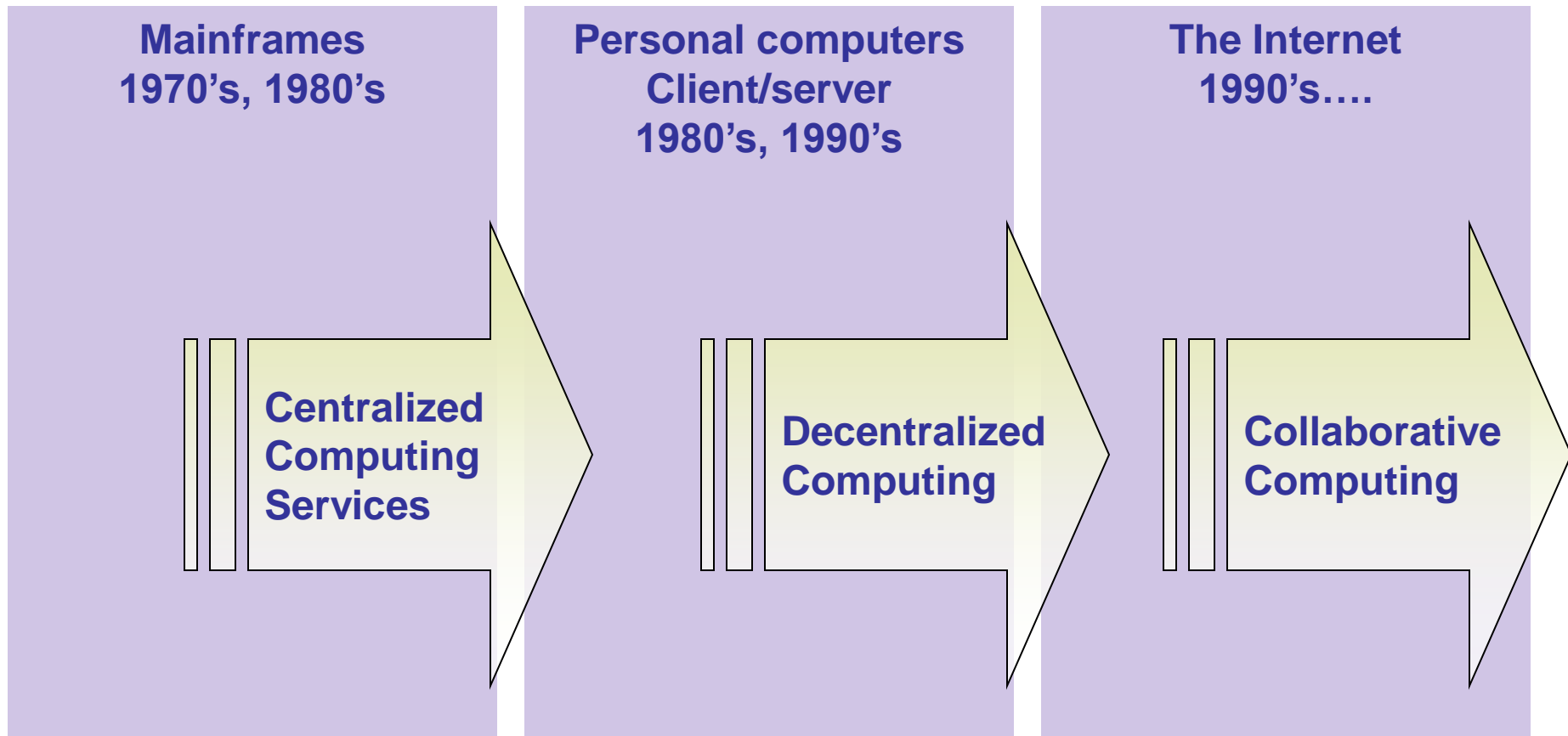


An Enterprise Architecture at UBC

UBC IT managers working group
June 29 2009

- *Recommendation 9: UBC IT should create enterprise architecture roadmaps and IT standards to guide all projects involving IT at the University.*
- *Recommendation 12: Engage the central and local technology staff in building a technology architecture roadmap, providing clear guidance and expectations around which technologies would be supported, on what timeline, and with what level of investment.*
- *Recommendation 17: Design common data management environments. Provide an institutional data repository including storage, backup data warehouse, reporting environment, and analytical tools to increase security and encourage data-driven decision-making across campus*
- *Recommendation 14: Dedicate resources, even if limited, to academic and research computing.*

Organizational structures and technology



- 1. Why is an Enterprise Architecture Roadmap important?**
 - Enabling research and learning
 - Removing administrative impediments

- 2. How do we create an Enterprise Architecture Roadmap?**
 - Building a model
 - Understanding current reality
 - Developing a roadmap

- 3. The open source ecosystem**
 - The evolution and dynamics of the ecosystem
 - UBC and open source

- 4. Moving forward: turning a vision into reality**
 - What are the various projects and organizational structures?

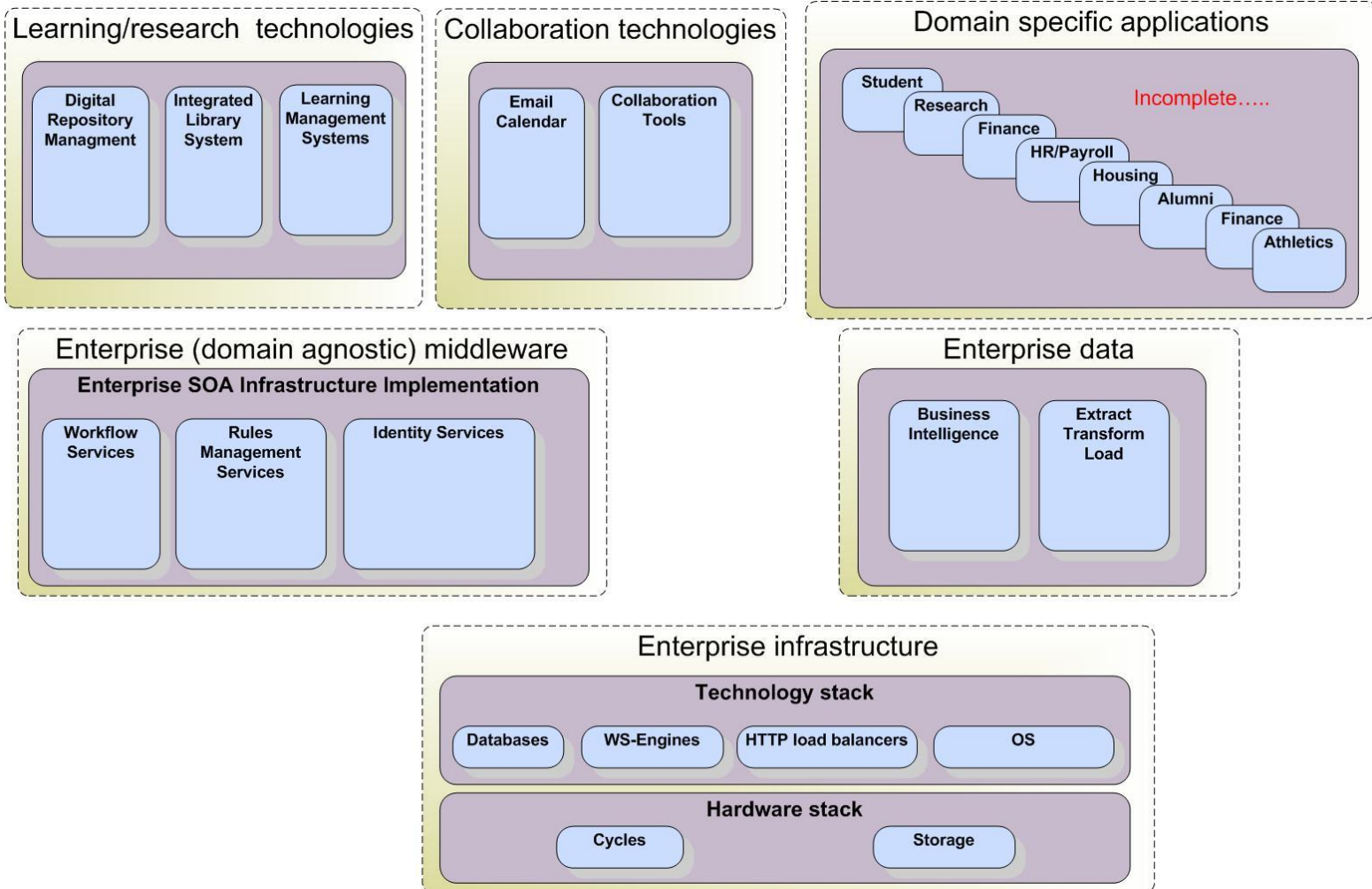
Why is an Enterprise Architecture Roadmap important?

1. Enabling research and learning
 - Consuming information in a global digital economy
 - Publishing information in a global digital economy
2. Removing administrative impediments

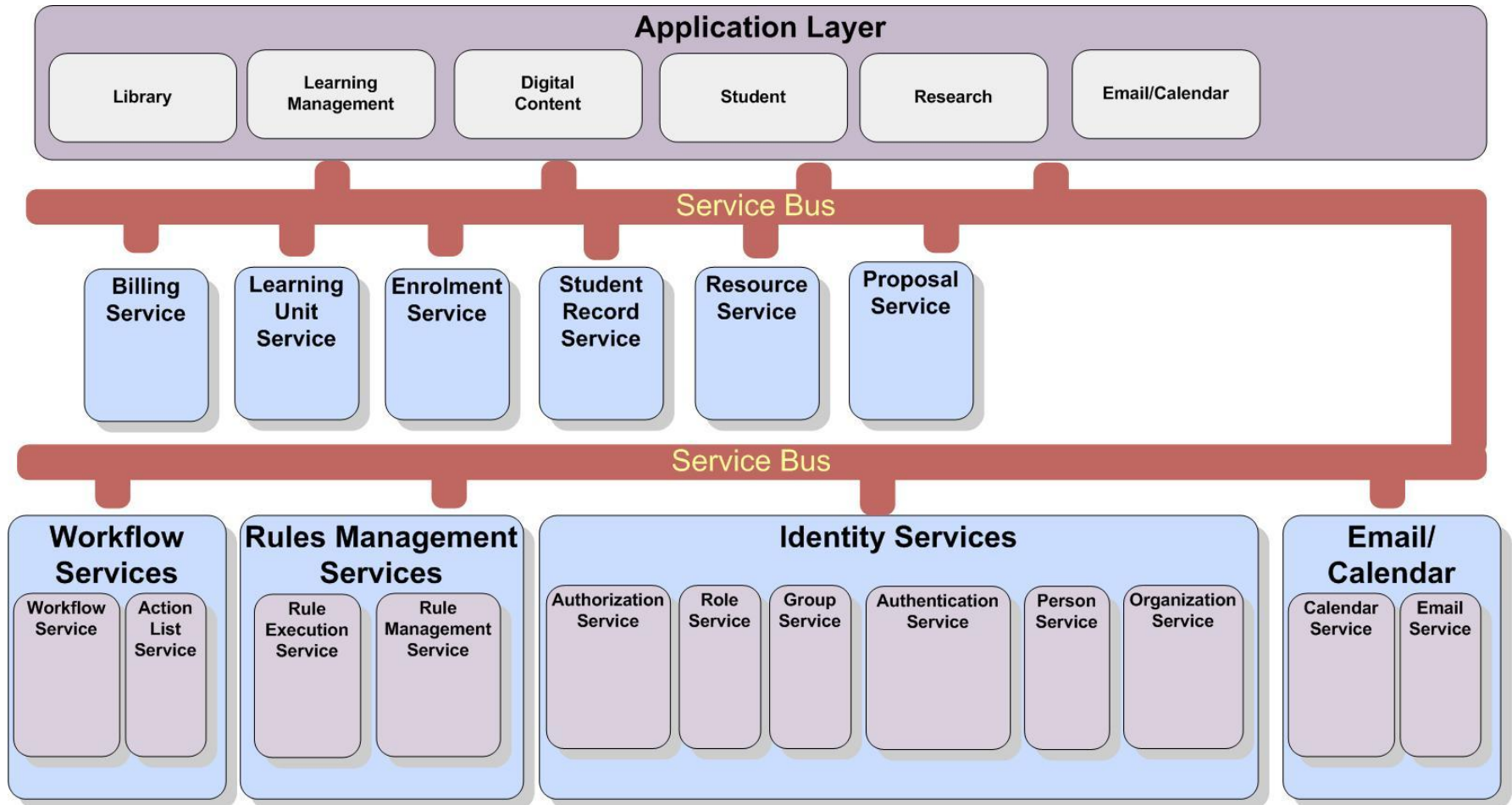
What is an Enterprise Architecture Roadmap ?

1. Building a model
 - What is included in an Enterprise Architecture ?
Understanding the logical areas of concern.
 - How do the parts of the Enterprise Architecture interact?
 - Mapping technologies to the model
2. Understanding current reality
 - What are the solutions currently in place at UBC
 - How do they interact
3. Creating a roadmap: from the current reality to the model
4. Planning implementation iterations

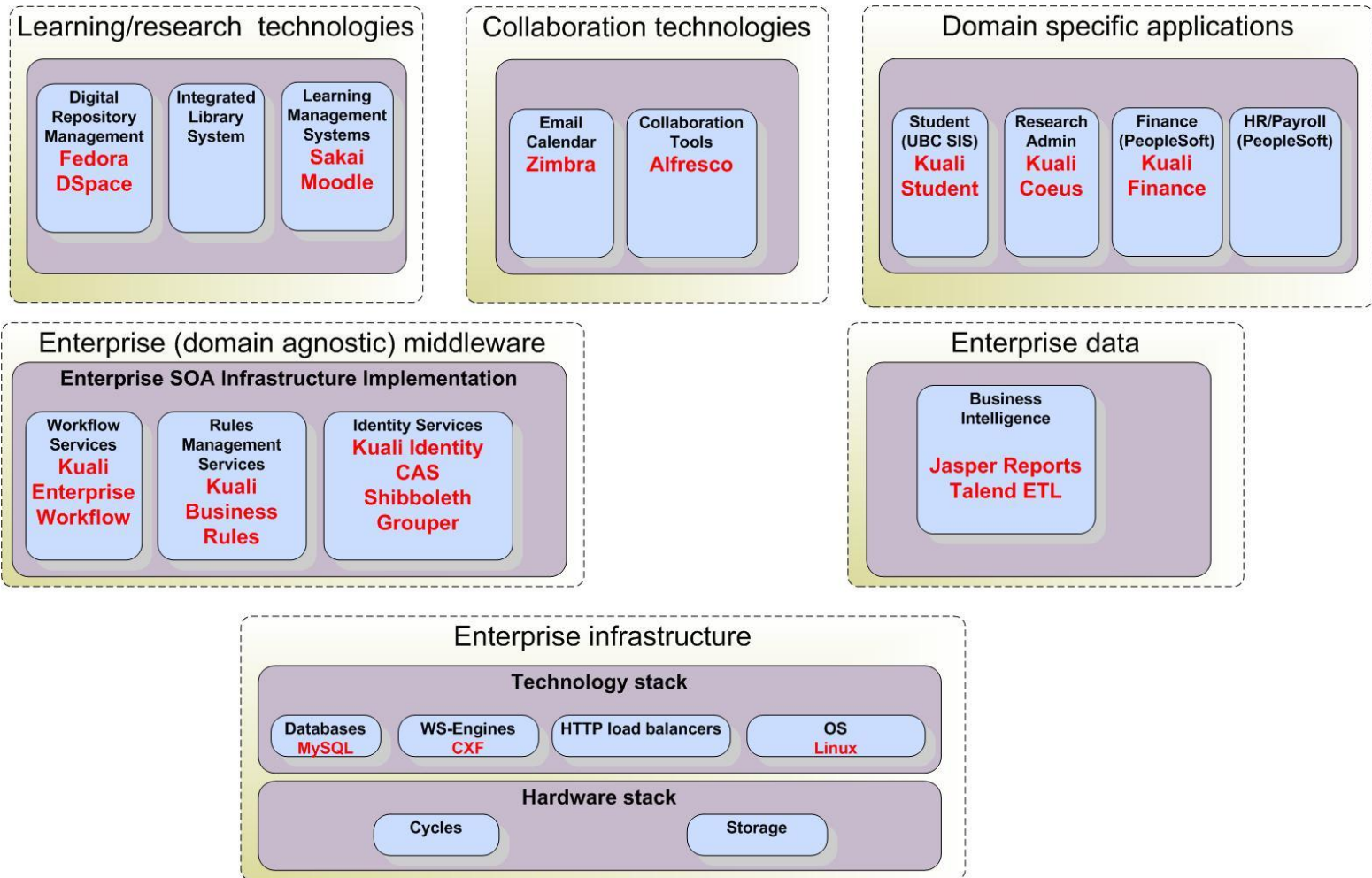
Step 1: Identifying the logical areas of concern



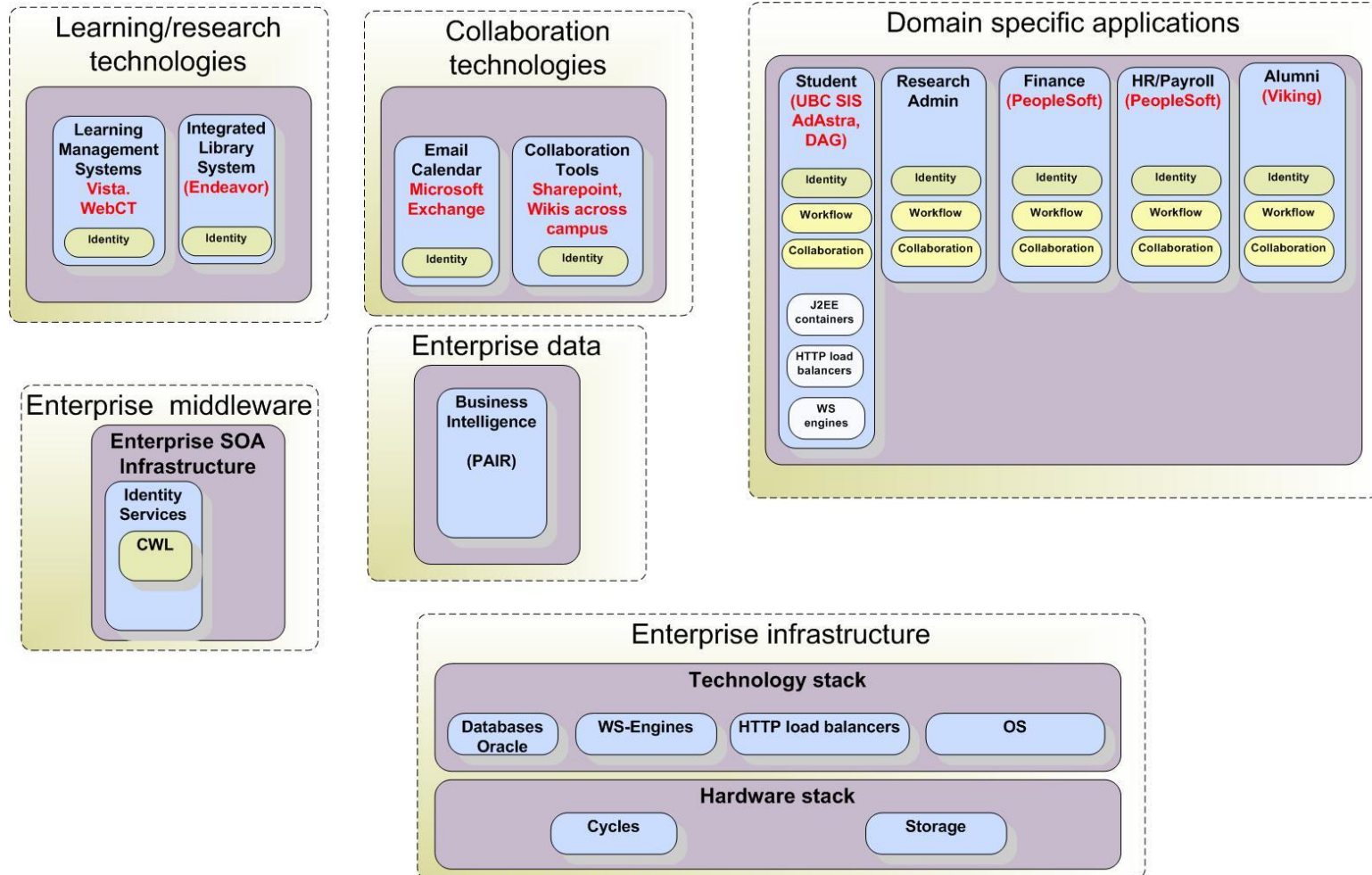
Step 2: Developing an interaction model



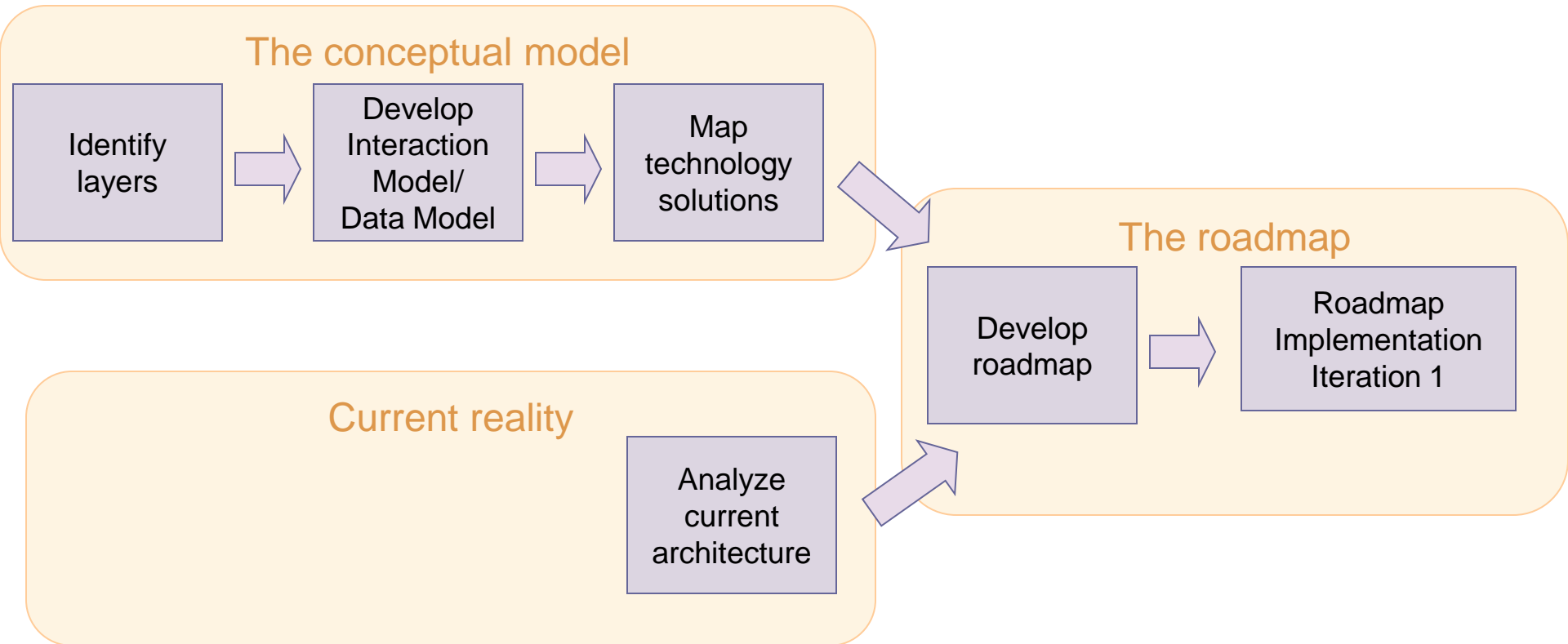
Step 3: Mapping technologies to the architecture



Step 4: understanding the current UBC reality



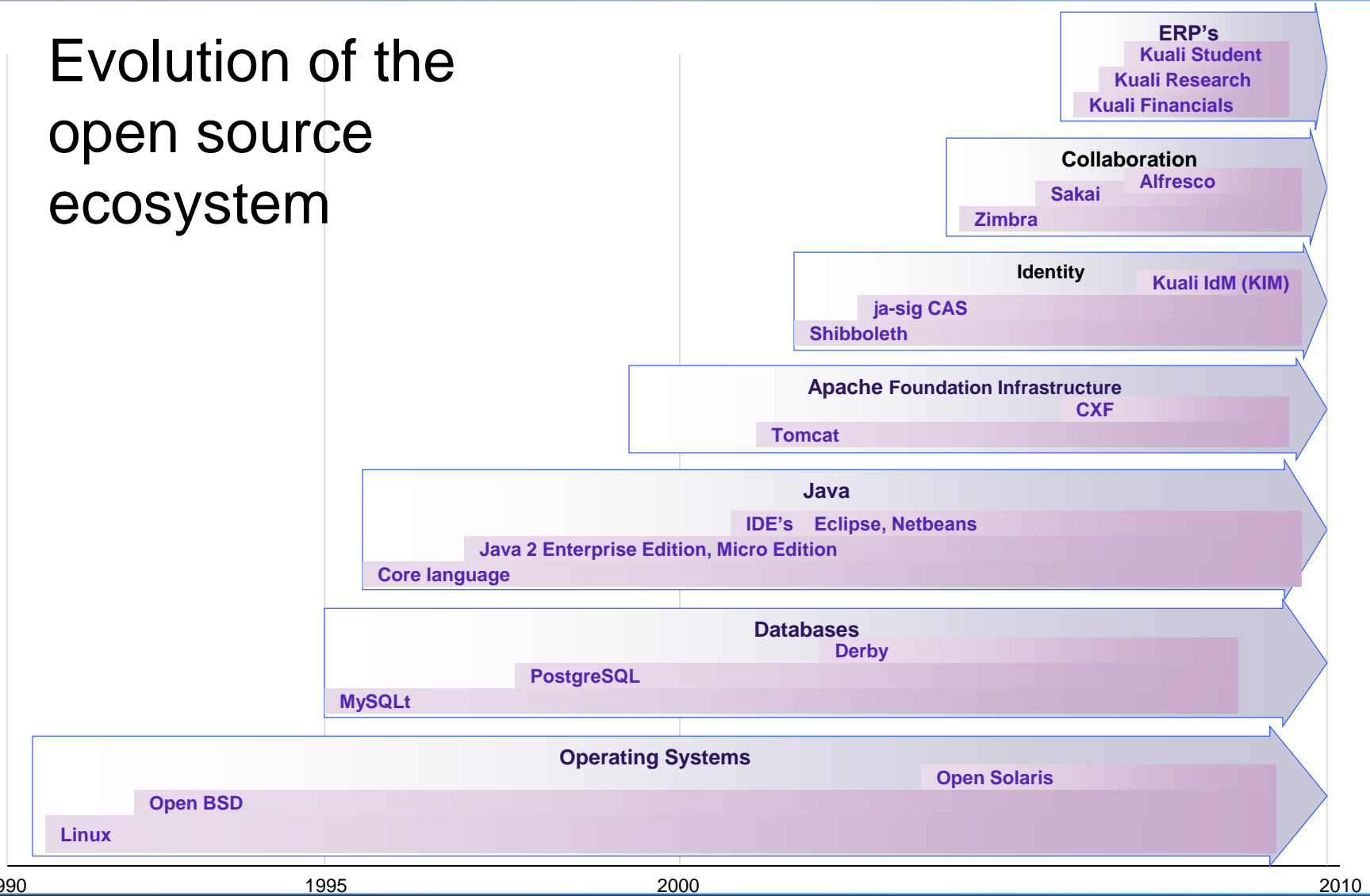
Developing the Enterprise Architecture Roadmap



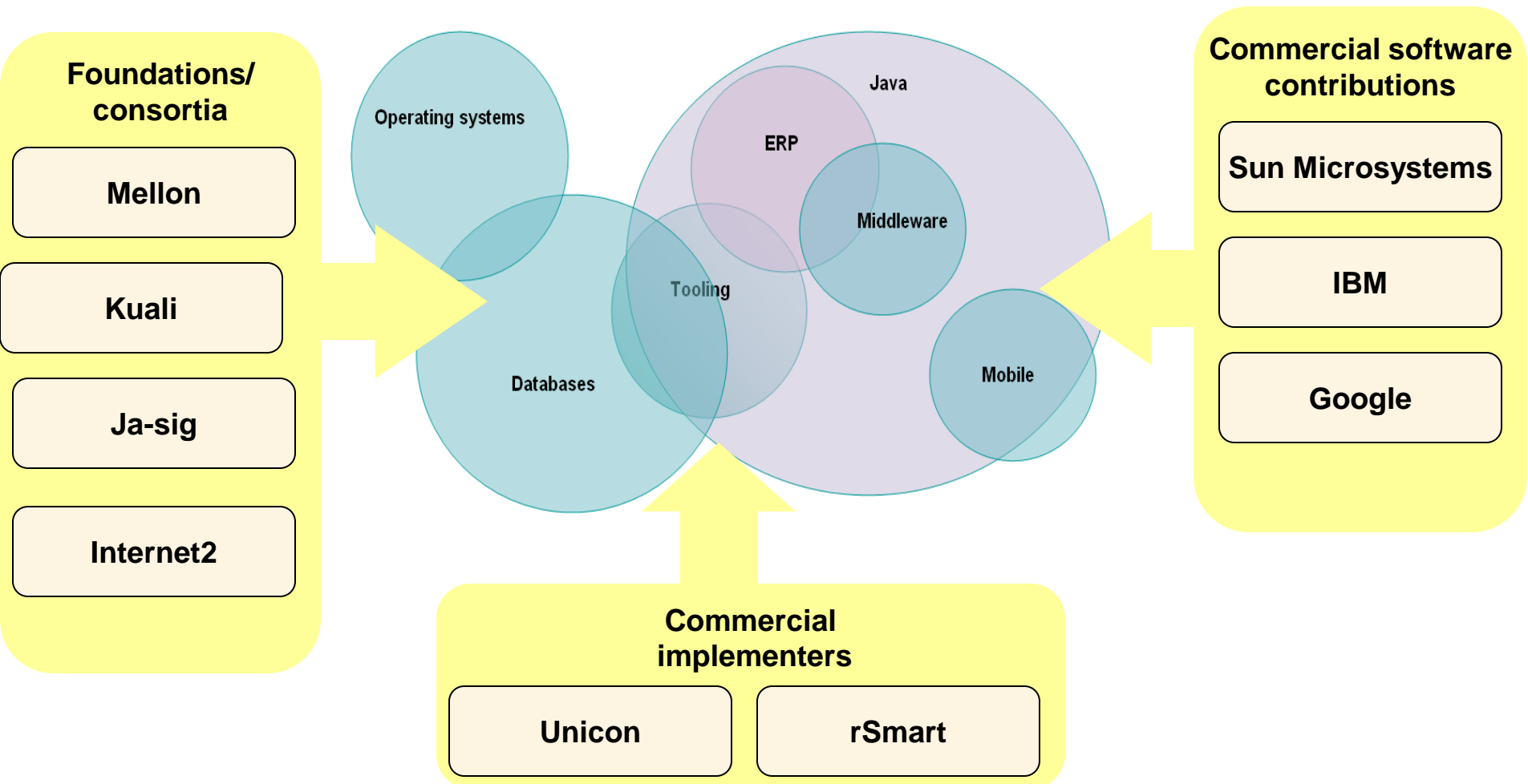
The open source ecosystem

- Breadth and depth of the ecosystem
- UBC and open source

Evolution of the open source ecosystem



Dynamics of the open source ecosystem



UBC is deeply connected within the open source ecosystem

A historical relationship with open-source

- MTS
- UBC and java
 - 1996 decision to rebuild the SIS in Java
 - 1997 presentation on java ERP at Sun ERC
- UBC and ja-sig
 - 1999 UBC a founding member of ja-sig
 - UBC implements uPortal
- UBC and the open source student system
 - 2005-2006 workshops and presentations
 - 2007 formally constituted as Kualu Student

Use of open source software at UBC

- JBoss
- Linux
- Content management tools: Wordpress, Drupal
- Learning management systems: Sakai, Moodle

Membership of groups and boards

- Ja-sig
- I2
- Kualu Foundation

Benefits of developing an EA within the context of the OS community

- A community of ideas.
 - Helping shape the direction of architectures:
 - Ja-sig
 - MACE
 - Helping shape the direction of products
- A community of implementers
 - Formal and informal support systems
 - Contributing directly to code base
- **We are not alone**

How do we implement an Enterprise Architecture ?

1. Developing an Enterprise Architecture Roadmap iteratively:
 - Service decomposition and data modeling
 - Identifying technology solutions

2. Concurrent/parallel projects that implement iterations of the roadmap
 - Technology renewal projects
 - ERP renewal projects
 - Enterprise Middleware implementations

- Architecture roadmap and technology
 - Building/expanding technology teams
 - Selecting and implementing standard toolsets and practices for large enterprise systems
 - Development: Eclipse/SVN/Maven
 - Build and deploy: tests
 - Identifying, selecting and supporting standards
 - W3C
 - Java
 - Identifying, selecting and socializing standard OS technologies for use within the UBC community
 - Content management: Drupal, WordPress
 - Interactive website development: LAMP
 - Supporting and communicating the use of standard User Interaction Models throughout the UBC community

- Architecture roadmap and ERP renewal
 - Ensuring consistent technology solutions for ERP implementations (primarily KS)
 - Coordinating ERP implementations (primarily KS) and Enterprise Middleware implementation (primarily IdM)
 - Coordinating ERP renewal and the overall Enterprise Architecture Roadmap (identifying key Service of Records within the roadmap)
 - Building out the Enterprise Data warehouse solutions concurrently with ERP renewal

- Architecture roadmap and Enterprise Middleware
 - Identity Management
 - Completing SSO (AD, LDAP)
 - Authorization
 - Groups
 - Roles
 - Enterprise Workflow
 - Enterprise Business Rules Management

Integrating these activities in a multi-year plan

