



PUBLIC

Case Study

SAP Data and Analytics Advisory Methodology

Based on the learning journey “Becoming an SAP Solution Architect” on www.learning.sap.com

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1. Commercial Bank (CB)

CB is a diversified, innovative financial service provider based in Switzerland. It focuses on the following independent business areas:

- Payment solutions
- Retail banking
- Digital First Banking
- Platform businesses



Their customer base consists of private customers and companies in Switzerland.

CB is a public limited company under private law company limited by shares, a wholly owned subsidiary of CB Group Ltd, a company managed and existing under Swiss law.

We are subject to the Swiss Financial Market Supervisory Authority (FINMA) and are licensed under the Banking Act. The Board of Directors is the supreme body. Operational management is the responsibility of the Executive Board.

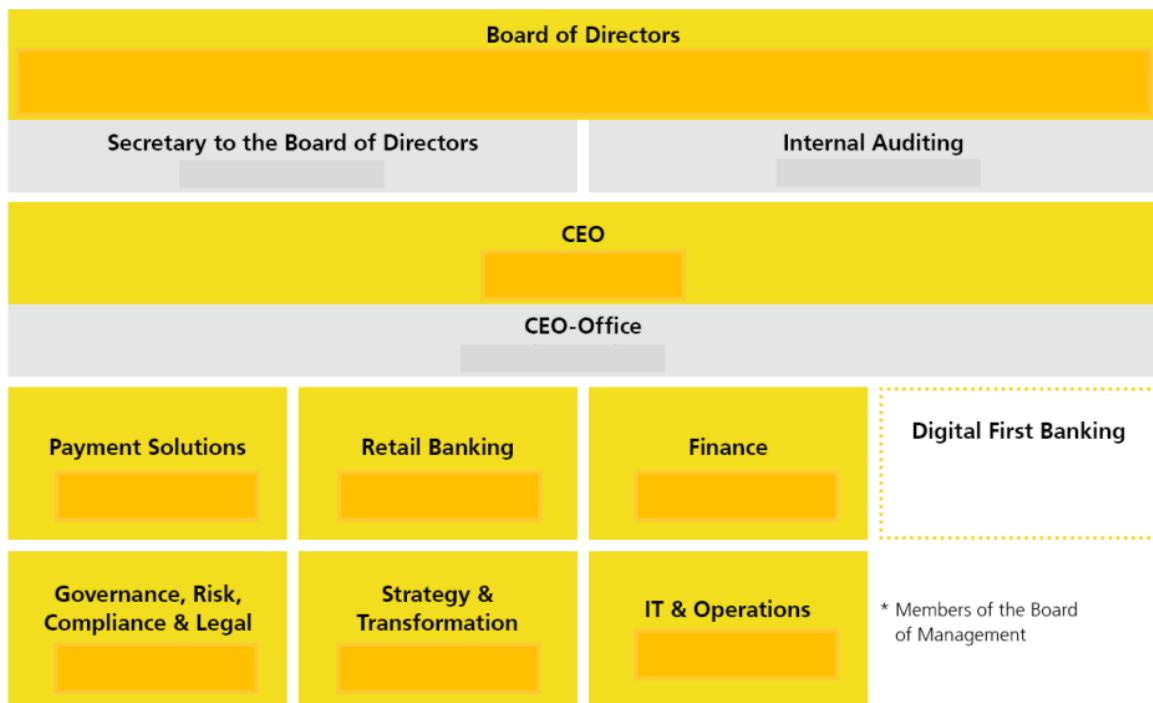


Figure 1 – Organisation of the Commercial Bank

CB has initiated the “Open Hub Study” to define the future Data and Analytics architecture and roadmap for the LoB Finance line of business (Lob). The BI-FIN IT Team asked you to support this initiative by applying the “Data and Analytics Advisory Methodology”.

2. Phase 1: Scoping and Baseline Analysis

a: Statement of work

The following statement of work was agreed to define the scope of the engagement and the deliverables.

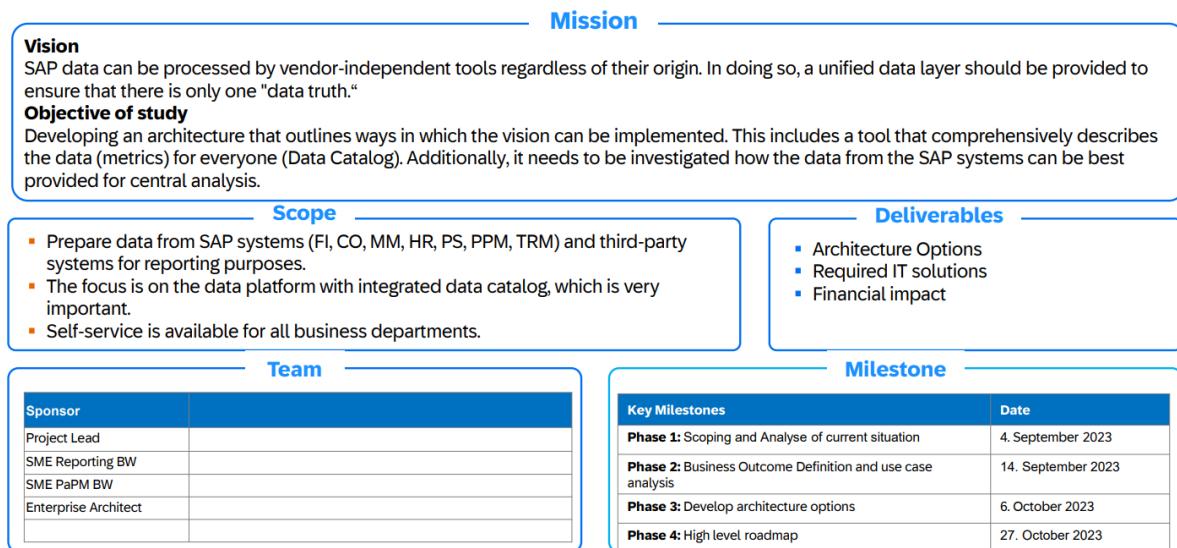


Figure 2 – Statement of work

b. Current Architecture

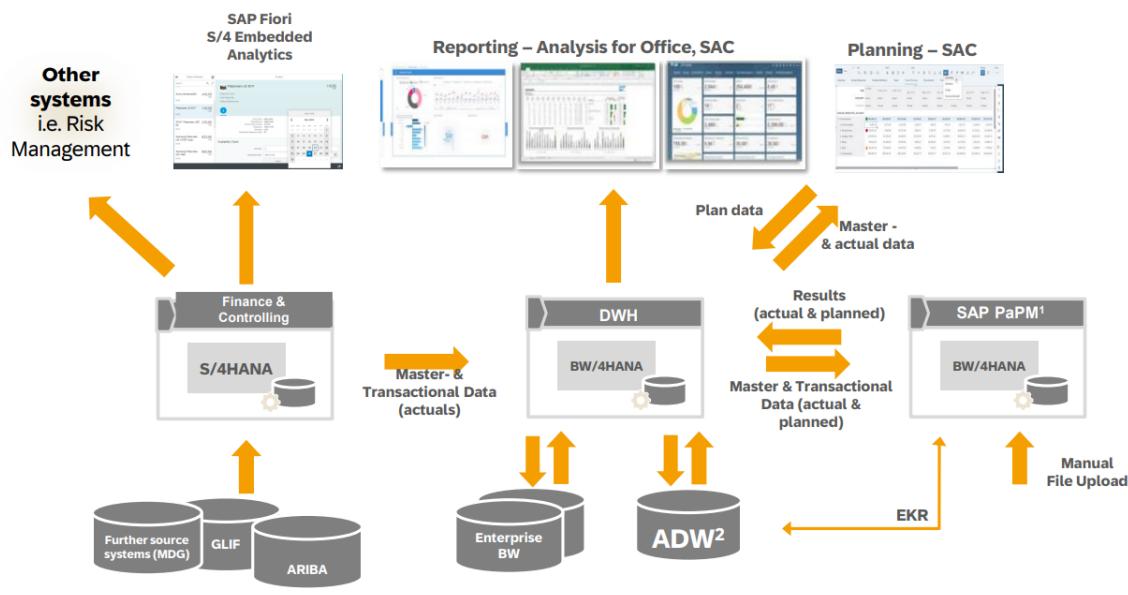


Figure 3 – Current Architecture of Commercial Bank

c. Pain Points and Opportunities

- We have a specific technique for practically every requirement to provide the data.

- Data ownership is not clearly defined.
- Reporting owner responsibilities are not clearly defined.
- Few IT resources with many roles / tasks: Business Analyst, Support, Operation, Development, Project involvement, Strategy
- Data is replicated often and kept redundant.
- There is no comprehensive overview of available reports with a link to the key figures in the queries.

Exercise

Discuss the current BI architecture of the LoB “Finance” and identify the pain points and / or opportunities. Afterwards, map the resulting aspects in the Business Priority Matrix:

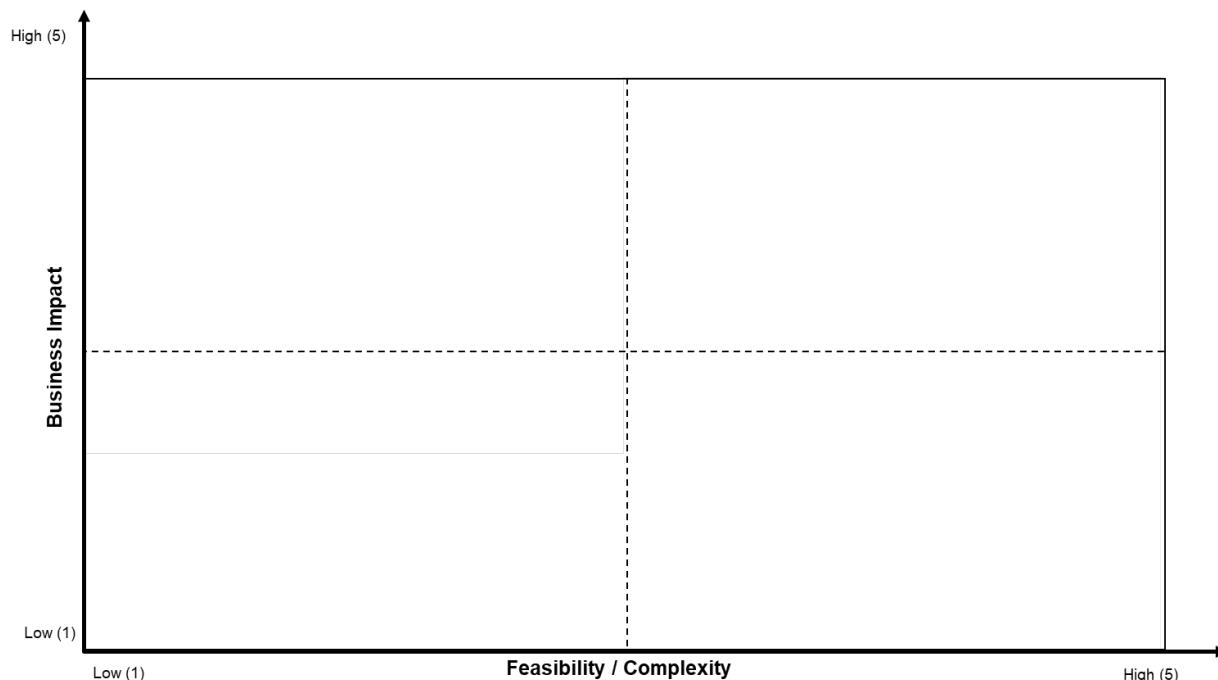


Figure 4 – Business Priority Matrix

Result:

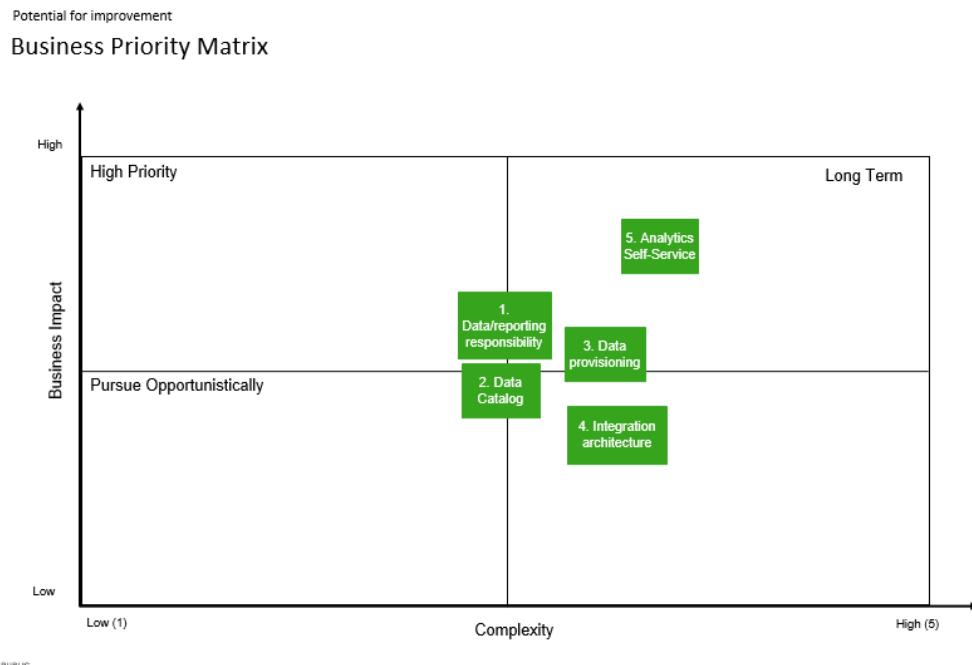
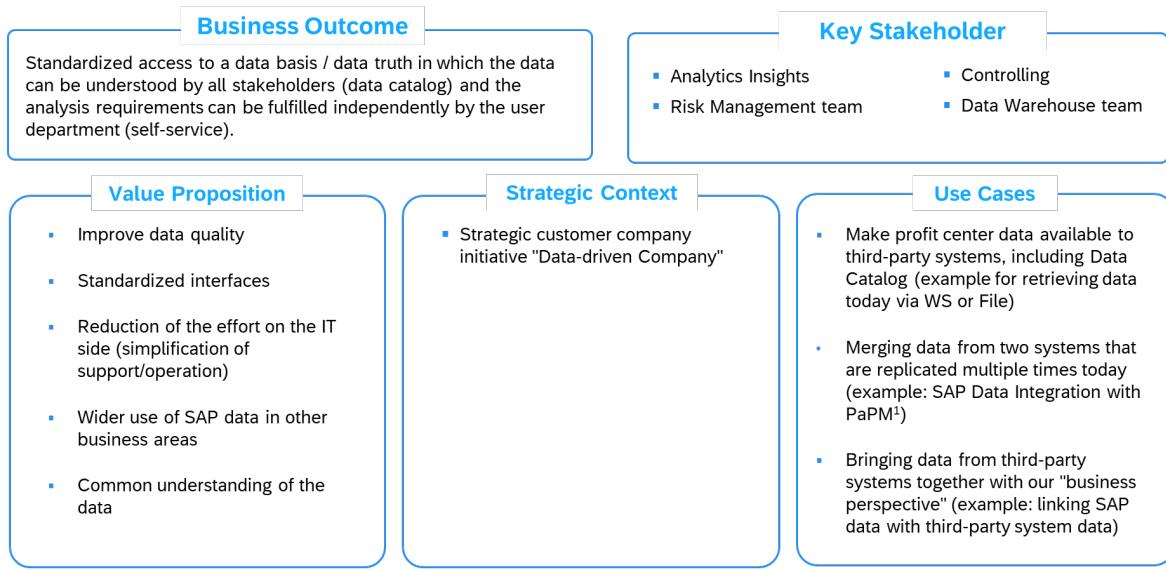


Figure 5 – Result of Business Priority Matrix

3. Phase 2: Business Outcomes and Solution Requirements

a. Business Outcome Definition

It was agreed to define one business outcome with three use cases.



1. SAP Profitability and Performance Management

Figure 6 – Business Outcome and Use Cases

b. Use Case Analysis

Exercise

Conduct a use case analysis by developing a data journey map for the following use case. The current solution in SAP BW/4HANA is shown on the right-hand side.

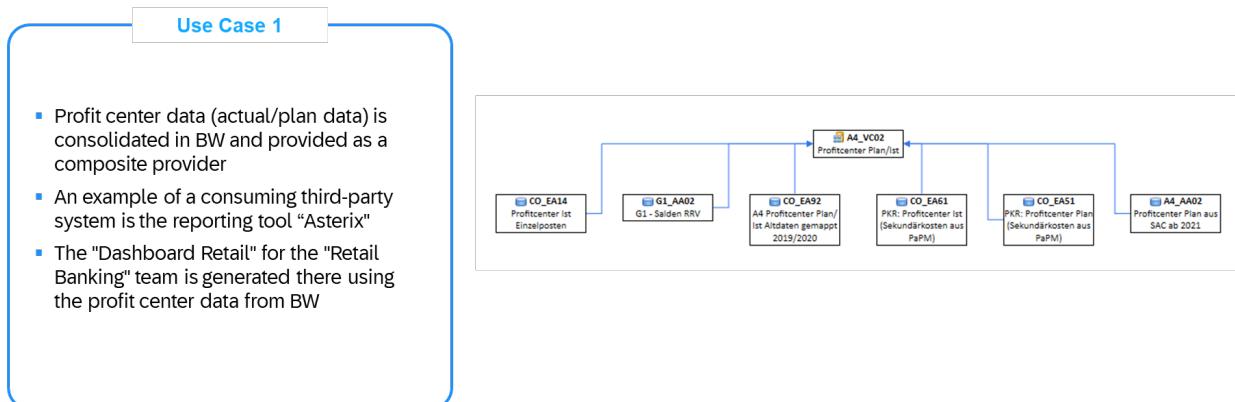


Figure 7 – Use Case Analysis

Result

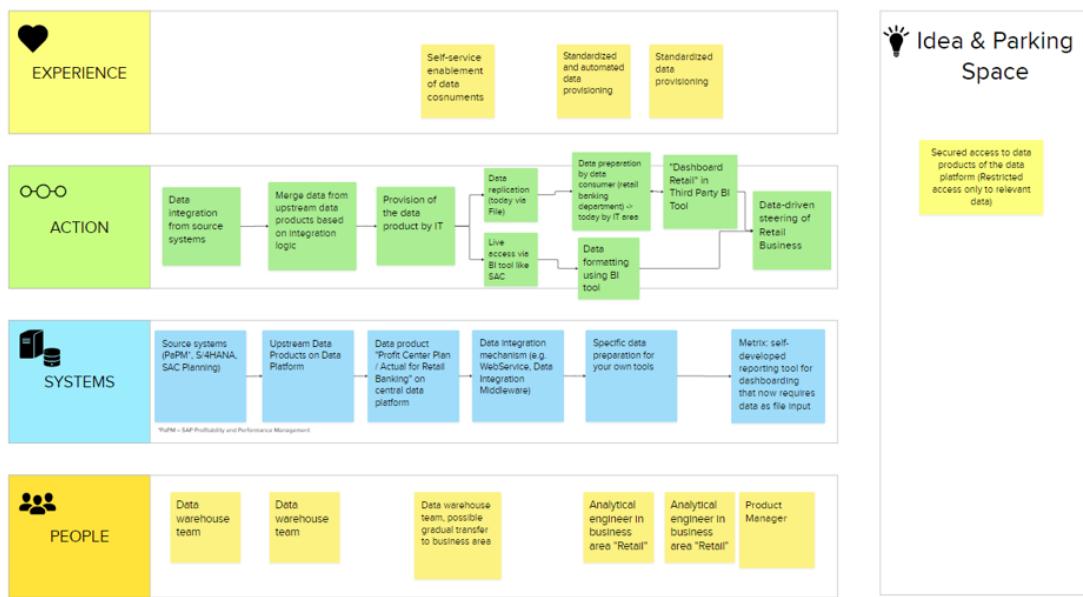


Figure 8 – Use Case Result

c. Solution Context

A Solution Concept Diagram shows the relationship between the proposed solution and the organizational units, business roles, and business functions within your enterprise. The purpose of the solution context is to help understand requirements in areas such as usability, security, and support, for example.

A Data and Analytics capability analysis was conducted with CB with the following results:

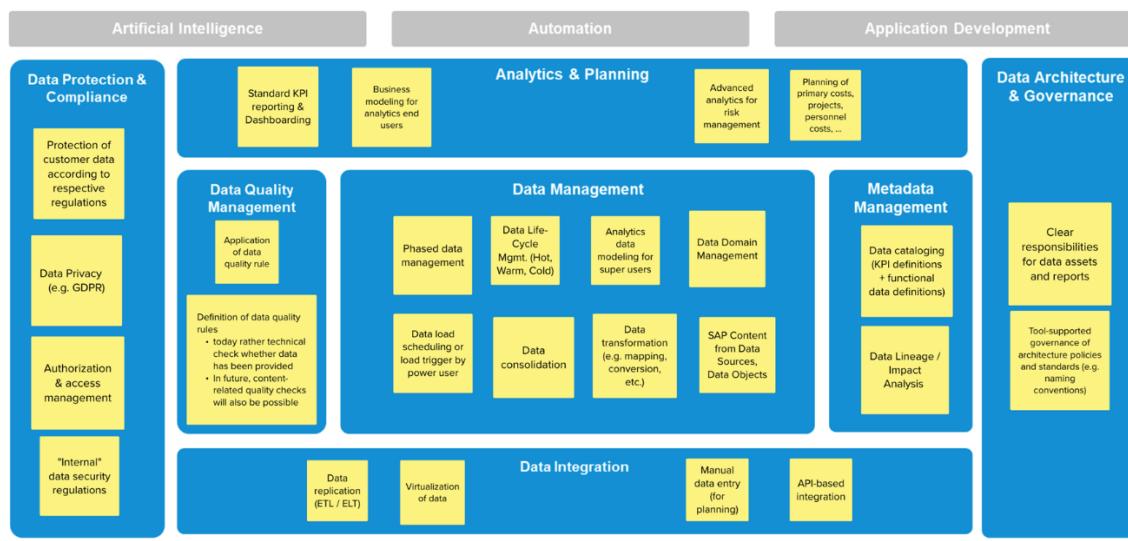


Figure 9 – Use Case 1 Solution Context

Exercise

Use the following solution context to discuss and document the key capabilities and requirements for the CB solution “Data Management Platform”.

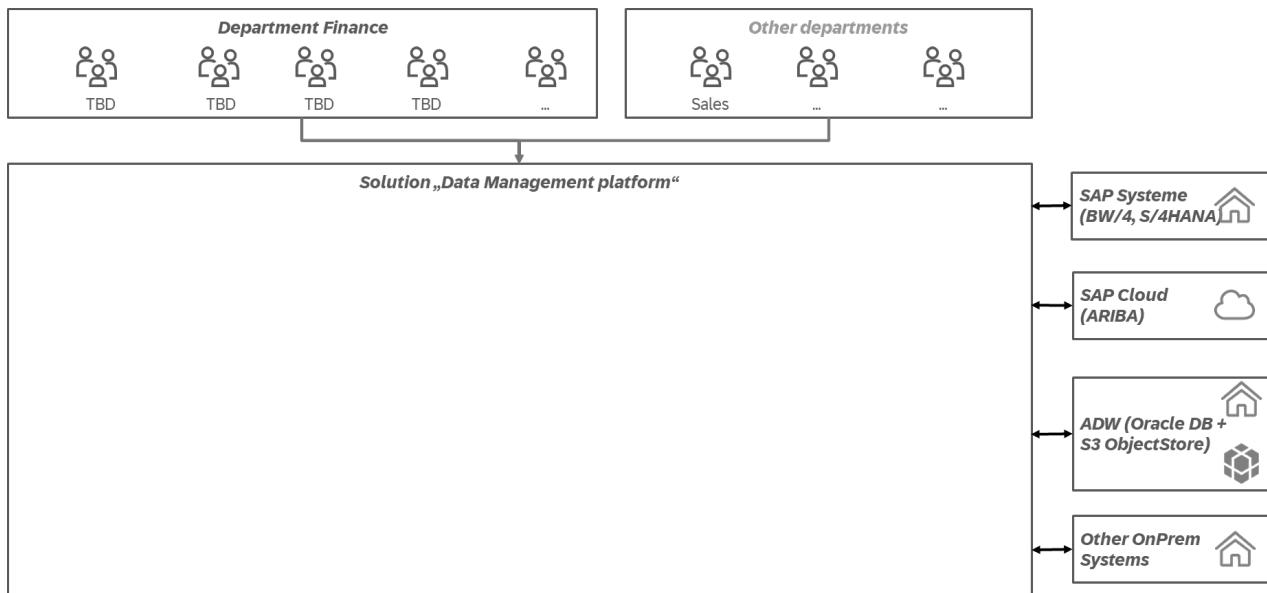
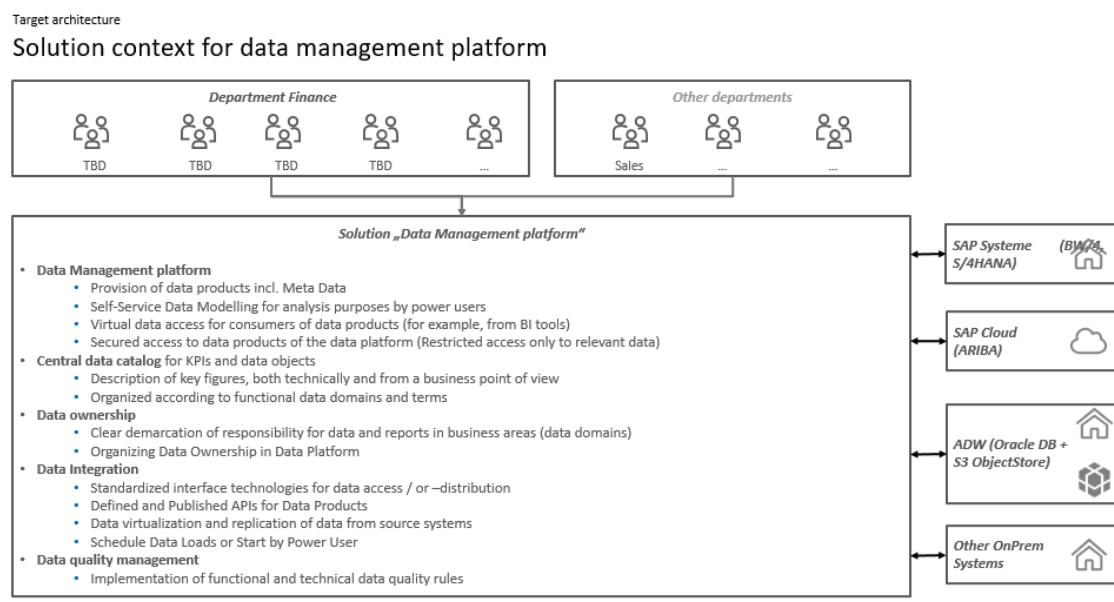


Figure 20 – Key Capabilities and Requirements Template

Result



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Figure 31 – Key Capabilities and Requirements Result

4. Phase 3: Capability Map and Solution Architecture

a. Capability Analysis and Solution Concept

A solution concept diagram provides a high-level representation of the solution that is envisioned to meet the requirements of the architecture engagement. It can be considered as a “pencil sketch” of the expected solution based on architecture building blocks (ABBs) and its interactions.

The following solution concept diagram was developed for CB.

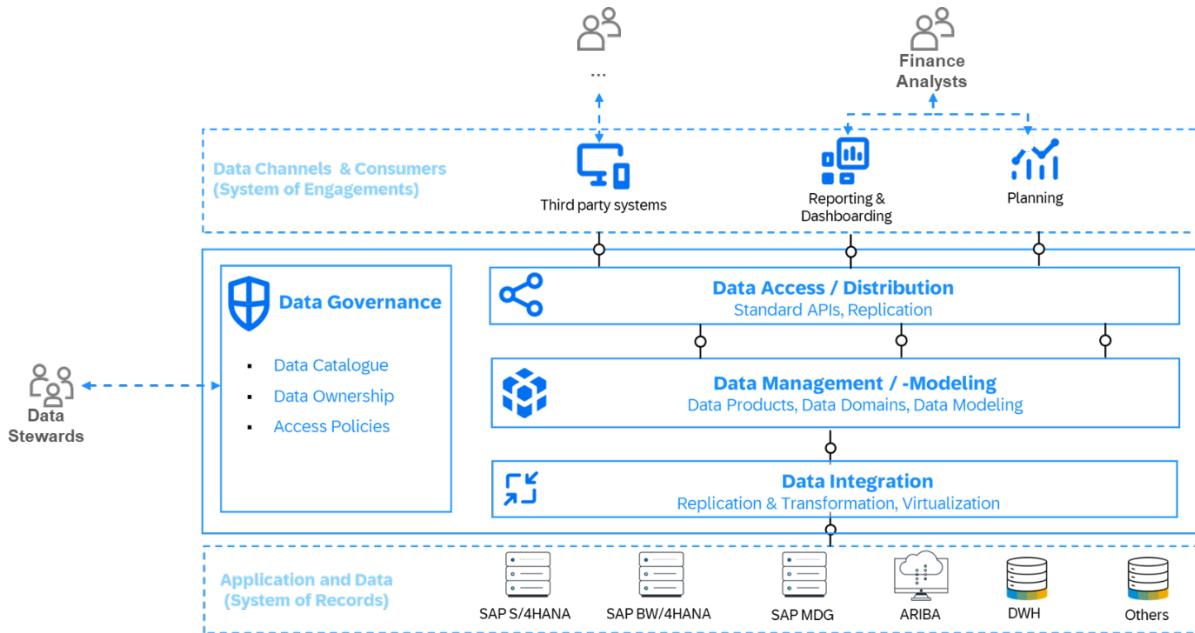


Figure 42 – Capability Analysis and Solution Concept

You analyzed the SAP BTP reference architectures for Data and Analytics and agreed with CB to use the “Business Data Fabric” reference architecture as a baseline to develop the architecture options.

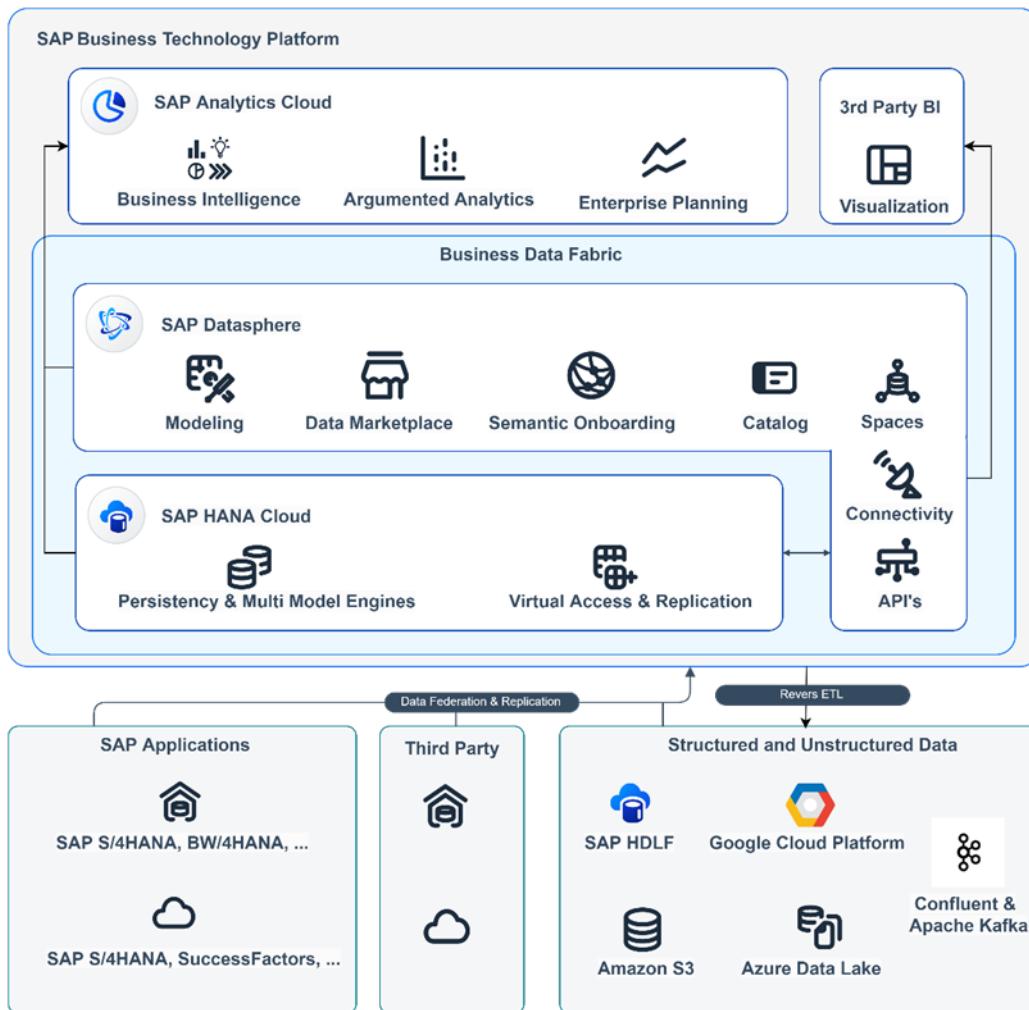


Figure 53 – Business Data Fabric Reference Architecture

Exercise

Based on the baseline landscape, develop solution architecture options for CB that cover all identified capabilities and requirements. You can start by mapping SAP solutions and related functionality of the “Business Data Fabric” Reference Architecture to the Architecture Building Blocks of the solution concept diagram. For the architecture options, consider the potential integration and transformation paths from SAP BW to Datasphere. For example, consider the SAP Datasphere, SAP BW bridge:

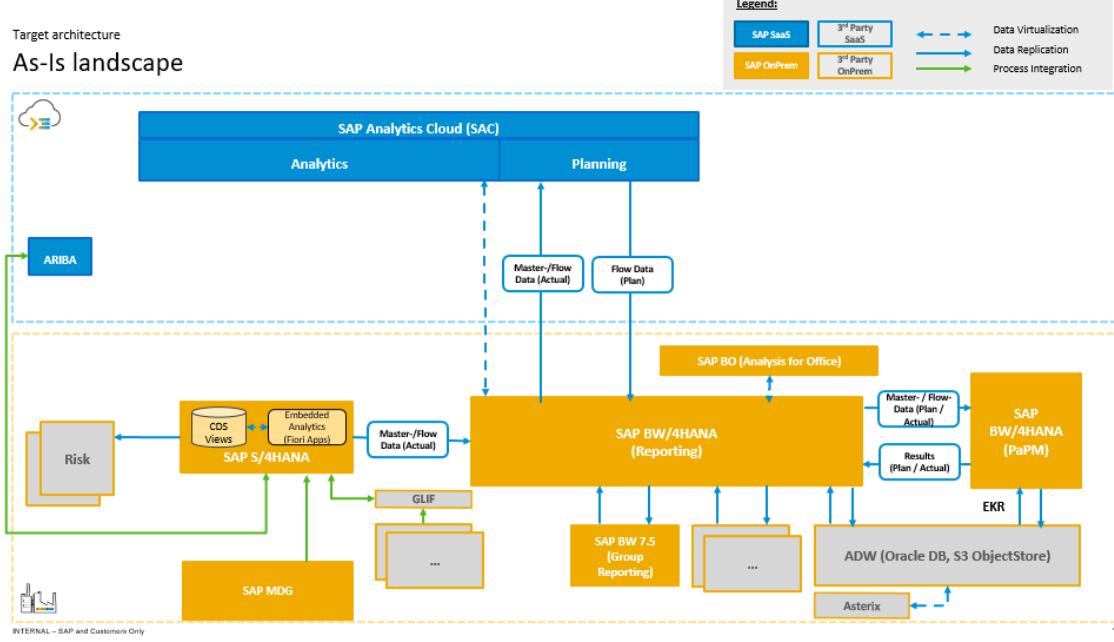


Figure 64 – As-Is Landscape

Result

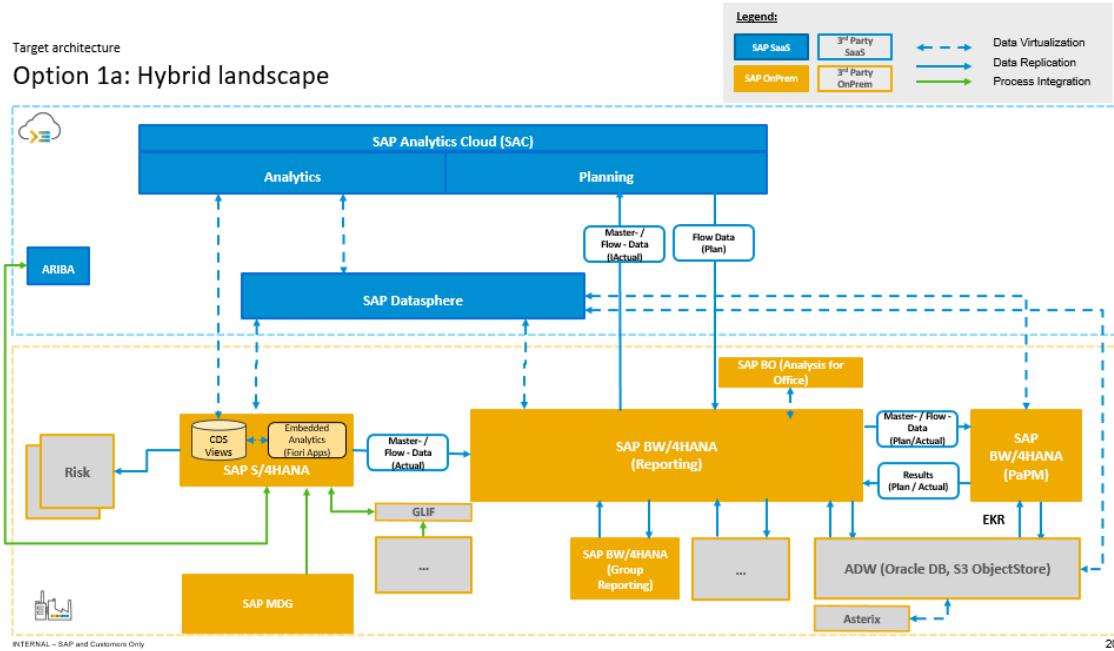


Figure 75 – Result Option 1a

Target architecture

Option 1b: Hybrid landscape

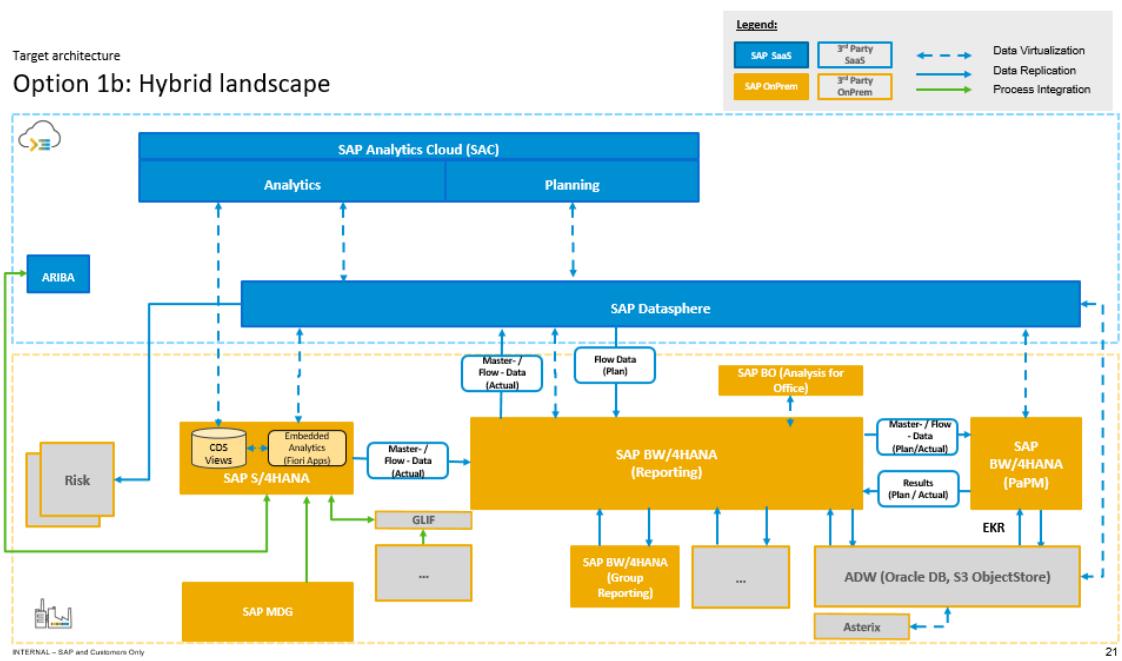


Figure 86 – Result Option 1b

Target architecture

Option 2: Replacement of Reporting BW/4 with BW Bridge

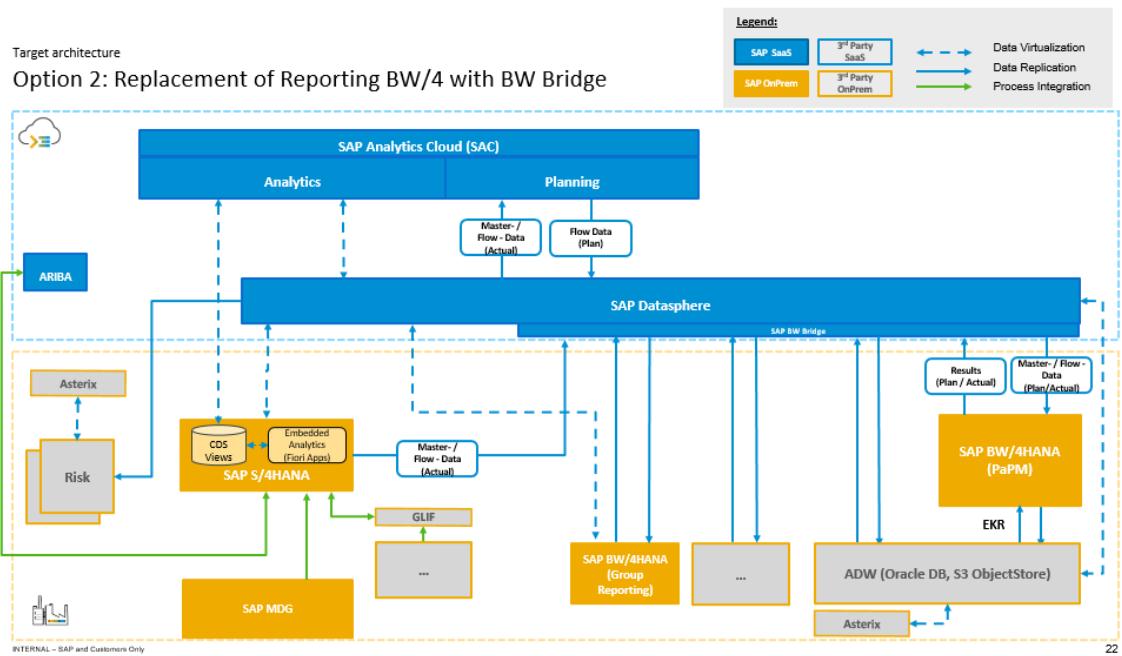


Figure 97 – Result Option 2

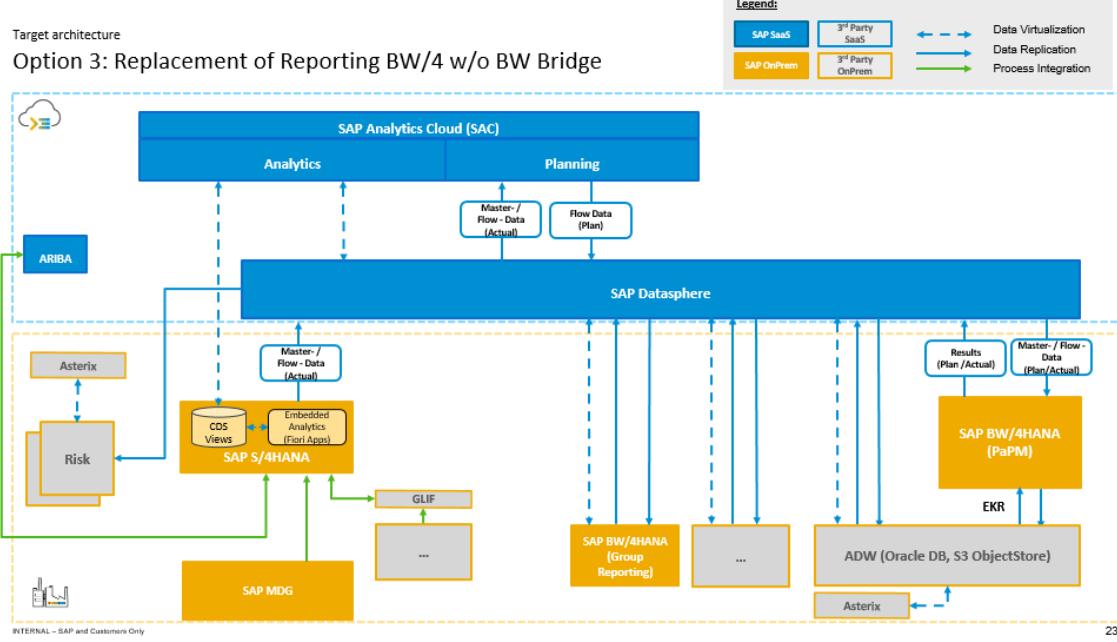


Figure 108 – Result Option 3

c. Validate and Finalize Target Architecture

Exercise

Evaluate the architecture options by identifying the benefits and disadvantages. Consider cost, risk, complexity, timeline, and so on.

Result

Target architecture
Evaluation of options

Preferred Option		
	Option Hybrid (1a / b)	Option Replacement with BWBridge (2)
Benefits	<ul style="list-style-type: none"> BW Remains As-Is BW functions can be used in full Live access to BW possible Both systems can be fully utilized with their respective strengths BW authorization concept can be adopted 	<ul style="list-style-type: none"> Transfer of current BW/4 incl. Development in BWBridge* Direct reuse of BWBridge data & objects in Datasphere (a persistence with virtual access in Datasphere) BW bridge storage cheaper than HANA2 ETL & Query functions & knowledge can still be used
	<ul style="list-style-type: none"> Live Connection in SAC Analytics¹ 	<ul style="list-style-type: none"> Live Connection in SAC Analytics¹ A central system for data access from the end customer's point of view
Dis-advantages	<ul style="list-style-type: none"> Duplicate Data Retention, Model Maintenance & Authorization (Option 1b) Two touchpoints for customers 	<ul style="list-style-type: none"> Also in the future 2 tenants in system: BWBridge & Datasphere Core (but one system) Duplicate data retention during conversion phases
		<ul style="list-style-type: none"> Not all BW functions in Datasphere or BWBridge available Authorization concept and so on will be set up again
Modifications of the integration of data consumers Use case-based decision in which system is operated (complementary) Performance for virtualized accesses Authorization for virtualized accesses to non-SAP systems		

1. If necessary, also for SAC Planning (beta program is in planning); 2. On roadmap for Q4/2023
INTERNAL – SAP and Customers Only

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Figure 119 – Evaluation Map of Different Result Options

5. Phase 4: Data Governance and Roadmaps

a. Data Governance Maturity Assessment

Exercise

CB has selected six focus topics from the Data and Analytics Data & Analytics maturity assessment. Agree with the CB on the current maturity level (A) for each focus topic and discuss if this is sufficient to enable the future architecture. If not, select the required maturity level for each focus topic and define potential actions to improve the maturity level.

Legend:	Initial	Reactive	Active	Pro-Active	Data driven
(A) Current maturity					
(B) Required maturity					
Data dictionary & logical data model					
Data model & technical metadata					
Get clean process					
Stay clean process					
Ownership					
Security & compliance					

Figure 20 – Template Data Governance Maturity Assessment

Result

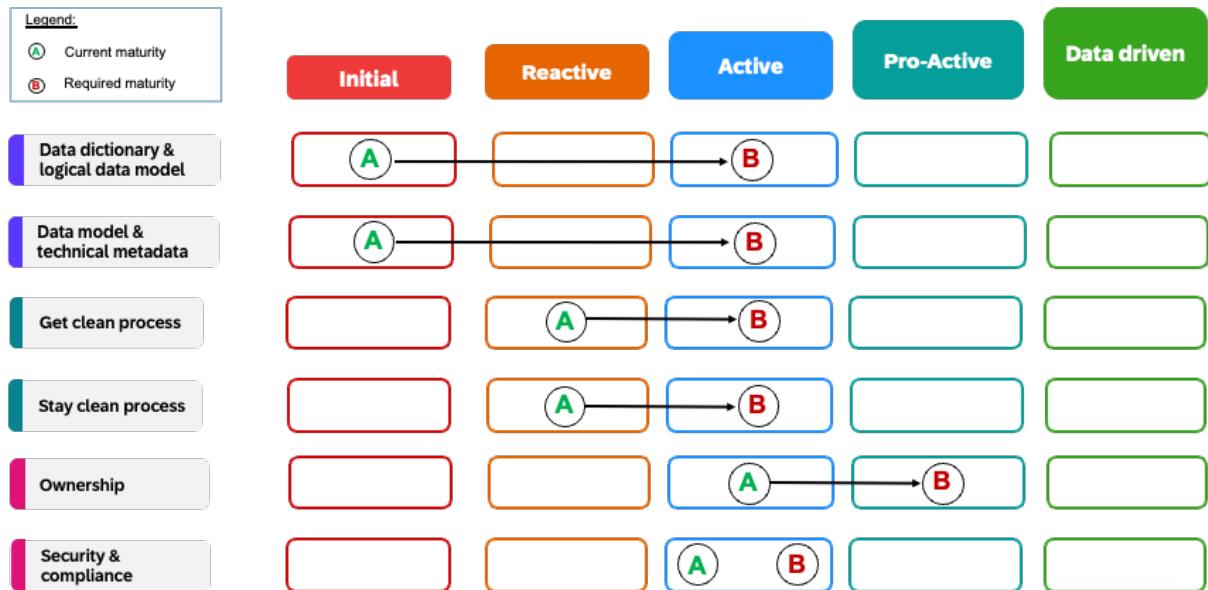


Figure 212 – Result Data Governance Maturity Assessment Exercise

Document the actions in the following table. The actions will be reflected in the final roadmap.

Focus Topic	Actions
Data dictionary & logical data model	
Data model & technical metadata	
Get clean process	
Stay clean process	
Ownership	
Security & compliance	

Figure 22 – Template Focus Topics and Actions

Result

Focus Topic	Actions
Data dictionary & logical data model	<ul style="list-style-type: none">Designing and introducing a data catalogue
Data model & technical metadata	<ul style="list-style-type: none">Define meta data management processes for finance domain
Get clean process	<ul style="list-style-type: none">Definition of data lifecycle (DLC) and data quality (DQ) measures and controls for critical applications
Stay clean process	
Ownership	<ul style="list-style-type: none">Harmonization with other areas about data responsibilities
Security & compliance	<ul style="list-style-type: none">-

Figure 23 – Result Focus Topics and Actions Exercise

Since you have created a target architecture and defined actions for data governance, those actions must be brought to a roadmap. Use the following sunray diagram.

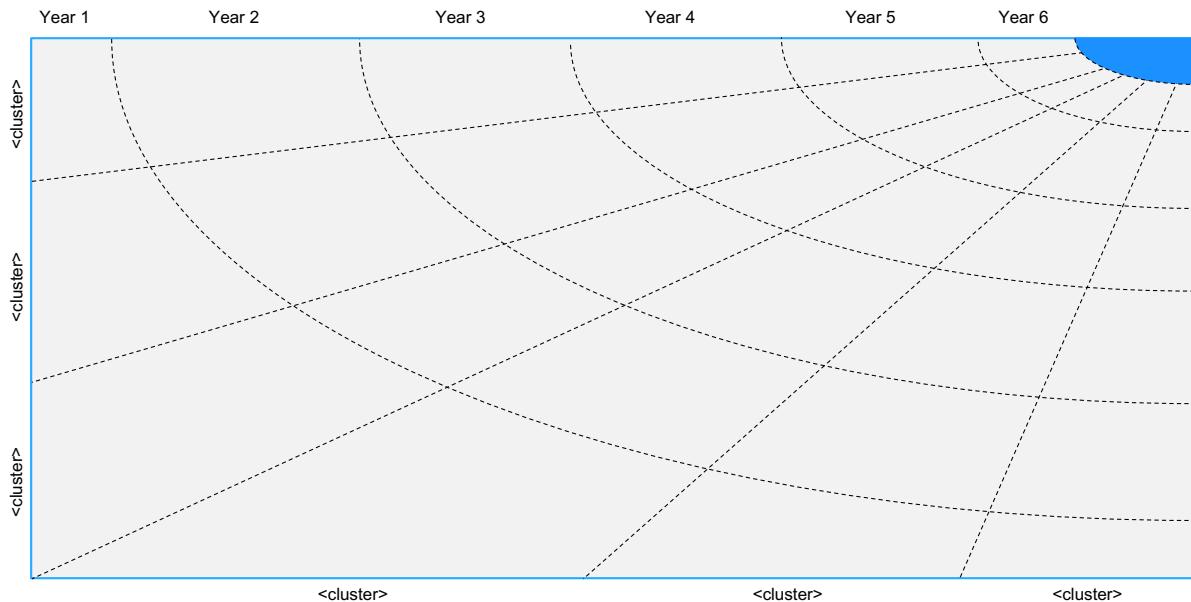


Figure 24 – Template Sunray Diagram

Result

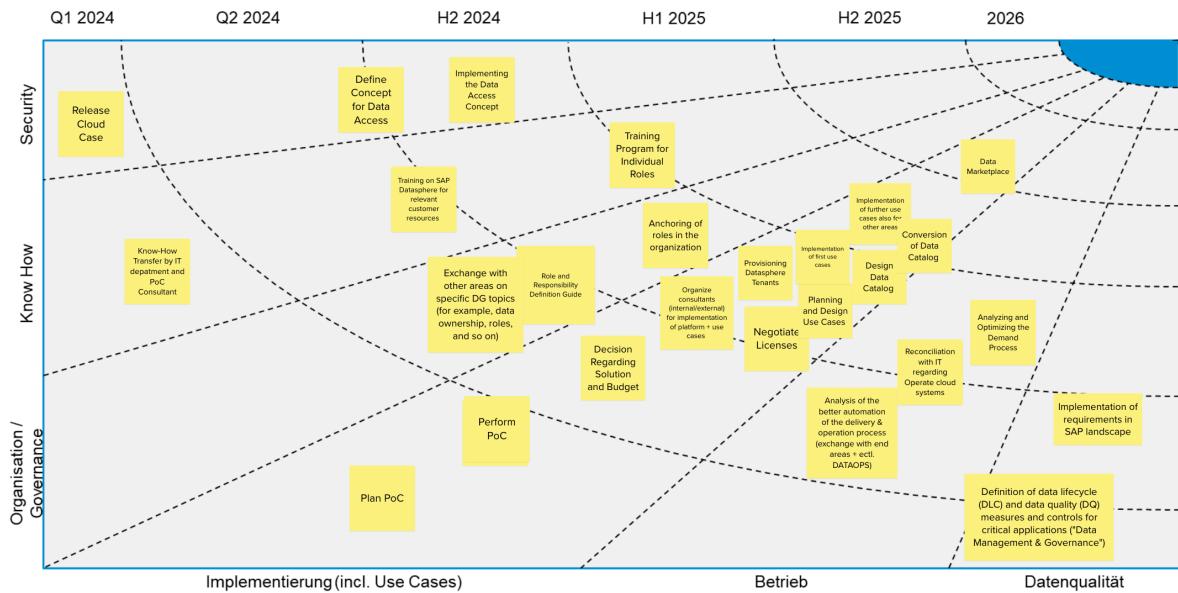


Figure 25 – Result Sunray Diagram