Working together
building Australia's
knowledge networks

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Setting the Scene for e-learning Futures

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Overview

- General Comments
  - context
  - who the players are
  - IMS Perspectives
- Achieving Interoperability
  - in a federated environment
  - through a layered approach

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Many Players
&
Many stakeholders

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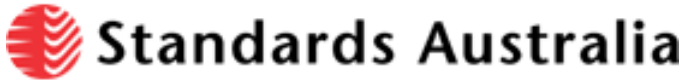


EdNA Online
Education Network
AUSTRALIA

IMS Contributing Members …

Sun microsystems
We're the dot in .com
WebCT
Web Course Tools
sct
UK eUniversities worldwide ltd
Joint Information Systems Committee
BOEING
can studios
IBM
Bb
Blackboard
www.blackboard.
Becta
British Educational Communications and Technology Agency
ufi
DigitalThink
Learning and Teaching Scotland
C·I·C
THOMSON
SCHOOLS INTEROPERABILITY FRAMEWORK
PEOPLESOFT
Applications for eBusiness
UNIVERSITY OF CAMBRIDGE
IMS
Open University of the Netherlands
campus pipeline
CISCO SYSTEMS
GIUNTI INTERACTIVE LABS
COMMONWEALTH DEPARTMENT OF EDUCATION SCIENCE & TRAINING
Carnegie Mellon
click2learn.com
LUVIT
Co-Laboratory
Advanced Distributed Learning
ETS Educational Testing Service
Eduprise
Enterprise e-Learning Services
fd learning
The Open University
Microsoft
ORACLE
SOFTWARE POWERS THE INTERNET
R5 VISION

Generally …

- “Standards” for e-learning are only beginning to emerge
- Engagement in learning technology ‘standardisation’ increasing worldwide
- Systems Interoperability the main goal

Context

- **Education & Training in Australia**
  - **Largley publicly funded; government & private systems; principles of free access & user pays**
  - **Early adopters of technology; distance education**
- **From 1994**
  - **the Web takes off**
  - **Globalisation**
  - **Deregulation of Telecommunications sector**

Context

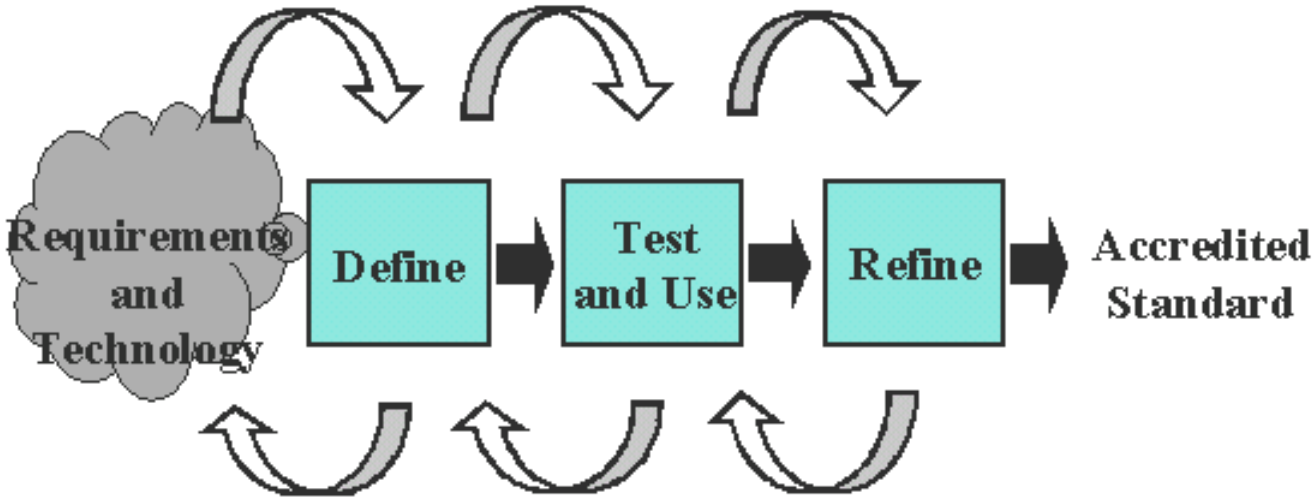
- **Collaborative response by Education & Training sector**
  - **EdNA (Education Network Australia) www.edna.edu.au**
  - **AICTEC (Australian ICT in Education Committee) www.aictec.edu.au**
  - **The Learning Federation www.thelearningfederation.edu.au**
  - **ANTA flexiblelearning.net.au**
  - **DETYA – DEST funding for IMS engagement**

IMS Perspectives

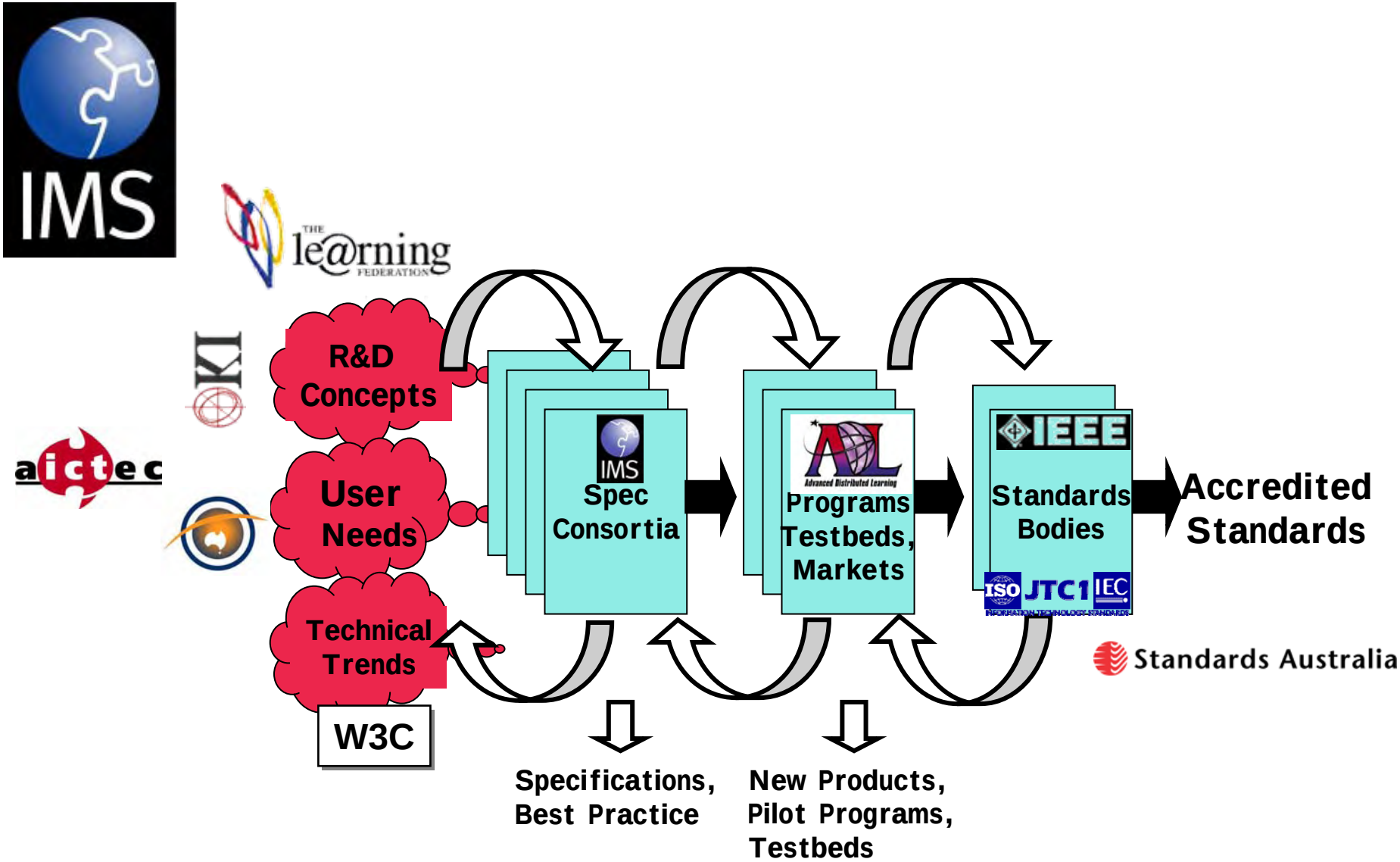
"making learning technology interoperable"

http://www.imsglobal.org

Standards Developed Iteratively



source: Ed Walker, CEO IMS Global Learning Consortium



source: Ed Walker, CEO IMS Global Learning Consortium

IMS – Early Scope

- Metadata
- Content Packaging
- Enterprise systems
- Learner Information
- Question & Test

IMS developments

- **Digital Repositories Interoperability**
- **Specs development embracing both data interchange & runtime systems**
- **New Draft specs**
  Learning Design; Reusable Competency Definitions; Sequencing
- **Application Profiles - 3 architectures**
  OKI (higher ed); SCORM (VET); SIF (K-12)

IMS – Next Steps (1)

- DRI – Search Services, Access Mgt
- Learning Design – Pedagogical models
- Accessibility for LIP
- Abstract Framework (November TB)
- K-12 Architectures & Use-Cases

IMS – Next Steps (2)

- **Drafted Project Charters**
  - Learning Object Rights Expression Language (LOREL)
  - Vocabulary Definition Exchange (VDEX)

- **Proposed Project Groups**
  - collaborative learning
  - sequencing harmonization
  - personalisation
  - metadata
  - application profiles
  - assessment
  - content model

ISO/IEC JTC 1/SC36

http://jtc1sc36.org

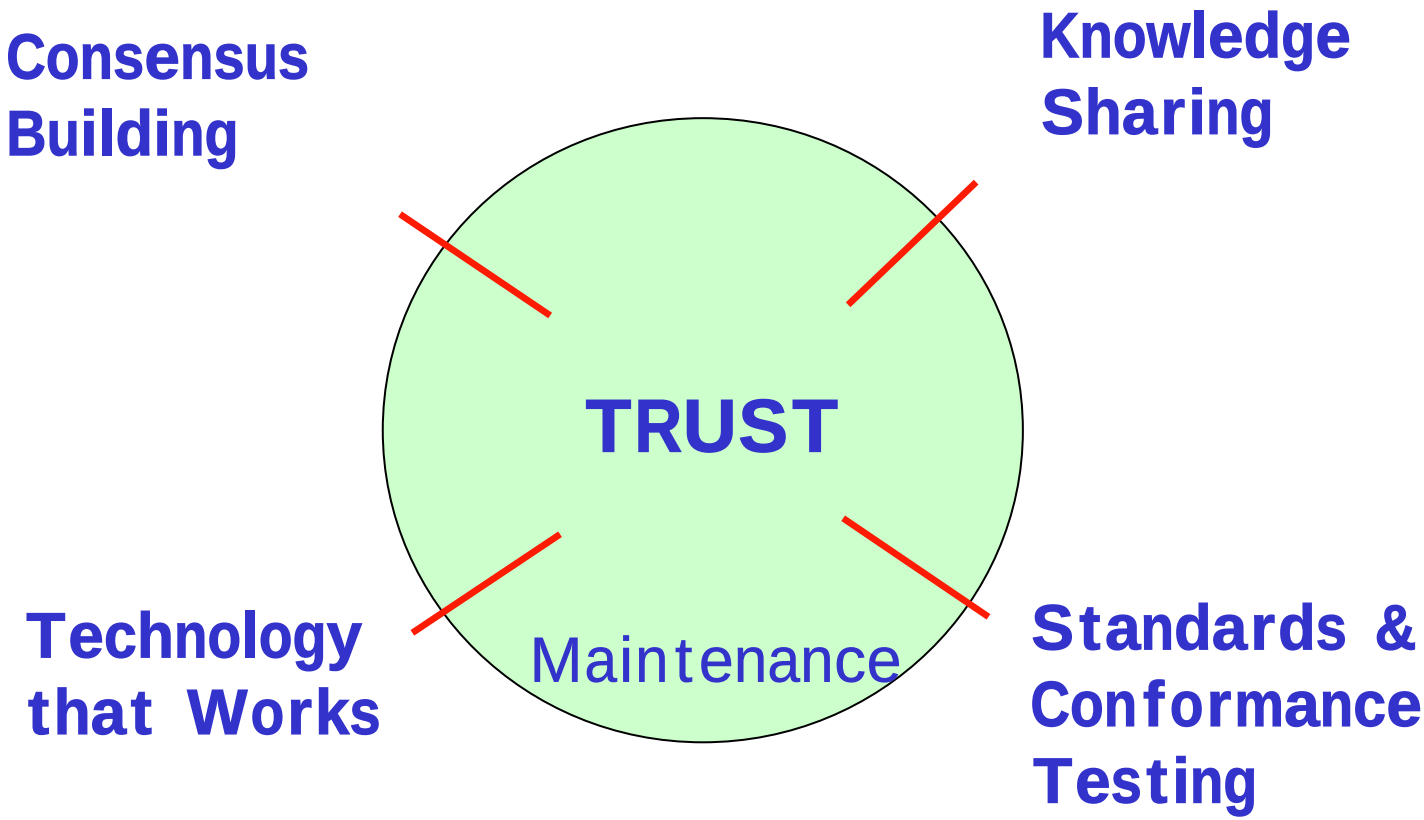
SC36

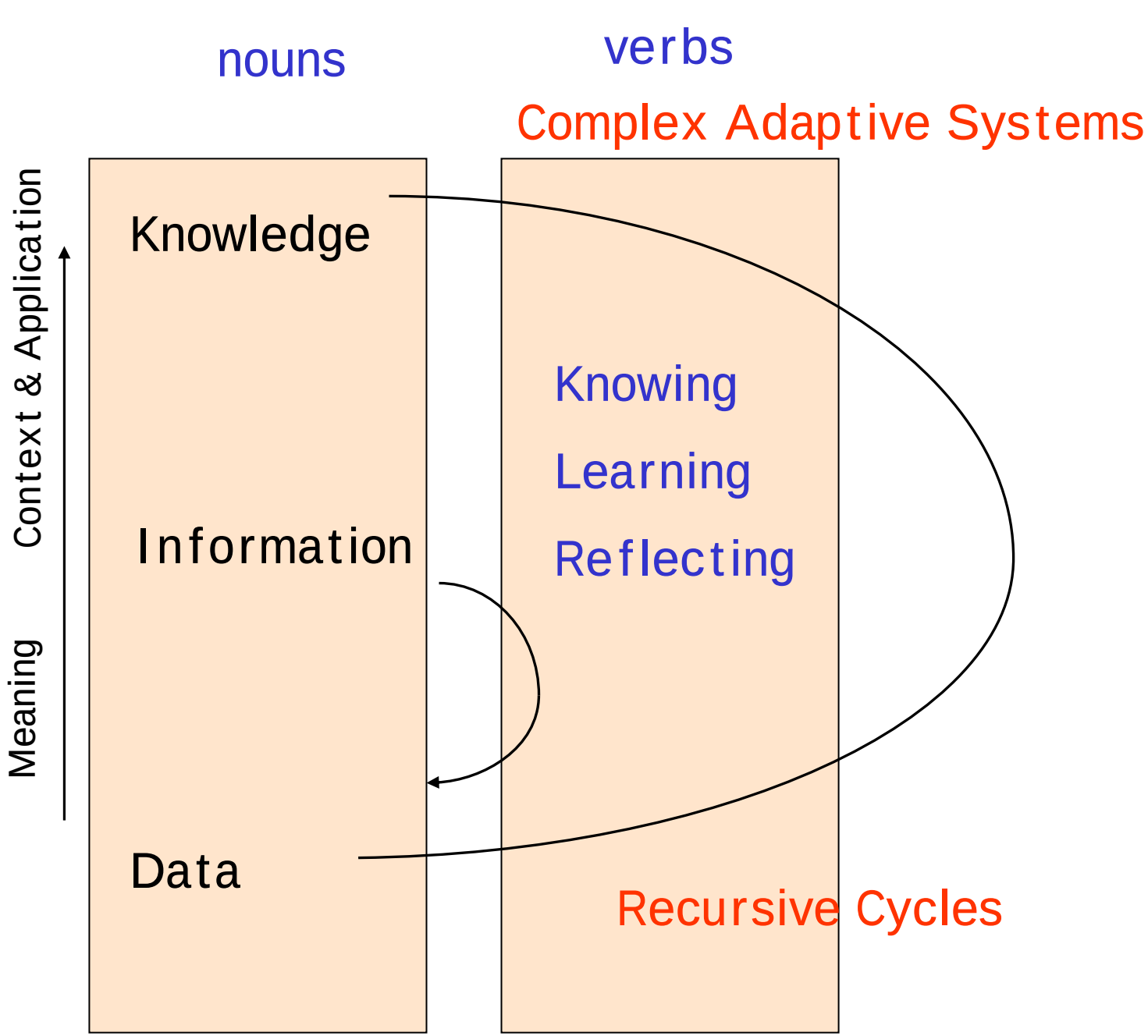
- **WG1 - Vocabulary**
- **WG2 – Collaborative Technologies**
- **WG3 – Learner Information**
- **WG4 – Management & Delivery (LMS, LCMS)**
- **WG5 – QA & Descriptive Frameworks**

Scoping Interoperability

Interoperability Facets

- **Political** — Agreeing to common goals & ground rules for achieving mutual benefit
- **Jurisdictional** — Mapping legal, regional interests
- **Semantic** — Achieving common understanding, common meanings (eg Dublin Core)
- **Syntactic** — Sharing grammars, templates, …
- **Cultural** — Communities of Practice, workflow (eg CAUL, CAUDIT, NCODE, ASCILITE, …)
- **Technical** — Systems exchanging data & services


Consensus Building
Knowledge Sharing
TRUST
Maintenance
Technology that Works
Standards & Conformance Testing


nouns
verbs
Complex Adaptive Systems
Context & Application
Meaning
Knowledge
Information
Data
Knowing
Learning
Reflecting
Recursive Cycles

Questions?