

VIVACE : Multidisciplinary Decision Support

Names	Philippe Homs
Affiliations	Airbus
Countries	France
e-mails	philippe.homs@airbus.com

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Objectives :

VIVACE (Value Improvement through a Virtual Aeronautical Collaborative Enterprise) is a project setup in the frame of AECMA addressing aeronautics' vision 2020 objectives to contribute significantly to fulfilling three specific targets of the Aeronautic Industry Strategic Research Agenda:

- halve the time to market for new products with the help of advanced electronic analytical, design, processes methods and tools.
- Increase the integration of the supply chain into the network
- Maintain a steady and continuous fall in travel charges trough substantial cuts in operating cost.

The VIVACE contribution is to achieve a 5% cost reduction in aircraft development and 5% reduction of the development phase of a new aircraft design combined with a contribution to a 30% reduction in the lead time and 50 % reduction in development cost for a new or derivative gas turbine. This will be achieved through a re-engineering and optimization of the entire design process by modelling and simulating in an advanced concurrent engineering environment.

In terms of results VIVACE will deliver a virtual product design and validation platform based on a distributed concurrent engineering methodology supporting the virtual enterprise. Precisely, VIVACE is developing advanced capabilities (Knowledge Enabled Engineering, Multidisciplinary Design and Optimization, Design to Decision Objective, Engineering Data Management, Distributed Information Systems Infrastructure for large enterprise and Collaboration Hub for Heterogeneous Enterprises) applied on real cases engineering and business scenarios from the aircraft and engine sectors.

This communication will focus on the related business needs with regard to multidisciplinary decision support based on information management.

VIVACE is putting together 65 European aeronautical companies and started beginning 2004 and will end in 2007.

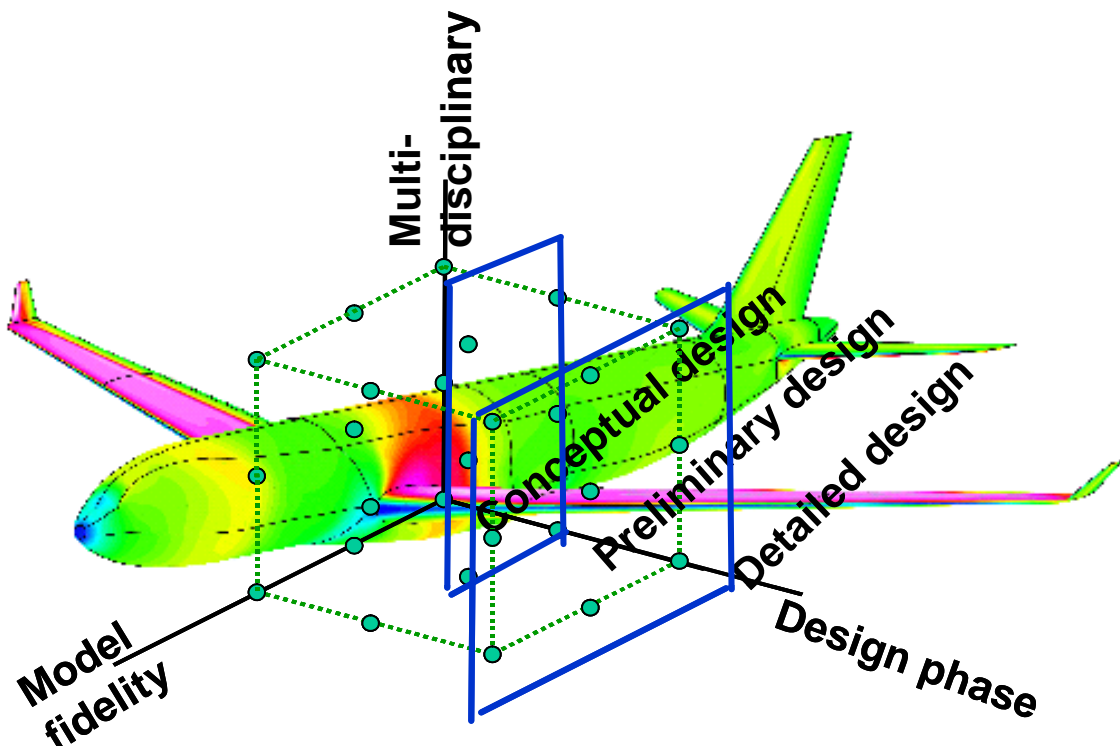


Figure 1 : Multidisciplinary Optimization

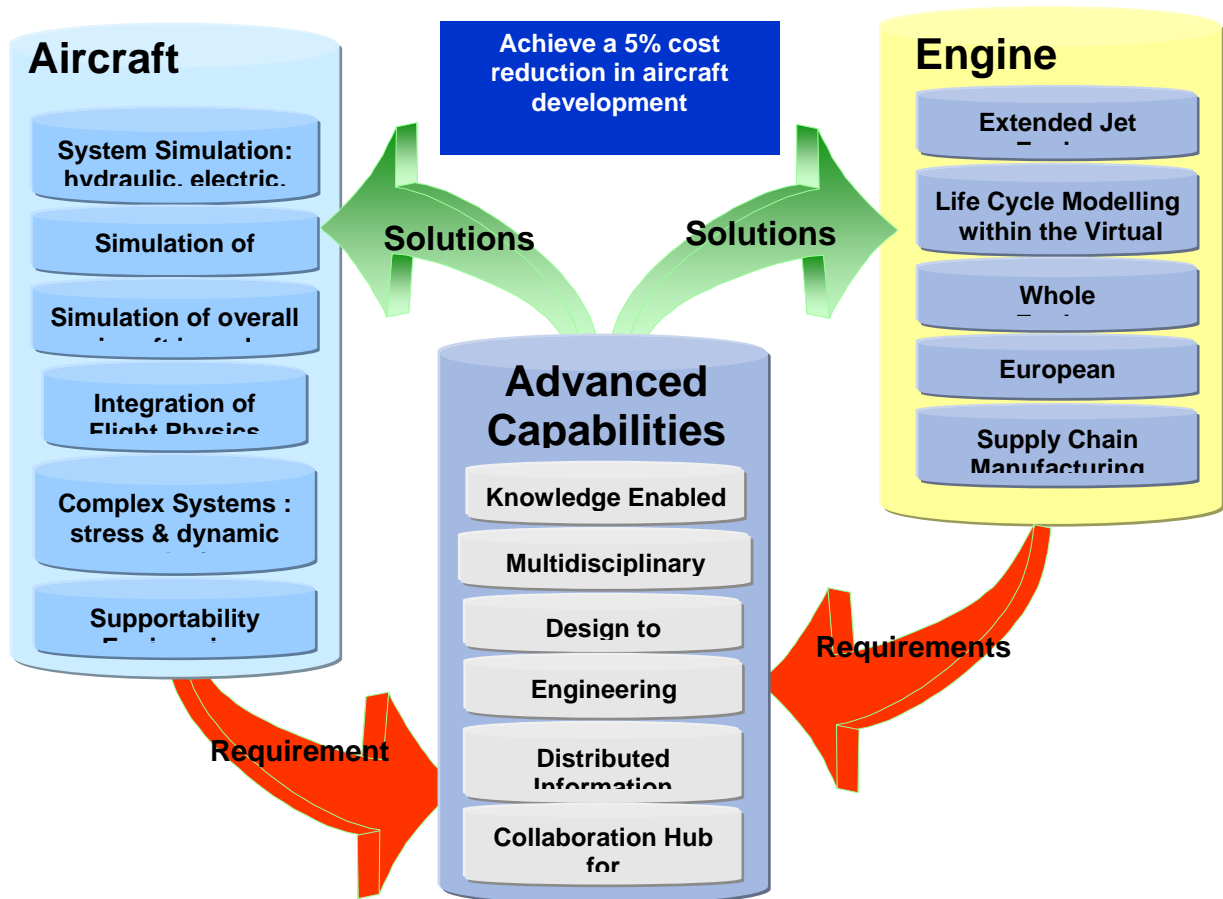


Figure 2 : VIVACE Structure