

CoSpaces IP



Innovative Collaborative Work Environments for Individuals and Teams in Design and Engineering

*Terrence Fernando,
Director of the Future Workspaces Research Centre,
University of Salford,
Manchester, U.K.*



CoSpaces Consortium

Industry

Airbus CIMPA
CERFACS
COWI

Varinex Informatics
Virtual Dimension Centre
Frietuna

The Open Group (Project Coordinator)

Research

Fraunhofer Institute
National Technical University of Athens
Telematica Institute
University of Cologne
University of Nottingham

University of Salford (Technical Coordinator)

University of Stuttgart
UNINOVA

Dissemination & Networking

Consultores de Automatizacion y Robotica
ESoCENet
FILAS, TA-NET, Pragmasis

France
France
Denmark
Hungary
Germany
UK
UK

Germany
Greece
Netherlands
Germany
UK
Germany
Portugal

Spain
Italy
Italy, UK, Portugal



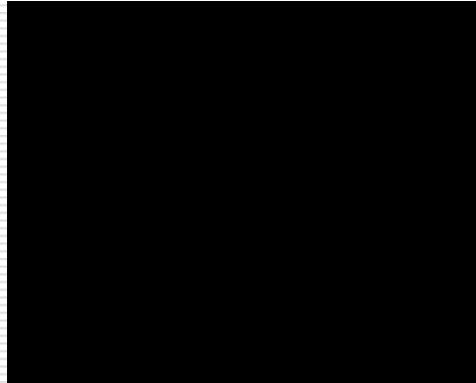
Total Cost : 12MEuros

Duration: 3.5 Years



Background

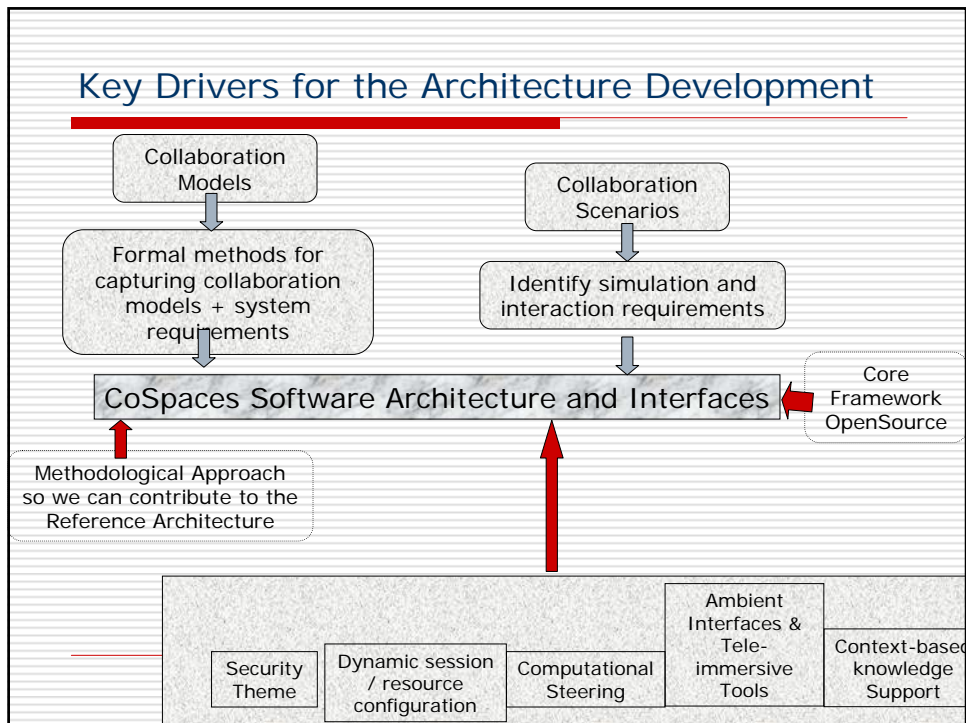
- Preparation of the Future Workspaces Roadmap – 2002.
- Outcome
 - ◆ Roadmap
 - ◆ Scenarios
 - ◆ Video
- Video
 - ◆ Novel display technologies.
 - ◆ Intuitive Interfaces
 - ◆ Real-time simulation (computational steering)
 - ◆ Collaborative working
 - ◆ Data security





Scientific and Technological Objectives

- To understand and **evaluate collaboration** at **individual, team** and **enterprise levels**, *developing models for collaboration* with emphasis on applications of problem solving, creativity, participatory and knowledge based design.
- To create an **innovative distributed software framework** which will support the **easy creation** of **collaborative work environments** for distributed knowledge workers and teams to support collaborative design and engineering tasks.
- To **validate** the distributed software framework for creating different **classes of collaborative working styles** required for collaborative design and engineering :
 - ◆ Focused sectors : aerospace, automotive and construction.
 - ◆ Three generic classes of collaboration workspaces: distributed design workspace, co-located workspace and knowledge-supported mobile workspace.





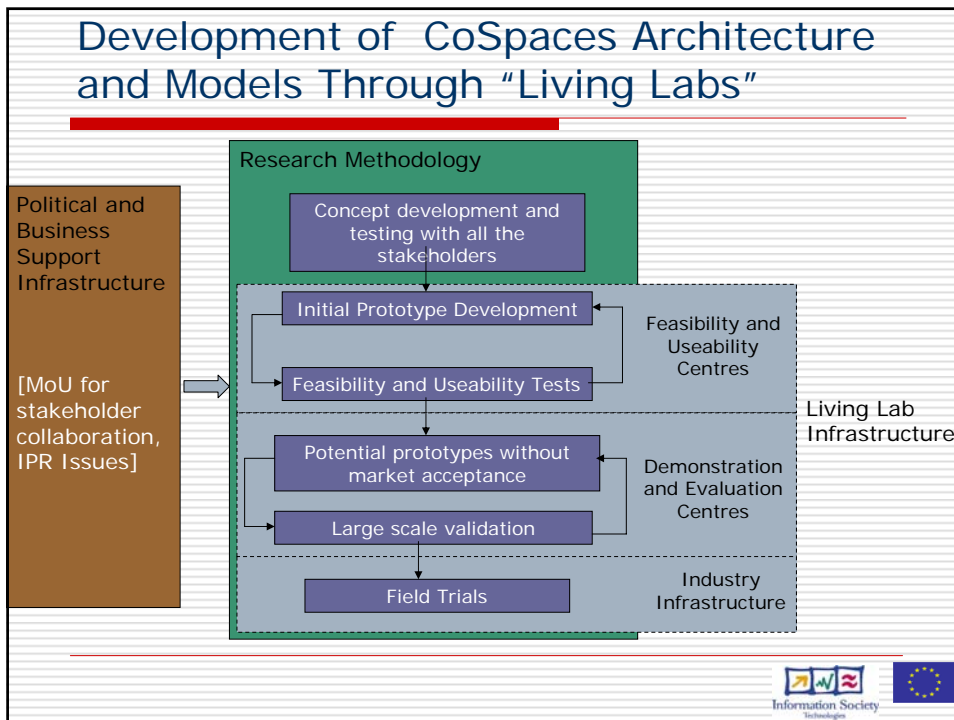
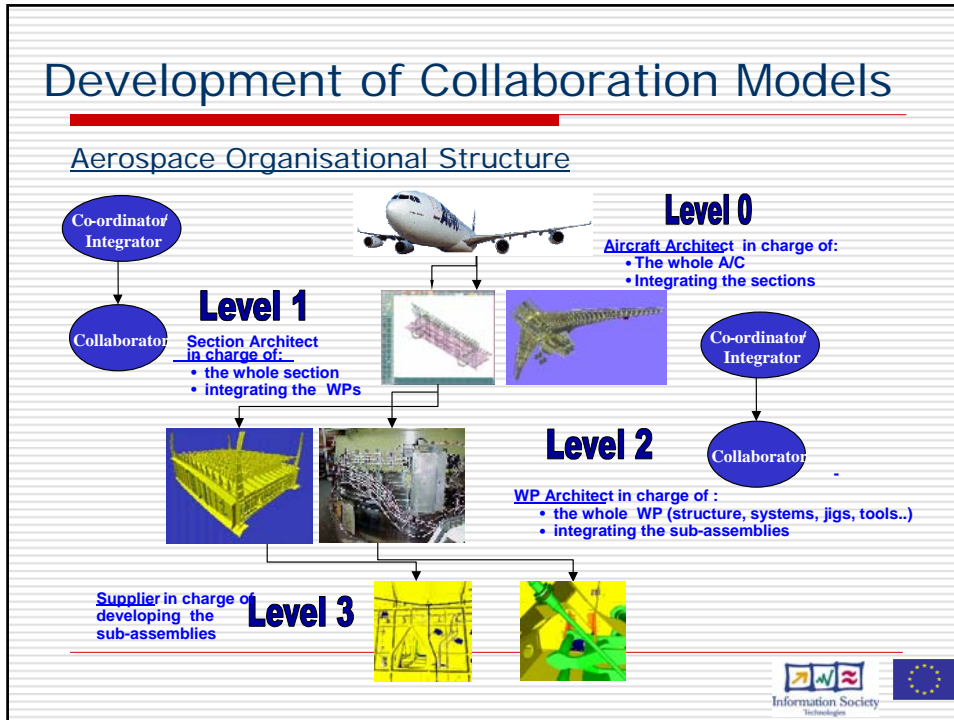


Current Working Practices

- **Airbus**
 - ◆ 150 sites throughout the world
 - ◆ Manufacturing Facilities in France, Germany, UK, Spain.
 - ◆ Both Engineering and Manufacturing are trans-national processes.
 - ◆ Work with an international network of 1,500 suppliers in more than 30 countries.
- **Current Position**
 - ◆ Teams are permanently or semi-permanently based in Toulouse.
 - ◆ BAE runs shuttle services to Toulouse, Bremen, Hamburg, Filton, Warton, Farnborough.
- **Future Position**
 - ◆ Move work to people
 - ◆ Distributed meeting and working is common






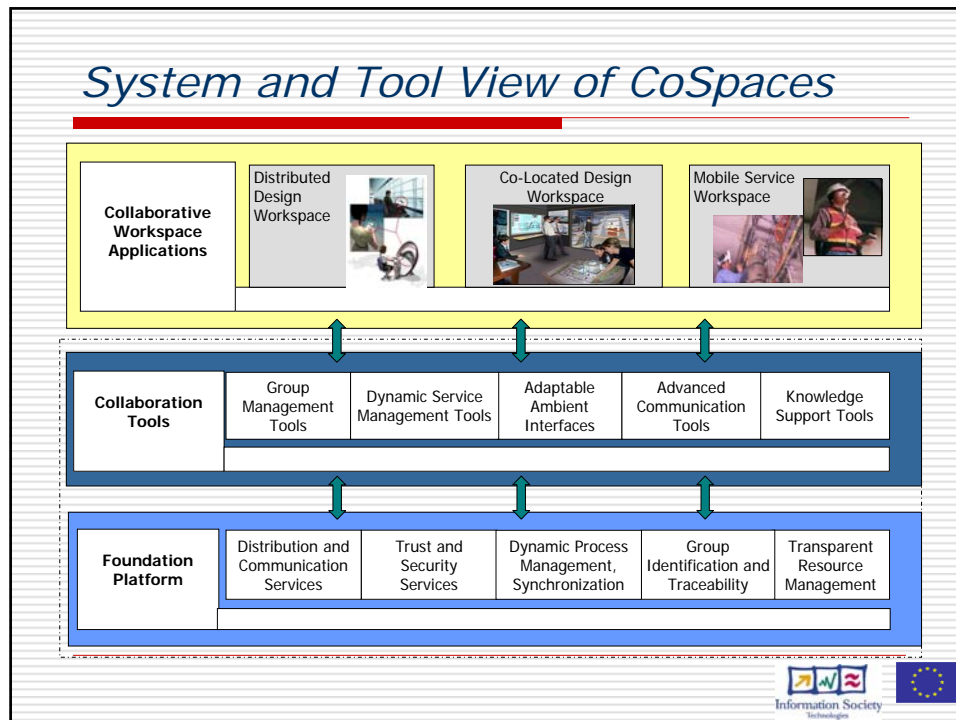




Industry Clusters in CoSpaces

	Industry Partner	Living Labs
Construction	COWI	Danish Living Lab (Danish Network in Partnership with Construct IT and COMIT in UK) Potential Companies : Danish (KHR AS Architects, CF Moeller, Arkitema; COWI, Rambøll; NCC, MT Højgaard; Velux, Dalton Concrete Elements) British (Atkins Consultants ; BAA plc ; Bucknall Austin; Bovis; Davis Langdon LLP ; Corus Group plc ; Costain Ltd ; Morgan Sindall; MWH ; Shepherd Construction Ltd; Taylor Woodrow; Alfred McAlpine; Arup)
Automotive	VARINEX and VDC	Hungarian Living Lab: (Hungarian Automotive cluster in collaboration with German partners) Potential Partners : Hungarian (PANAC Members - EDAG, ZF Hungary, RÁBA, Knorr-Bremse, VALEO, BPW, KVJ Muvek, RÁBA Vehicleparts Manufacturing, Ratipur, Karsai Holding); German (Audi, Volvo, Porsch etc)
Aerospace	AIRBUS	French Living Lab: (Airbus partners)



Impact of CoSpaces

- Better understanding of models of collaboration to guide the development of collaborative technologies and ambient interfaces.
- Distributed virtual engineering environment which is flexible, reconfigurable, intelligent. (Open Source)
- Contribute to the development of the Reference Architecture and standards in CWE.
- Implement Engineering "Living Labs" to provide a user-centric, industrial approach to develop collaborative technologies.
- Methodologies for evaluating and deploying collaborative workspaces and interfaces.

Thank You !

