

## **OScaR RA: Finnish national reference architecture on open science and research**

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Lead Enterprise Architect Ari Rouvari



*CSC – Suomalainen tutkimuksen, koulutuksen, kulttuurin ja julkishallinnon ICT-osaamiskeskus*

# Agenda

- Why our objectives
- What an architecture definition and artifacts
- How a description of the project
- A couple of examples of artifacts
- Findings
  
- EU-level collaboration on Open science and research reference

## WHY – Objectives

- For **steering** open science and research at the national level
- **Implementing** Finnish open science declaration and policies
- **Visualizing** Finnish open science declaration and policies
- The OScaR reference architecture steers organizations' enterprise architecture definitions

**Deliverables: a document guiding the development of the field of open science and guidelines for its use**

## Why enterprise architecture (EA) method

- EA is an information governance tool
- EA is an Information and data management tool
- EA is a service management tool
- EA is a tool for digital transformation
  - Digitization – digitalization – **digital transformation**
- **Reference architecture** → Enterprise architecture → Solution architecture

**Definition for a reference architecture: “an architecture that guides another architecture”**

# WHAT – Target state description 2030

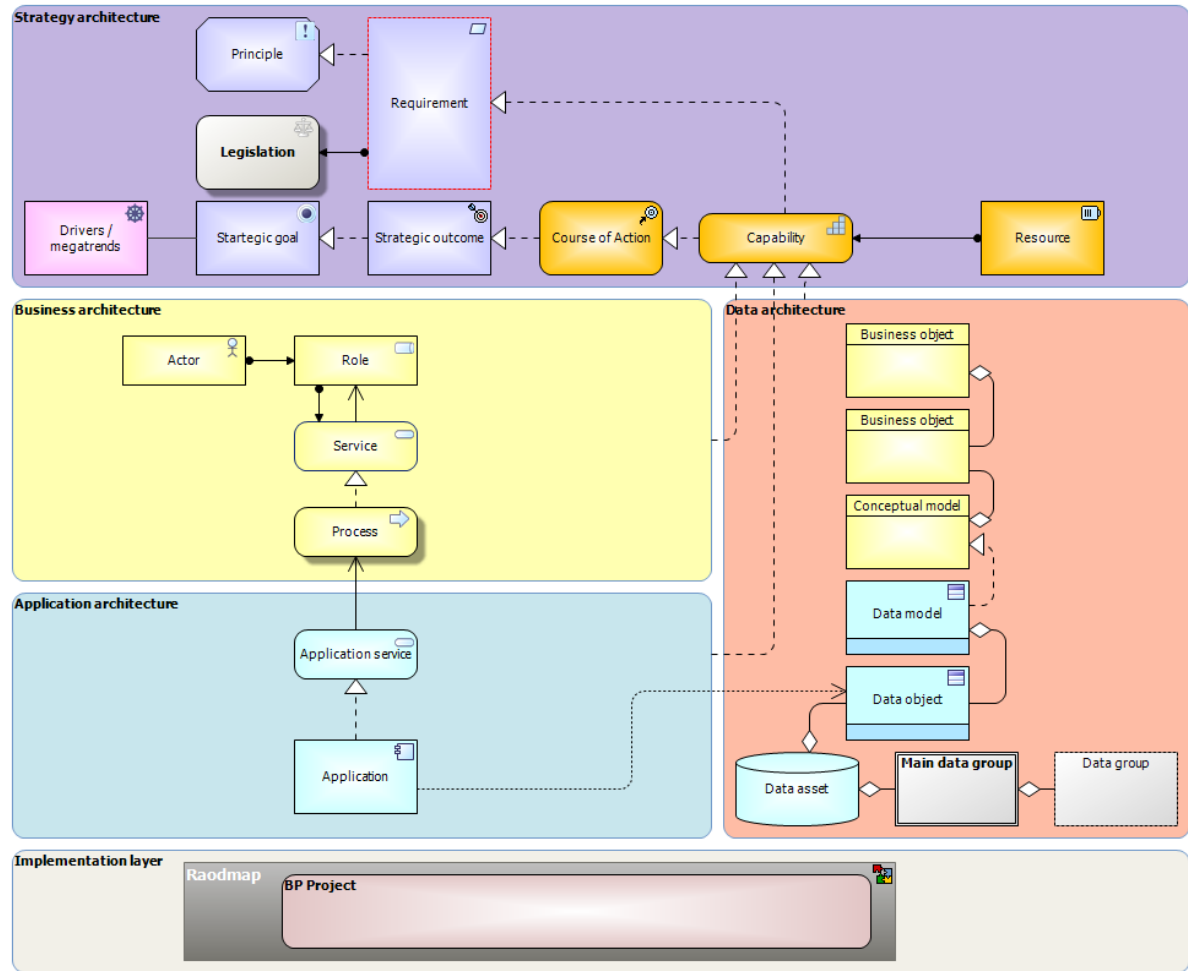
EA artifact is usually a diagram, table, or textual narrative

Architecture domain	Main artifacts	
Principle Level (strategic architecture)	Legislation, strategies, capabilities, resources, architecture principles, related architectures	Done
Business architecture	Actors, actor interactions, business services, and business processes	done
Information architectre	Vocabularies, concepts, conceptual models, data models, logical data assets	
Application architecture	Applications, application integrations, and APIs	
Implementation of the architecture	Executive summary, guidance, roadmap, work packages, Communication and collaboration plan	



Issues	OScaR reference architecture 2030
Funding:	Ministry of Education and Culture
Owner:	The Federation of Finnish Learned Societies
Project phase:	2022 –2023 24 months (Status is OK)
Background	Replacing the old reference architecture on open science 2016
Facilitating	The Federation of Finnish Learned Societies (a national cooperative body)
Steering group	2-4 meetings in a Year Strategic decisions
Architecture group	Monthly meetings Chairs Jukka Heikkinen (Finnish Union of University Professors) 2022 and Susanna Nykyri 2023 (Tampere university library), Operative decisions
Hands-on groups	Weekly meetings (some half dozen hands-on groups plus ad-hoc groups)
Communication team	Articles, papers, workshops
Consulting on EA	CSC – IT Center for Science (Ari Rouvari and Ville Henttonen)
Collaboration with the field	1-2 seminars plus commenting and reviewing

# Metamodel

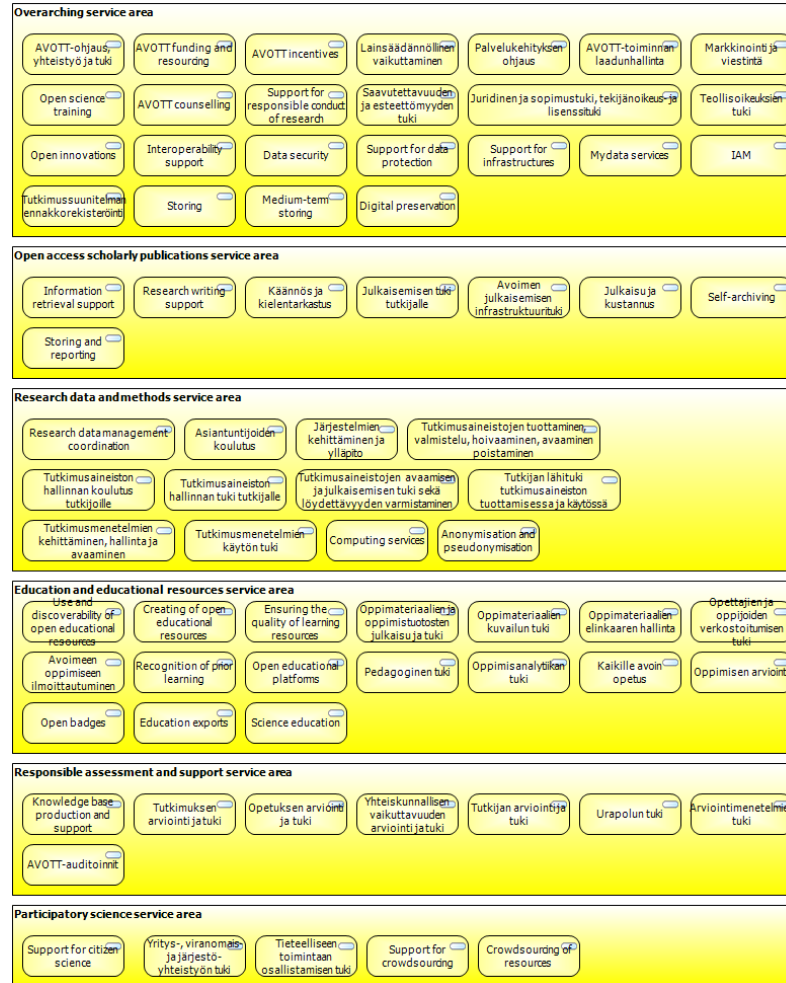






# Business Service Map

Unfortunately, we have not translated the whole business service map yet.



## Findings – three EA problems, three propositions

- EA paradox A: granularity of EA descriptions
  - too detailed, too general

Proposition 1: *User-centric communication materials*

- EA paradox B: EA process and project same time

Proposition 2: *Well-managed project and EA management*

- Communication and collaboration are the root cause of EA problems

Proposition 3: *Ensuring efficient communication (team)*

# EU Collaboration on Architecture on Open Science

- Do we require shared open science and research reference architecture among higher education institutions in the EU?



**Ari Rouvari**

Lead Enterprise Architect

Ari.rouvari@csc.fi



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