WORKSHOP 5
Key issues in ICT for Manufacturing

Conclusions and Recommendations

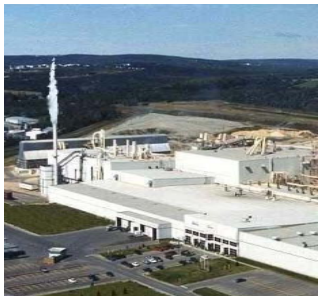
Coordinator: Chris Decubber
Rapporteur: Daniel Richet

WS5 – Presentations

1. ICT for Manufacturing Equipment
   Chris Decubber (Agoria).

2. Lean Product Development
   An Enabler for Lean Manufacturing?
   Dr.-Ing. Alexander Lewald (PTC).

1. Implementation case at SONEA INDUSTRY – Rufino Lopes.

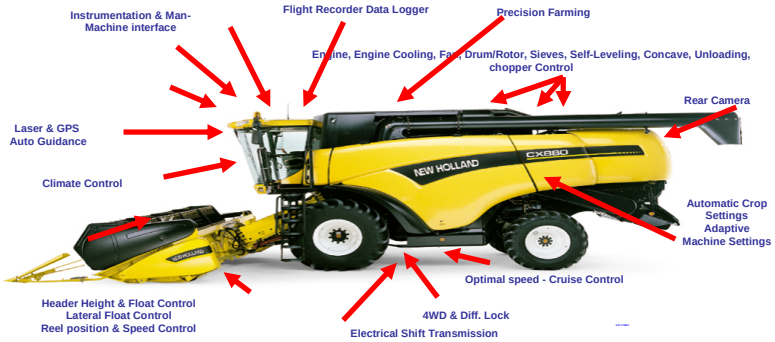


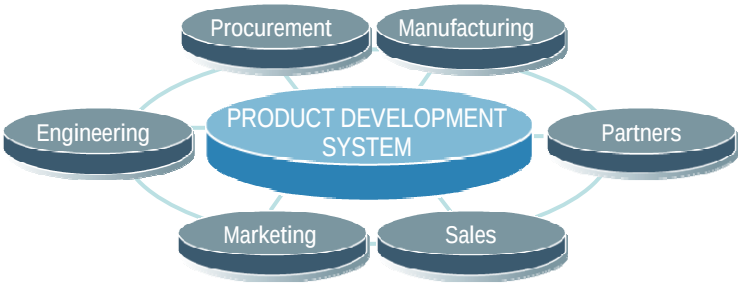
WS5 – Recommendations

1. Technological highlights.
2. Research – recommendations to European and national programs.
3. Implementation issues.

Technological highlights

- ICT is a key factor for a sustainable and a high added value industry.
- ICT is “everywhere”
- ICT generates competitive advantages for traditional manufacturing sectors as well as for Hi tech one.

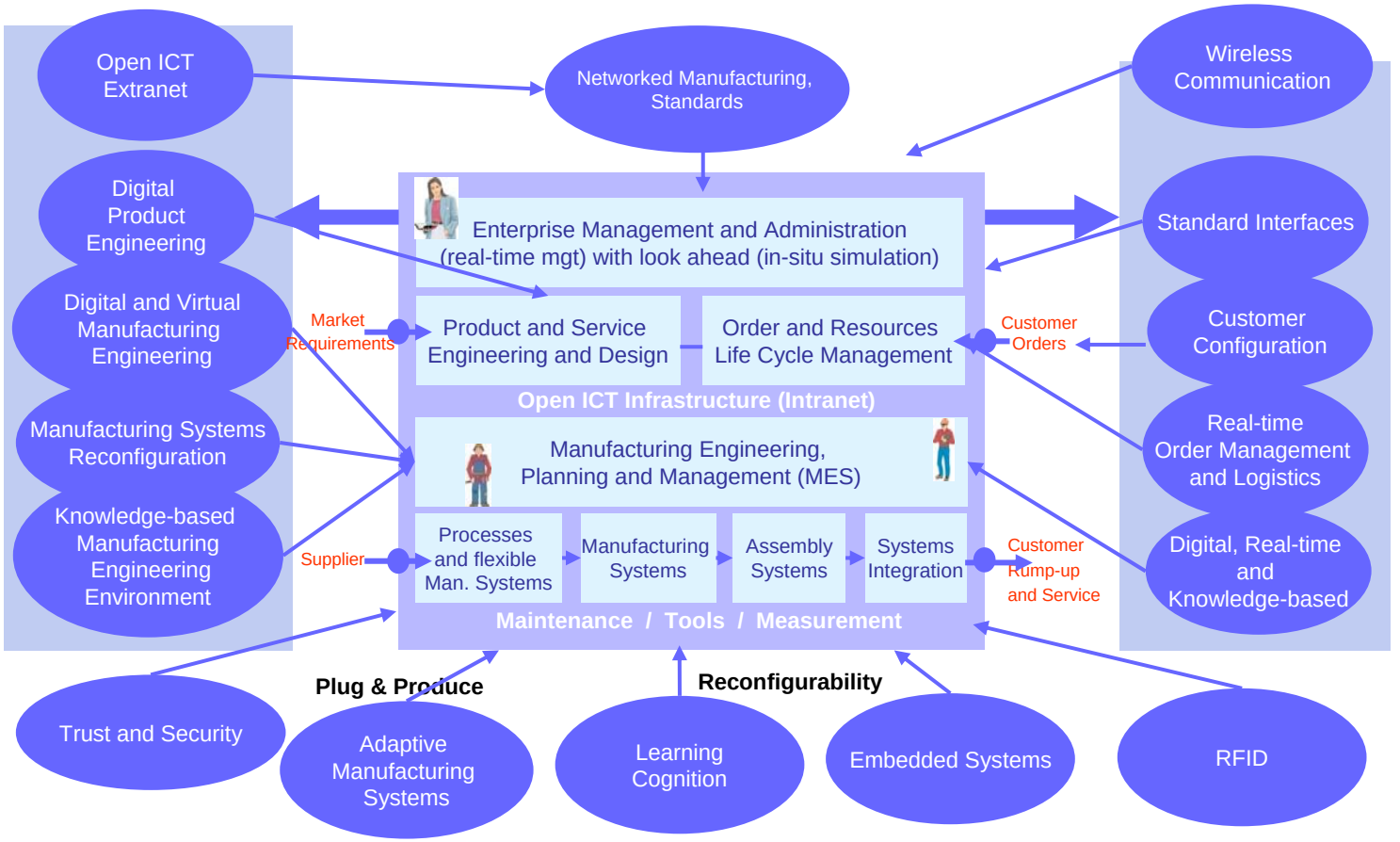




Technological highlights

ICT for MANUFACTURING,

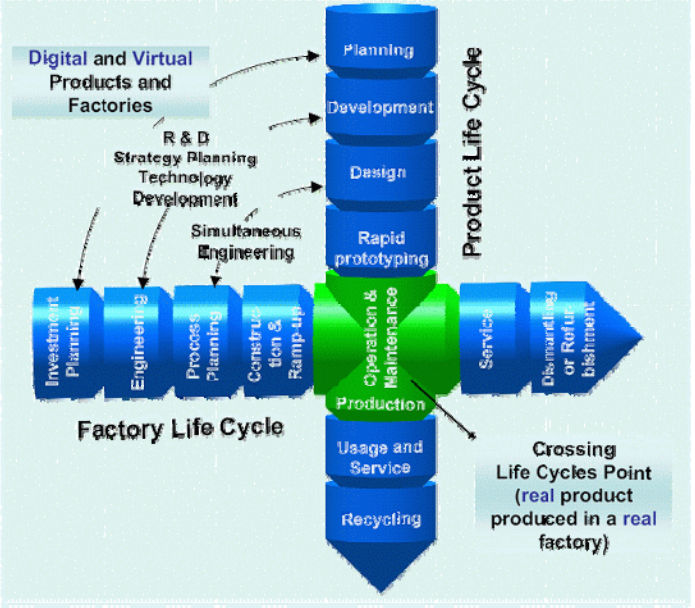
on the way from Data-driven Factories to Knowledge-based, Real-time and Networked Manufacturing



Technological highlights

Need for :

- Reducing the risk of integrating different ICT components and layers.
  - Master complexity through modelling and standardisation.
  - Security and safety issues.
- Robust planning : alternative planning for coping with disturbances on the shop floor. Feed back from shop floor to planning systems is required as well.
- Virtual assesment of product and process life cycle Integration of supply chain networks (from EOM to Sme's and between Sme's)
- Validation / synchronisation of digital models with real time data.
- Modelling the impact of human intervention with the process.
- Identifying drivers (face to globalisation) and enabling ICT technologies (to justify their use).



Research - recommendations to European and national programs

- ICT is everywhere…
  - Take ICT issues more into account within all NMP call topics.
  - Promote direct discussions with IST (DG IST is offering a lot of opportunities) for joint calls.
- Acceptance that:
  - Implementation of enabling ICT technologies in manufacturing requires research
  - ICT is embedded in (practically) all research activities – no monopoly of specific research programs.
- More coordination of research programs and research projects is required.

Implementations.

- Sme's :
  - Need to prove quick added value and payback.
  - Strong need for real interoperability solutions (black box)
  - ICT vendors focus mainly on big to medium size companies. Lack of business models oriented to small enterprises.

- OEM :
  - Need for supervision of entire supply chain (T1 down to Tn).
  - simplicity/lean – plug in solutions also to reduce costs for suppliers.

- Education :
  - Need for new qualifications for ICT in manufacturing.
  - Be aware : there is already qualification gap for implementing current ICT technologies.