

FoFdration

The foundation for the smart factory of the future

FoFdration creates a data integration standard to help overcome difficulties faced by manufacturers. It seeks to create the foundations of the future of digital manufacturing to overcome productivity pressures, environmental aspects and allow for greater product variability.



Today's major challenges for manufacturing companies are clear: global cooperation with multiple supply chain partners, the boosting of productivity and finally the tracking and management of information so as to meet new requirements in terms of traceability, security and sustainability.

FoFdration will establish a universal manufacturing information system based on a "data integration" standard such as STEP and its EXPRESS language, which allows individual entities and their associated devices to share data in a common format. This foundation will then allow the Smart Factory architecture to be implemented based on a high bandwidth 'manufacturing

information pipeline' for data interoperability.

Incorporation of the project into the Smart Factory sub-domain, in view of real-time networking and adaptive capability, also includes:

- Optimisation of numerically-controlled machining systems, including programmable logic controllers through an embedded Supervisory Control and Data Acquisition (SCADA) system.
- Support for an advanced Manufacturing Execution System (MES), providing not only integrated process automation but also an extension of its scope to achieve energy efficiency and

sustainability objectives and promote e-manufacturing and waste reduction.

- Reduction of time-to-market costs and costs related to resource diagnosis-maintenance through a common control and monitoring platform.
- The use of homogenous information sources which generate data from the entire process, achieving information binding from the extended MES to innovation in product lifecycle management and incorporating the business dimension of enterprise resource planning.

Jean-Bernard, project manager from Airbus Operations SAS said:

"The FOFdration project addresses our major strategic objectives for a global industry player, e.g. to better integrate and streamline CAD data towards our NC machines, thus addressing both optimisation and environmental issues through a fresh concept towards the global sustainability vision based on complete information integration."

Project Number 003

START	June 2010
DURATION	48 months
TOTAL BUDGET	€10.4 million
EU SUPPORT	64%
EU GRANT ID	FP7-ICT 260137
COORDINATOR	Jean-Bernard Hentz (Airbus)