

# SIMULATION WITH SUSTAINABILITY ASPECTS IN THE MANUFACTURING SYSTEM CONCEPT PHASE

- Complexity of design process – product-process-system
- Importance of sustainability aspects

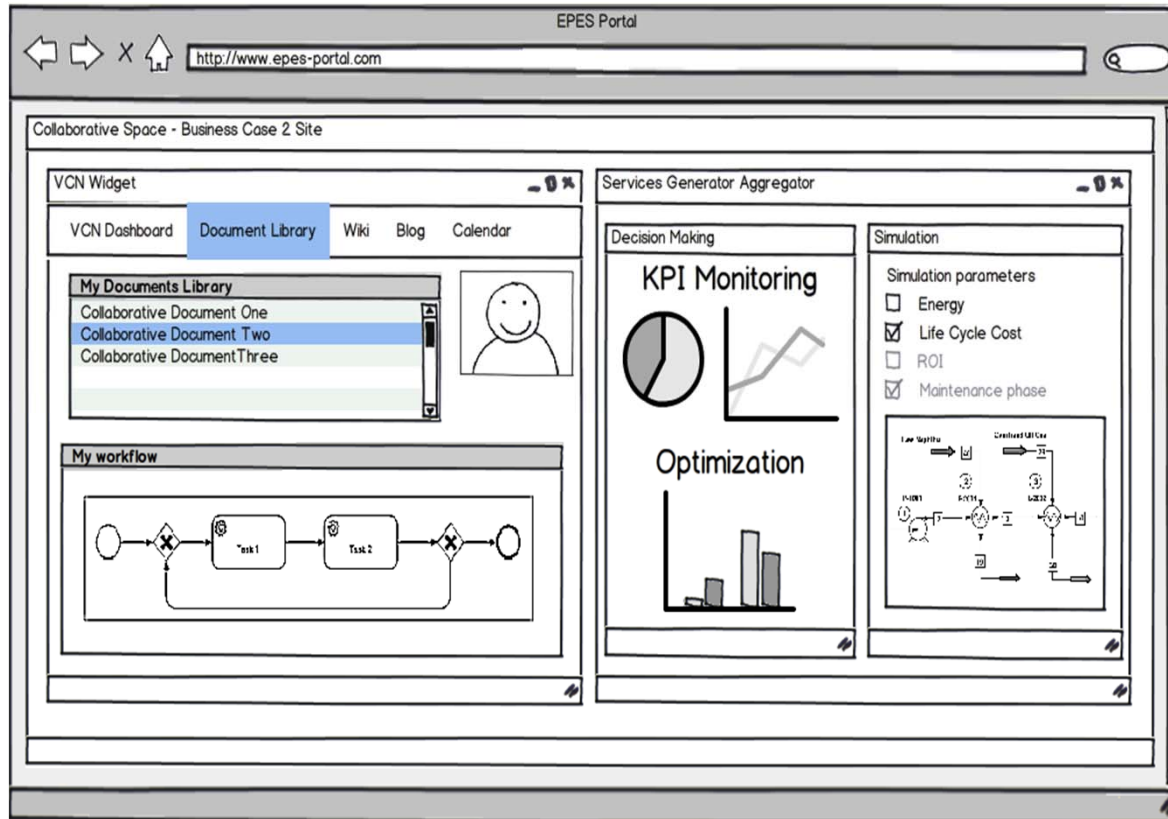
## AIMS

- Decision making process with sustainability aspects in manufacturing simulation
- Simulation as a Service for non simulation-experts, DFMA in product concept phase

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- **Product Service System (PSS):** Assessment and optimization of technical systems from a product **life-cycle point-of-view**:
- **Collaborative design**, extended enterprise **knowledge repository**, a **simulation** and **decision-making** platform.
- Integration of a set of readily available tools into a modular and extendable system within the Virtual factory
- **EPES** (<http://www.epes-project.eu/>)



1. Virtual Collaborative network, VCN
2. Service Generator
3. Decision Making
  - Visualisation
  - Optimisation
4. Simulation:
  - Black box simulation on web

“Automatization of eco-design engineering process in specific domains”

**EADS:** Aircraft manufacturer.  
Assessment on productivity and  
sustainability KPIs on wing design  
concepts



- New supporting services on early product design => ***conceptual stage DFMA and sustainability assessment.***
  - Validation and optimisation of product and production scenarios
- ***Dynamic modelling with integration of assessment methods***
- ***Service for non-simulation experts***
  
- ***VISIT OUR POSTER FOR MORE DETAILS***