Swedbank

An integrated Architecture Universe at Swedbank

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Everyday challenges of a larger enterprise…

Information Manager:
"I define terms and data quality"

Service Manager:
"I operate Services"

Manager:
"I need to see results"

Strategist:
"I set visions and goals"

Agile Developer:
"I do Epics and Features"

Product Owner:
"I deliver solutions"

Architect:
"I model in ArchiMate" 😉

How to connect it all?

About Swedbank

A modern bank with its roots firmly planted in the 200-year history of Sweden’s savings banks and the cooperative agricultural bank tradition.

Strategic Direction

Our vision

We empower the many people and businesses to create a better future

Our purpose

A financially sound and sustainable society

Our values

Open
Simple
Caring

Our customer promise

Together we make your financial life easier

- By providing guidance on your terms
- By helping you to be more sustainable
- By supporting you in a proactive way
- By making the difficult simple

Our foundation

Together we create

An attractive workplace for employees with a culture based on inclusion and accountability

An efficient, profitable and compliant bank and financial services platform

A standardised, scalable and stable infrastructure

Sweden, Estonia, Latvia and Lithuania are our home markets

16.4 million inhabitants
7.05 million private customers
552 000 corporate customers
226 branches
16 324 employees

Our global presence

Our service offerings

- Private customers
  - Loans & Mortgages
  - Savings & Investments
  - Payments
  - Pension & Insurance
  - Private banking

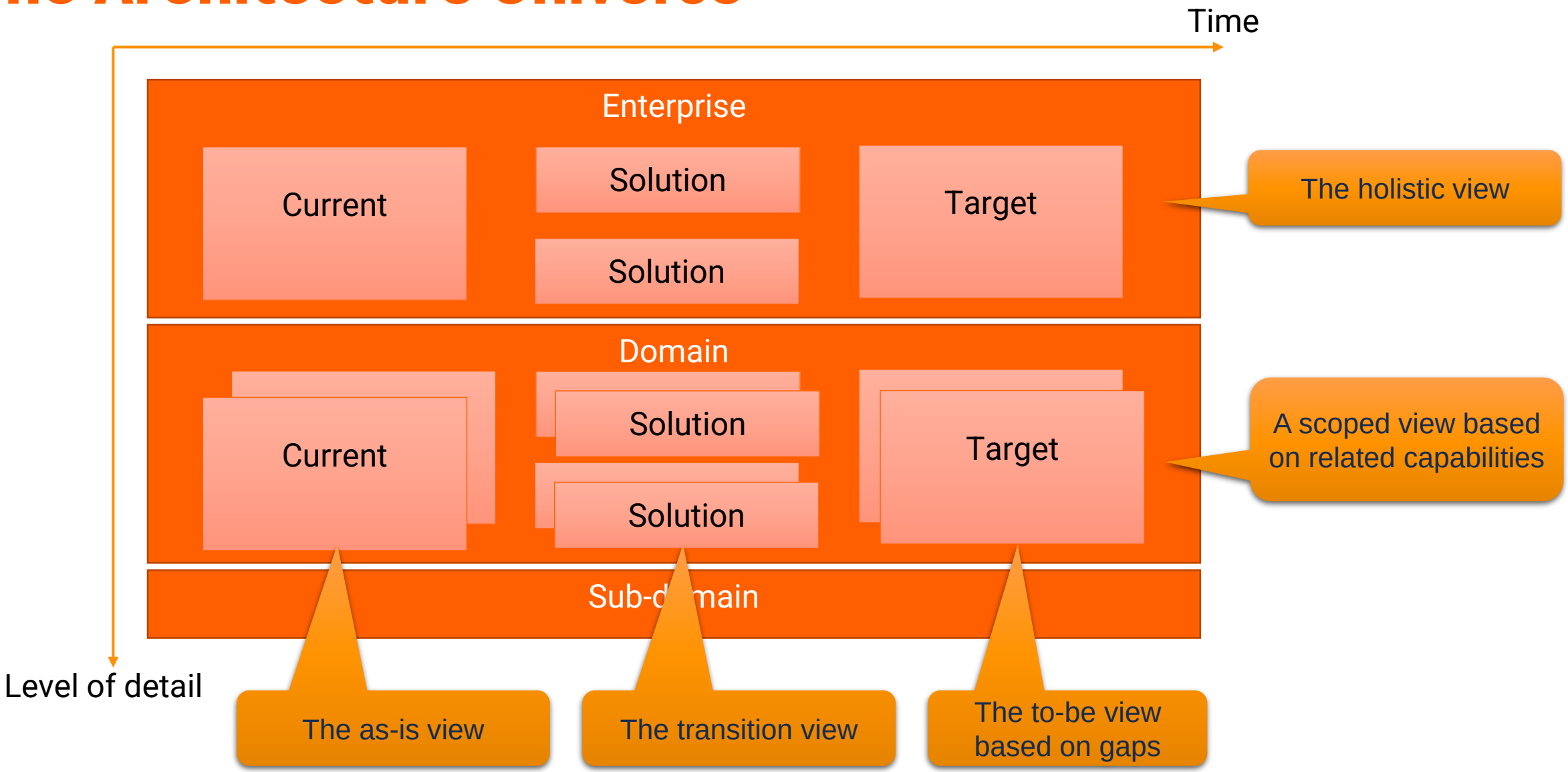
- Corporate customers
  - Payments
  - Cash Management
  - Financing
  - International business
  - Transfer of ownership
  - Taxes & Legal
  - Investment Management
  - Pension & Insurance
  - Properties

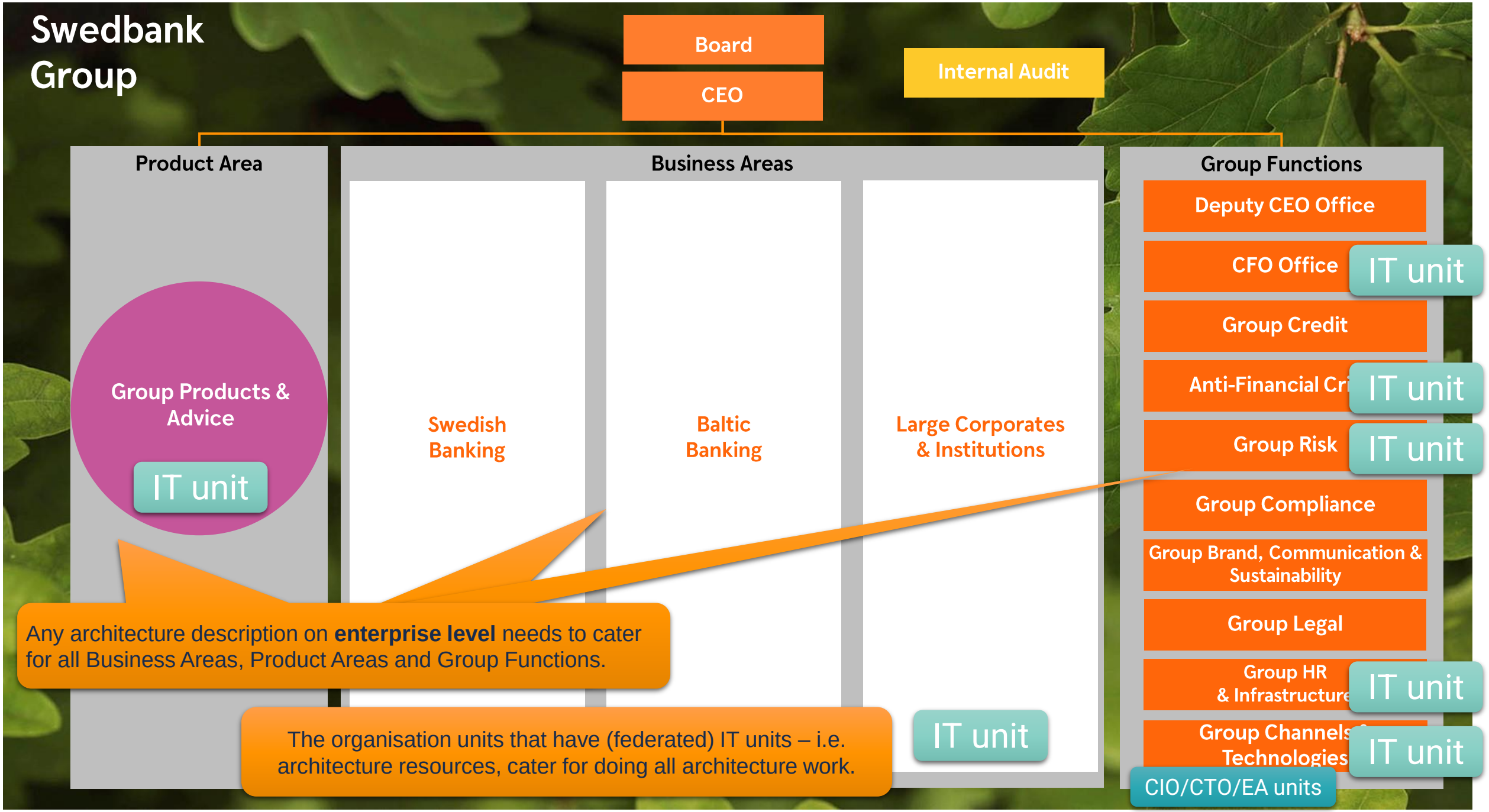
Our “Architecture Universe”

We do architecture with a purpose and a context to support development of Swedbank in short and long term.

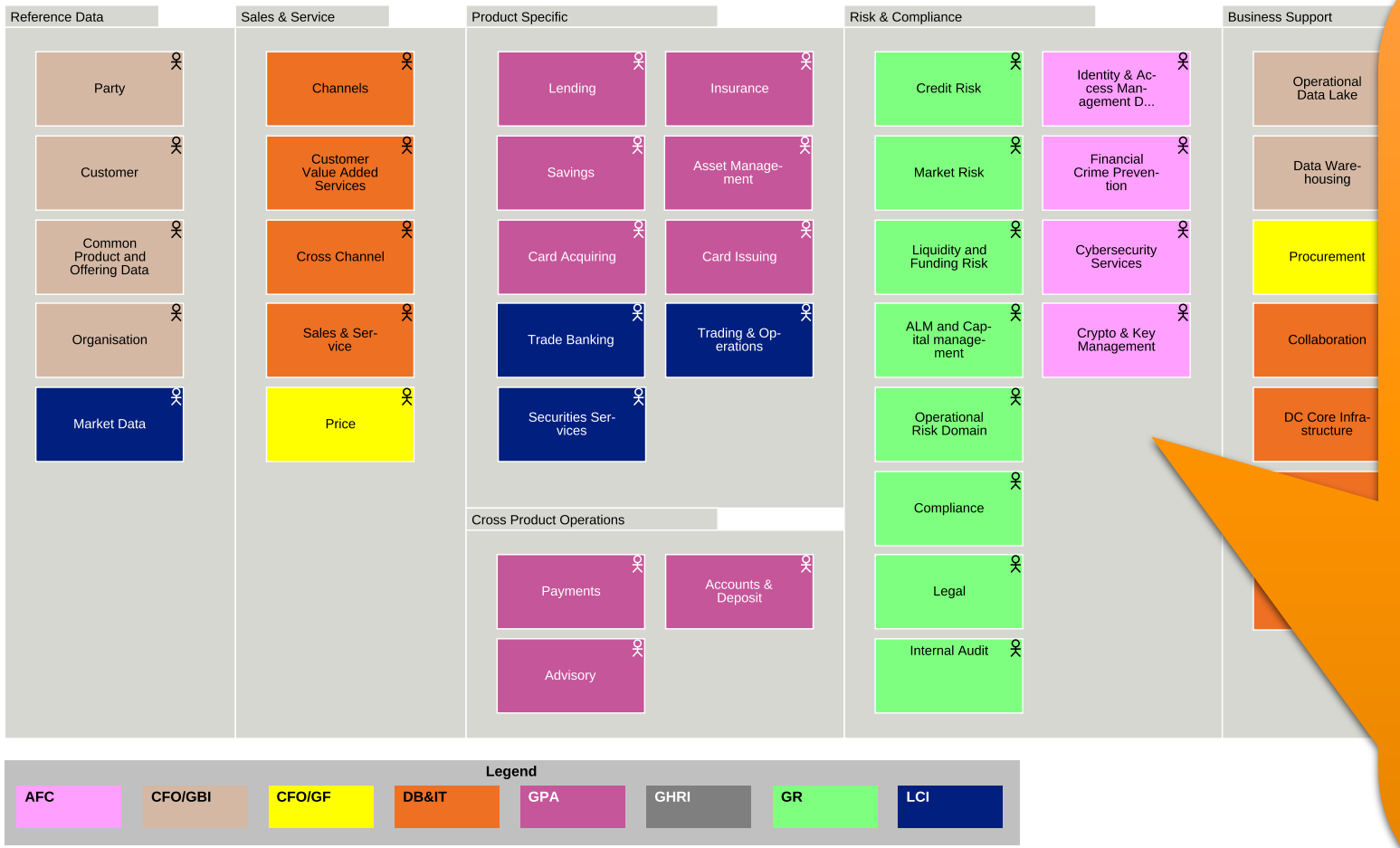

Better by Design

The Architecture Universe




Swedbank Group
Board
CEO
Internal Audit
Product Area
Business Areas
Group Functions
Group Products & Advice
IT unit
Swedish Banking
Baltic Banking
Large Corporates & Institutions
IT unit
Deputy CEO Office
CFO Office
IT unit
Group Credit
Anti-Financial Cri
IT unit
Group Risk
IT unit
Group Compliance
Group Brand, Communication & Sustainability
Group Legal
Group HR & Infrastructure
IT unit
Group Channels & Technologies
IT unit
CIO/CTO/EA units
Any architecture description on enterprise level needs to cater for all Business Areas, Product Areas and Group Functions.
The organisation units that have (federated) IT units – i.e. architecture resources, cater for doing all architecture work.

Architecture Domains



Every **capability** needed by the bank should be a possible starting point to do architecture work.

Capabilities and can represent any banking business, supporting functions or purely technical functions.

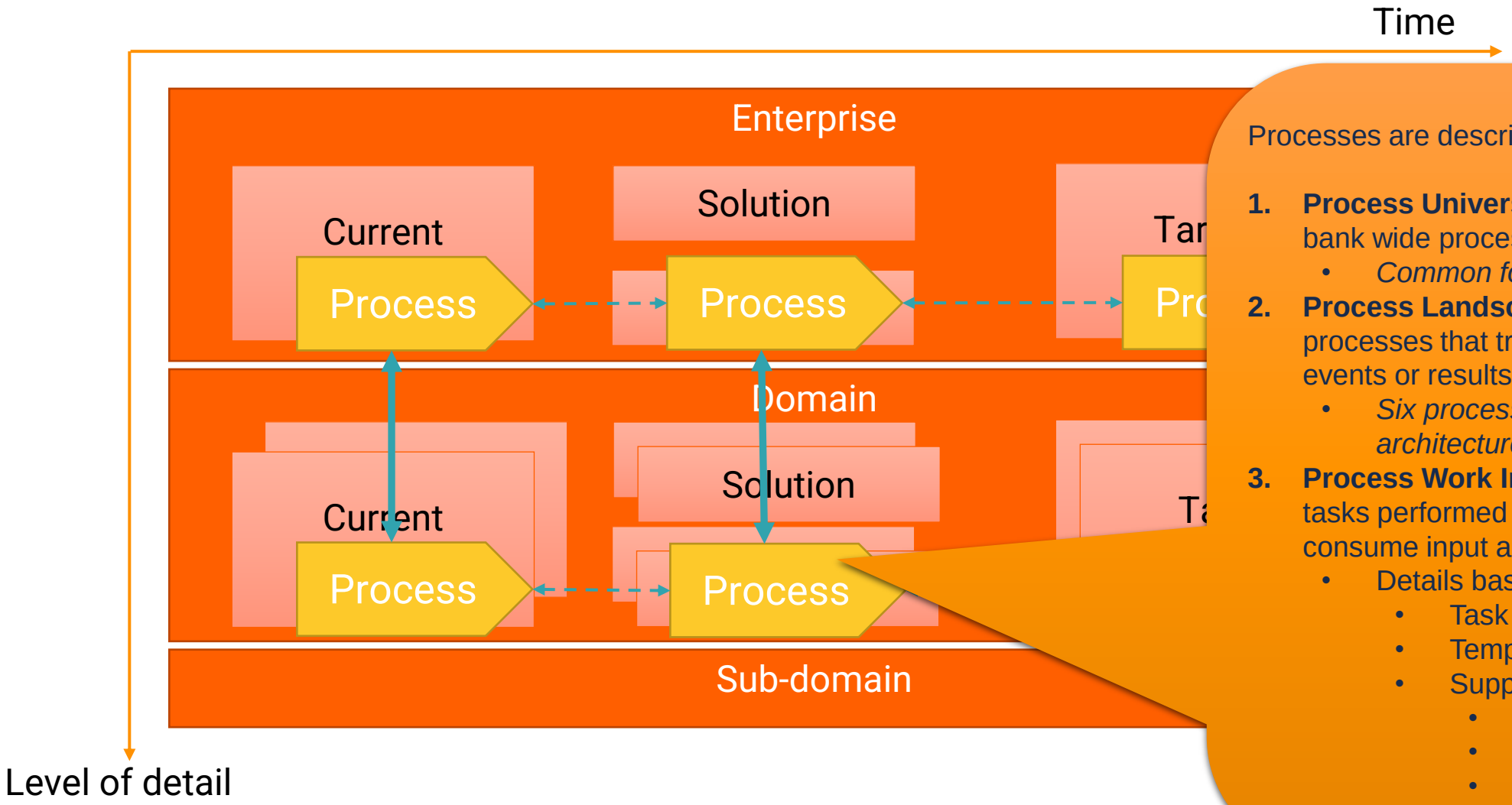
To manage the total scope of architecture we divide responsibility by **architecture domains** so that:

- each capability is catered for by one and only one architecture domain
- the architecture domain is responsible for creating and maintaining the domain architecture content as the set of objects and models needed to describe the capabilities catered for by the domain by:
    - Where we are (Current Architecture),
    - What the future should look like (Target Architecture)
    - How we get there (Solution Architecture)

Architecture ways of working

Architecture is about collaboration and sharing of information.
Common ways of working is our starting point.

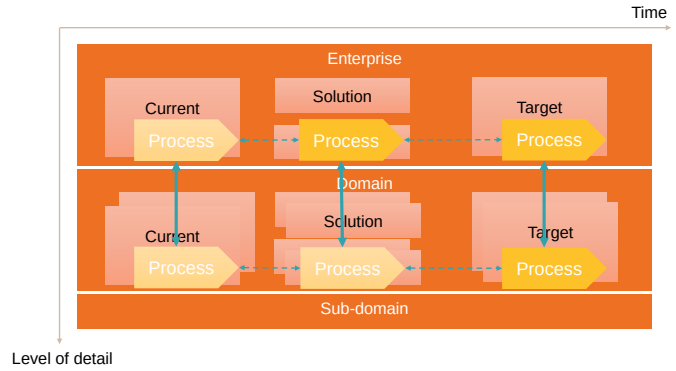
The Architecture Universe – Processes

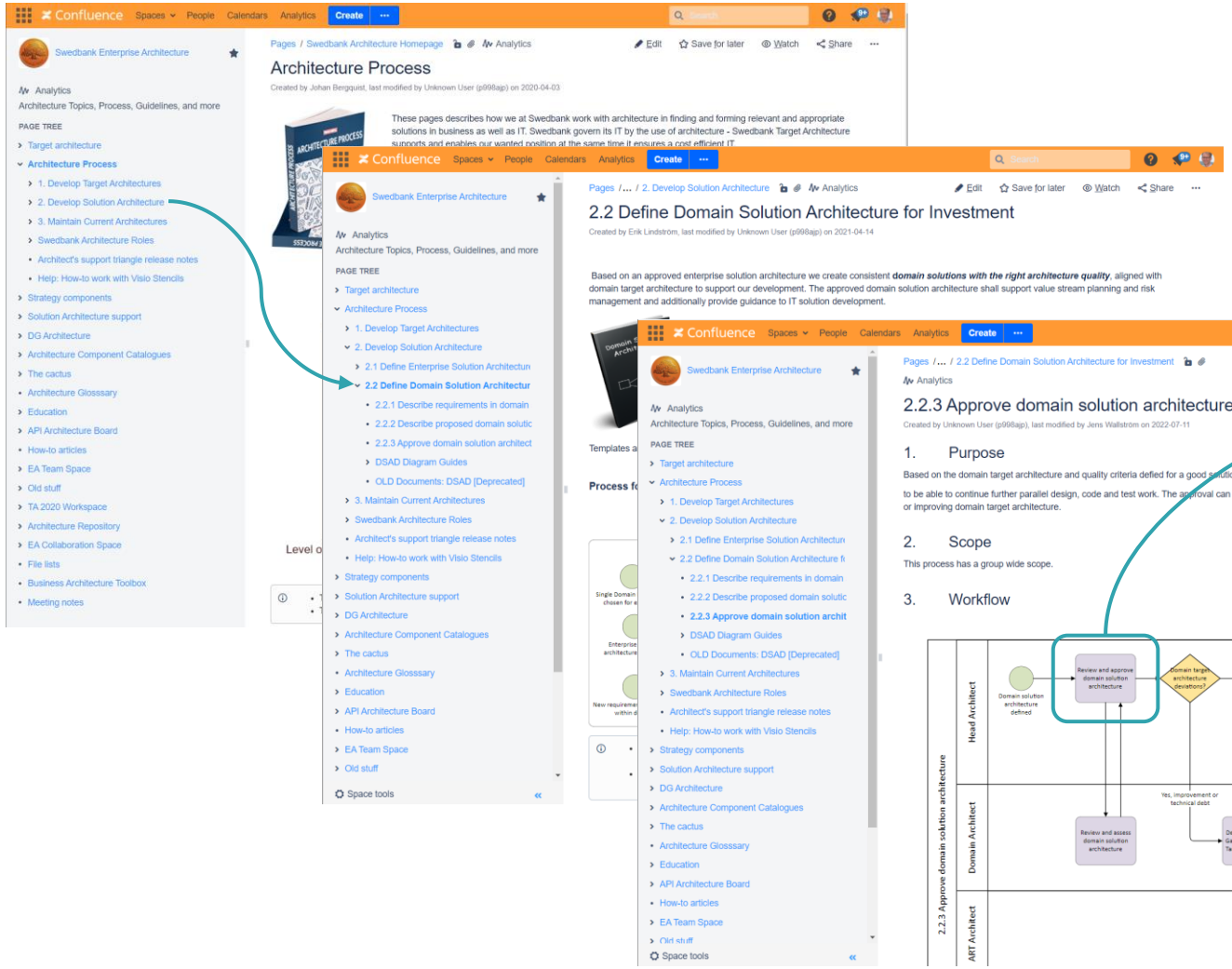


Processes are described at three levels of detail:

1. **Process Universe** – Where it fits in into the bank wide process map.
   - *Common for Swedbank.*
2. **Process Landscape** – Interconnected processes that triggers each other based on events or results.
   - *Six processes shown left for architecture*
3. **Process Work Instructions** – Sequence of tasks performed by responsible roles to consume input and process output.
   - Details based on Confluence Wiki with
     - Task descriptions
     - Templates to use
     - Supporting material like:
       - Modelling descriptions
       - How-to guides
       - Check lists

Architecture Processes – Examples





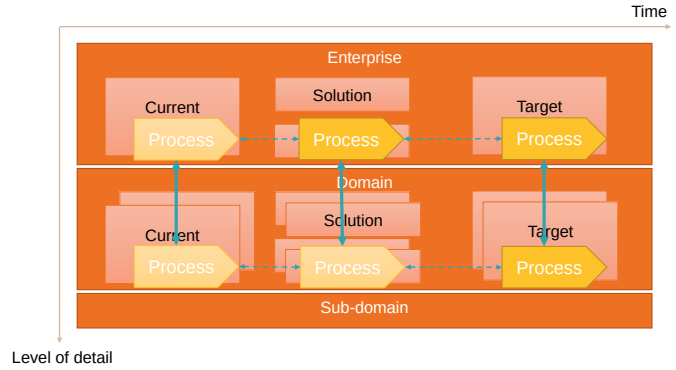
3.1 Task: Review and approve Domain Solution Architecture

Purpose	The purpose of this task is to perform a review of a proposed Domain Solution Architecture securing its alignment to Domain Target Architecture together with its quality for efficient agile development.

Description	• Perform a review together with relevant architects. The review should secure:
	  ◦ Sufficient quality of the description according to required modeling and description templates
	  ◦ Alignment to Domain specific and general Architecture Guidance (Principles, Positionings, Blueprints) and Domain Targets
	• Collect review comments and if needed guide the initiative to adjust the proposed solution
	• Identify and act on deviations from Domain Target Architecture
	• Identify and act on eventual inter domain impacts (should initiate an update of Enterprise Solution Architecture)
	• Approve the proposed solution and document the decision according to Jira initiative follow-up project.

Role	Head Architect
Input	1. Domain Solution Architecture Description
Output	1. Approved Domain Solution Architecture description 2. Identified deviation from Domain Target Architecture, if any 3. DSAD ADS issue updated with Link/ attachment of Local DG Arch decision 4. DSAD ADS issue workflow status updated to either: 'Approved', 'Approved with Possible Extension', or 'Approved with Technical Debt' 5. Technical Debt description, if any
Support	1. Domain Target Architecture description 2. Supporting system for managing and documenting domain architecture review and approvals/Wiki 3. ADS project in Jira

Architecture Universe – Neighbours



Strategy Development

Investment Planning

Business & Activity Planning

Process and Product Approval

Develop Target Architecture

Develop Solution Architecture

Maintain Current Architecture

Agile Software Development

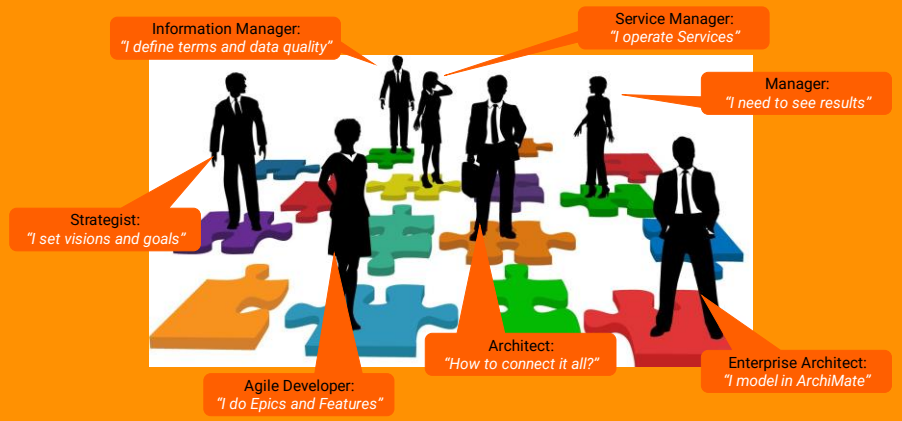
Procurement

Service Portfolio Management

Service Asset & Configuration Management

Information Management

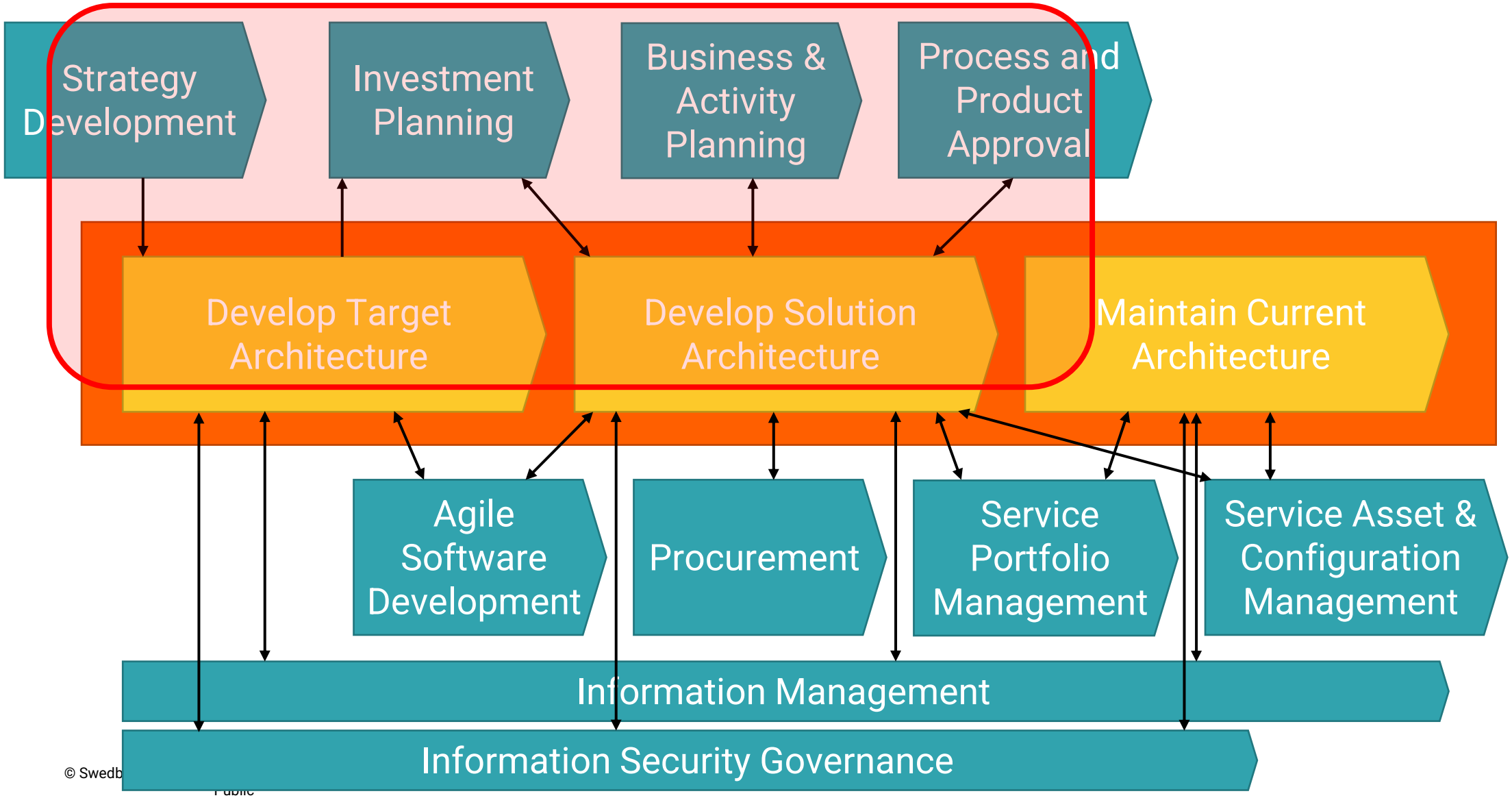
Information Security Governance



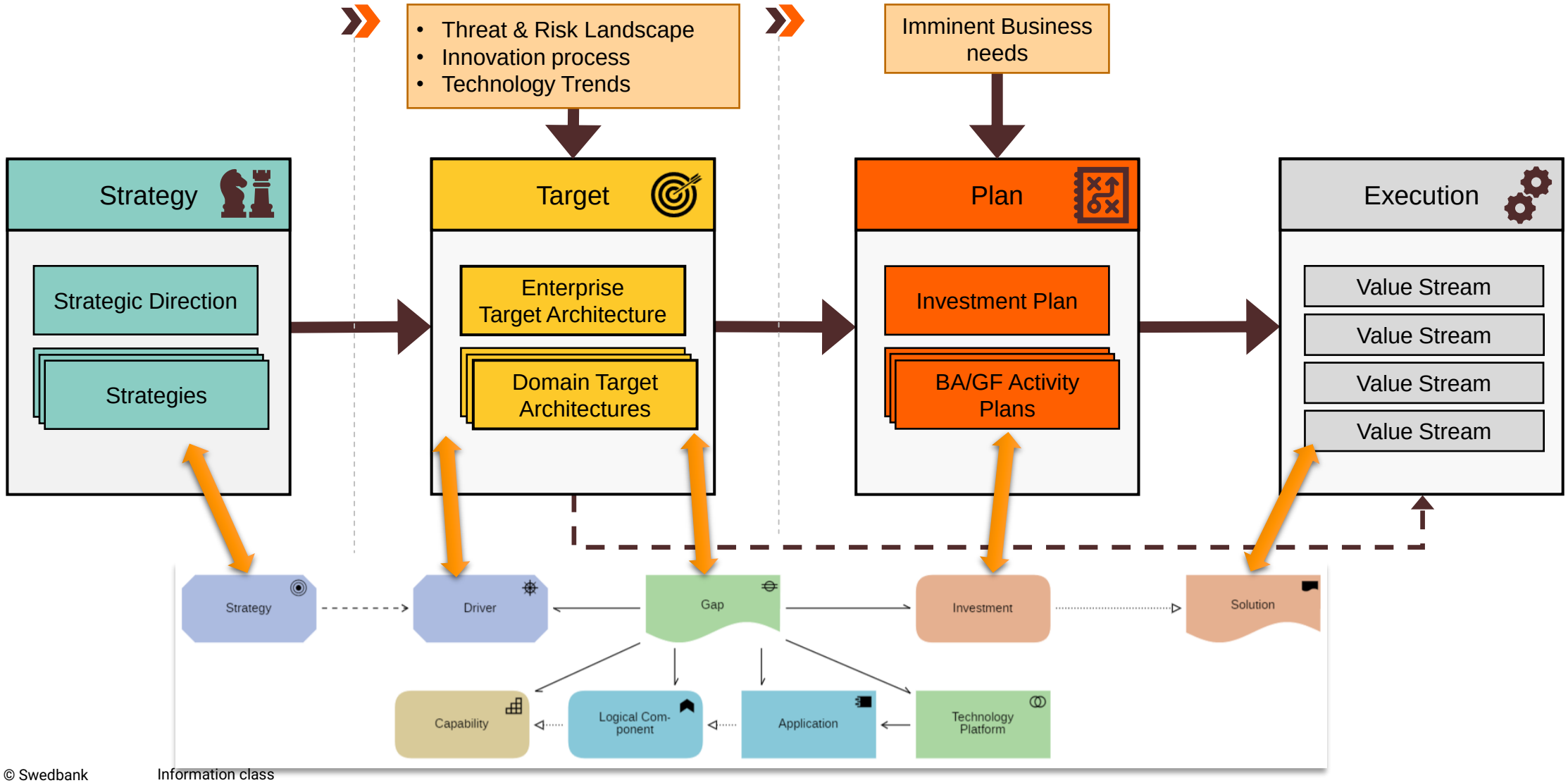
Perspectives to integrate

Many different perspectives and disciplines meet with architecture. Value comes from integrating this perspectives into architecture work.

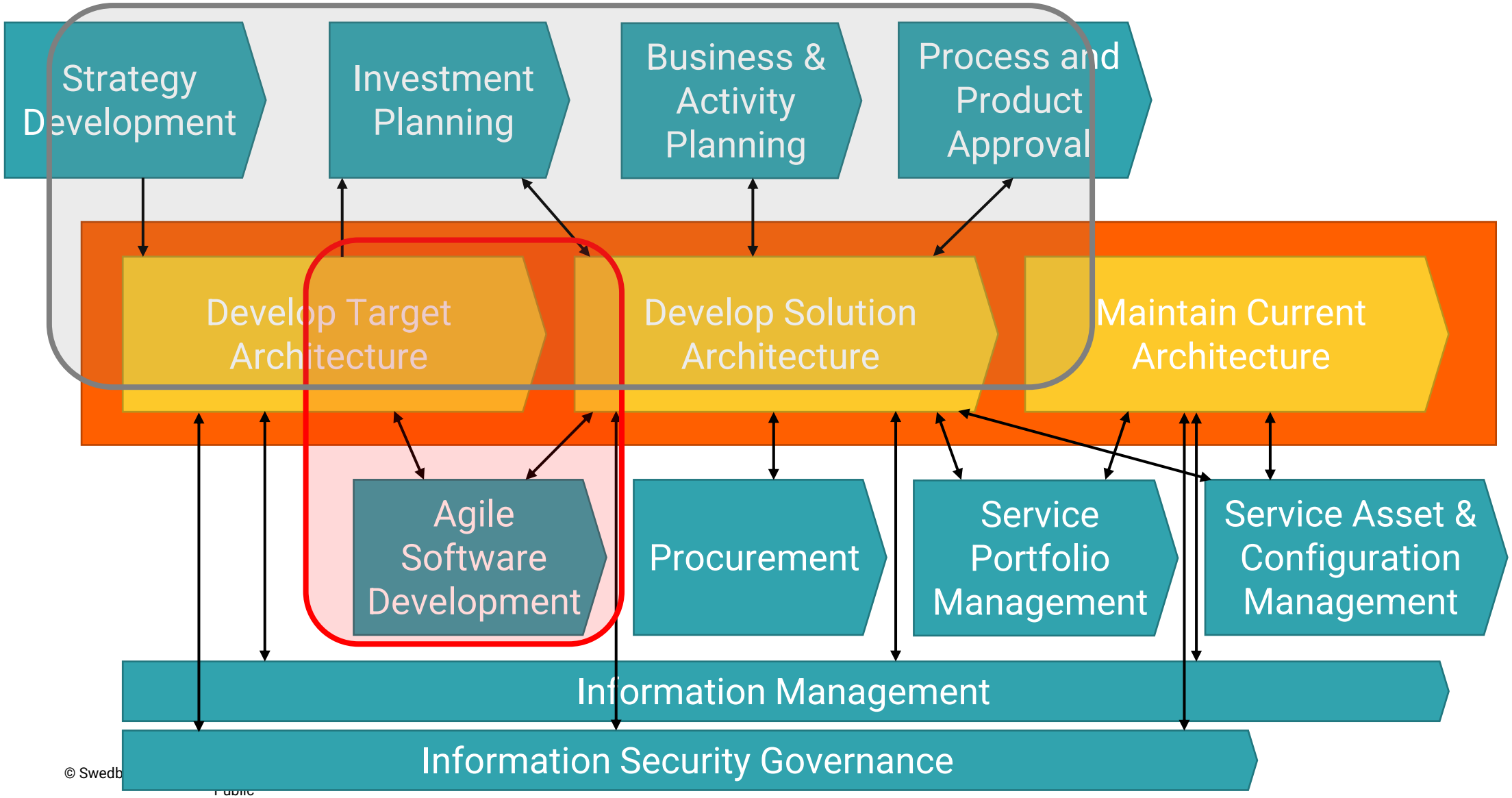
Architecture Universe – Integration aspects



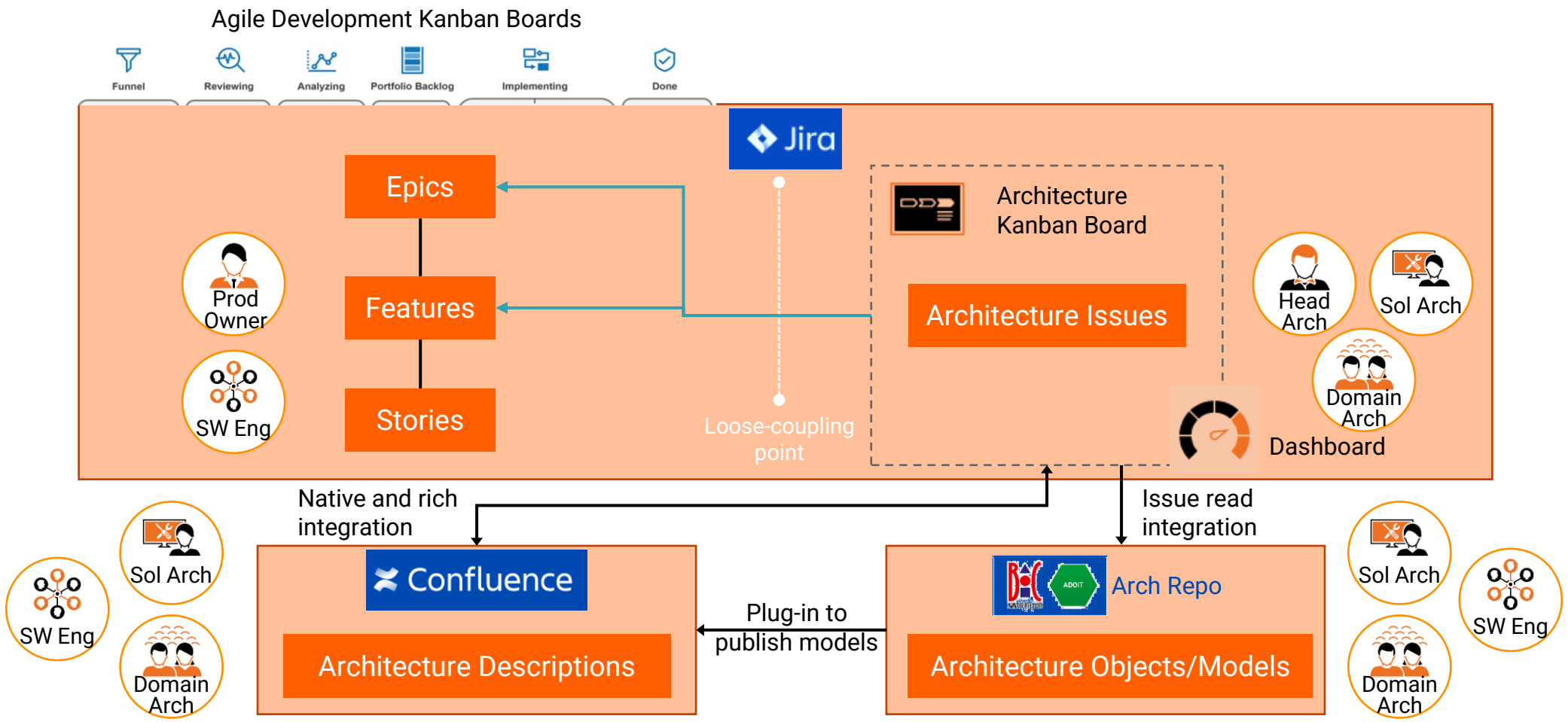
Architecture – Strategy to Execution



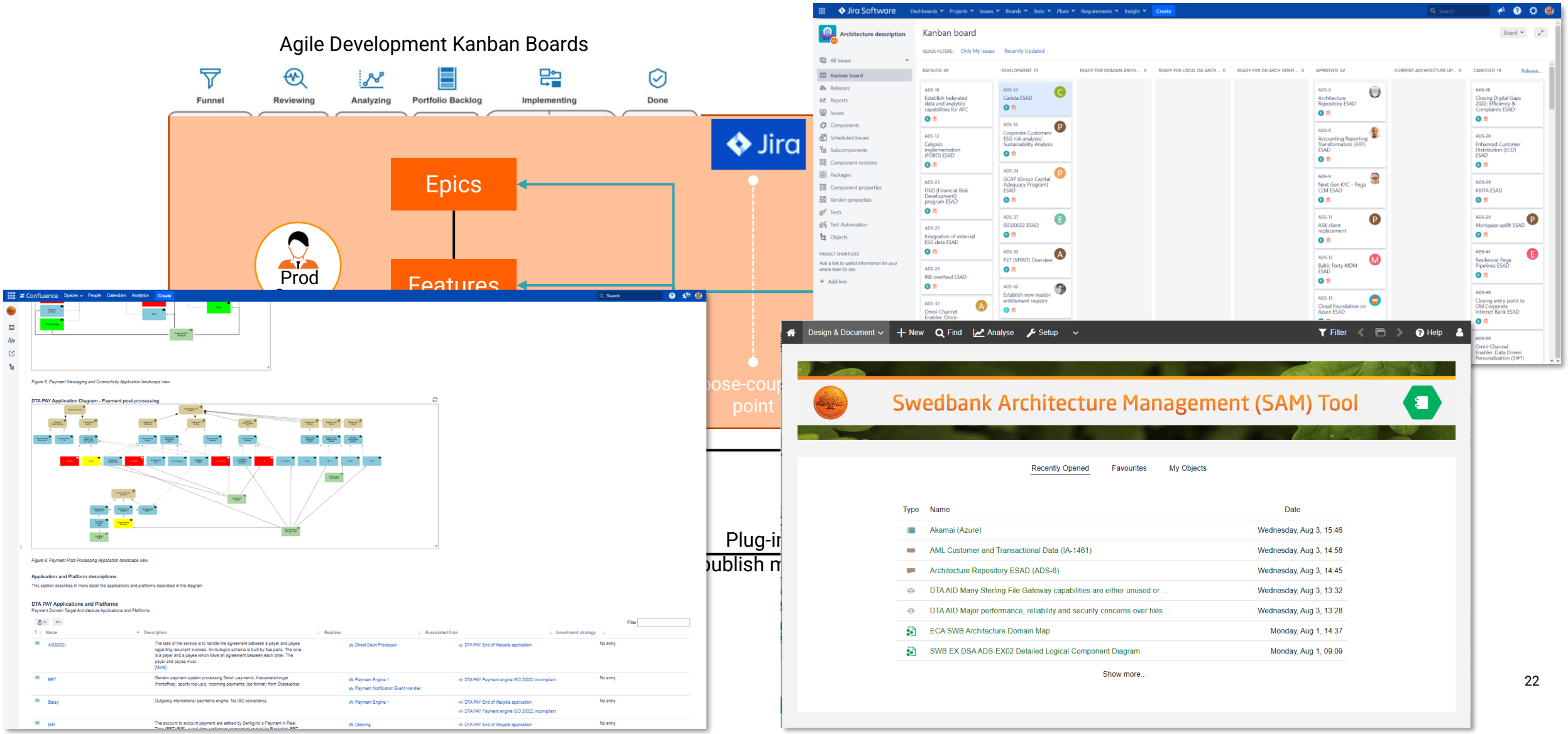
Architecture Universe – Integration aspects



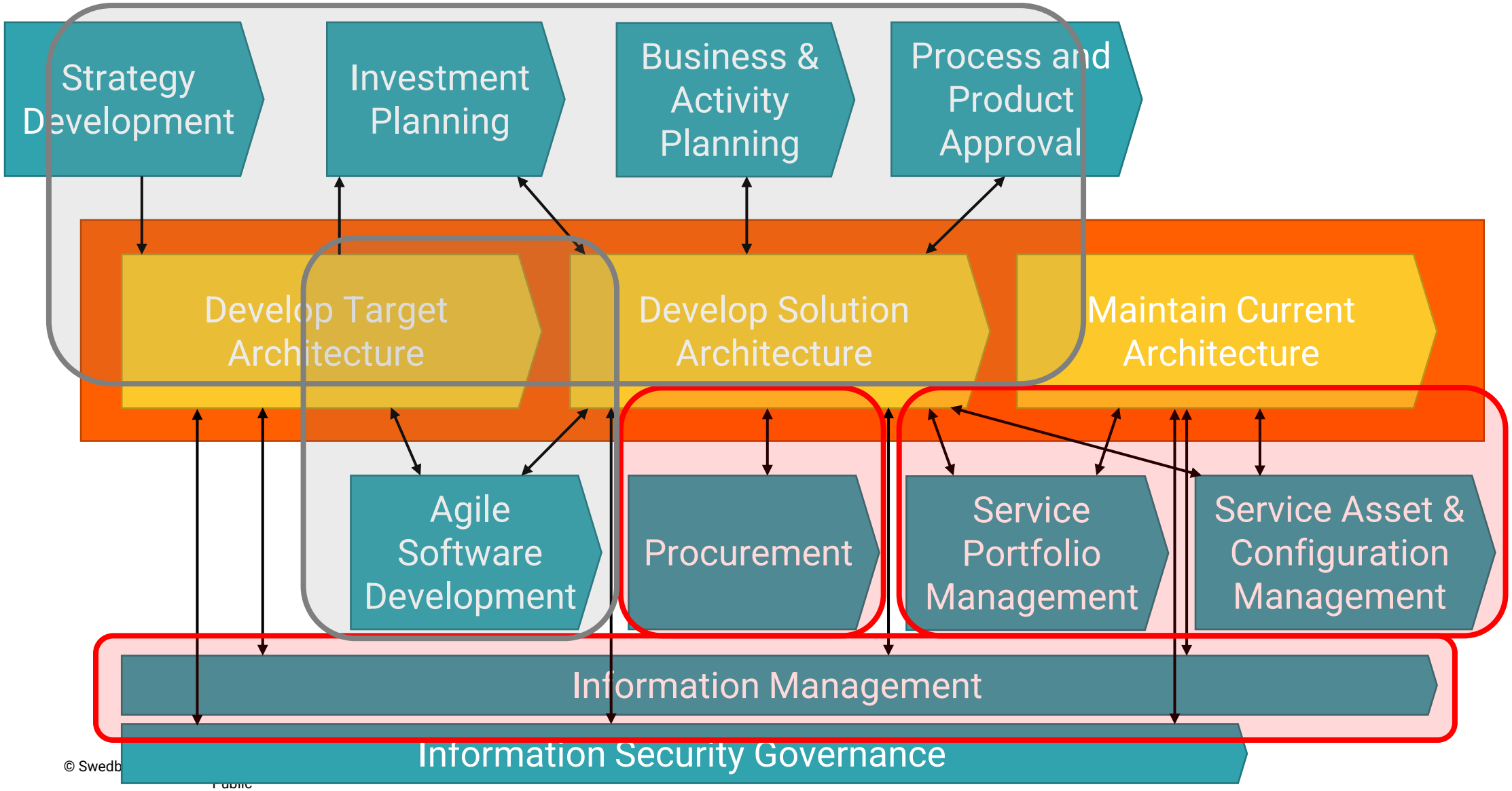
Architecture – Solution Architecture Governance



Architecture – Solution Architecture Governance

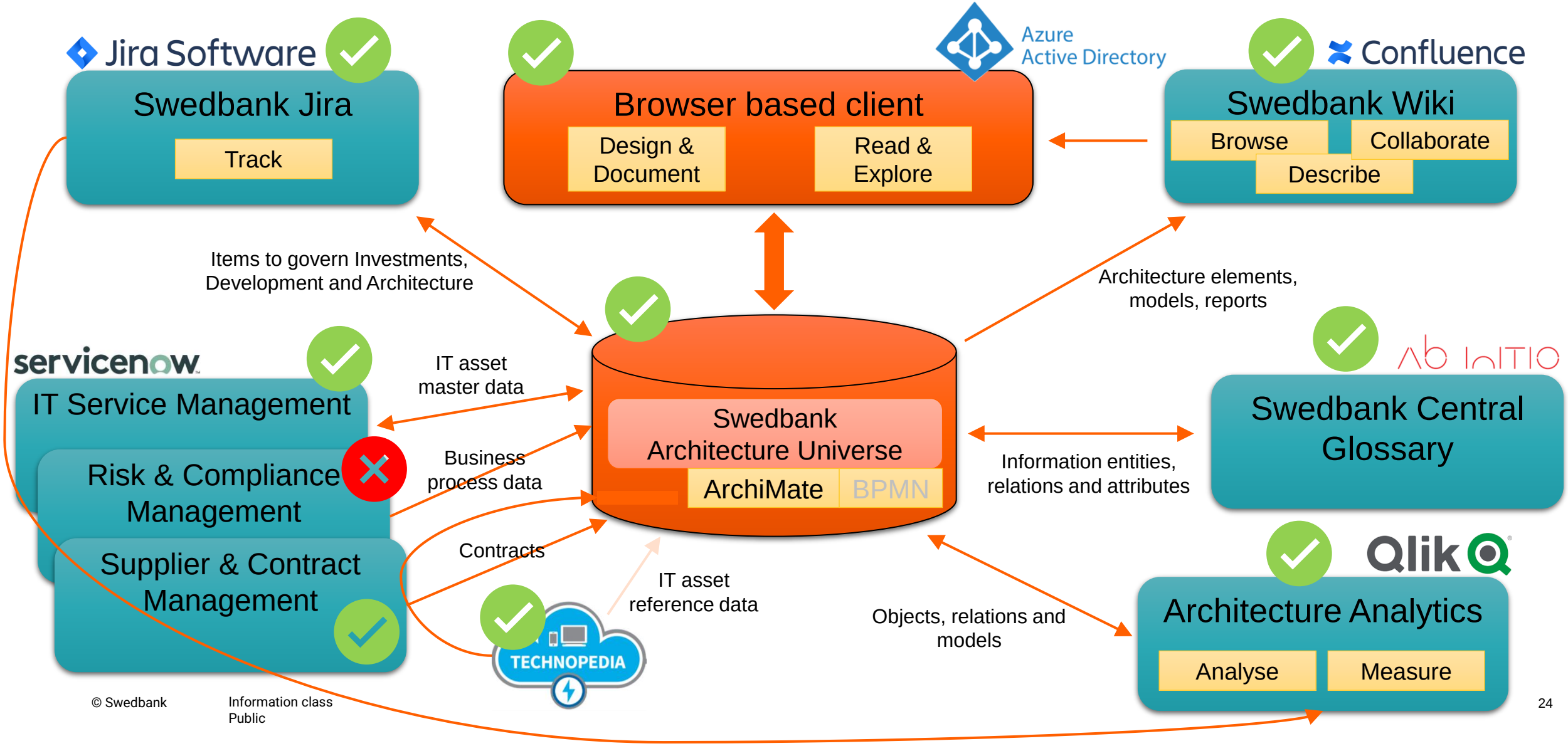


Architecture Universe – Integration aspects



Architecture Repository – Integration Scope

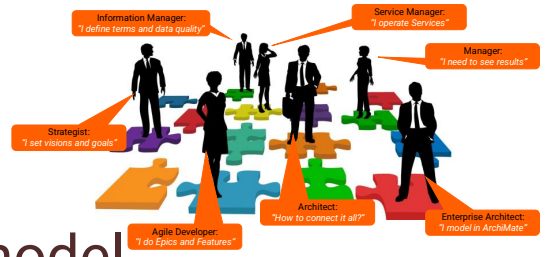
August 2022



Conclusions and next steps

We will never be done – neither with Swedbank nor architecture.

Conclusions – Implementation



- Implementation project started February 2021 using SaaS delivery model
- Launch for pilot users June 2021 (R1), broad user launch September 2021 (R2)
- Incremental releases (R3-R6) until August 2022 – adding integrations and tuning configurations

*A practical proof of integration is the cross references between **created** objects and **imported** objects in Architecture Repository*

Created:

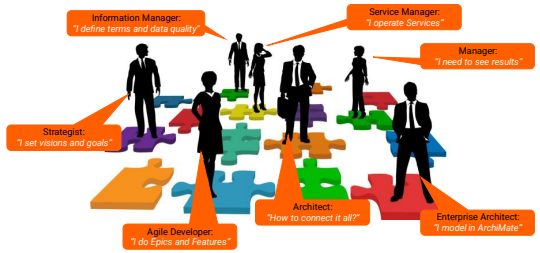
- Goals 100
- Driver 400
- Gap 1000
- Capabilities 1300
- Logical Components 1100
- Application Components 1300
- Interfaces 100
- Technology Platforms 100
- System Software 100
- Nodes 25

Imported:

- IT Services 1200
- Information Entities 1600
- Investment Areas 1100
- Solutions (initiatives) 100
- Procurement Contracts 600

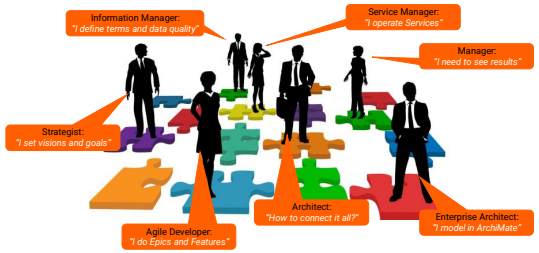
August 2022

Conclusions – Outcome so far



- What worked well (with ADOIT and BOC Group)
  - **Centralized architecture repository** with interconnected reusable assets
  - Great **web-based multi-user environment** for exploration and design – low need for tool training
  - **Wiki based architecture descriptions** for readability and "storytelling" – not just for architects
  - **Configurable meta model** (based on ArchiMate)
  - **Solid professional services** from BOC Group for configuration and technical integrations
- Wishes and issues
  - Modelling of alternatives or sketching on ideas in relation to production data (i.e. "sandboxing") is difficult to manage
  - Data collection/maintenance by data owners that are not users is missing (i.e. involving non-architects)
  - Interactive performance using ADOIT Atlassian Confluence plug-in is still slow
  - Bulk export of data for analytical purposes is cumbersome regarding relationship data
  - Too rigid approach to the model validations, that requires custom coding of ADOIT

Next steps



- Further implementation of **common architecture ways of working**
  - Even with the best of tools and supporting material, it is people that makes it happen!
  - Implementation by education, guidance and practical work is needed
  - Also involvement across disciplines to the non-architect community is needed for value realisation
- More (as-is) **technical architecture**
  - So far most focus on business architecture and logical application architecture
    - E.g. objects and models involving Application Interfaces, System Software and Nodes is needed to increase value
  - However, we have a clear ambition to only extend to the border where architecture stops
    - I.e. keeping architecture descriptions technology neutral, and leaving detailed design to the separate technology dependent disciplines (e.g. Data Warehouse, Distributed software, Mainframe, AI etc.)
- Data driven **architecture analytics**
  - Value of architecture is not just documentation, but also metrics and analysis like performance, quality and impact etc.
- Integrate architecture with **Process Management**
  - This is a “missing piece” at Swedbank due to historical reasons – (re)establishment is key for integrating different disciplines with architecture, like strategy and information management

Thank you for listening

Swedbank

Questions?