FUTURA

Multi-functional materials & related production technologies integrated into future industries

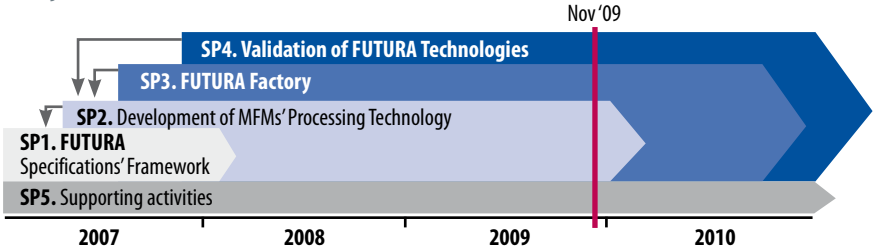
Motivation and Objectives

FUTURA Project motivation:

- to promote the development of innovative vehicles, with high-added customer value and environmental sustainability,
- to evolve from the traditional BiW structures to a new generation vehicles with advanced functionality,
- to develop a cost efficient light weight design of vehicles for minimizing CO_2 emissions and,
- to integrate innovative materials and processing methods into the BIW production

FUTURA Project aims to increase the competiveness of the European automotive industry by introducing new materials and processes, with the scope of reducing cost and development time and increase customization possibilities.

Project Plan, Milestones and Deliverables



Technical Approach and Achievements

SP1: Project Specifications:

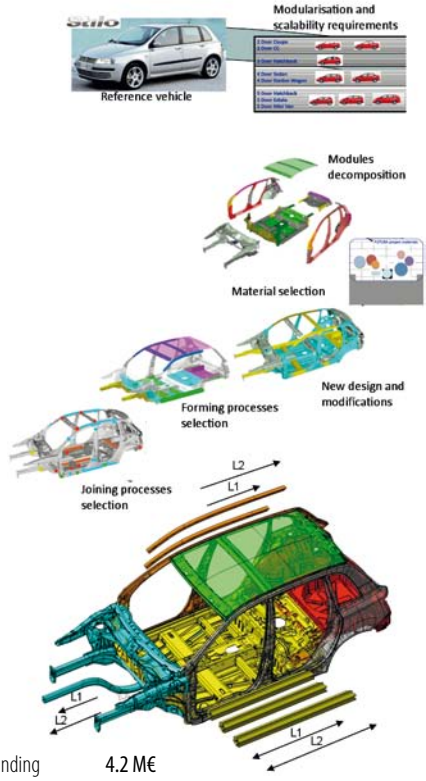
- Multi-functional materials assessment – database implementation
- Profile intensive BiW
- Development of FUTURA business case

SP2: Process development:

- Forming processes
  - Stamping of sandwich sheets
  - Roll-forming of MFMs
  - Stretch bending of complex profiles
  - Integration of APM foam
  - ILC/D-LFT & injection molding with nano-fillers
- Laser Welding
  - Laser welding
  - Adhesive bonding
  - Mechanical – Hybrid bonding
  - MIG/TIG, FSW and RSW

SP3: FUTURA Factory:

- Process monitoring issues
- Development of production setups
- Production planning and control issues



Organisational Information

Budget	7.1 M€	Funding	4.2 M€
Duration	48 months	Start	January 2007
DG	Research	Priority Area	NMP
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