

Motivation

Command and Control Room Development

Figure 1 – High Level Definition of the AdCoS

- Scenario Development
- SME Input
- Architecture Design
- Use Case / Test Cases Design
- Demonstrations / Experiments
- Analysis / Evaluation

Figure 2 – Implementation of all AdCoS Components, Methods, Tools and Techniques

Methods

- Task Analysis
- Focus Groups
- Interviews
- Use Case Analysis
- Usability Questionnaires
- Experiments

Tools

- Enterprise Architect (EA)
- System Architect (SA)
- DOORS
- KNIME
- HF-Filer

Techniques

- Concept of Operations (C2 Generic Baseline)
- Stakeholder Engagement Analysis
- Architecture Frameworks
- Human Views
- Human System Integration (HSI)
- Evaluation
- Open Services for Lifecycle Collaboration (OSLC)

Contact Information

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Airbus Defence and Space - AdCoS Development

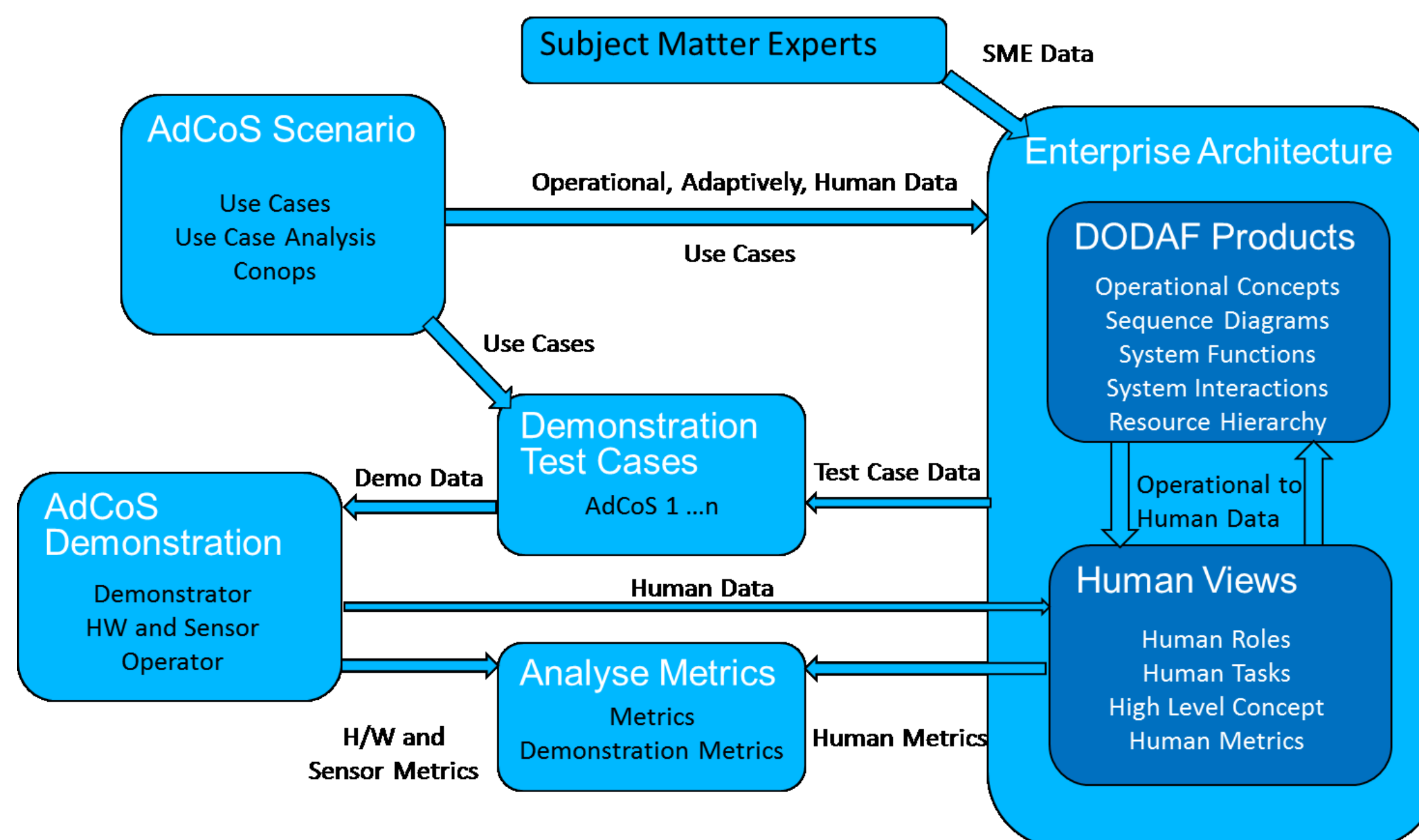


Figure 1: High Level Definition of the Airbus Defence and Space Control Room Development Process

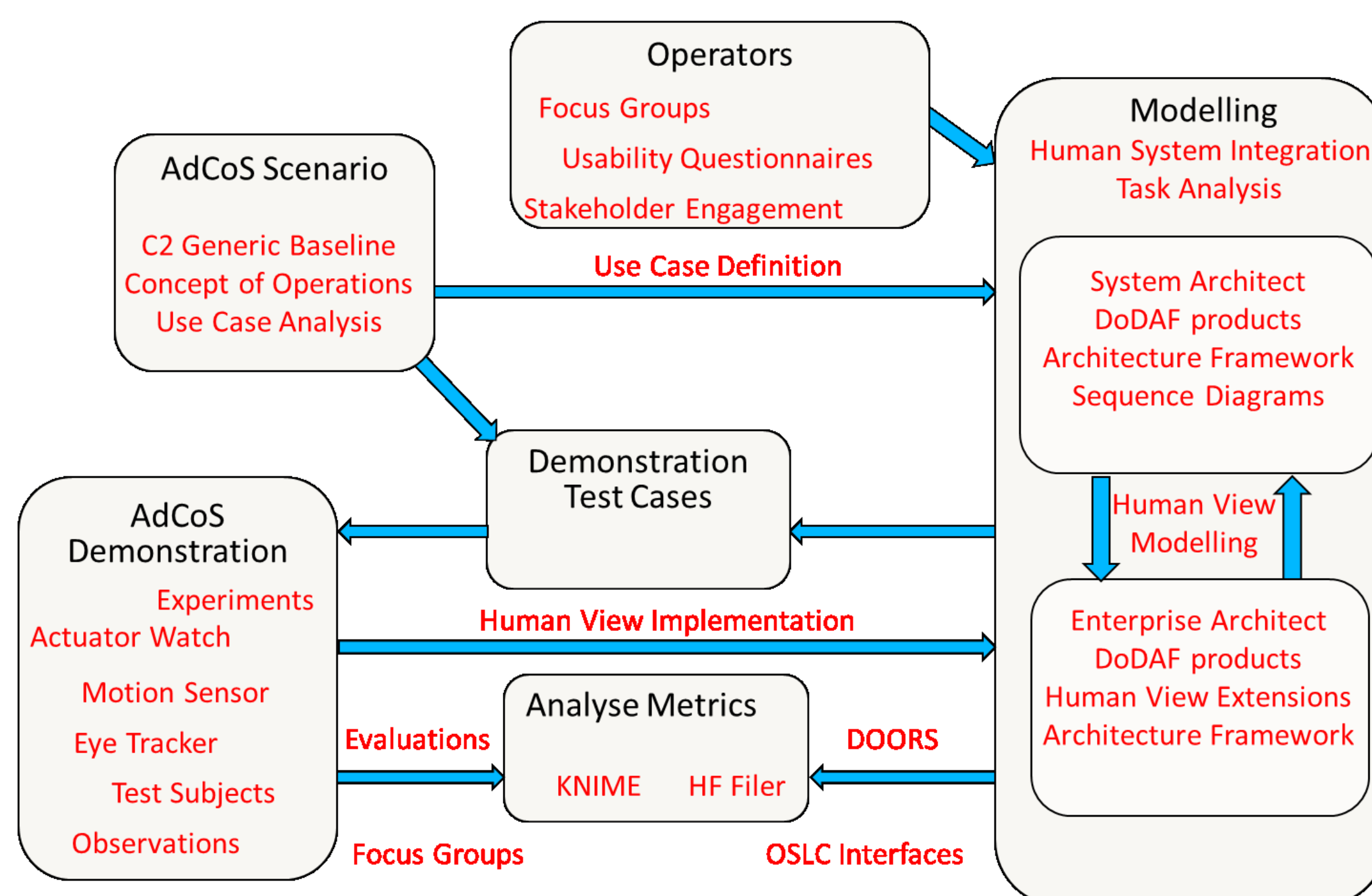


Figure 2: Component Implementation of the Airbus Defence and Space Control Room AdCoS

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Acknowledgments

This research has been performed with support from the EU ARTEMIS JU project HoliDes (<http://www.holides.eu>). Any contents herein are from the authors and do not necessarily reflect the views of ARTEMIS JU.

Motivation

WP AdCoS Development Process

Figure 1 – Traditional Development Process

Issues

1. Missing Task Analysis
2. Data Linking
3. Humans not in Design
4. Lack of Novel Operator Assistance Technologies
5. Operators are not available for Evaluation

Figure 2 – Process with Benefits from using the HoliDes Research

- 1.1 Stakeholder Engagement Analysis
- 1.2 Task Analysis
- 1.3 Use Case Analysis
- 1.4 Use Case Definitions
- 2.1 Definition of Operational Concepts
- 2.2 Definition of Sequence Diagrams
- 2.3 Modelling of Human Views
- 3.1 Traceability via Linked Data
- 3.5 Design of Control Room Client Application
- 4.1 Operator Assistance Technologies and Workstation
- 5.1 AdCoS Evaluation

Figure 3 – HoliDes Development Process Mapped to the Airbus Control Room AdCoS / Demonstrator

The blue text maps the benefits of using the HoliDes research onto the Airbus DS AdCoS development process, providing savings over a traditional development process Figure 1

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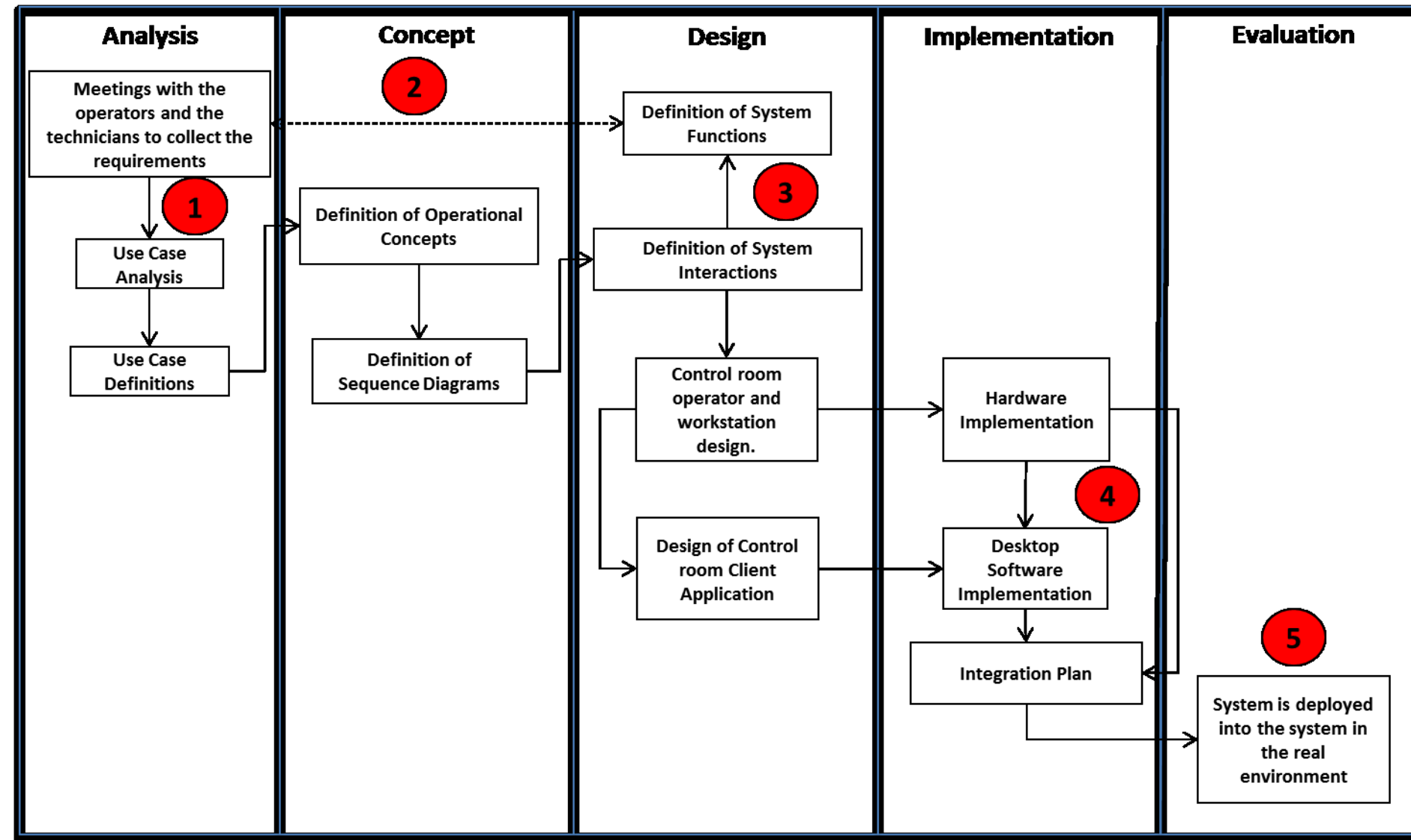


Figure 1: Development Process before HoliDes

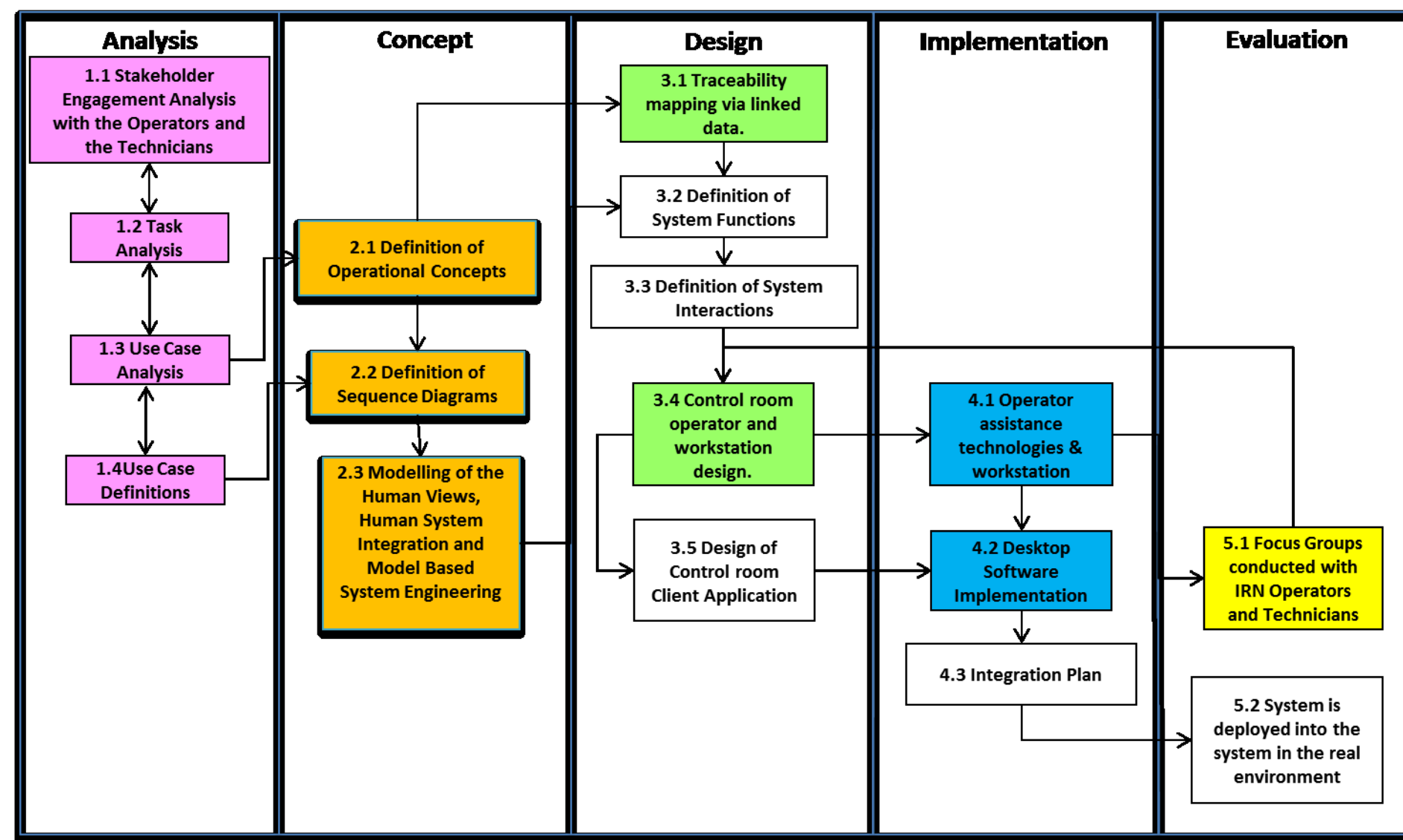


Figure 2: Development Process Enhancements with HoliDes

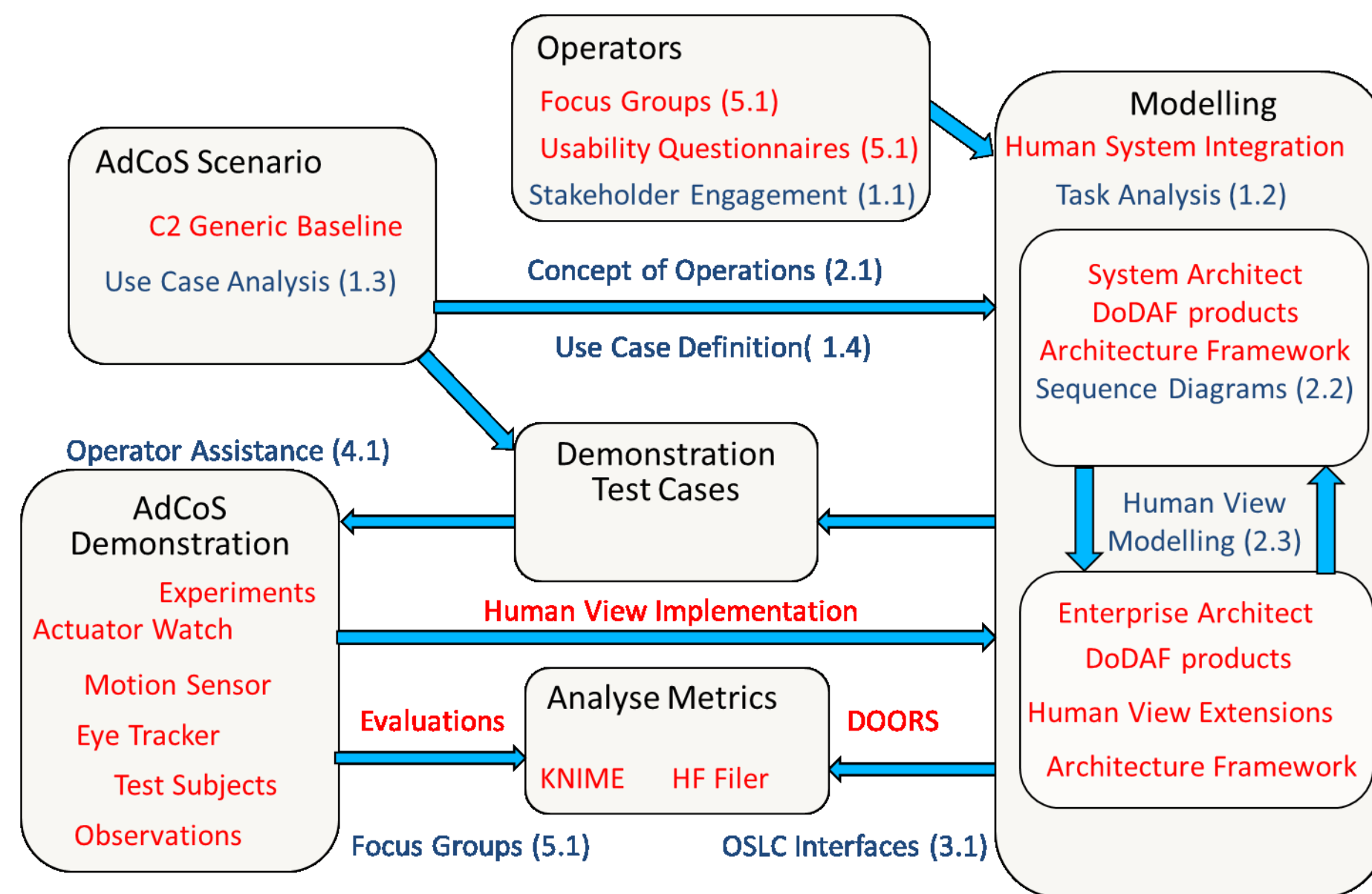


Figure 3: HoliDes Development Process (Figure 2) mapped to Airbus Control Room AdCoS / Demonstrator

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