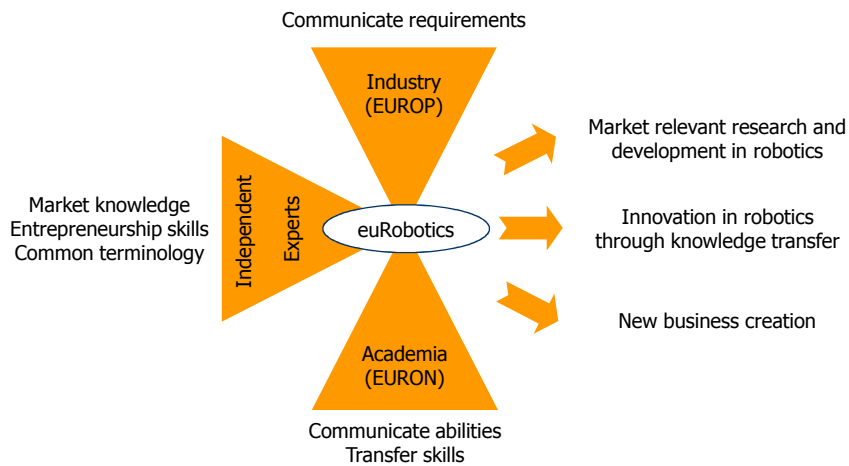


- Objective
 - To identify research priorities and to define a strategic research agenda (SRA) for robotics in Europe.
- SRA published on 7 July 2009
 - The SRA aims to promote robotics development and business activity in Europe



euRobotics – European Robotics Coordination Action

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- Task “Identifying hindering gaps”
 - Collect and formulate in detail the most significant “gaps” between academia and industry in those technology fields which are deemed most relevant for the future robotics industry
 - → Summary of identified and prioritised hindering gaps
 - → Suggestions for measures to close the gaps
- Task “Monitoring, adapting and enabling the implementation of the SRA”
 - Monitor whether the SRA maintains validity
 - Provide input for its adaptation and adapt it should the need arise
 - Enable the implementation of the SRA
 - → Sustainable basis for close industry-academia cooperation

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- Task “Advanced training of industry”
 - Academia teaches industry
 - Organise internships in industry (for students, PhDs, senior staff) and in research institutions (for developers)
 - → Sustainable improvement of education of industry
 - → Better understanding between industry & academia
- Task “Fostering and promoting entrepreneurship”
 - Foster a vivid entrepreneurial culture through raising the awareness of opportunities, risks and practical considerations amongst researchers and giving would-be-entrepreneurs support
 - → Methodology to evaluate business opportunities
 - → Series of entrepreneurship workshops aimed at researchers

ECHORD

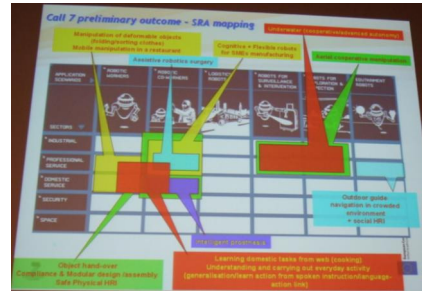
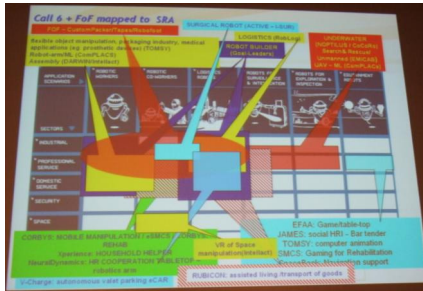
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- Small scale projects involving industry & academia
- Increase understanding of problems on both sides
- → we will hear more in the course of the day

FP7 / National funding

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- Funding where individual players can not close the gaps
- Calls partially based on roadmaps from industry & academia → motivation to speak to each other



- Consultations of representatives from both communities
- Encouragement of industrial participation in projects

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European
ROBOTICS
Research
Network
EUROP

European
robotics
technology
platform

The rest of the workshop

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- Industry-academia collaboration from different angles:
 - Alex Zelinsky: started a very successful company
 - DLR / KUKA: transfer from academic to industrial partner
 - Germano Veiga: Delphi study in the context of ECHORD
 - Henrik Christensen: How to reach the highest places?
 - Juha Heikkilä: brief overlook of FP7-ICT Call 9
 - Experiences and opportunities in ECHORD
 - Kai Pfeiffer: The need to carefully evaluate opportunities in robotics
 - Jan Becker: Transfer requirements and how ROS / PR2 have helped
 - Brian Gerky: How Willow Garage is tackling the issue
 - Discussion of results and what we can learn from each other

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