FOFDation
Factories of the Future PPP – first success stories

Presented by
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Our vision: towards an ubiquitous factory

Imagine...

- All the factories sharing data seamlessly to design and produce anywhere
- All the people building a green planet
- No pollution, no waste to clean, no smoke to destroy
- The factory of the Future enabling a sustainable world and fair trade

http://upload.wikimedia.org/wikipedia/commons/9/9f/map_green.png
Based on an integrated ICT approach

Today, disparate

Top-down approach, disparate and incompatibles IT islands, lack of interoperability, point solution...

Tomorrow thanks to convergence & integration

Holistic & bi-directional approach, end-to-end digitization, convergent and science-based process, interoperable IT modules, plug-and-produce IT environment, lifecycle management, sustainability monitoring,... all integrated!
And breakthrough concepts...

- End-to-end digitization: Product, Process, Resource, Plant
- Science-based approach
- Interoperability & standardization
- Bottom-up optimization and integration
- Sustainability: triple bottom-line (profit, people, planet)
FOFDation: An Airbus point of view

Performance Readiness - Rationale to support FOFdation

FOFDation capabilities

- Model: Reduce shopfloor growing diversity and complexity
- Integration: More integration between MES, PLM and SAP
- Information Pipeline: Interoperability of IT functional bricks to improve the accuracy of process
- KPI: Global supervision and execution (includes sustainability)
- Other: Supply chain cost reduction

Airbus manufacturing top challenges

- Extended Enterprise Federative Platform based Model
- Flexibility in the supply chain through standardized services on demand
- IS simplification through availability of Aerospace standards
- Dissemination strategy towards contractors and leverage standards
“Technical data are mutually dependant one on each other and are used for various purposes by many actors (including extended enterprise). A global architecture of technical data is essential to control data workflows and to ensure consistency across domains and along the whole aircraft lifecycle.”

**FOF roadmap supporting industrial ICT concerns: agility, interoperability, ICT sustainability**

**FOF Roadmap - PPP / ICT / Manufacturing**

**Digital factories** – Knowledge design & decision based on digital data

**Smart factories** - Vertical integration throughout the manufacturing process

**Virtual Factories** – Incorporate effective management of complex supply chain

**ICT RISK to be covered**

**Data explosion** - Non readability of the data model leads to misunderstanding of information, duplication of data and use of uncontrolled data

**Users everywhere** - Decision processes & data workflows are complex leading to over delay and over cost for data validation and usage. A lack of standardization and integration leads to a loss of efficiency internally and with the extended enterprise

**Lack of interoperability between applications** - Hard coded interfaces are still growing

**ICT obsolescence is a source of recurring costs** – The application lifecycle is very short. Any kind of ICT Upgrade is a source of expensive migrations, upgrade and test campaigns.