FoFdation
FOUNDATION FOR THE SUSTAINABLE FACTORY OF THE FUTURE

SEVENTH FRAMEWORK PROGRAMME

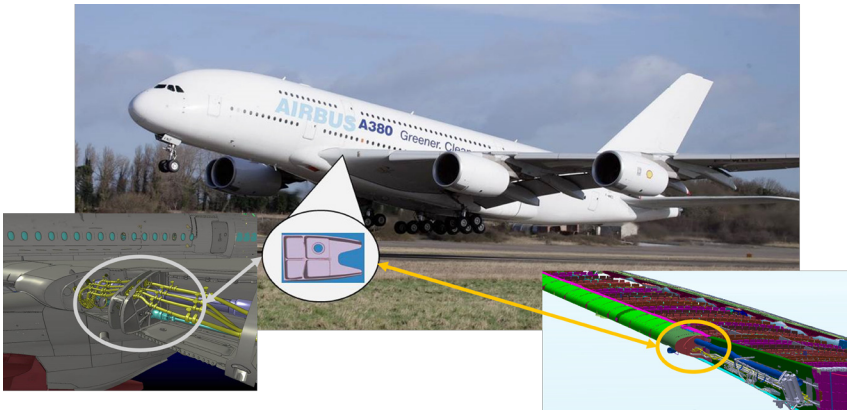
05-06/12/2013, Paris, France: 5th General Assembly Meeting

The FoFdation project partners gathered on 5th and 6th of December in Paris to review progress after 42 months of project life time and the planning of the last 6 months of the project.

After presenting the administrative issues, the global scenario that is demonstrating the different outcomes of the FoFdation project was discussed further leading to: one story resulting in four different demonstrators all using the same data. The key messages from this global scenario and therefore from the FoFdation project are:

- Micro-optimization based on global impact assessment on the P3R (Product, Process, Resource) versus the local optimum
- Part quality and energy consumption tracking
- Holistically manage factory assets

The story is based upon a part (fish head) that should be engineered, manufactured and assembled in an aircraft (A380) after a design change.



In four Use Cases (UC's) this scenario will be demonstrated in the coming months.
UC1 will concentrate on what is happening on shop floor level and being the integrated approach from design-to-production. It demonstrates:

- Next generation and open controller based on SMC-SMO addressing Smart NC programming and micro optimization (for legacy machine) towards increased productivity and capability
- Real adaptive machining based on signatures of the machine tool and the machining process
- Final integrated digital prototype for the simulation and verification tools, and an intelligent adaptive and sustainable approach

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UC2, 3 will concentrate on what is happening on management level while UC4 will demonstrate the applicability of the FOFdation concept to non-conventional manufacturing like EDM.
UC2 focuses on the end-to-end integration based on data available the developed Manufacturing Information Pipeline based and existing, state of play PLM technology. It will demonstrate:

- A dashboard for visualizing live data coming from the manufacturing operations.
- PLM system for data backbone & business intelligence (information query and knowledge storage & extraction)
- UC3 addresses the sustainability concerns by demonstrating the:
- KPI-GPI selection tool enable the choice of monitoring Key (sustainable) Performance Indicators
- Optimization Planning tools (IMPACT, PROPTIM) which, based on production data can optimize towards sustainable manufacturing.

UC4 will focus on using FoFdation technology for advanced EDM process planning and management. Here the demonstration will adress :

- EDM NC programming based on SMC concept (STEP-NC compliant controller) and integration from design to production, as well as the "increased capability" versus "productivity only"
- EDM e-tracking for integration from production to management

With the development and execution of these four use cases, FoFdation is entering the coming months its final stage: R&D outcomes will be used in real-life situations under real-life conditions, and demonstrations will be publicly addressing real SMEs innovation needs within the Living LABs further and beyond the project life time.

For more information about the FoFdation project visit **http://www.fofdation-project.eu** and the project's social media pages, including Facebook (**#fofdationproject**) and Twitter (**@FoFdation**).

Acknowledgements:
This project is co-funded by the European Commission as part of the European Economic Recovery Plan (EERP) adopted in 2008. The EERP proposes the launch of Public-Private Partnerships (PPP) in three sectors, one of them being Factories of the Future (FoF). Factories of the Future is a EUR 1.2 billion program in which the European Commission and industry are collaborating in research to support the development and innovation of new enabling technologies for the EU manufacturing sector.

For further information please visit:
http://ec.europa.eu/research/industrial_technologies/factories-of-the-future_en.html