

The COVARM Reference Model

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Sparks

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Contents

- **COVARM – in a sentence**
- **The COVARM story**
- **Key Results**

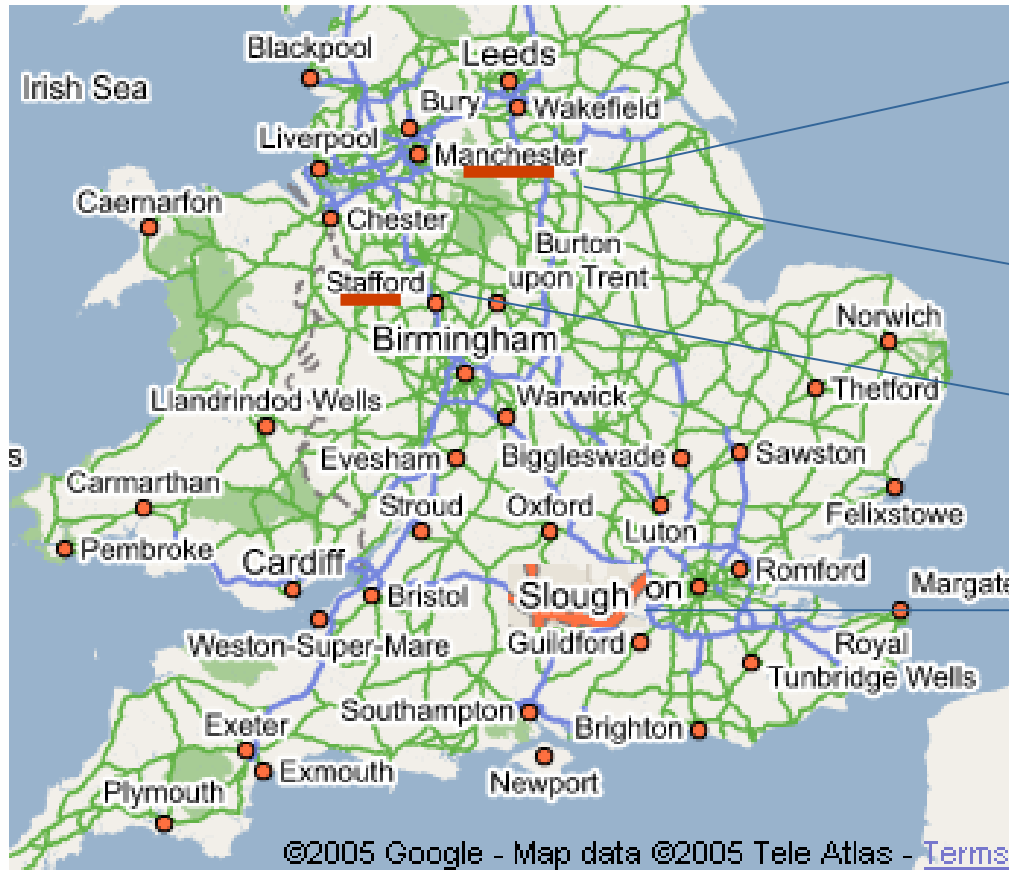
What is the COVARM Project?

- **To deliver a UML model based software application of the course validation problem domain from analysis process and information models to executable business processes.**
- **And to provide generic capabilities for addressing other problem domains in the HE admin sector by providing a supported method**

The COVARM story

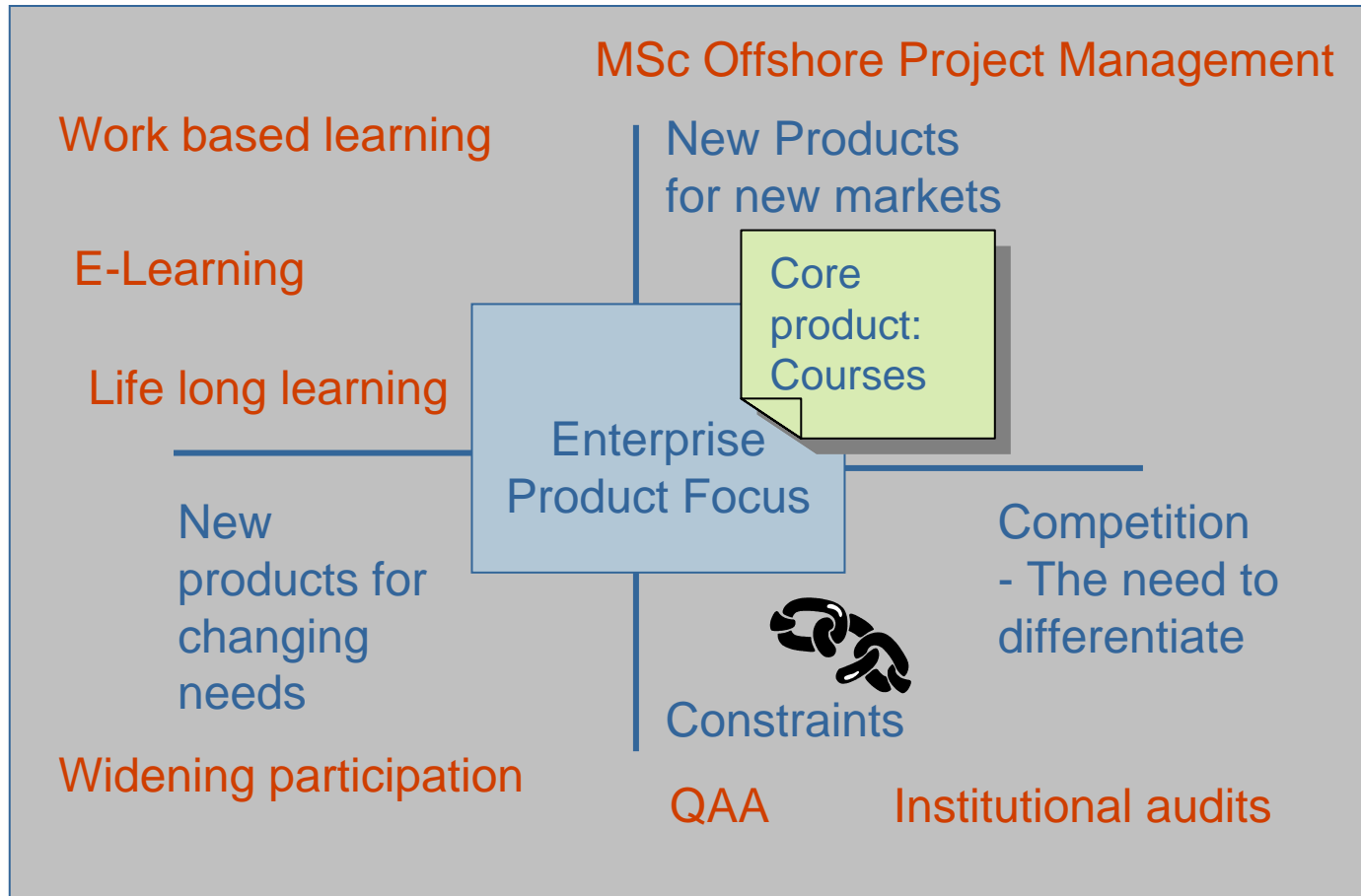


Who are the collaborators



- University of Manchester
 - ELearning
 - Enterprise Modelling
- Manchester Metropolitan University
 - XCRI project
- Staffordshire University
 - SUNIWE
 - QA
- Thames Valley University
 - Project management
 - Technical development
 - Enterprise Modelling

What's the problem... and the context

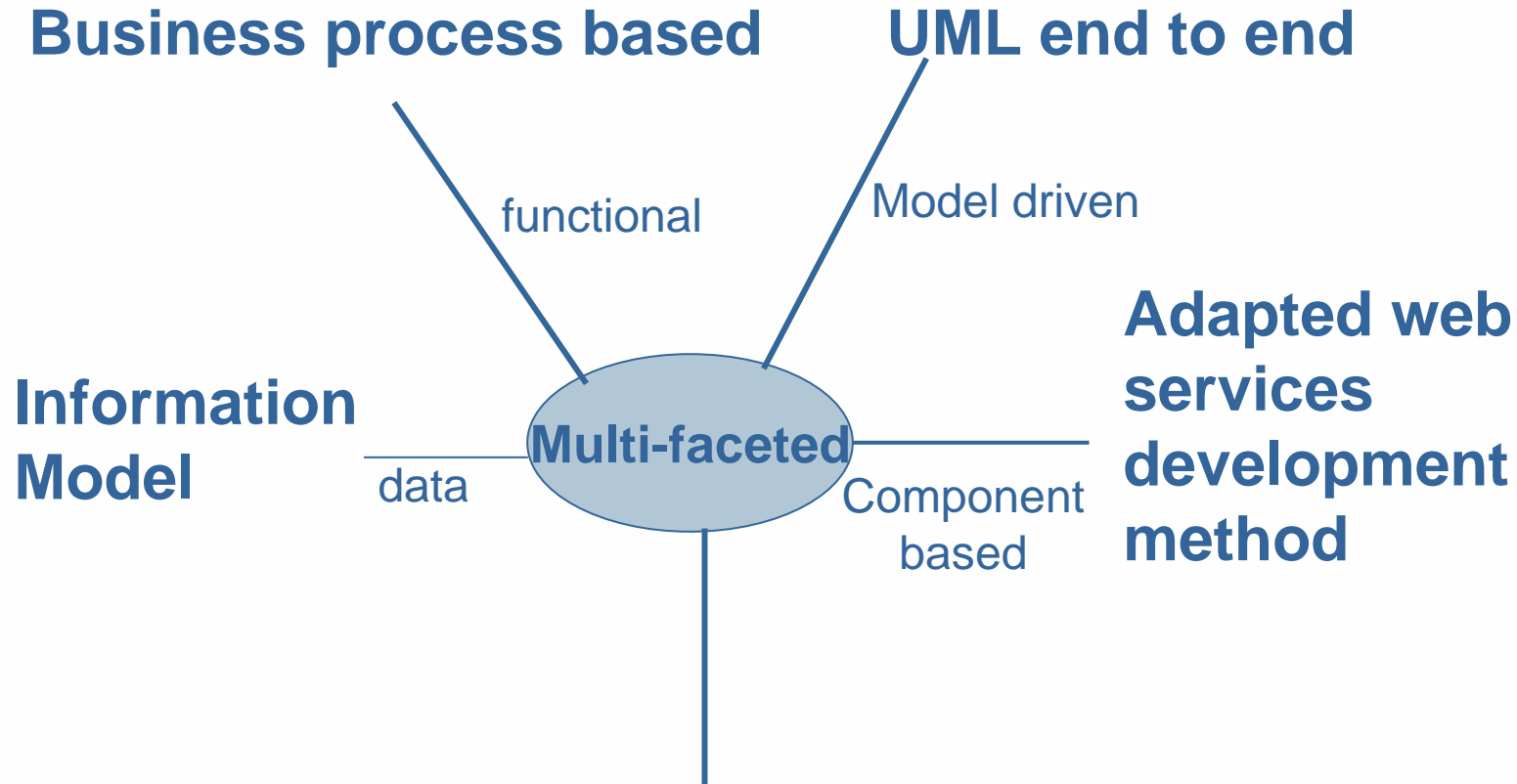


A major challenge is to design and develop courses for new markets, in constant change, and to appropriate quality and standards

Course validation as a business process

- **Characteristics**
 - Knowledge intensive
 - Expertise spread across multiple experts
 - Collaborative
 - Case based (each case may vary)
 - Primary “product”
 - External customers
- **Multiple stakeholders**

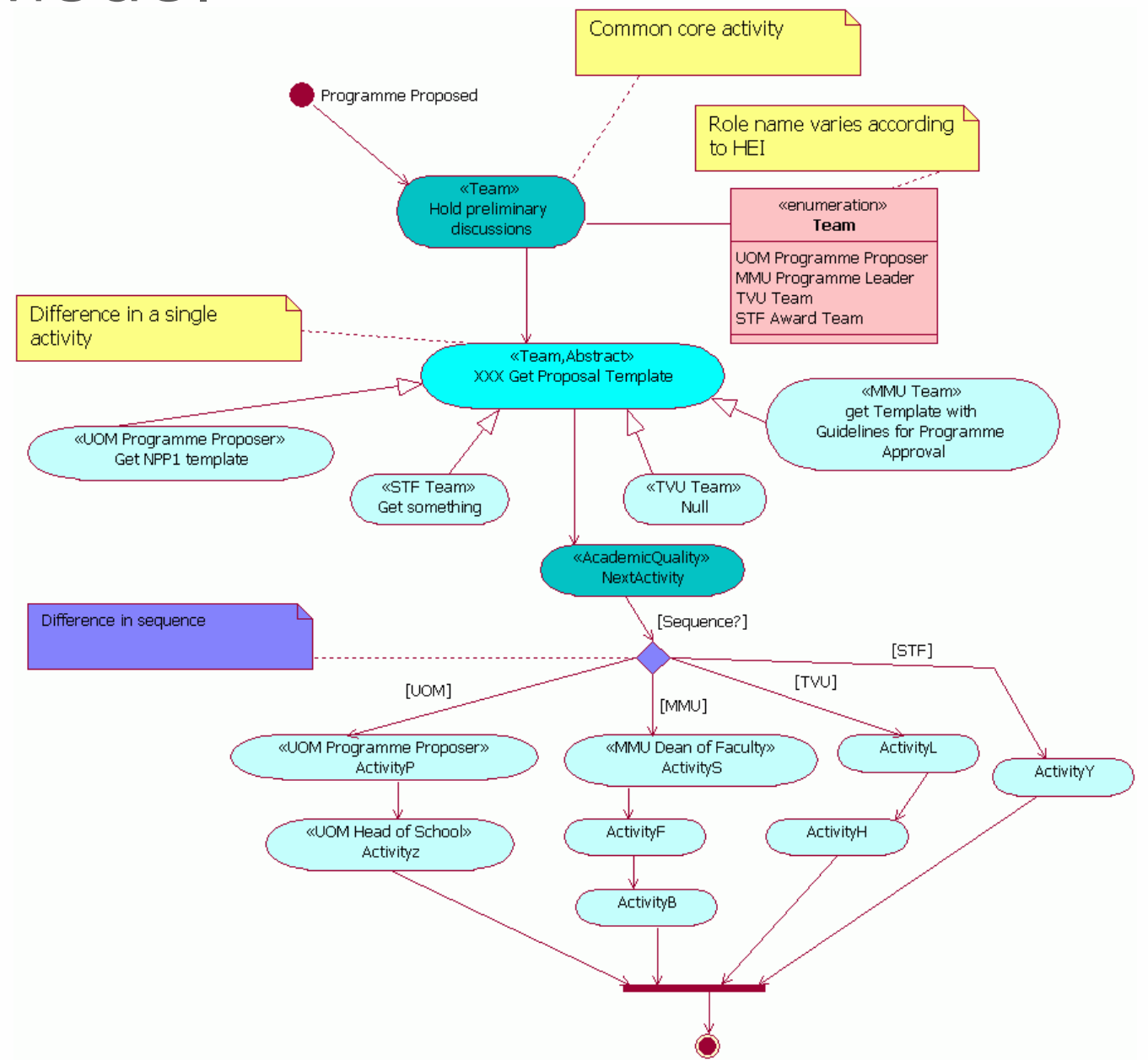
Project approach



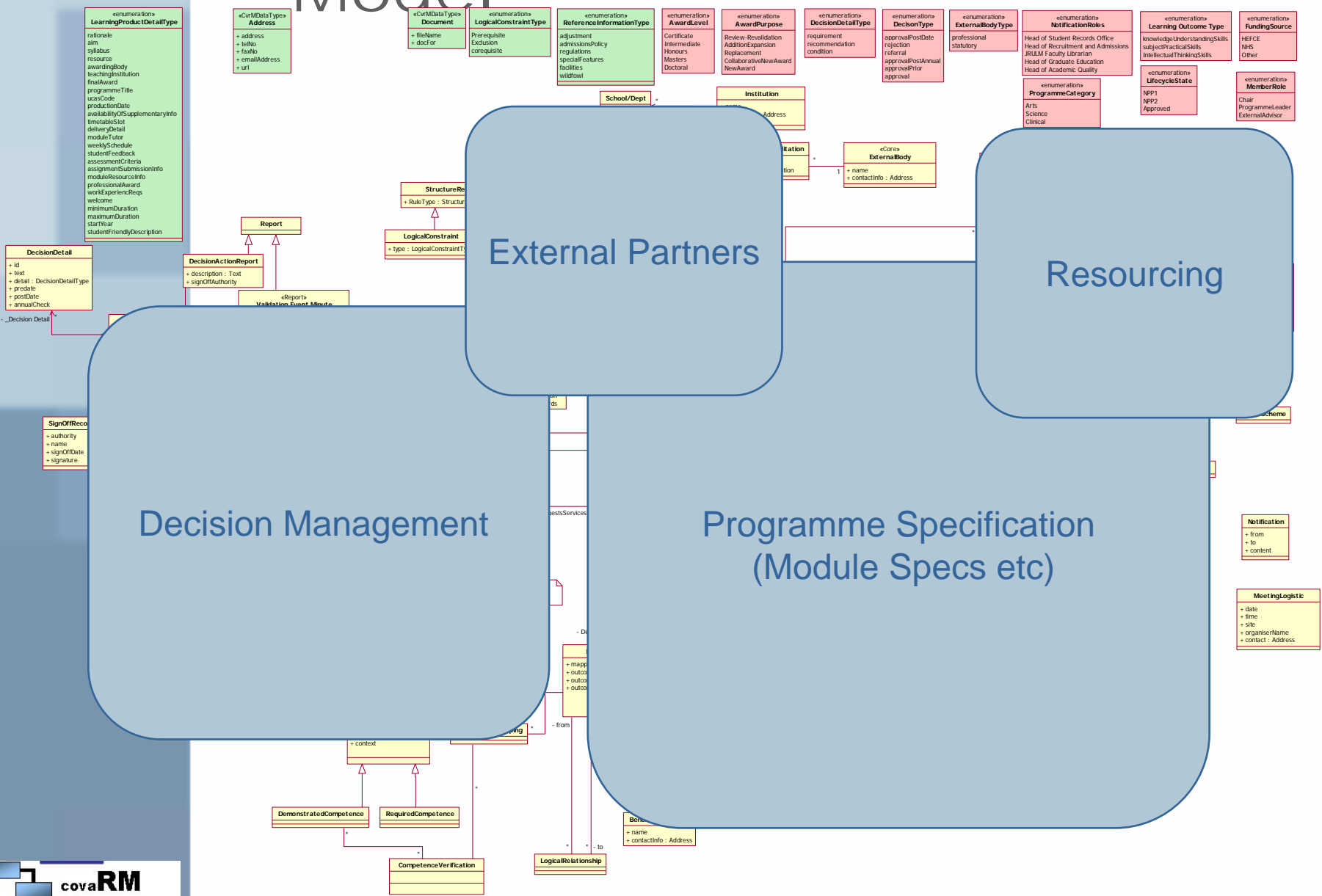
Grounded Case Study Approach

- 4 case studies
- review by an independent HEI
- compare against survey results

Synthesis into a Canonical Model



Supporting Information Model



Scenarios

- **End to End process is large, complex and has multiple stop – start points (event entry points)**
- **Not all services are software based – some are people dependent**
- **Study of technical feasibility focussed on developing subsections of the process - scenarios**

Two scenarios explored in technical detail

1. Prepare programme proposal

- To get the initial approval to develop the new programme

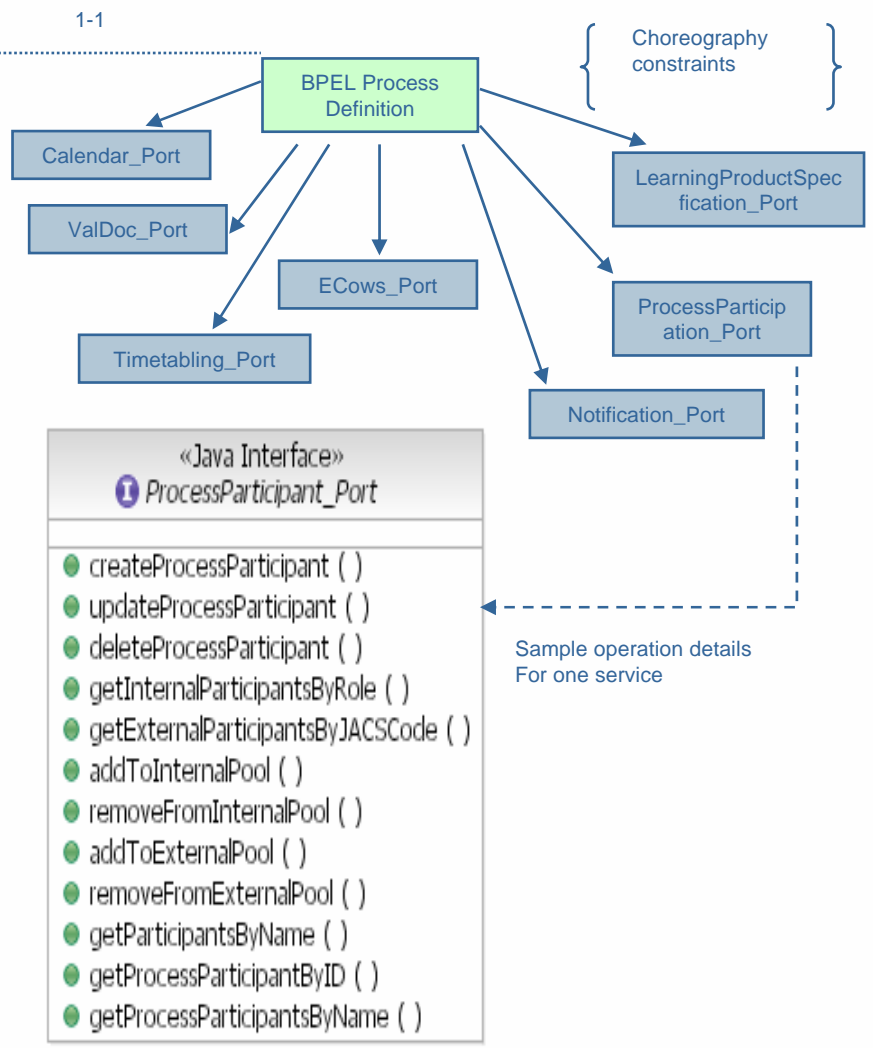
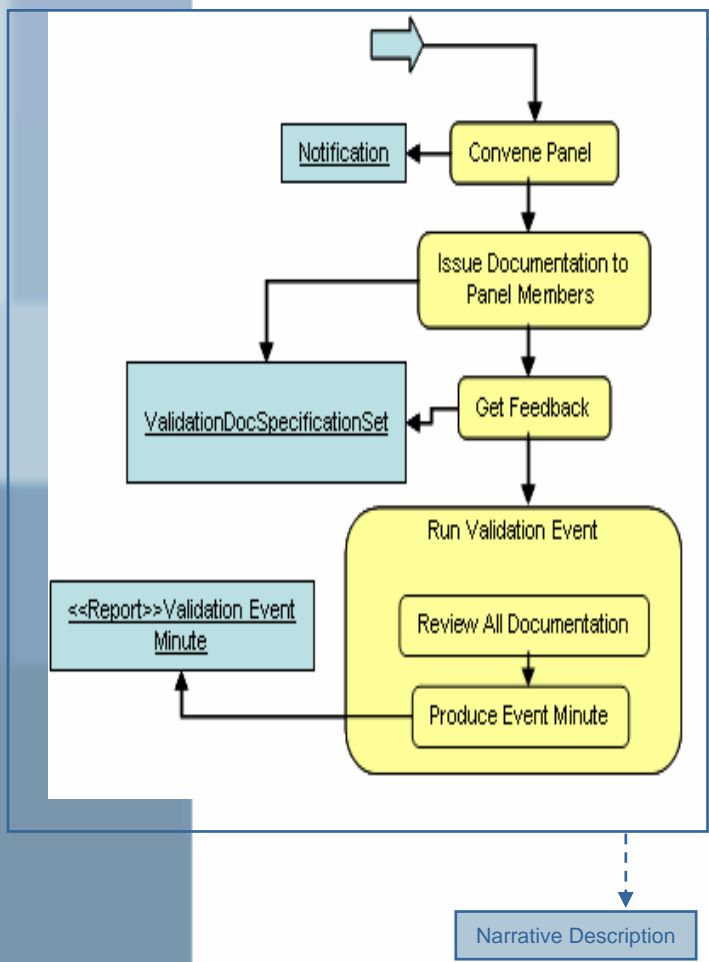
2. Run Validation Event

- To arrange the setting up of an event

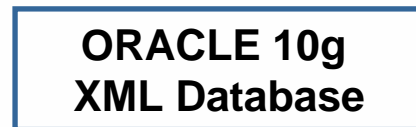
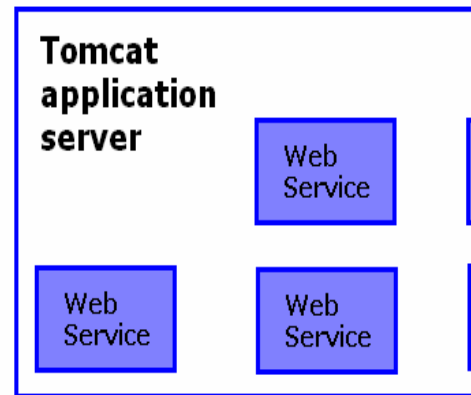
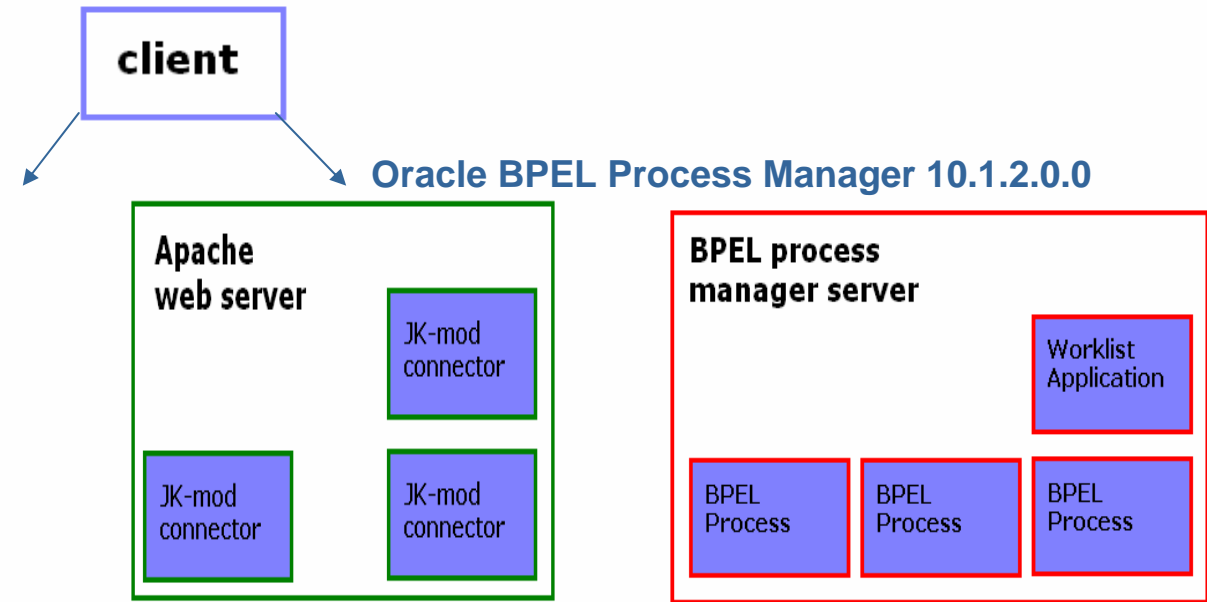
• Scenarios chosen

- Breadth of coverage (stage 1 and 3)
- Multiple roles involved
- Core activities – common to all the institutions

BPEL Process Definition from Domain Sub-processes



Server Technical Architecture



Development Platform

Java / WSDL development:
 Rational Software Architect v6.0.1.
 Some initial development on Eclipse WTP (Web Tools Platform) 1.0

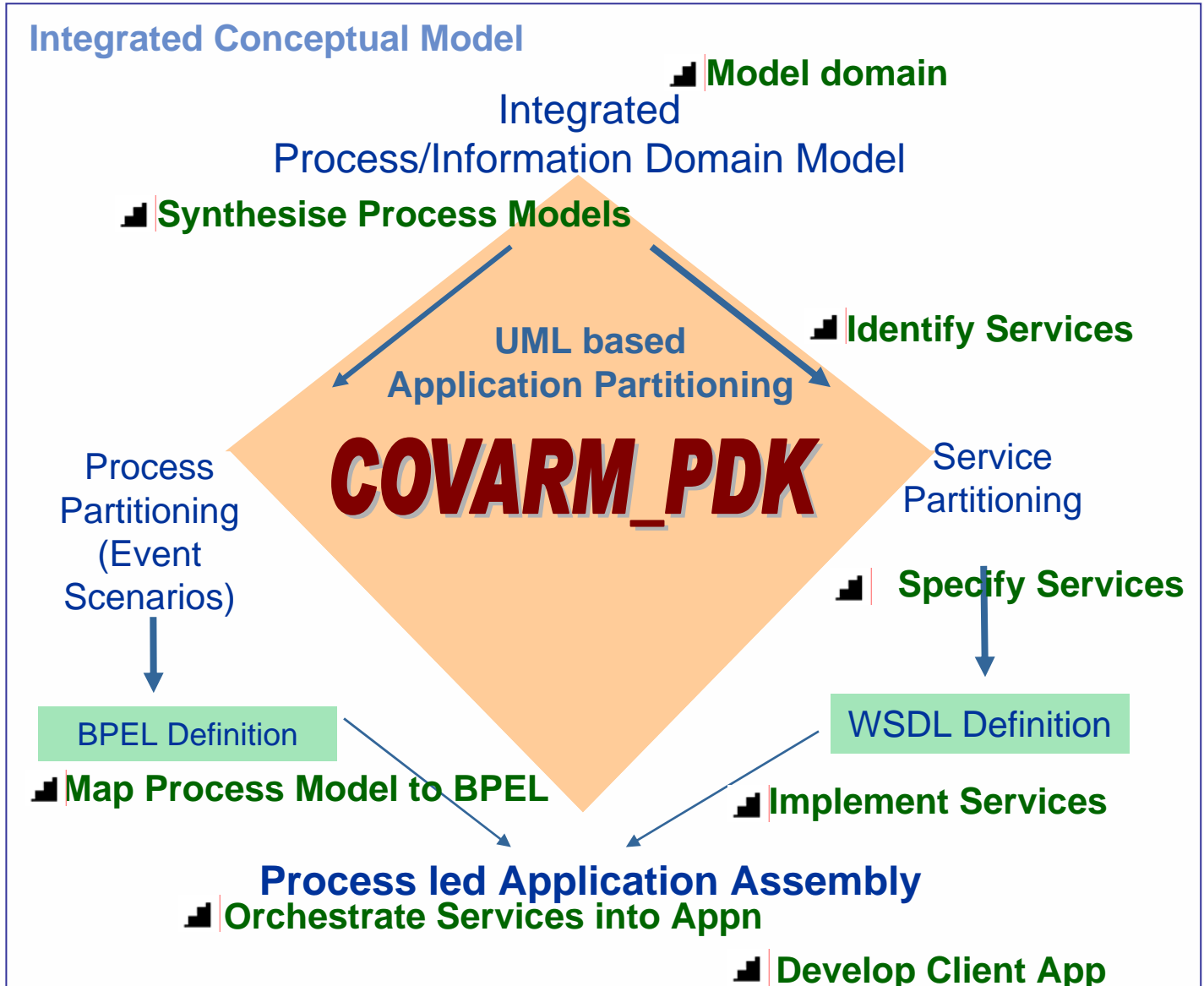
BPEL development:
 Oracle JDeveloper 10.1.2.0

Key Results

- **Detailed Business Models (Information and Process views) of the course validation process**
 - Synthesised; Extendable; Captured in UML
- **A set of services to support two scenarios extracted from the Process Model**
 - WSDL Services
 - BPEL Application prototype
- **COVARM_PDK – a tool to support developers implementing business process led applications**

BPEL Services and Application

Method Development



COVARM_PDK

- **We like software tools**
 - Especially model driven generative tools!
- **IBM Method Composer**

Results summary

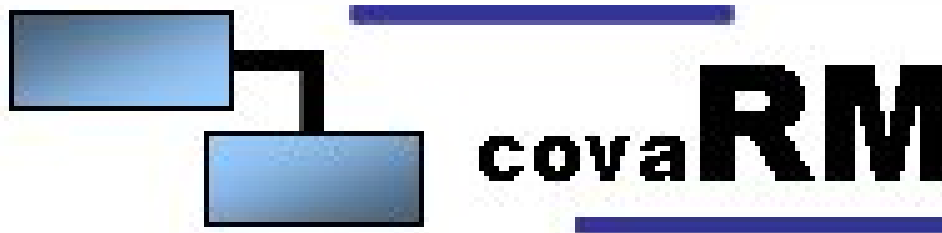
- **Detailed Business Models of the course validation process**
- **A set of services and a prototype application using BPEL**
- **COVARM_PDK – a tool to support developers implementing business process led applications**

A decorative graphic with the words 'The End' in a purple, cursive script font. The text is centered within a light blue oval. Above and below the oval are ornate, purple and blue flourishes.

Acknowledgements

- **JISC projects that have influenced or have worked with COVARM**
 - XCRI – Mark Stubbs
 - P4P – Ben Ryan
- **JISC programme management team**
 - Tish Roberts
 - Heather Williamson
 - Bill Olivier
 - Warwick Bailey
 -
- **Case Study University QA Depts**
 - Manchester Metropolitan University
 - Royal Holloway, University of London
 - Staffordshire University
 - Thames Valley University
 - University of Manchester

Questions?



<http://covarm.tvu.ac.uk/covarm>

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Implications

- **Formal documentation of best practice**
 - greater opportunities for business transformation (c.f. wider industry best practice)
 - Automation of part or all is possible
 - More informed collaboration with vendors (content management, CRM)
 - Off the shelf validation processes
 - Inter-institution course design
 - Easier to identify issues, areas for improvement, best practice
- **Reference models**
 - Better support for bench marking;
 - Comparative analysis
 - Documentation of business rules
 - Better support for quality assurance and evaluation
 - Manage dependencies between domains in the e-framework