

Self Service for End Users at leading manufacturing customer in biomaterial sector using SAC and BW/4Hana

SBN Analytics Day 2022

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Getting to know Cognizant

Cognizant Global and Local in Norway

We have over

330k

employees globally

and generated

\$18.5B

in 2021

We are

113

FORTUNE World's most admired companies

327

Forbes worlds best employers

63

Forbes Top 100 digital companies

Office

Located in Oslo, Stavanger, Stord & Kristiansand

Since 2005

Market Presence

1600+

Associates, supporting Norwegian clients in a distributed model

Capabilities

Digital Business and Technology
Digital Business Operations
Consulting

Industries

Energy & Utilities
Retail, Consumer Goods, Travel & Hospitality
Banking & Financial Services
Insurance
Manufacturing & Logistics
Communications & Technology

Cognizant SAP Analytics Capabilities

2,650+ (300+ in EU,
1200+ extended team in
offshore)

Trained and Certified, Cross-
Skilled Consultants in SAP BI
Technologies

150+ (80+ EU)

Active Customers including
several Fortune 500 companies

100+

Assets (Platforms, Solutions,
Tools and Frameworks)

EU Locations:

Germany, UK, Benelux,
Switzerland, France, Spain, Italy,
Norway, Denmark, Sweden,
Finland

WAREHOUSING & BIG DATA PLANNING & CONSOLIDATION

- Consulting
- Implementation
- Planning & Budgeting
- Financial Consolidation

PLATFORM MODERNIZATION

- Upgrade
- Migration
- On-Premise to Cloud

ADVANCED VISUALIZATION

- Predictive
- Enterprise BI
- Self-Service
- Digital Boardroom

ENTERPRISE DATA MANAGEMENT

- Data Integration
- Data Orchestration
- Data Governance Quality

1. Why? - Initial Context

The main objective is...

Standardized, Scalable, Flexible, and Trustworthy Solution Architecture for BI & Analytics with functionalities and features responding to self-service usage for End Users, secured access to data and environment, real-time insight generation, and addressing future roadmap requirements of IOT data integration, and advanced analytics & machine learning solutions.

Business Key Aspirations



Standardization & Simplification

- Leverage SAP provided best practice based standard business content for BW4HANA and SAP Analytics Cloud
- New strategy led business drivers will drive KPIs standardization across processes, SAP standard content and current KPIs & Measures could be good starting point.
- Definition of an Enterprise Data Warehouse (EDW): platform for consistent reporting and master data for S/4HANA & other data sources
- Simplified access to reports / dashboards without much manual intervention



Robust Planning & Readiness for Advanced Analytics

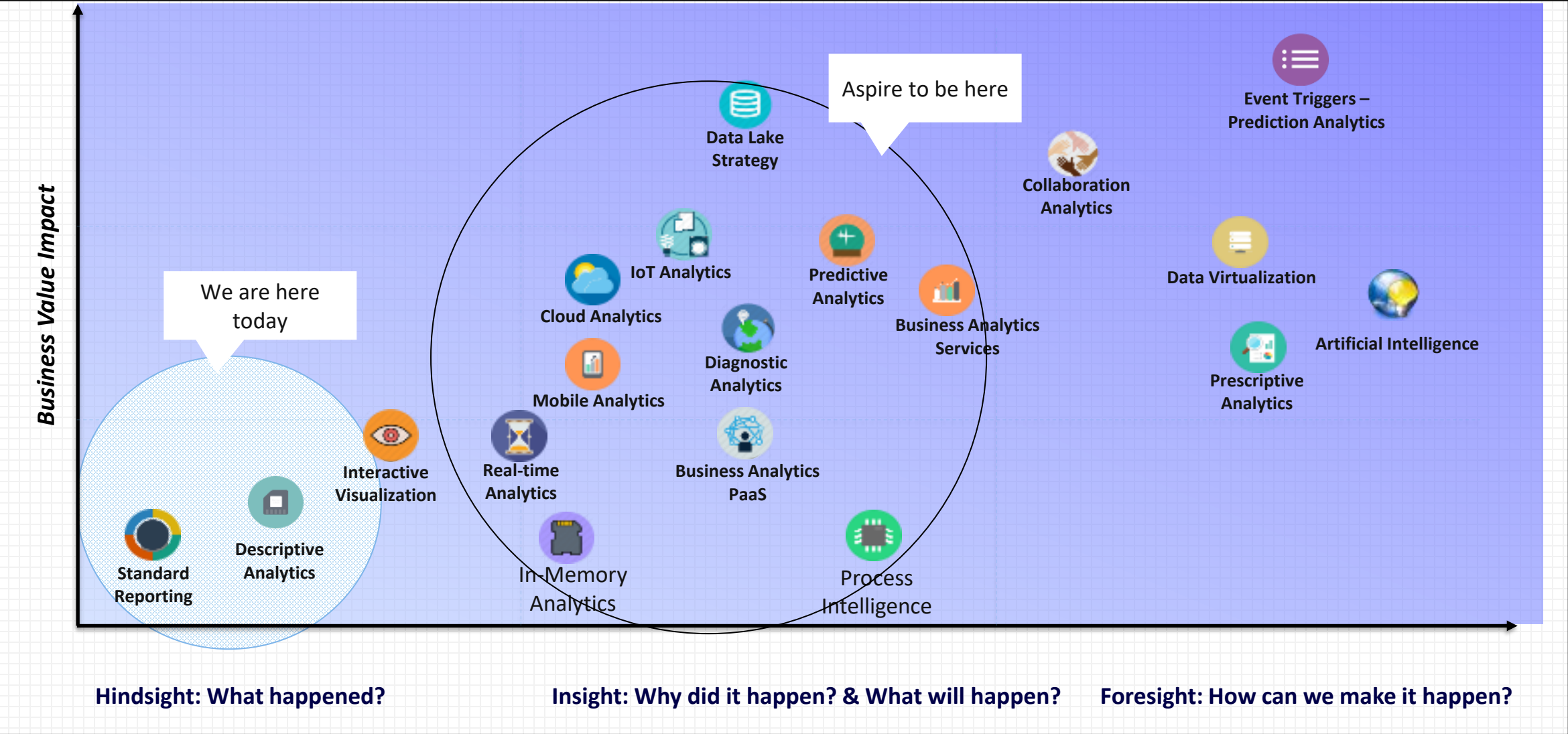
- Current planning & forecasting models including financial planning should be made more robust by leveraging technology e.g. sales forecasting model should have ability to consider external data like customer market situations, weather forecast etc.
- Provide a robust platform as starting point for an **Advance Analytics** service: Self-service Analysis based in enterprise data, external data, Internet, social data, IOT sensor data and capability to do analysis, use case building and validation etc.



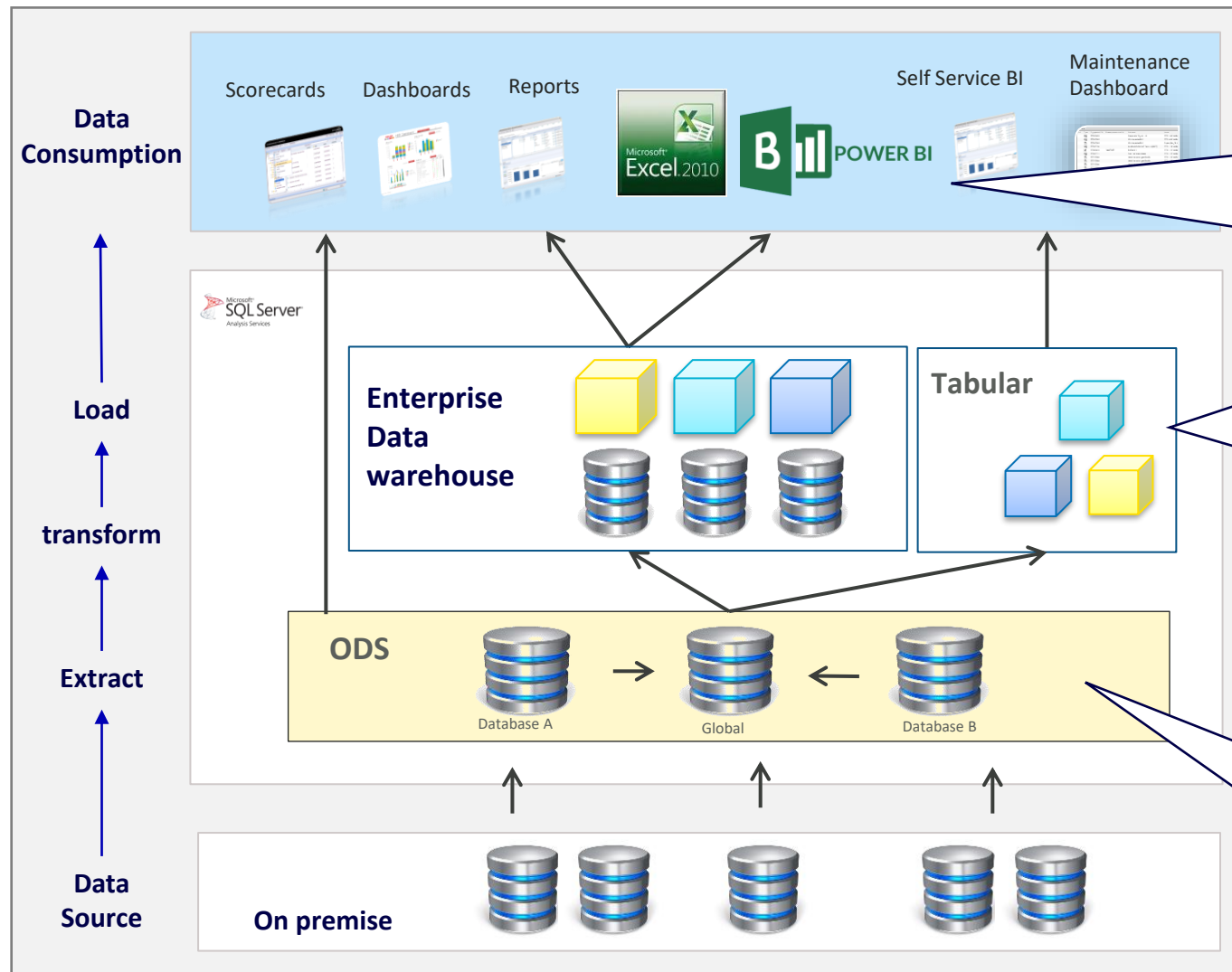
Security Construct

- Standard reporting capability with proper security model with no manual intervention to generate reports
- Real-time availability and mobile enablement of key reports & dashboards with proper security construct
- Self-service capability with proper security construct

Current Status on Analytics Map



As Is Architecture and its challenges...



- KPIs standardization across processes
- Effort to generate reports is too manual, focus is on data gathering rather than on data analytics / insight
- On-boarding of new people considering the manual work / training needed / data access requirements
- There is no traceability of data once is extracted in Excel
- Security, which is currently managed (along with BI security) by file password and restricted folder access

- Robust forecasting model e.g. ability to consider external sources of data e.g. customer market situations, weather forecast etc. is missing
- Speed of data refresh especially during month end closure
- Ability for business to build own reports (based on solid data structure).
- Current IT BI team's lead time

- Master data management & harmonization especially among transaction systems / Data governance model
- Data is spread across multiple systems and difficult to report on especially due to master data constraints. Few of these systems are connected and few are offline leading to manual intervention
- Security model could be further strengthened

2. What? - Solution



SAP Analytics Overview

A single platform that brings all data with all the analytics capabilities required to make fast decisions and act with confidence.

Complete: Make end-to-end decisions with all analytics capabilities in one place

ONE EXPERIENCE

Discover, analyze, plan, and predict in one experience across all devices

FROM DATA TO INTELLIGENCE

Make end-to-end decisions with data management and analytics together in one place

FOR ALL DECISION TYPES

Scale to meet the needs of your business and diverse users across all decision types (strategic, operational, and tactical)

Contextual: Gain enterprise-ready insights and take action within your business processes

INSIGHT TO ACTION

Plan, analyze, and execute within your business process for instant insight to action

DATA LITERACY

Increase data literacy, engagement, and accountability, with common business language and built in collaboration capabilities

INTELLIGENT NETWORK

Tap into the collective intelligence gained from the world's largest business applications cloud

Confident: Make smart decisions faster with artificial intelligence (AI)-driven insights

CONVERSATIONAL

Ask questions in a conversational manner with instant results explained in natural language

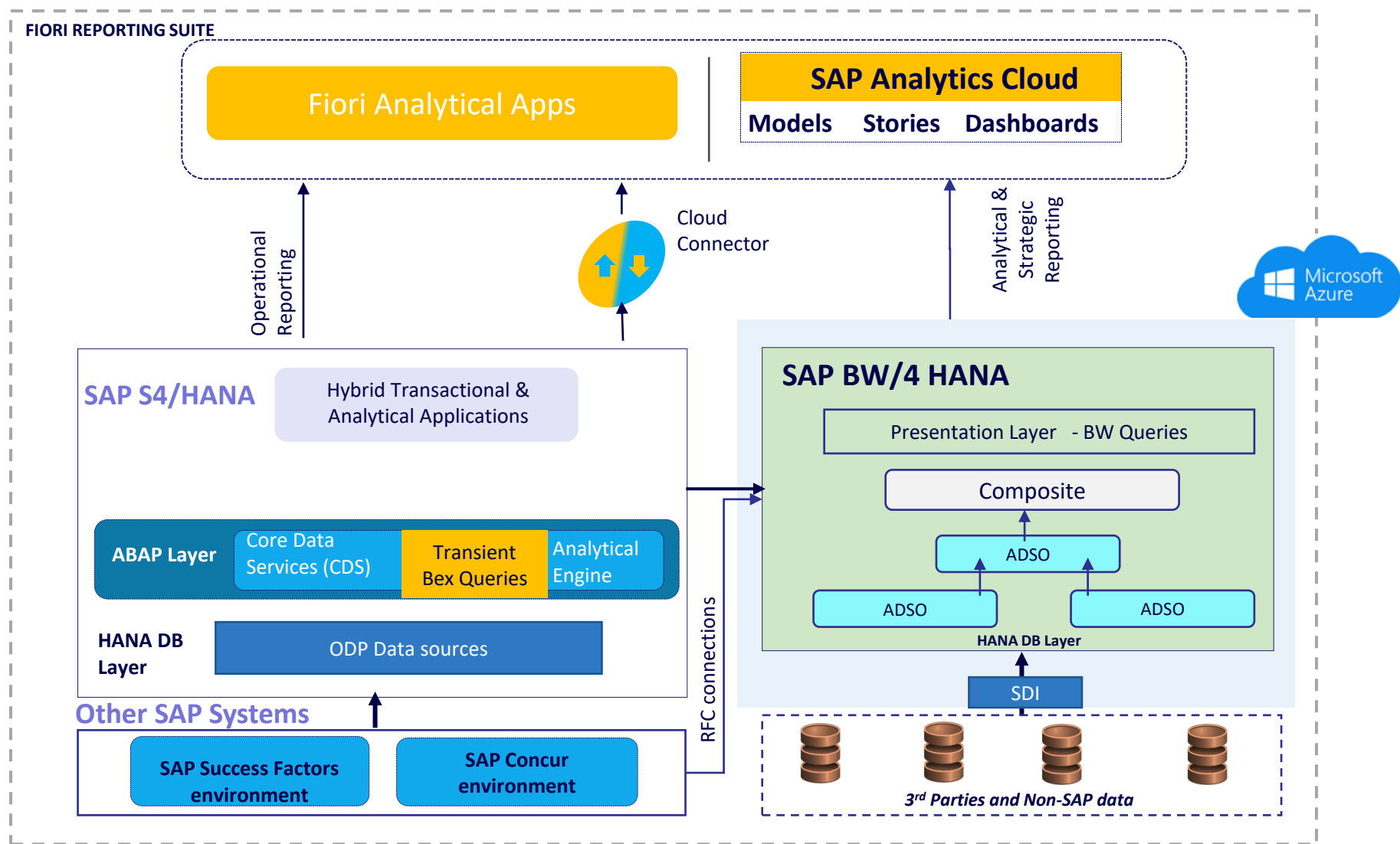
AUTOMATED

Detect drivers of a KPI and take the next best action using automated machine learning that discovers unknown relationships in data

PREDICTIVE

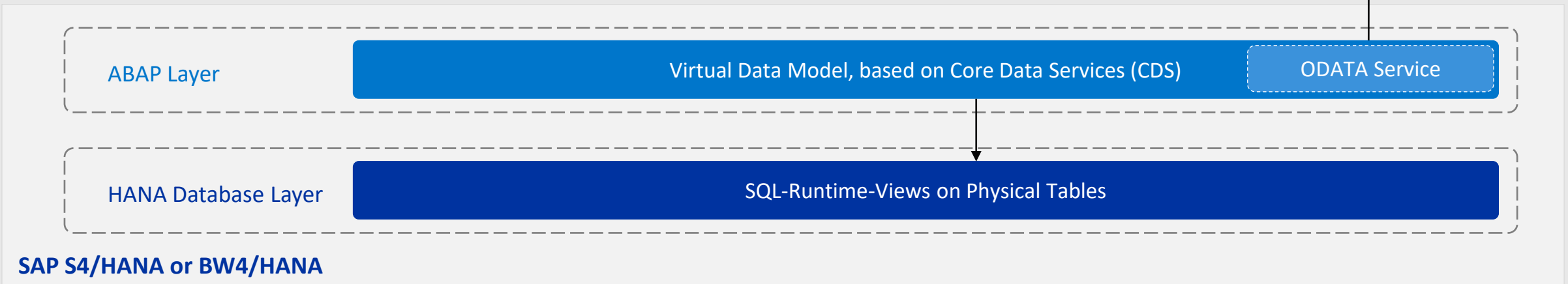
Predict potential outcomes and forecasts with the push of a button

To Be Architecture: Scalable & Flexible



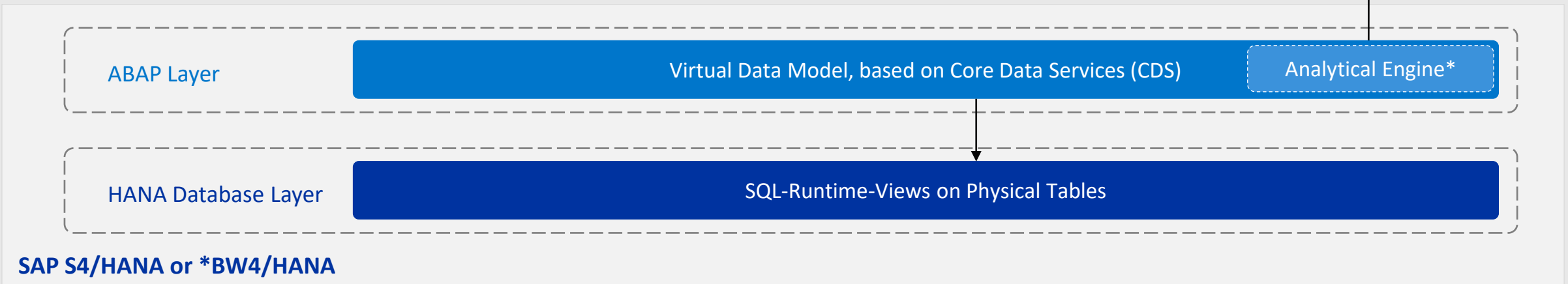
Import data connectivity to SAP Backend

- All data is 'uploaded' (replicated) to SAP Analytics Cloud in-memory HANA Database.
- SAC stores the model, data and definition.
- Data wrangling features and scripting
- Public dimension definition
- Predictive and ML scenarios
- Security can be added to the model within SAC
- Both Analytic and Planning models generate an account type model.

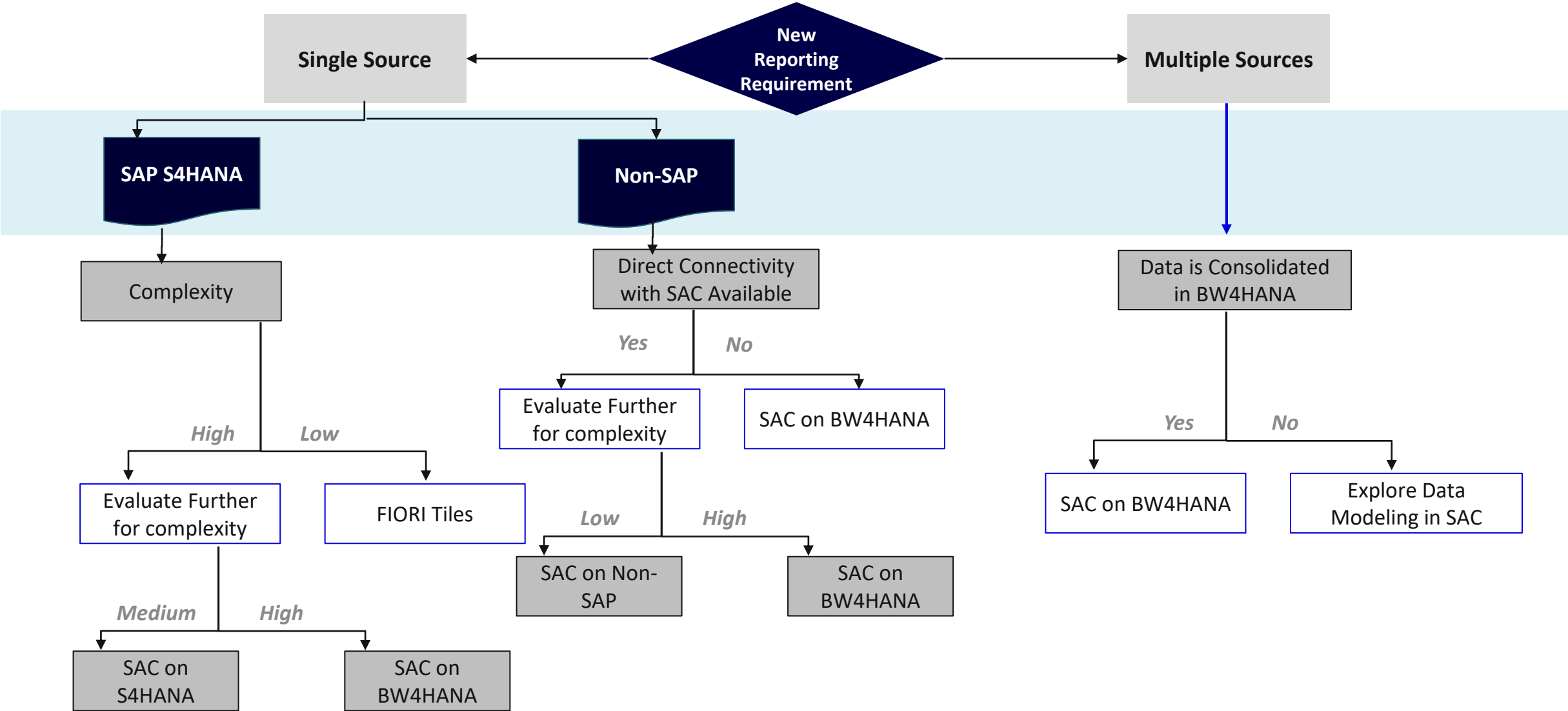


Live data connectivity to SAP Backend

- No data duplication
- Ready to use SAP business content
- Access to SAP BW4HANA InfoProviders is possible via a default Query. The default Query is exposed in the Object Services of SAP BW4HANA.
- Full ABAP Lifecycle Integration based in CDS View
- Supporting ERP authorizations
- Supporting ERP hierarchies
- Part of the general Extensibility concept
- Supporting more business cases (analytics, search, fact sheets, planning)

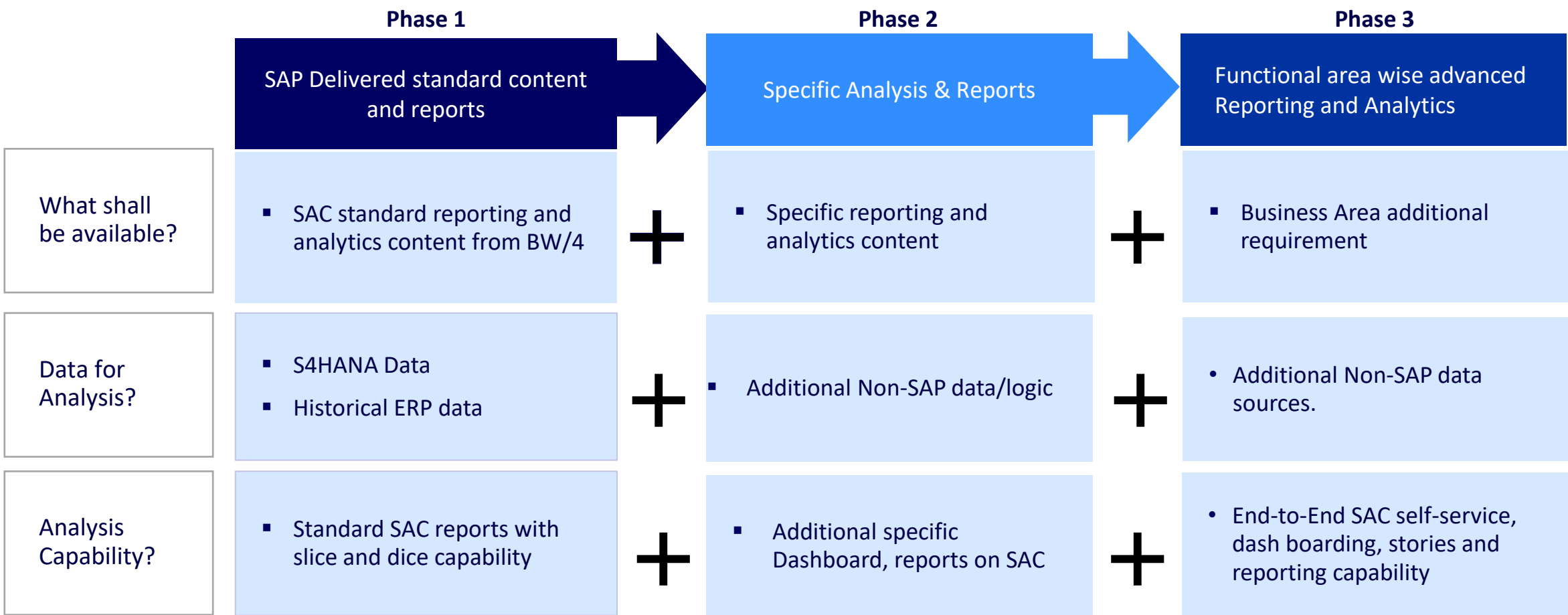


Decision Matrix

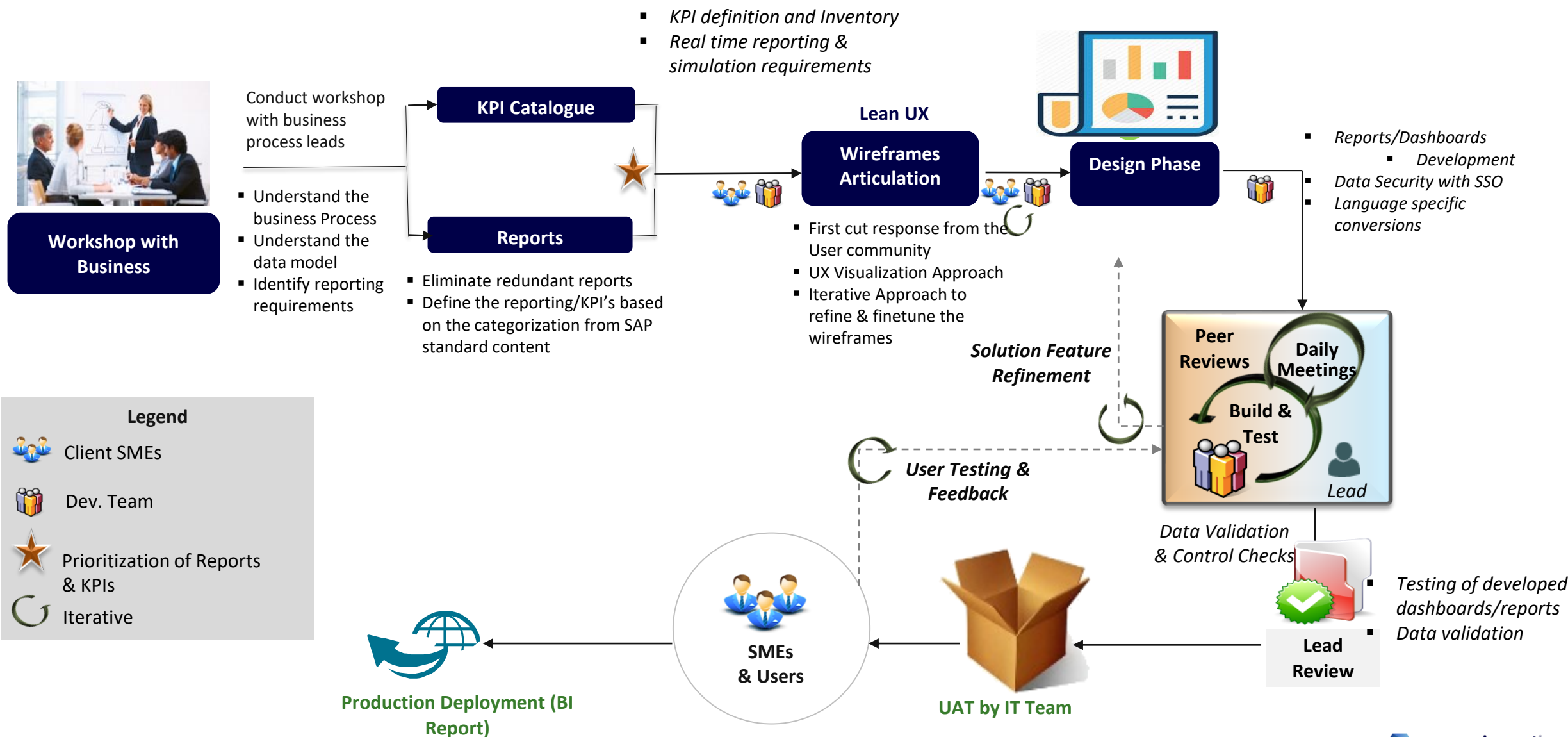


3. How? – Project Planning

Engagement Model: Three phased advanced analytics for Success



Phase I Approach: Functional area wise



Business Areas wise: Standard SAP Content



Controlling

- Cost Center Accounting
- Overhead Cost Orders
- Projects Costs
- Product Cost Controlling



Finance

- Accounts Receivable
- Accounts Payable
- Asset Accounting
- General Ledger



Sales & Distribution

- Sales
- Billing
- Delivery & Conditions
- Service Level



Supply Chain Management

- Warehouse Management
- Inventory Management
- Invoice Management
- Procurement
- Production Planning



Plant Maintenance

- Production
- Maintenance



Quality Management

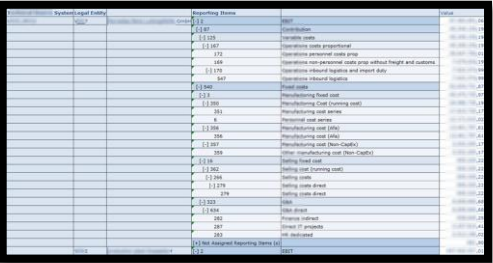
- Quality Management

From Standard to Custom

Step 1

SAP Standard content activation

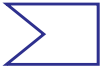
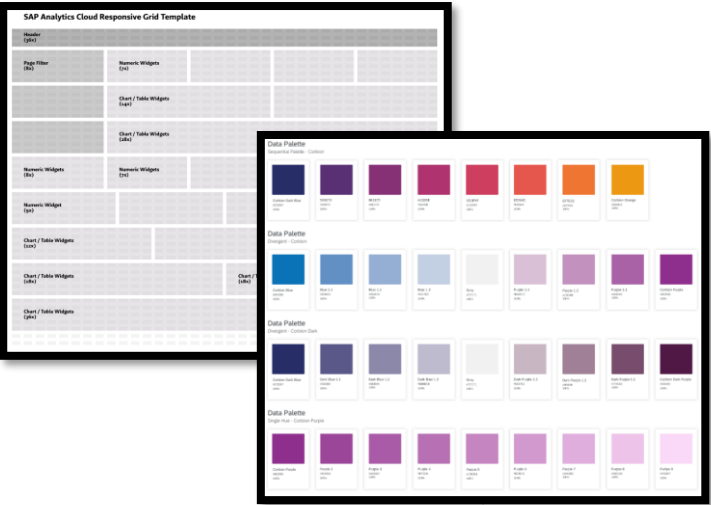
- Standard Content activation
- BW Model released for testing



Step 2

Additional specific UX Guidelines

- Customer Grid Layout template designed
- Colour schema defined



Step 3

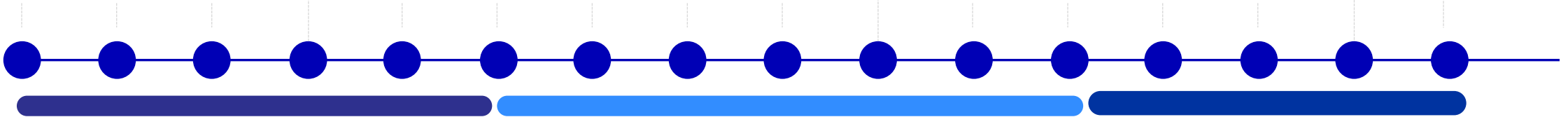
SAC Visualization

- Story customized
- Live Model Published
- Security access set



Start

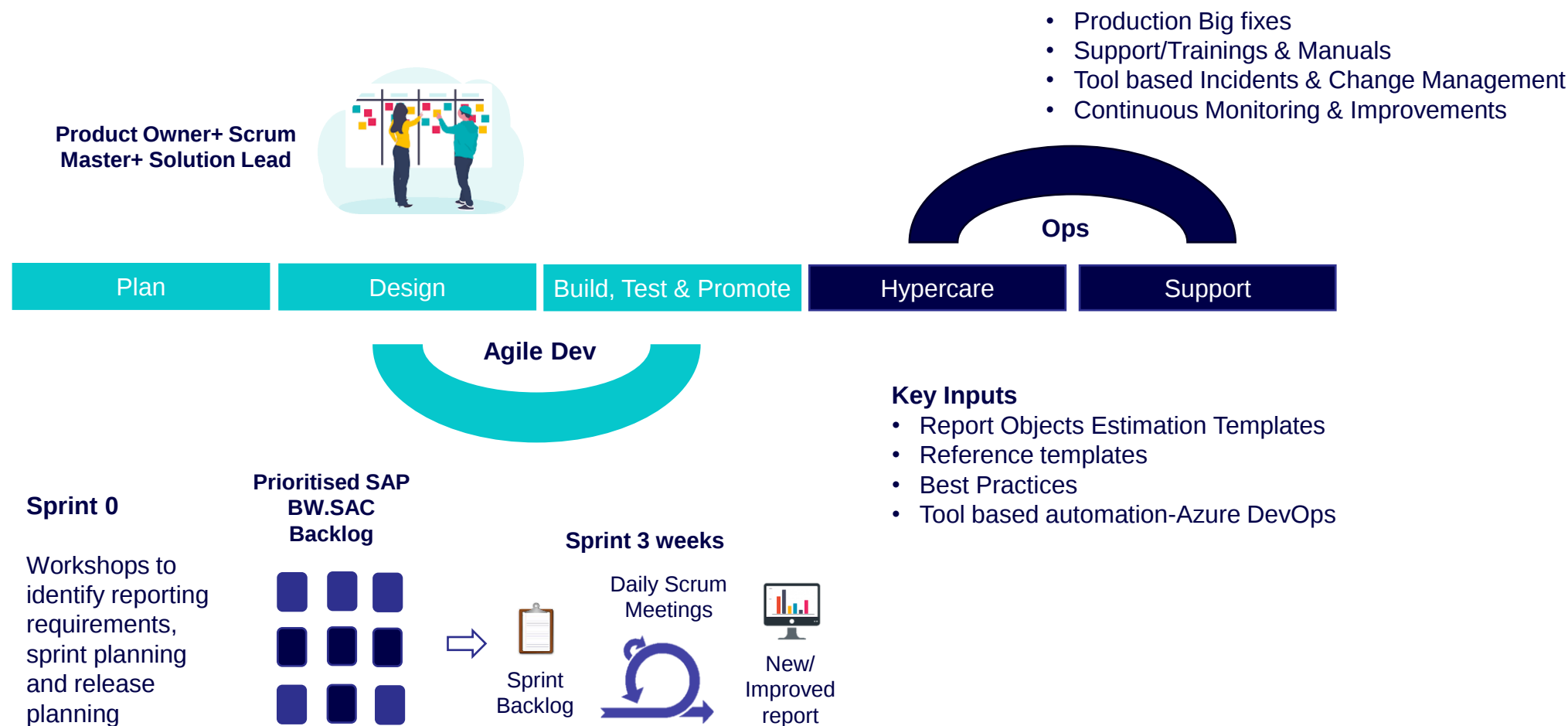
Development Started



Finish

On live!

Phase II Approach: DevOps Model for Faster Delivery & Optimisation



4. Lessons Learnt

Current state of Analytics journey



Sustainability Reports: Dashboard and analytics solution for Responsible Sourcing, Greenhouse Gases and Roundtable for Sustainable Palm Oil (RSPO)



Business Value: Insights into procurement Vendors, variety of crops, CO2 emissions and deforestation contribution of the company for internal use or for auditors.



Product Costing: Dashboard which deliveries key insights into

- Product Itemisation
- Costing variance
- Costing Dates



Business Value: Trend Analysis about impact of Change of Raw materials, Currency Changes in Cost of Products



Intercompany Model: Dashboard which gives full overview of B2B Supply Delivery- SO, Delivery & Billing



Business Value: Complete overview of day to day tracking of overall supply chain KPI's by Customer Service, Logistics and Sales



Efficiency Reporting: Dashboard which deliveries key insights into

- Standard vs Target Cost
- Lot size variance
- Order Input & Output

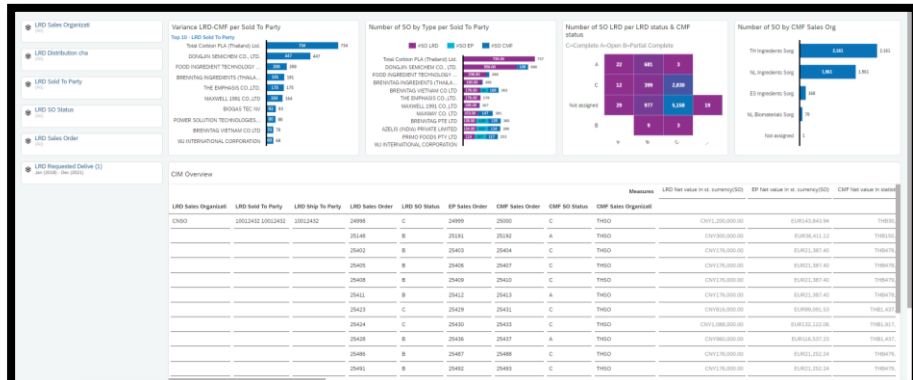


Business Value: Control your cost by measuring real vs plan efficiencies of manufacturing process

Lessons Learnt

Problems	Description	Solution
Different Business language	Due to carrying out the BW implementation with a very short time frame compared to the implementation of S4, on too many occasions the requirements were based on the Legacy system instead of the SAP data model	Work with specific examples and getting the requirements from hands-on workshops. Not getting requirements from documents.
Difficulties in spreading knowledge	Due to the methodology used in Phase 1, it was not possible to define the "Champion" figures that would work to help spread knowledge of the new tool within the organization.	• Proactive meetings with business users on-going implementation • Create an internal site to store how-to videos for specific activities on SAC
Understanding Agile and DevOps	Difficulties in understanding the importance of "release" concept at the end of each sprint, especially related with validations	Define a Product owner or similar, who can be the bridge between Analytics team and business
Solution Engagement	Difficulty in ensuring that the Organization uses the reports instead of continuing downloading files from the Fiori application	As part of requirements phase, define which role will play the report/dashboard in their daily tasks and define it accordingly.

SAP Analytics achievements

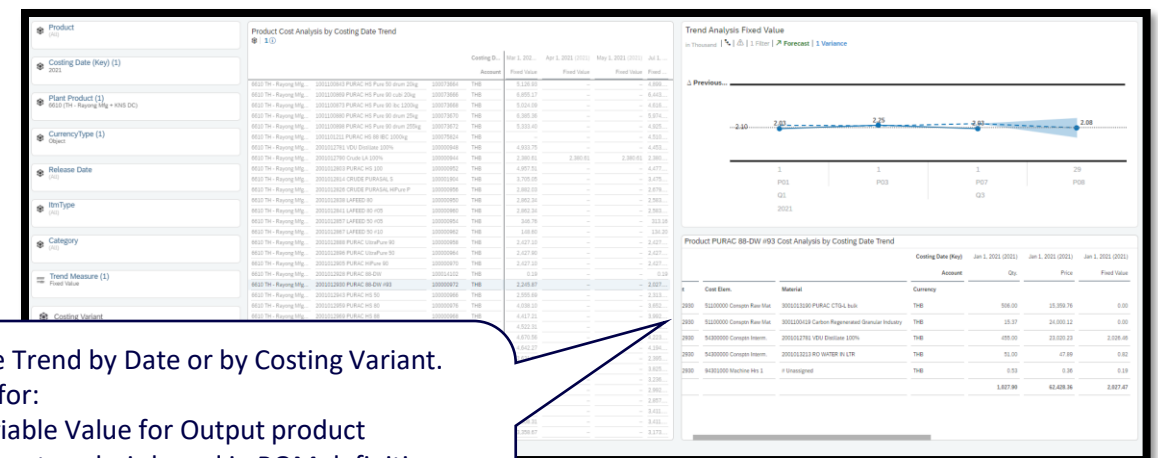


- Trend analysis about Deforestation impact about raw materials
- Crop percentage contribution



- Overview Story with widgets showing KPI focused on exceptions like Sales Order without planned deliveries or Document Flows not Complete
- Detailed Story with Document flow for Sales Orders, Delivery & Billing.
- Hyperlink connection with S/4 Fiori apps giving a 360° visualization

- SAC Story to show the Trend by Date or by Costing Variant. Detailed information for:
 - Fixed and Variable Value for Output product
 - Input component analysis based in BOM definition
 - Graph trend visualization with Forecast calculation
 - Multicurrency calculation



Thank you