Outline

- Finnish National Digital Library and its challenges
- What is an Enterprise Architecture
- How we implemented it
- Where we succeeded
- What we need to improve
The National Digital Library

- **Dozens of participating systems**
- **Numerous supporting systems**
- **Different views for different customers**

**End User**
- Europeana et al.
- Dozens/hundreds of organizations/people

**Public Interface**

**Common Services**

**External Services**

**Backend Systems**

**Preservation System**

**Varied views for different customers**

**Supportive systems**

**Participating systems**
What is an Enterprise Architecture

- People, processes, information and technology,
- and their relationships to one another and to the outside world.
- Addresses the challenges of the organization.
- Turns its strategy into changes.
Benefits of a Formal EA Method

- Helps to cover all aspects – a checklist
- Literature, consultancy available
- Learning a "common language" for better communication
- Skills obtained can be reused
Enterprise Architecture

Involves the management

EA

Synchronous AND diachronic

EA is about people, too

Mission

-as is- Goals -to be-

Products

Processes

People

IT

Horizontal and vertical divisions

Strategy

Vision

Actions

Culture

Operations
## Aspects and Levels of Abstraction

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<thead>
<tr>
<th>Business</th>
<th>Data</th>
<th>System</th>
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**Interfaces / APIs**

**Levels of service**

**Data/Systems** — *Data/Processes* — *Systems/Processes*
Service Map
System map
# Information / Systems

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**Notes:**
- **PS:** Parent system – System with primary responsibility for the information
- **PS:** Parent system – System with primary responsibility for the information
- **UC:** Update copy – System updates the copy of the information in its own database
- **R:** Read – System reads the information
- **RC:** Read copy – System reads the copy of the information in its own database
EA management

- EA model
  - How one employs an EA method

- Governance Model
  - How one manages EA planning, makes policies concerning EA, and ensures compliance to them

- Maturity Model
  - How to measure advancements in EA work
NATIONAL LIBRARY NETWORK SERVICES

Maturity Model

Strategic
- EA is a strategic tool for management and planning

Managed
- EA exists and is managed, evaluated, analysed, corrected

Defined
- EA is formalized, EA work has been organized

Partial
- Some EA processes, structures and tools employed

Uncontrolled
- No defined EA methods. EA work sporadic.
Governance

Planning

Descriptive work

Policies

Communication

Maintenance
Standard Portfolio

- General standards (Unicode, accessibility, recommended file formats)
- Metadata and Cataloguing Rules
- APIs for metadata harvesting, search, etc.
- Identifiers
- Authentication and authorization
- Recommended thesauri
- And others
EA has brought us together

- The journey is at least as important as the destination
- Getting behind the surface / interface / facade
- Understanding practices, terminology, customer needs
- Has helped to identify needs for common services within NDL
- Has led to initiatives on interoperability
Challenges for the future

- Going beyond IT and data – towards business and people.
- Going beyond metadata – pay attention to supporting business data and processes.
- Harmonizing organizational and business affiliation, e.g. a library as a part of a university and as a part of the library community.
- From documentation to a way of life.
Enterprise Architectures as a Government Policy Tool

- Act on Information Management Governance in Public Administration
- EAs as a legal obligation for public agencies
- Government-level EA
- Common trend in developed countries