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

SMErobot™ demonstrators as micro-scaled European manufacturing SME networks
Problem: “Crossing the chasm”

[Geoffrey A. Moore]
• Early-stage SME integration has been built around 3 drivers:
  1. SMEEIG
  2. SMEpool
  3. SME campaign

• Integration by setting up manufacturing SME networks
• Contractual SMErobot Partner
• Formal project integration of SME end-users, system integrators, and SME multipliers using dynamic partnerships

Major Tasks:
- definition and specification of use cases / requirements
- testing of SMErobot concepts and interim developments
- assessing final project results
- accommodate ‘innovators’ / ‘early adopters’
- dissemination of results
• End-users:
  – Norton Cast Products (UK)
  – Hirschvogel (D)
  – Treffler (D)
  – K.Met (EST)
  – Schreinerei Som (D)

• System integrators:
  – ZS Automation (D)
  – Kine Robot Solutions (FI)

• SME multipliers:
  – CETIM (F)

• SME technology developers:
  – Jayway (S)
SMEpool

- 85 companies/organisations
- 75 SMEs, 6 SME Associations, 4 LEs

Major role:
- definition and specification of use cases and requirements
- feedback on technical and non-technical developments
- accommodate ‘early adopters’
- dissemination of results
SME Campaign

- **Main objective:** Create awareness towards European manufacturing SMEs and other SME sectors

- Clear focus on demonstration activities, in:
  - 5 major SMEEIG end-user events
  - SMErobot end-user events
    - Various partners’ events for all demonstrators and test-beds
    - CETIM’s events in France

- As an automatic result of end-user events, dissemination processes have been successfully initiated
SME manufacturing networks

- Role of manufacturing SME multipliers

- EU SME sector
- National SME sector
- Regional SME sector
- System integrators
- SME end-users

Top-down
SMErobot manufacturing networks

- Cast metal sector

CAEF (EU Association of foundries)
Deutsche Gießerei Verband, CRIF
CTI, CTIF
Norton Cast Products
• Forging sector

- Orgalime, Euroforge
- Industrieverband Massivumformung
- COMAU, IPA
- Hirschvogel
**SMErobot** manufacturing networks

- Metal sector

- Orgalime
- Handwerkskammer.de
- Handwerkskammer Schwaben Innung Metal Augsburg
- ZSA, IPA
- Treffler
SMErobot manufacturing networks

- Woodworking sector

- CEI-Bois
- HDH
- Fachverband Holz & Kunststoff Hessen, Träriket
- Reis Robotics
- Schreinerei Som
1. *SMEEIG* end-users as ‘innovators’ / ‘early adopters’
2. *SMEEIG / SMErobot* system integrators as interface between end-users and technology developers
3. Local and national SME multipliers as dissemination mechanism (e.g. CETIM)
4. *SMErobot* demonstrators to co-develop technical solutions for typical SME end-user problems
5. *SMErobot* local end-user events to:
   a. convince colleague SME ‘early adopters’, and
   b. assess and optimise *SMErobot* developments
6. Integrating public relations activities
Conclusion: ‘Crossing the chasm’

SMErobot closed the gap

Technology Adoption Lifecycle

Area under the curve represents number of customers
Conclusions

- **SMErobot** has successfully proved that a micro-scaled SME manufacturing network approach is the key for solving typical manufacturing SMEs’ problems integrating:
  - SME end-users
  - System integrators
  - Technology developers
  - Robot manufacturers

- The ‘chasm’ has been bridged by:
  1. Technology
  2. Successful dissemination:
     - SME campaign
     - SMEEIG events
     - communications (journals, videos, television broadcasts)
     - publications
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Thank you for your attention!