



# TELCERT



## Technology Enhanced Learning: Conformance - European Requirements & Testing

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THE *Open* GROUP



ISTITUTO DI SCIENZA E TECNOLOGIE  
DELL'INFORMAZIONE "A. FAEDO"

EI + EL

European Institute for E-Learning

**Open Universiteit Nederland**



Fraunhofer

Institut  
Graphische  
Datenverarbeitung



 UNIVERSITÄT  
KOBLENZ · LANDAU

**ufi @learndirect**

 **boltoninstitute**

# Background

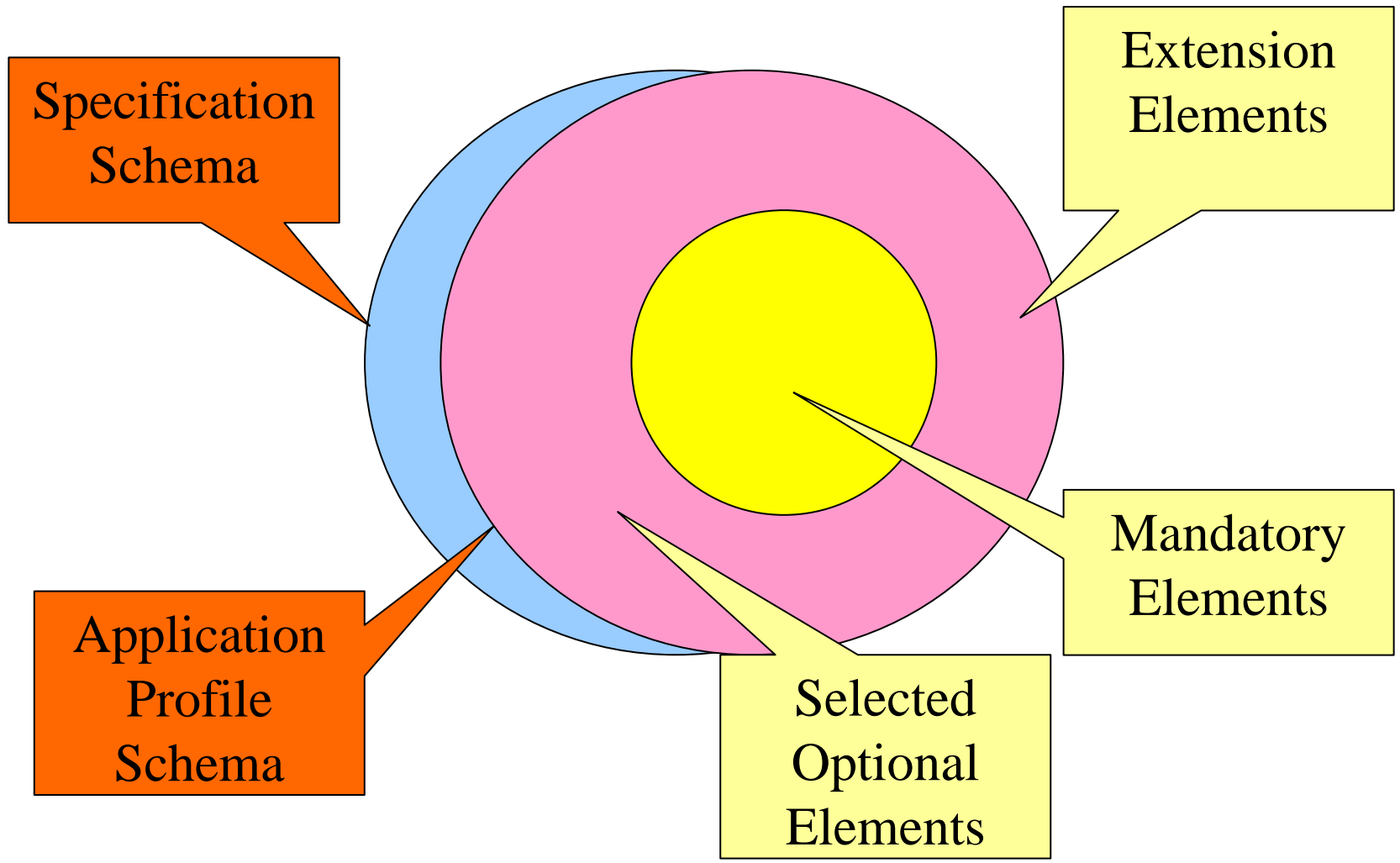
- Start Date 1<sup>st</sup> January 2004
- Duration 30 months
- €3m budget
- Strategic Objective 2.3.1.12 '*Technology-enhanced learning and access to cultural heritage.*'

# Consortium

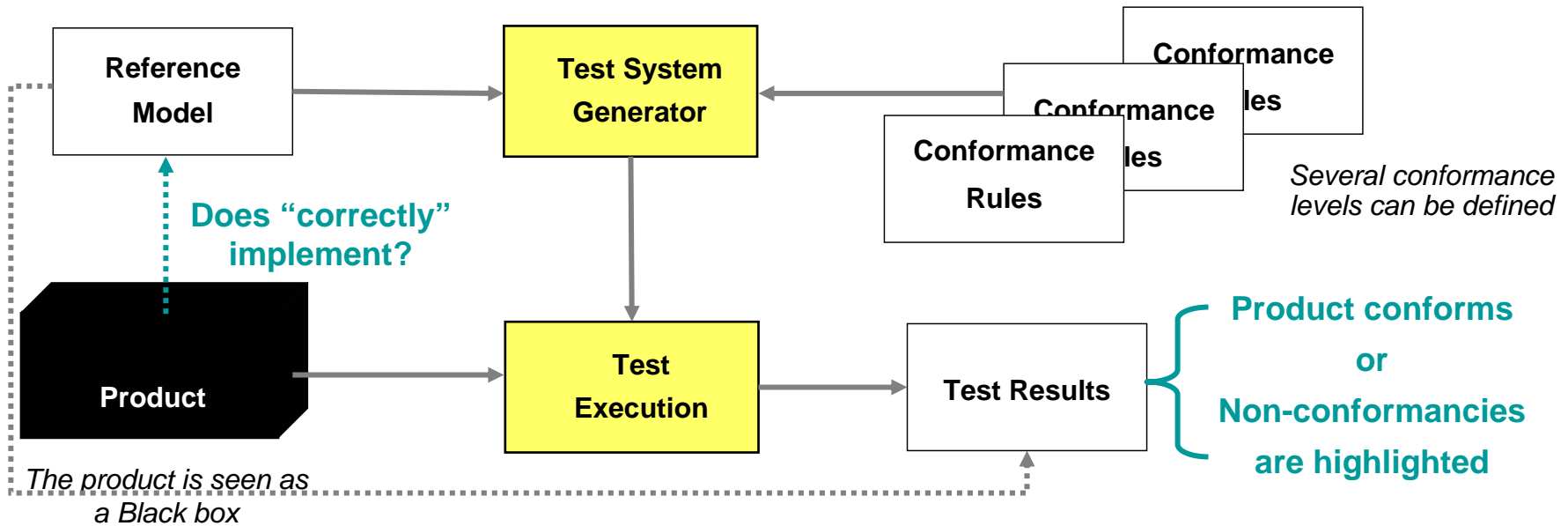
- The Open Group  
(prime contractor)
- Apple Computer‡
- Bolton Institute (CETIS‡)
- CNR/ISTI
- European Institute for e-Learning
- eLoki Ltd
- Fraunhofer Institute for  
Computer Graphics
- Ufi learndirect‡
- Open University of the  
Netherlands‡
- University of Koblenz-  
Landau

‡ IMS Contributing Members

# Relationship Between A Spec & Application Profile



# Testing for Conformance



- *Conformance rules define what is a "correct" (conformant) implementation*
- *How can a test system be algorithmically derived from the (UML) model?*
- *Ideally, the test system should be sound (a conformant product will never be rejected) and exhaustive (any non-conformance will be detected)*



# TELCERT Profiles Phase 2

Extend coverage to runtime operation

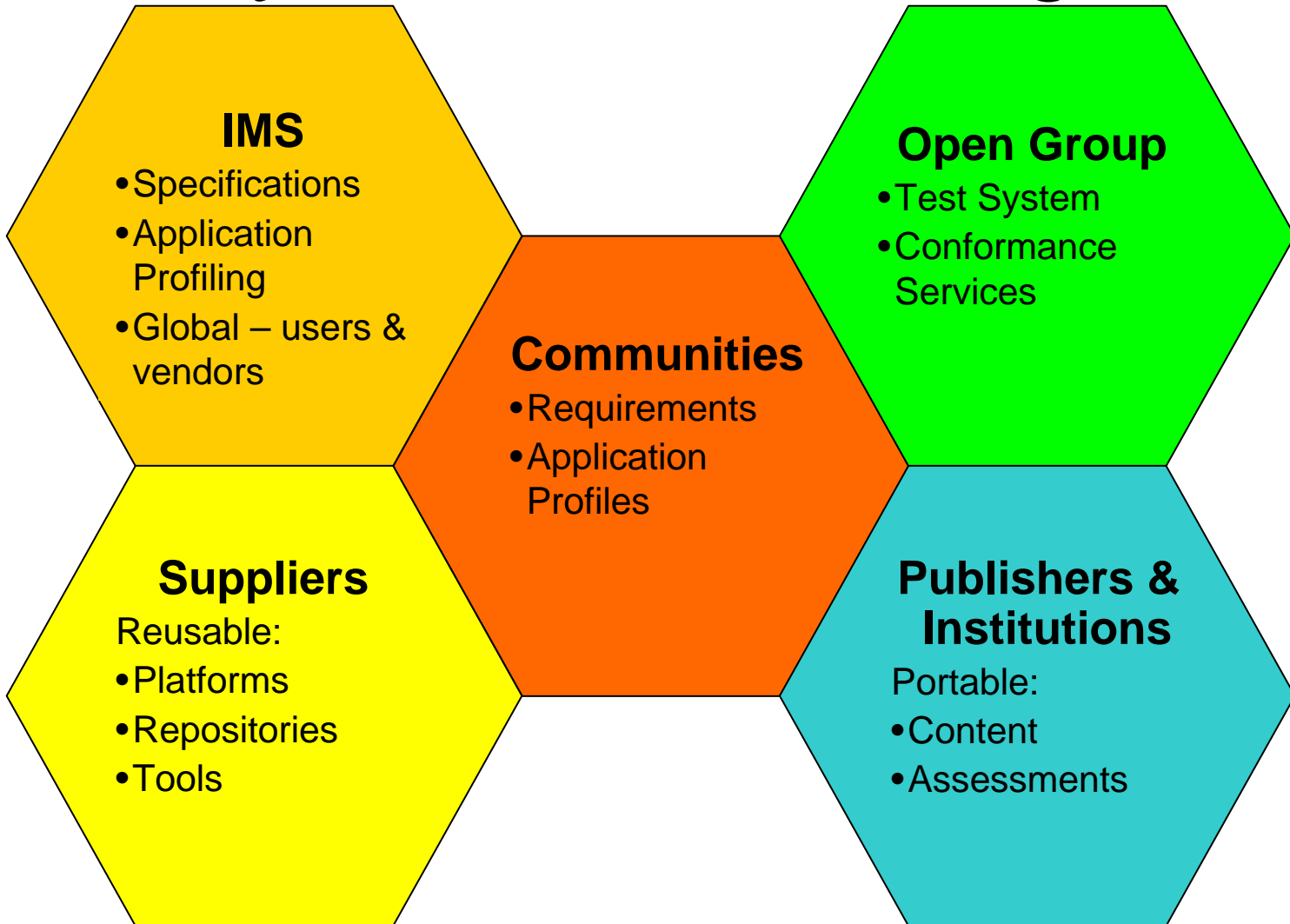
- Expressed using UML, OCL
- Common root for generating profiles and tests
- Current candidates for profiling
  - Assessment (QTI) and/or
  - Delivery (Learning Design)



# TELCERT Software (Java)

- Application Profiling Tool
- Test Data Generation Tool
- Content Re-Engineering Tool
- Test Data:
  - Learning Content
  - Metadata
  - Learner Information
- Test System

# Key Pieces of the Jig-Saw







# TELCERT

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