

presents:

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FROM INNOVATION TO SOLUTION

Setting the standard for pan-European service enablement of air traffic management

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Agenda

- ➔ The SESAR programme and the approach to EA
- ➔ Introduction to the System Wide Information Management (SWIM) concept
- ➔ The SESAR Services Working Method and the Information and Services Reference Models
- ➔ Lessons learned and deployment preparation

Single European Sky (SES)



Goals of the Single European Sky

Enabling EU skies to handle 3 times more traffic

Improving safety by a factor of 10

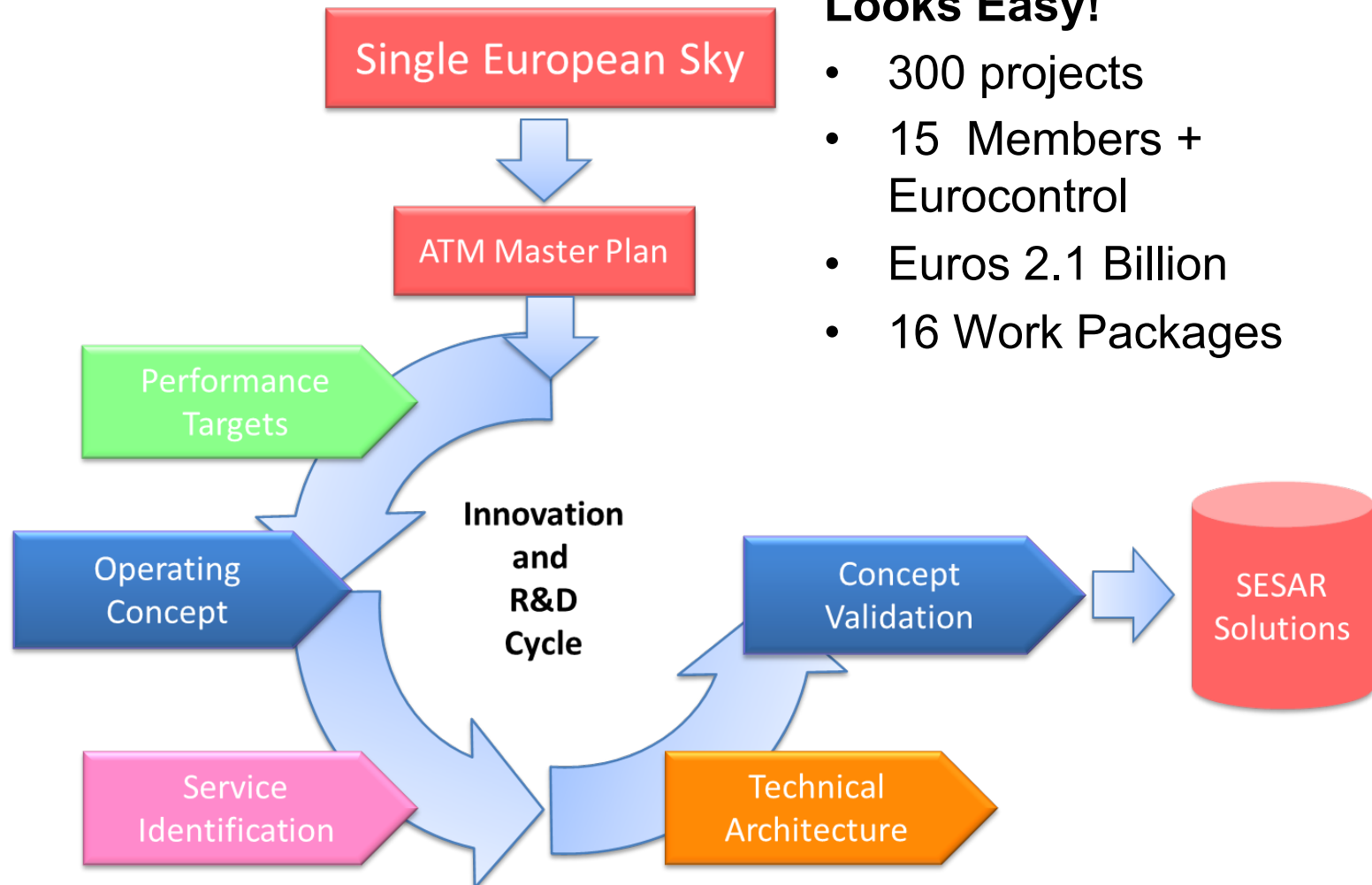
Reducing the environmental impact per flight by 10%

Cutting ATM costs by 50%

Save 8 to 14 minutes, 300 to 500 kg of fuel and 945 to 1575 kg of CO₂ on average per flight

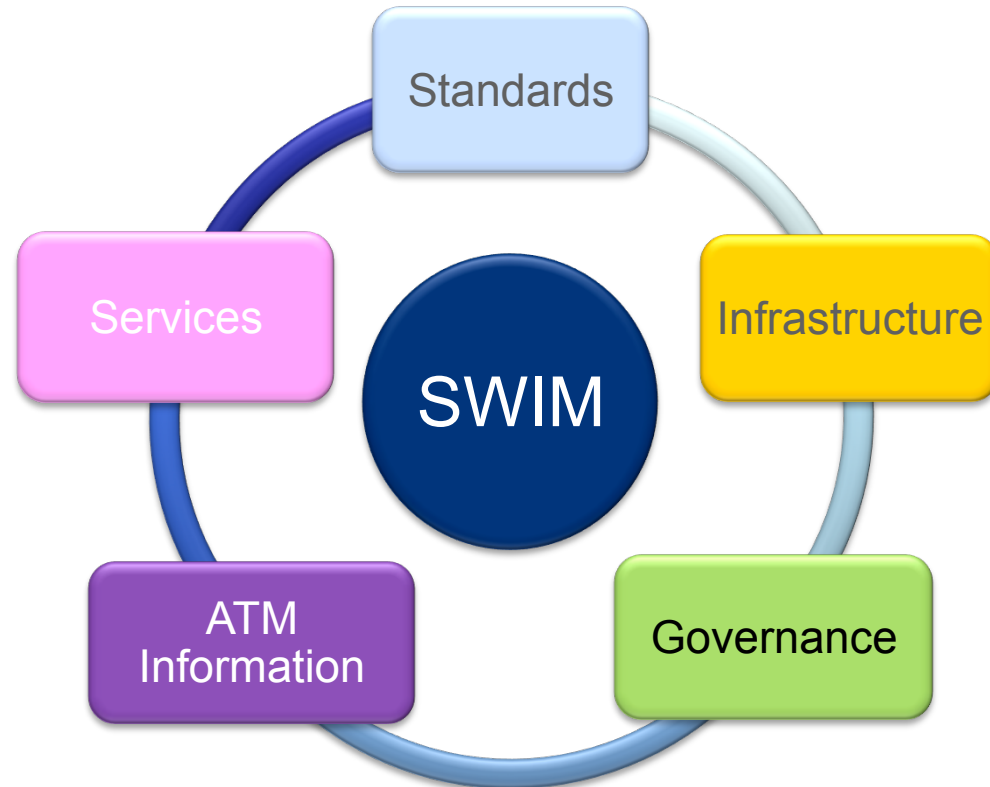
- To meet these Goals we need to:
 - Understand **what** and **where** the performance problems are in European ATM
 - Identify and validate effective operational Concepts and Technologies
 - Deploy these operational concepts and tools at the appropriate time and place
 - ATM Master Plan
- The role of SESAR (SES ATM Research) Programme is:
 - develop and validate the candidate concepts and technologies

SESAR Development Cycle



SWIM Definition

(System Wide Information Management)



“SWIM consists of standards, infrastructure and governance enabling the management of ATM information and its exchange between qualified parties via interoperable services.”

SESAR SWIM DEFINITION : Ref : WP8 SWIM CONOPS

SWIM - OPS to SYS bridge

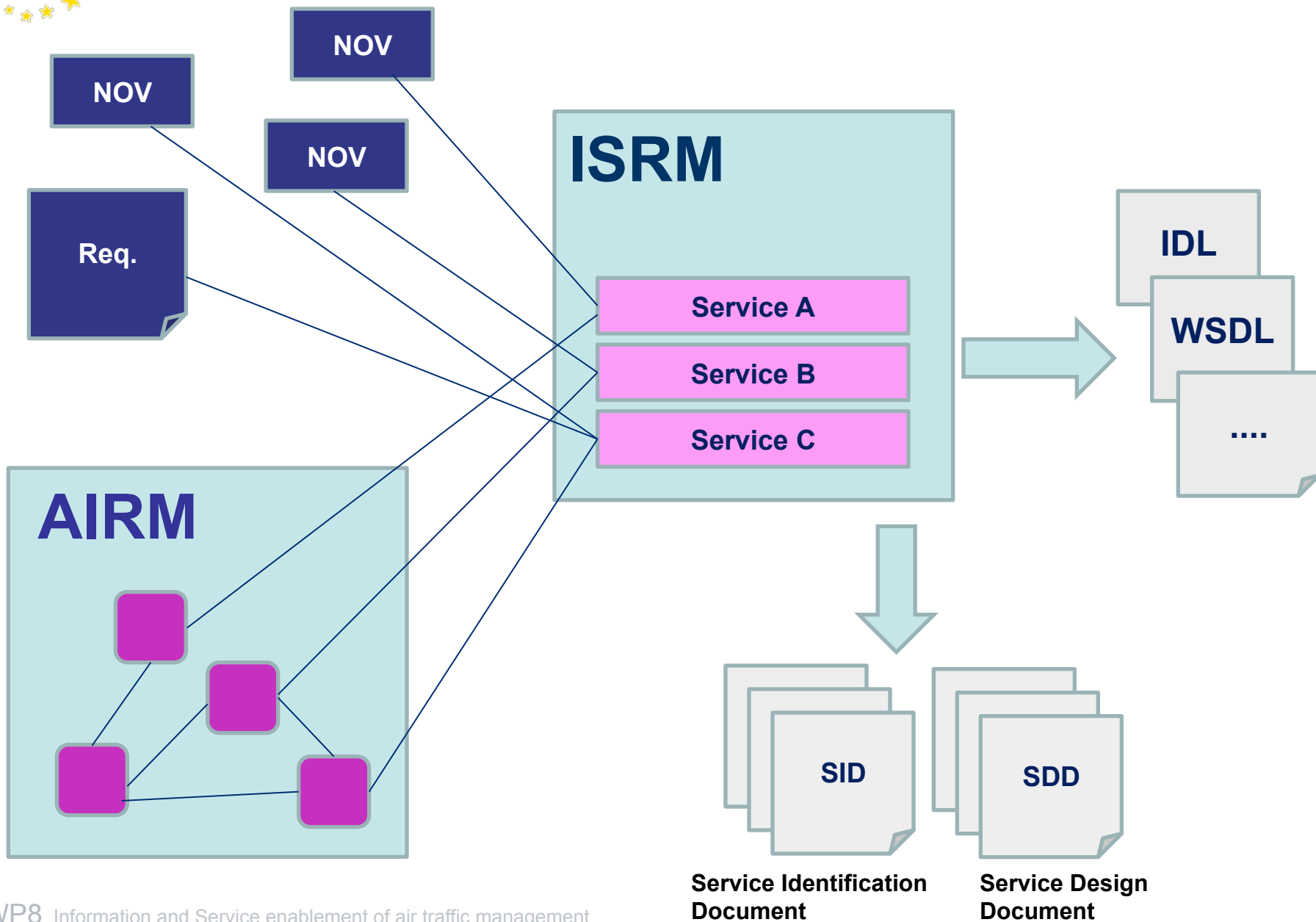


INFRASTRUCTURE

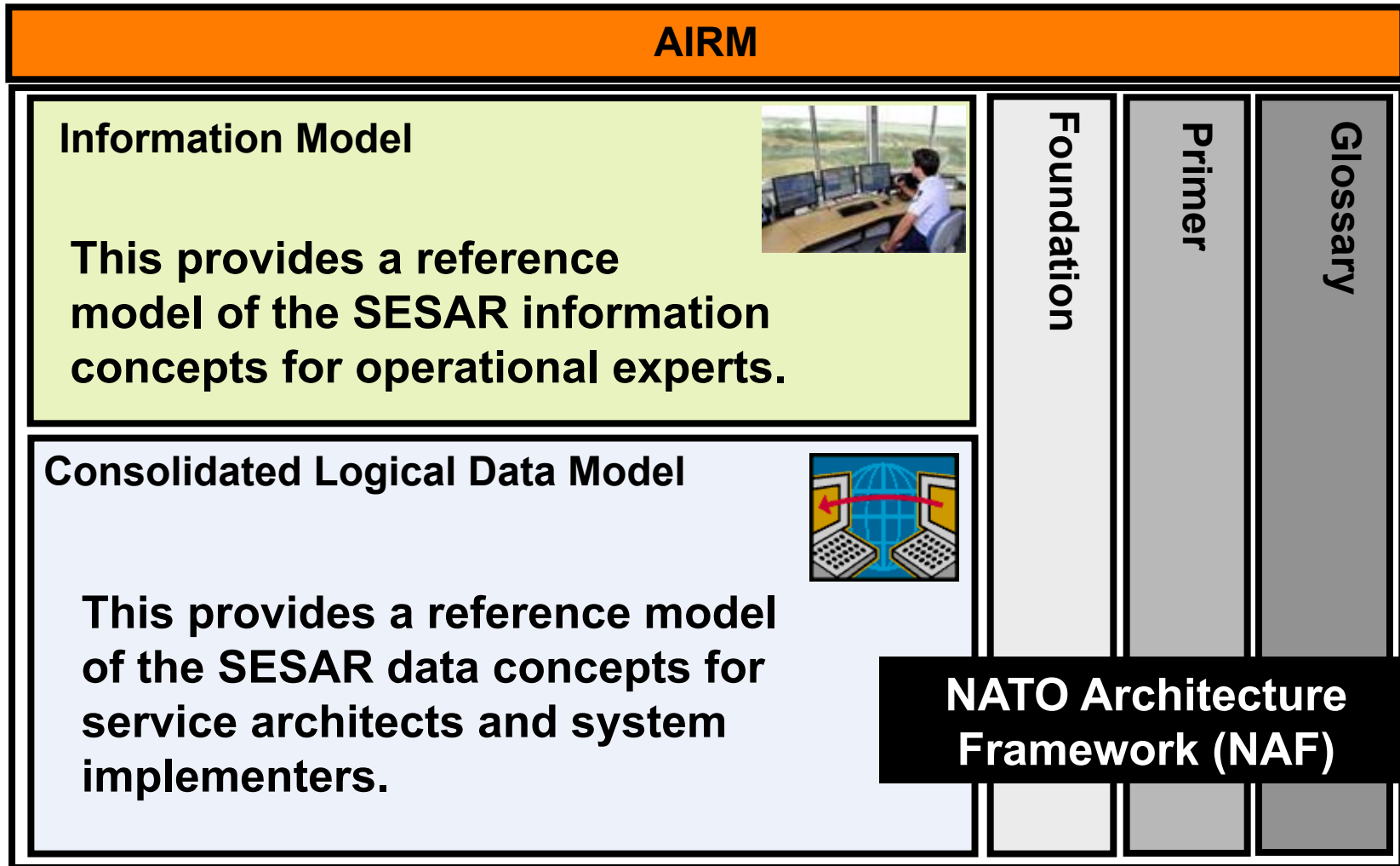


GOVERNANCE

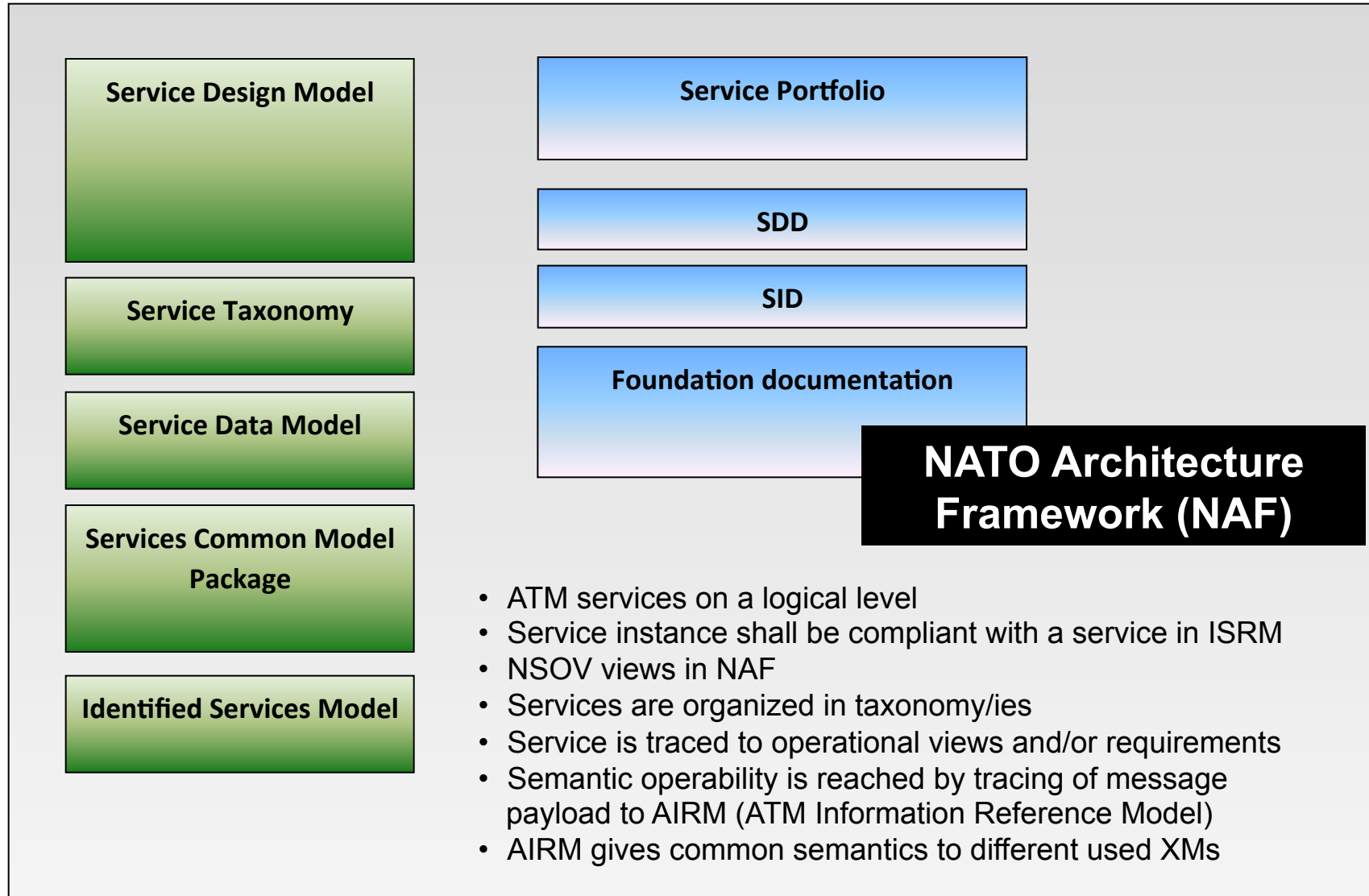
STANDARDS



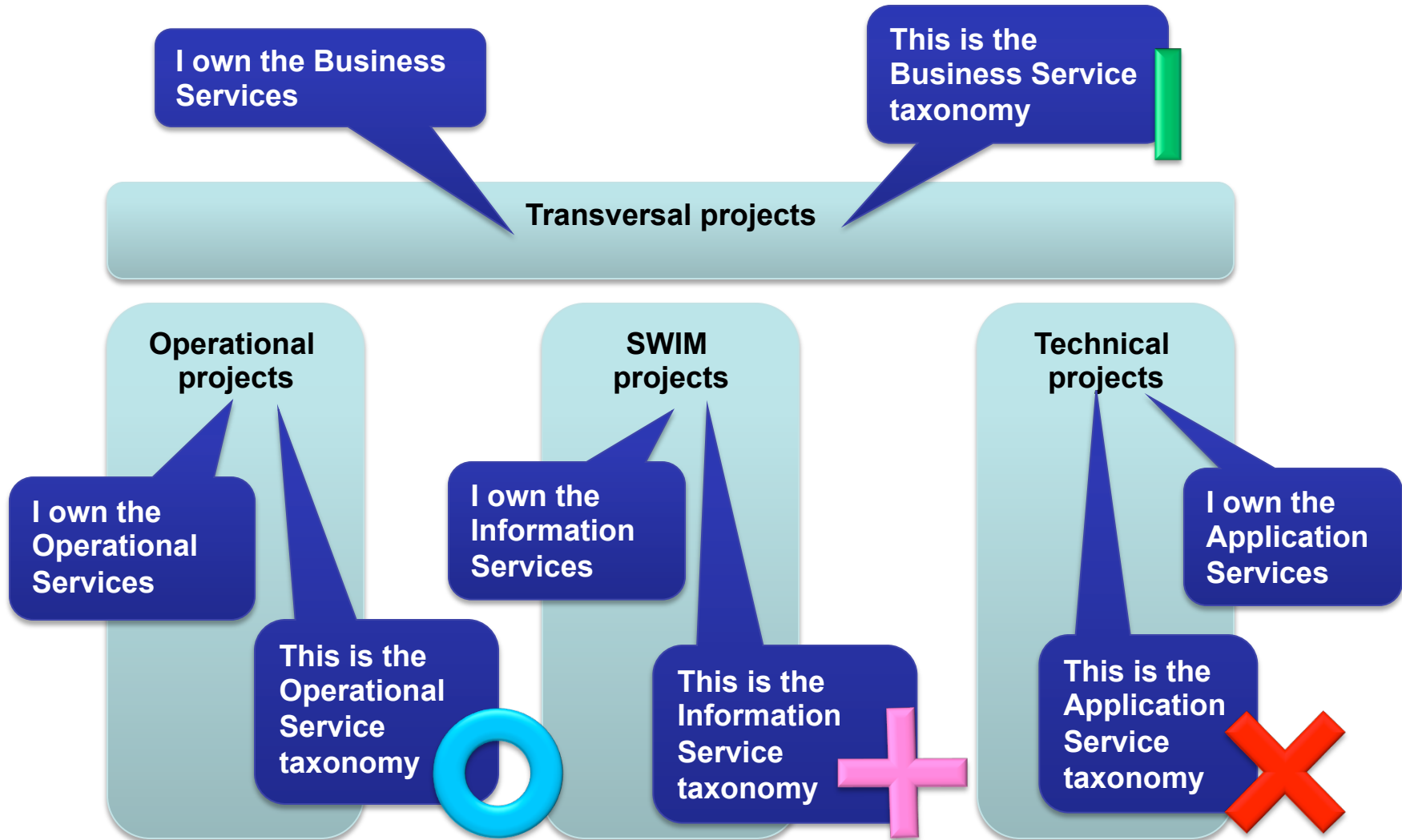
AIRM general



ISRM general



We had a challenge...



A common Service concept

Why

- ATM Federation value proposition
- Identified problems
- ATM Goals & change agenda
- KPA's/KPI's
- Stakeholder & federative capabilities

What

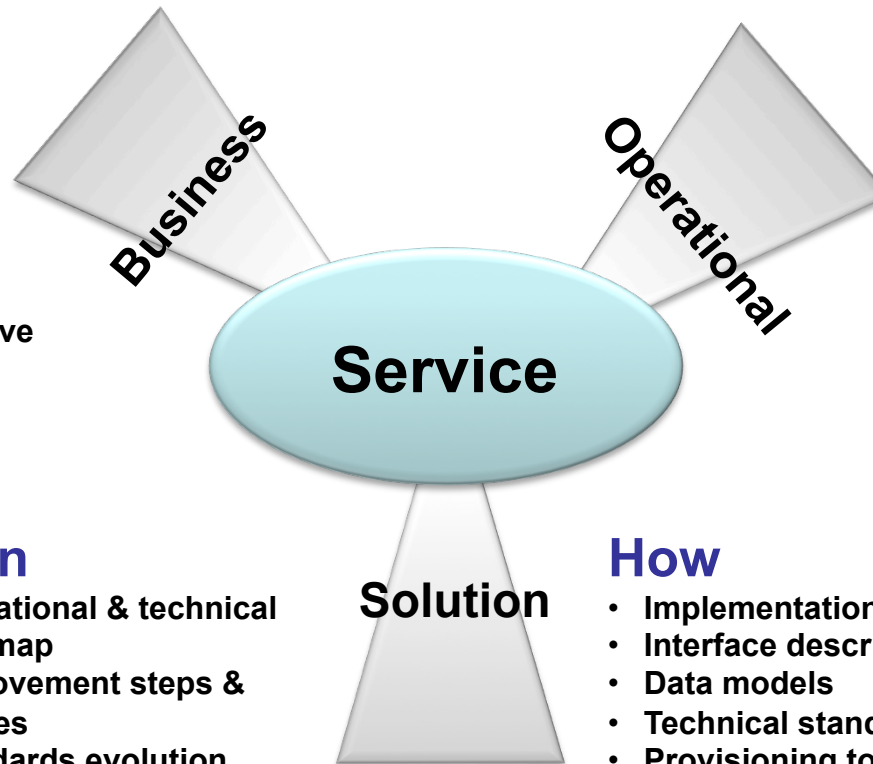
- Actors interaction/ Information exchanges
- Operational processes
- Operational performance

When

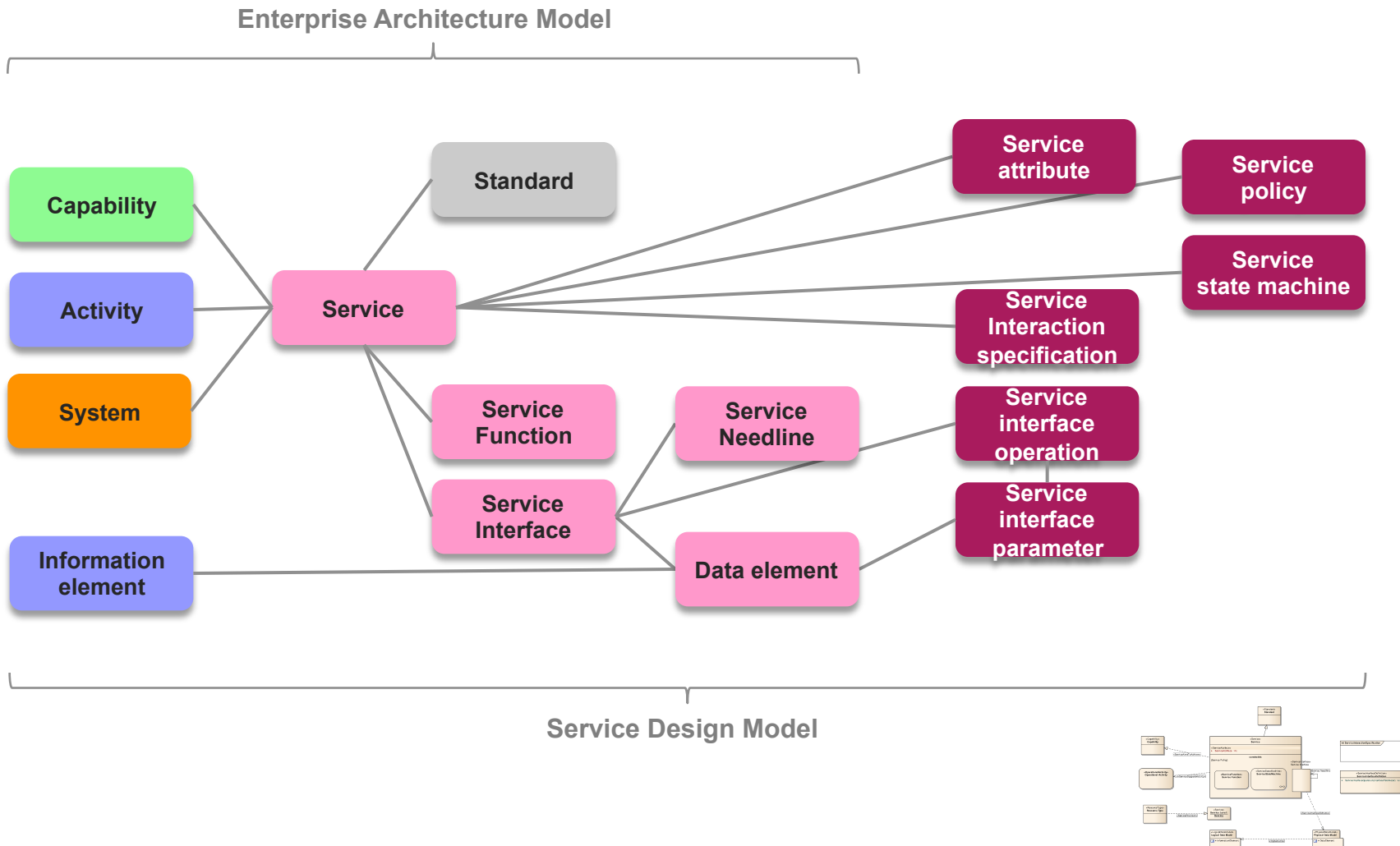
- Operational & technical roadmap
- Improvement steps & phases
- Standards evolution

How

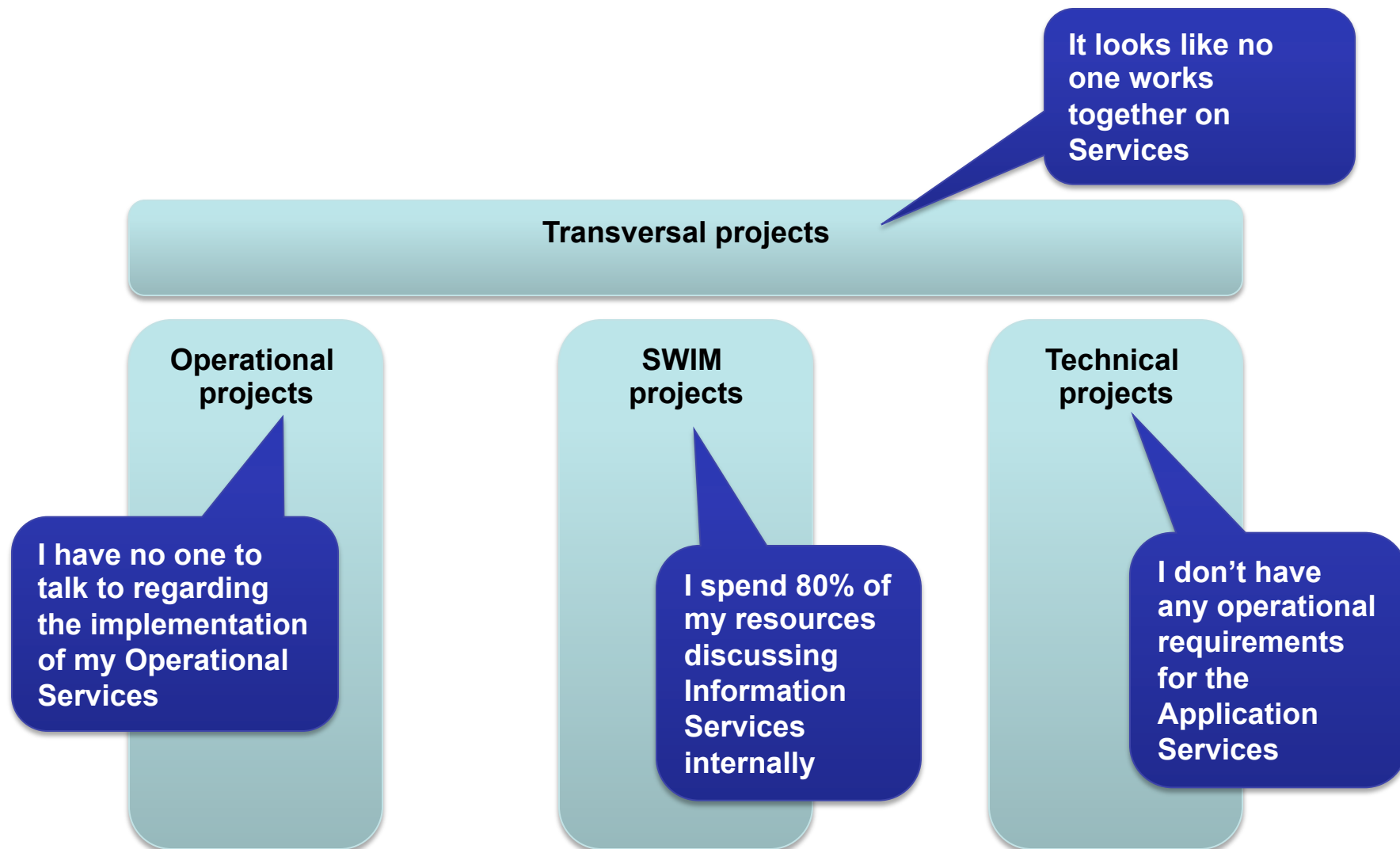
- Implementation choice
- Interface descriptions
- Data models
- Technical standards
- Provisioning to systems
- Service level monitoring



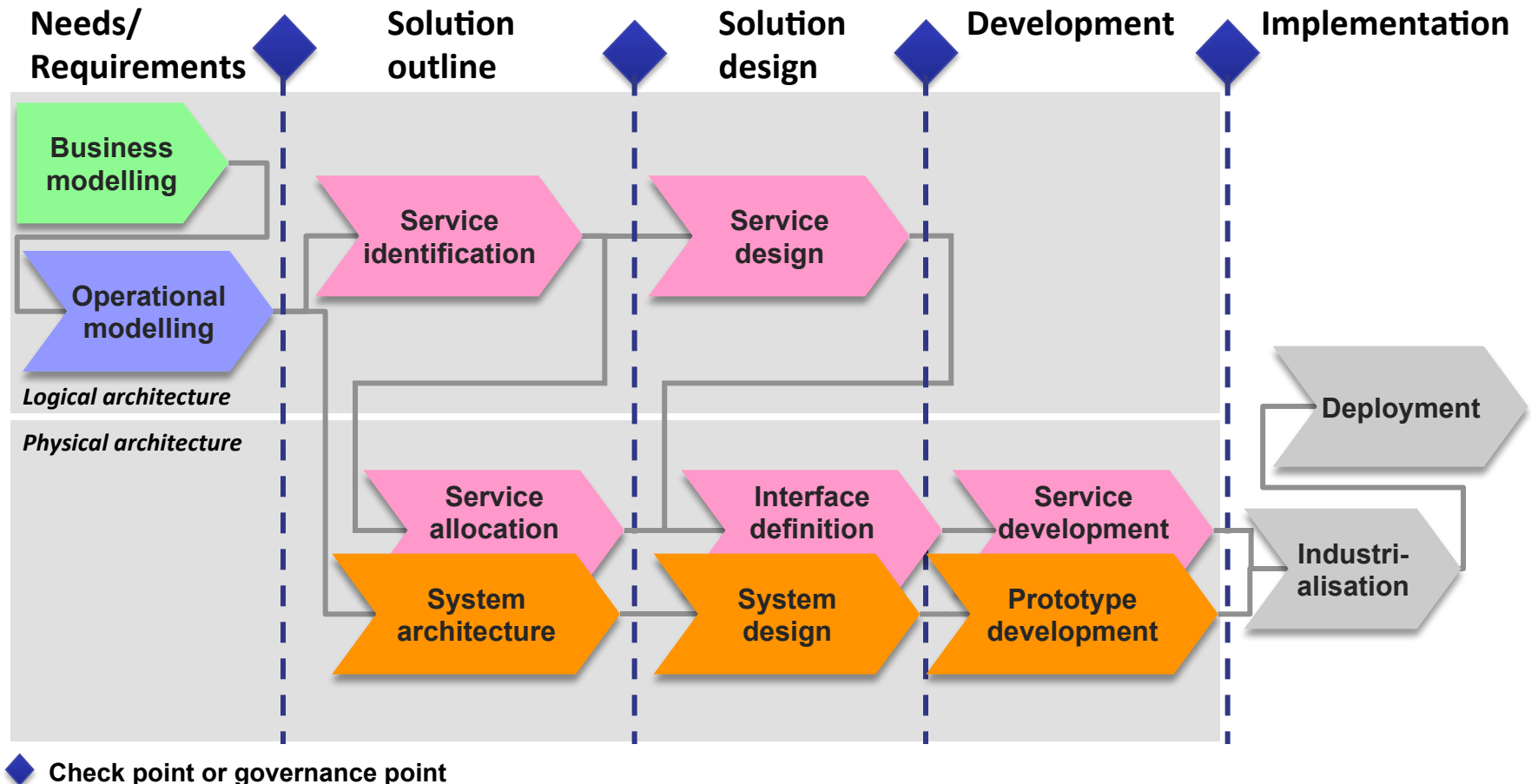
The Service Meta Model



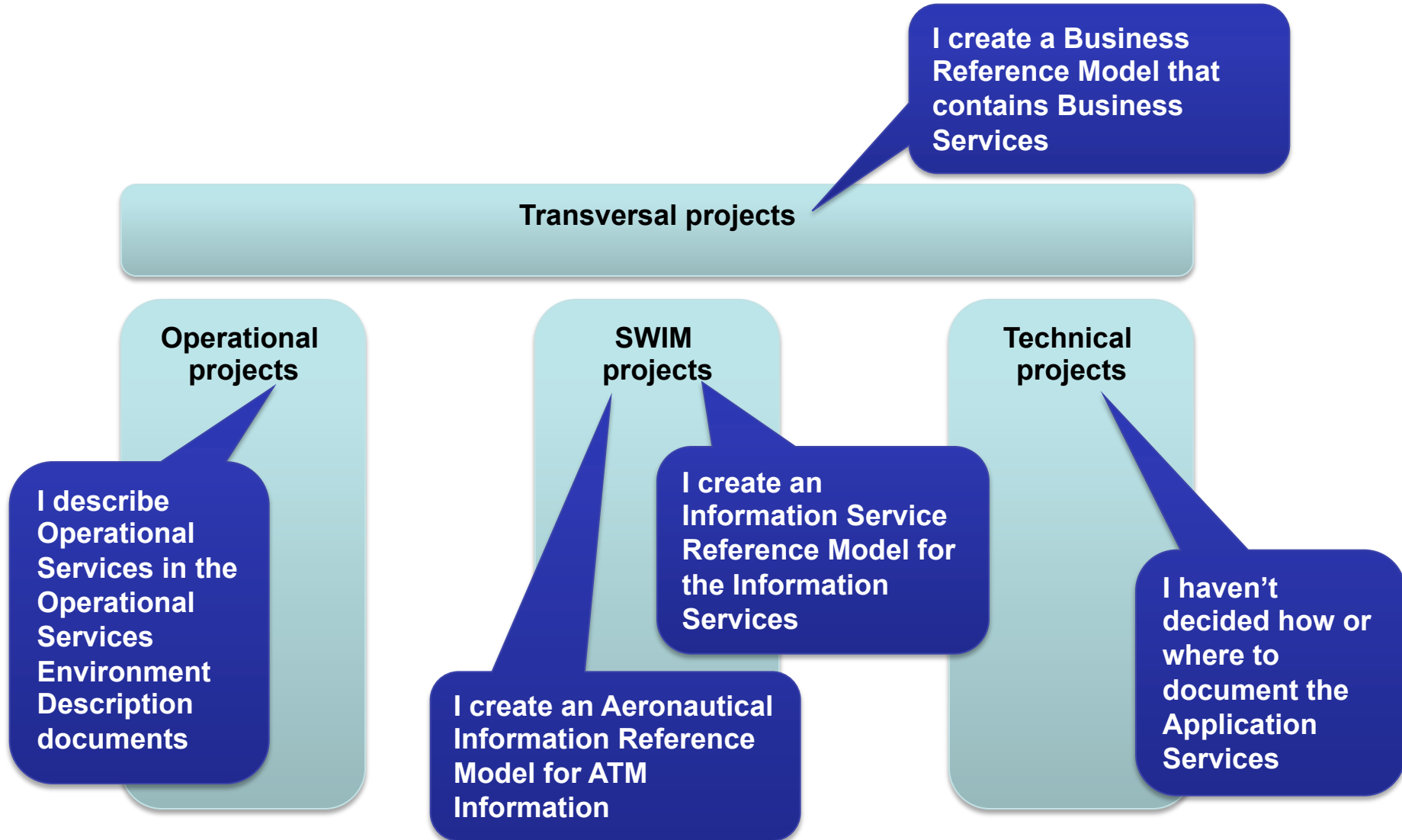
We had another challenge...



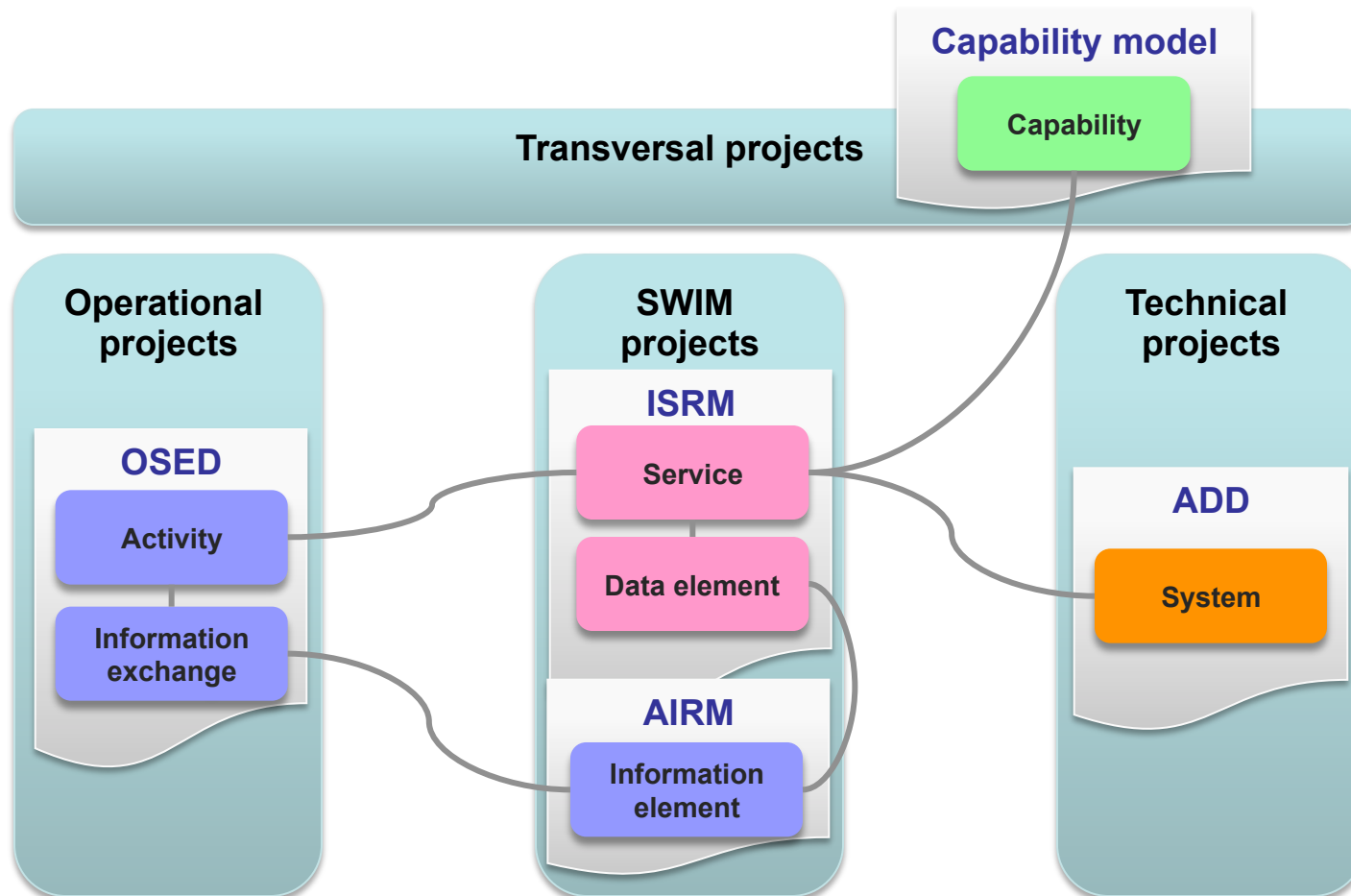
The Services Working Method



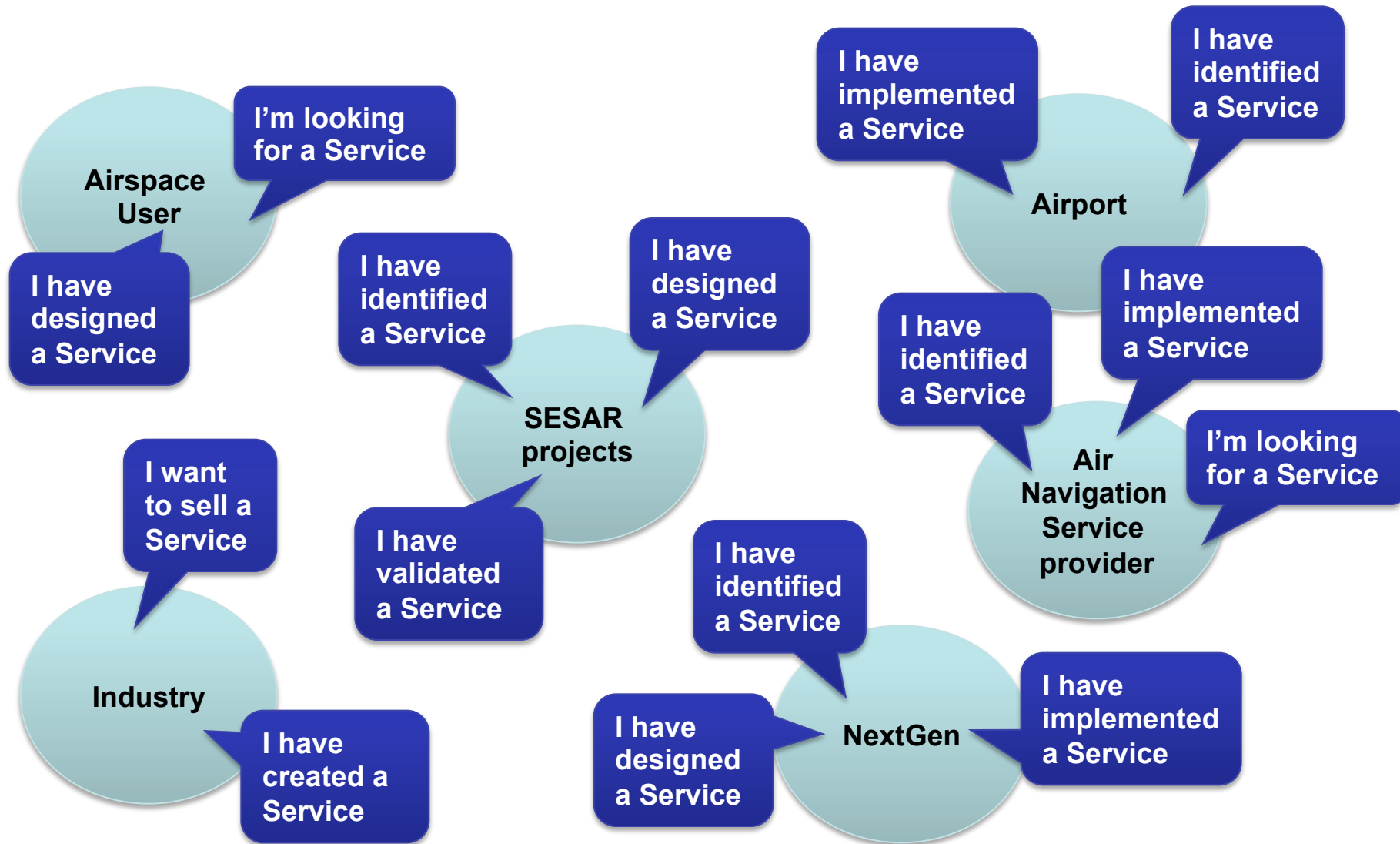
We had (yet) another challenge...



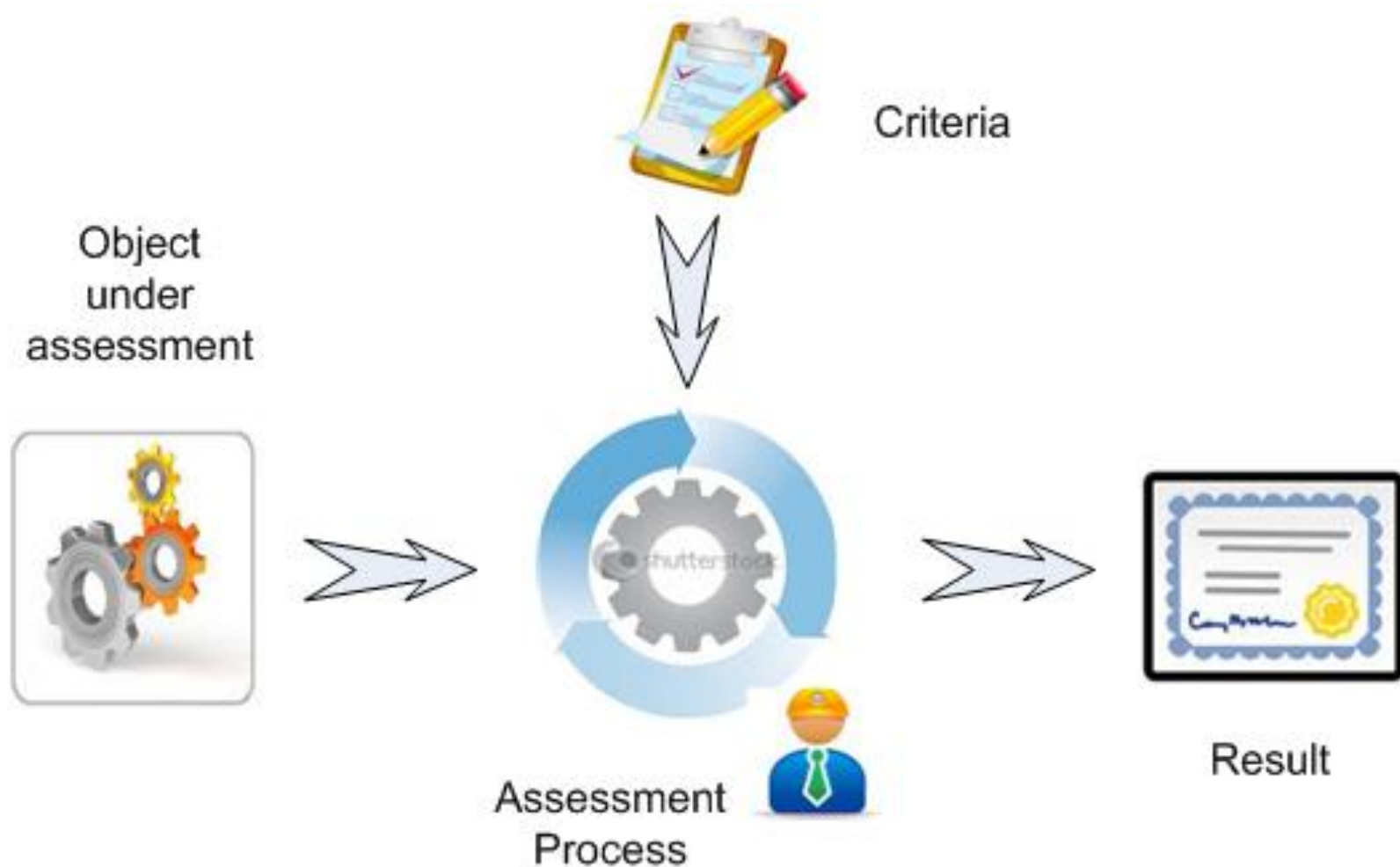
Integrated deliverables



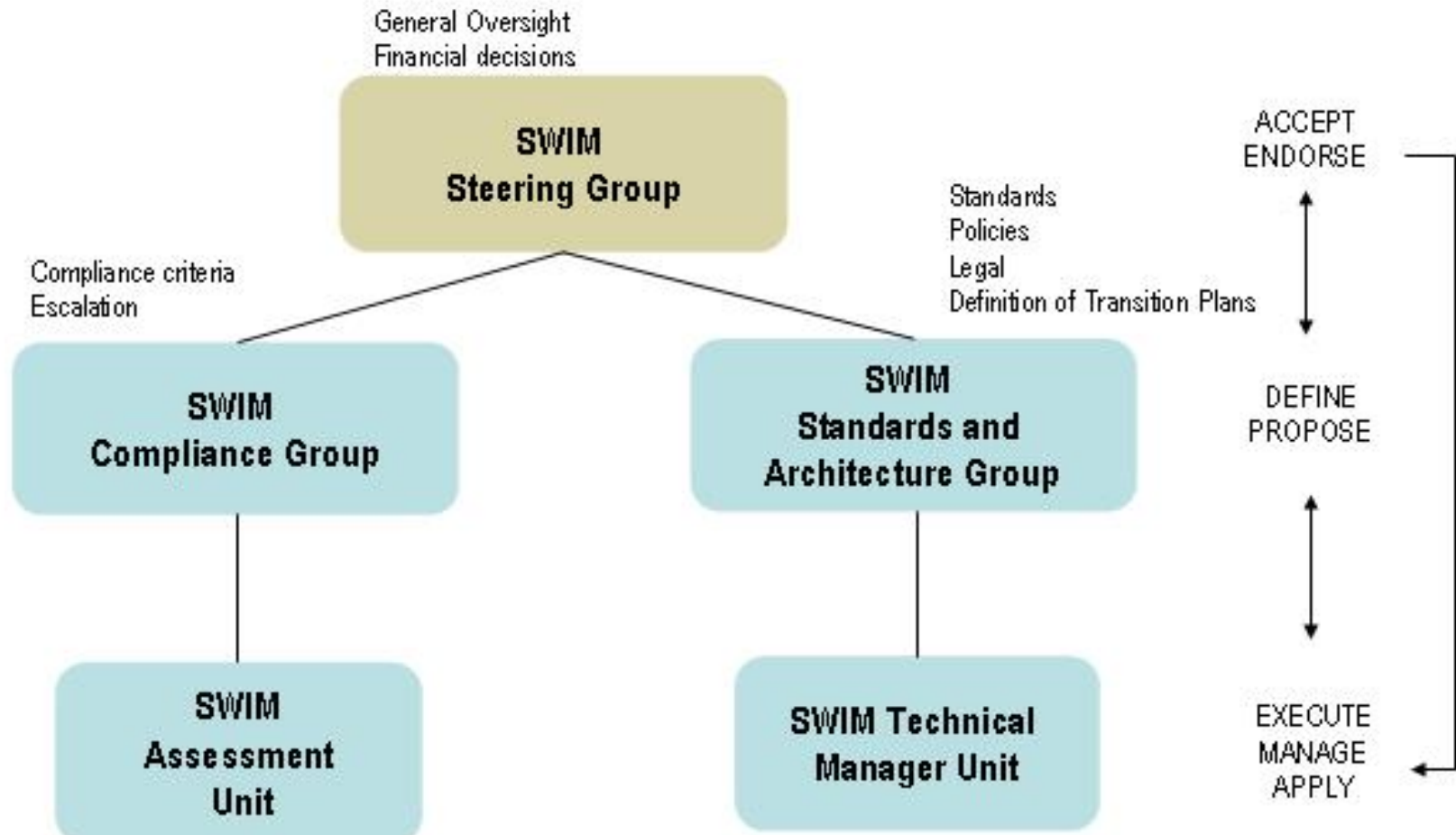
We will have a challenge...



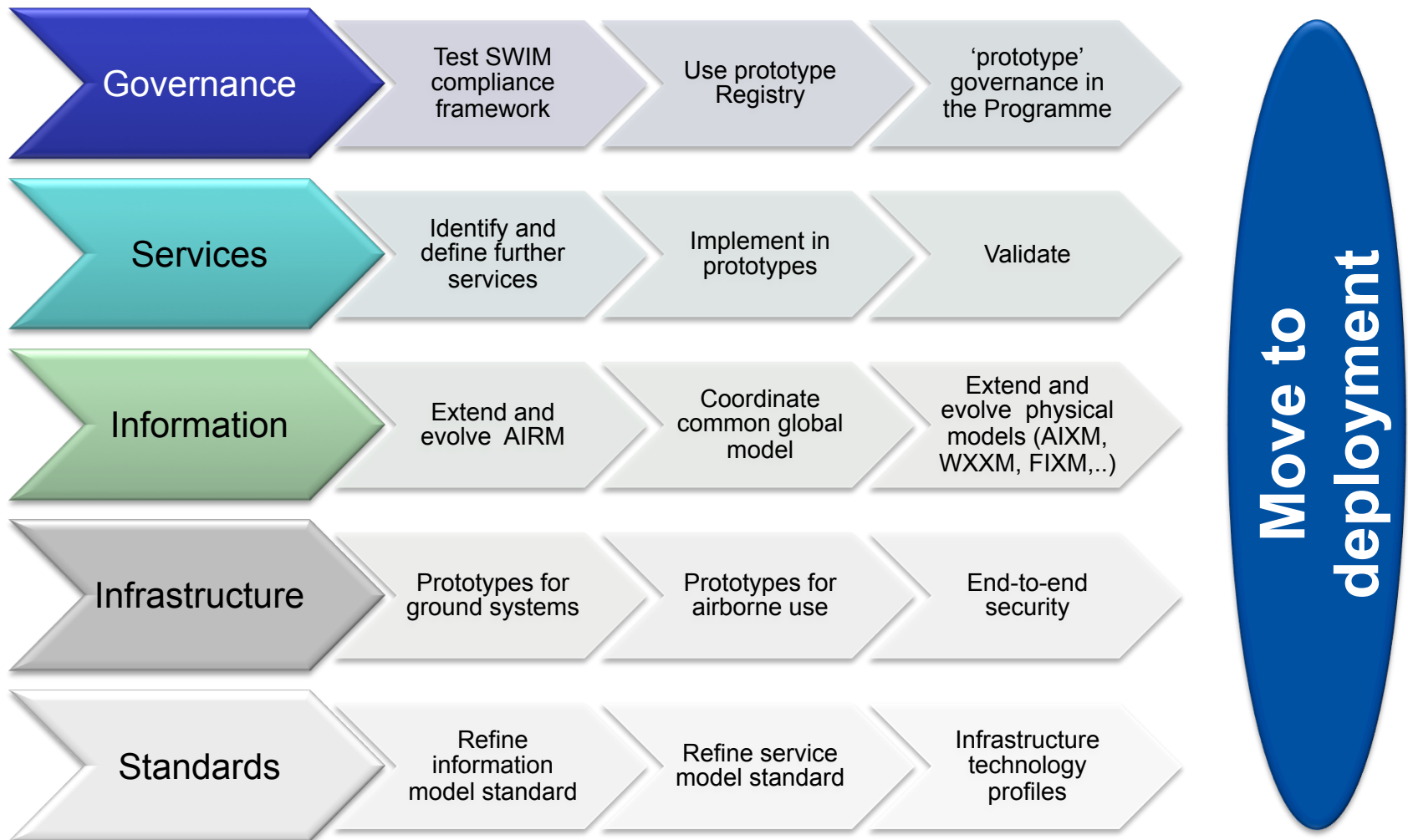
Compliance and governance model



Compliance and governance model



What's next with SWIM in SESAR?





**THANK YOU FOR YOUR
ATTENTION**

Please come and visit us at:
www.sesarju.eu/swim

founding members

