The European Robot Initiative for Strengthening the Competitiveness of SMEs in Manufacturing

Dissemination activities:

SMEs' fruitful feedback to SMErobot and the road ahead in France

Final Event Stuttgart, 7 and 8 May 2009
A technical center dedicated to French mechanical industry

Bringing new concepts in mechanics

- Public interest works aimed to assist mechanical companies in their development
  - Technological watch
  - Normative and statutory works
  - R&D transverse actions
  - R&D actions specific to each trade
- A global offer for custom-built services to the profession
  - Development or optimisation of products and processes
  - Study and implementation of organisational or technical solutions

Survey
- Inspection, tests, qualification
- Training
- A complete set of test, calculation and simulation platforms
- A workforce comprised of 70% of engineers and technicians

Descriptive sheet
- 700 collaborators, 3 sites, 14 regional establishments in France, 50% turnover participation recorded in 350 R&D contracts within the framework of EU programmes
Cetim dissemination activities in France

• Cetim in SMErobot to promote:
  – Safety standard for collaborative robots
  – Robotics in and for SMEs
  – Innovative use cases in France

• Cetim’s action
  – Translations
  – Participate and organize events
  – SMErobot opportunity assessment
SMErobot Opportunity Assessment

- 20 SMEs interviewed in Industrial processes related to demonstrators:
  - Casting, Assembly, Welding, Composite Machining,
  - 4 integrators

- Our generic approach
  - Disseminate “SMErobot” innovation message
  - Understand SME’s position regarding robotics
  - Identify key requirements and appropriate solutions for “in-situ” robotization

Final Project Workshop
Stuttgart, May 7-8
• First reasons given for robotization by SMEs
  – Working conditions, H&S
  – Repeatable quality
  – Lack of qualified manpower
  – Productivity comes in a second step

• “Classical Approaches” are freezing factors
  – The “Picasso robot” vision may be a robot project killer
  – The usual Go / No Go investment process leads to no decision. Confidence in solution need to be built upstream

• 2 SMEs (out of 20) think and implement automation by themselves. They develop and manage these skills as key competences
Opportunity for integration

- New technologies & standards enable new solutions & uses:
  - SMEs generally do not know new technologies capabilities and safety standards evolution for collaborative robots
  - The value added potential of new uses to be identified by the integrator

- Design of solutions and ROI calculation must be oriented by future challenges of the SME
  - ROI based on the simple operator replacement is often not worth
  - The robot has to be considered with all its value added potential
  - New business models may be required considering engineering and maintenance needs & attached life cycle costs
Lessons Learned and Future Challenges in France

• Lessons learned
  – French SMEs are open to robotics
  – Leading edge SMEs willing to develop robotics as a core competence
  – Robot without fences more needed than collaborative robot
  – There is a need for an integration approach dedicated to first implementation in SMEs

• Future Challenges
  – Manage local workgroups for robotics integration
  – Take experience from upstream approaches for robotics integration according to SMEs’ specific requirements