Rock-solid mission critical data with SAP Datasphere

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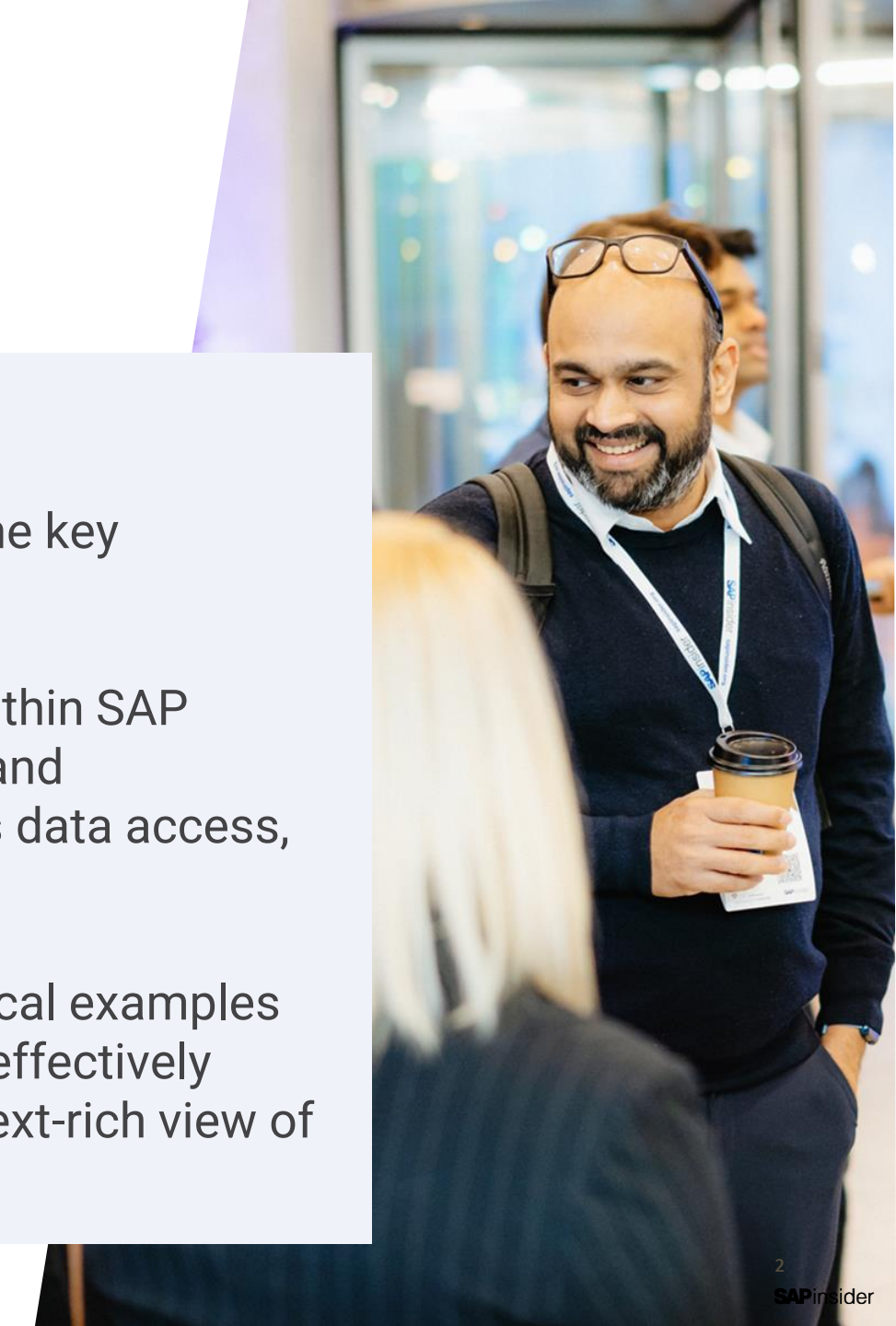
2024

SAPinsider

What We'll Cover

You will:

- Gain a comprehensive understanding of the key capabilities inherent in SAP Datasphere.
- Learn about the product enhancements within SAP Datasphere, including advanced features and functionalities that contribute to seamless data access, integration, and contextualization.
- Explore real-world case studies and practical examples showcasing how SAP Datasphere can be effectively implemented to deliver a unified and context-rich view of mission-critical business data.

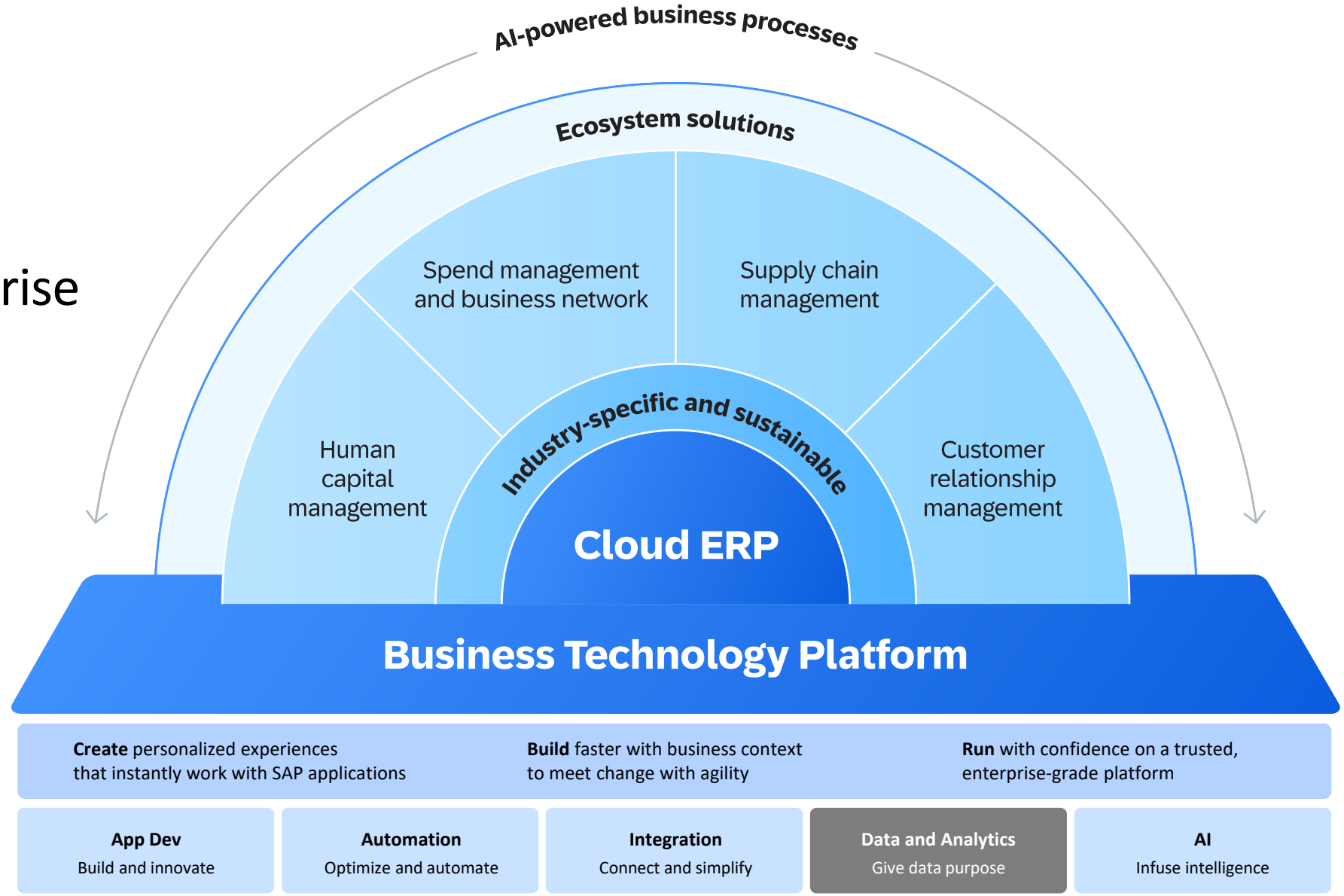


SAP Datasphere

SAP strategy

SAP BTP

is the foundation of the Intelligent Sustainable Enterprise



Integrated Data & Analytics Portfolio to realize our vision

Planning & Analytics

Extended Planning and Analytics

Provides an optimized, vertically integrated consumption layer for customers, LoBs, partners

SAP Analytics Cloud

Data Mgmt. & Data Warehouse

Business Data Fabric

Harmonizes access to SAP data (incl. business context) with the ability to feed in external data

SAP Datasphere

Operational Databases

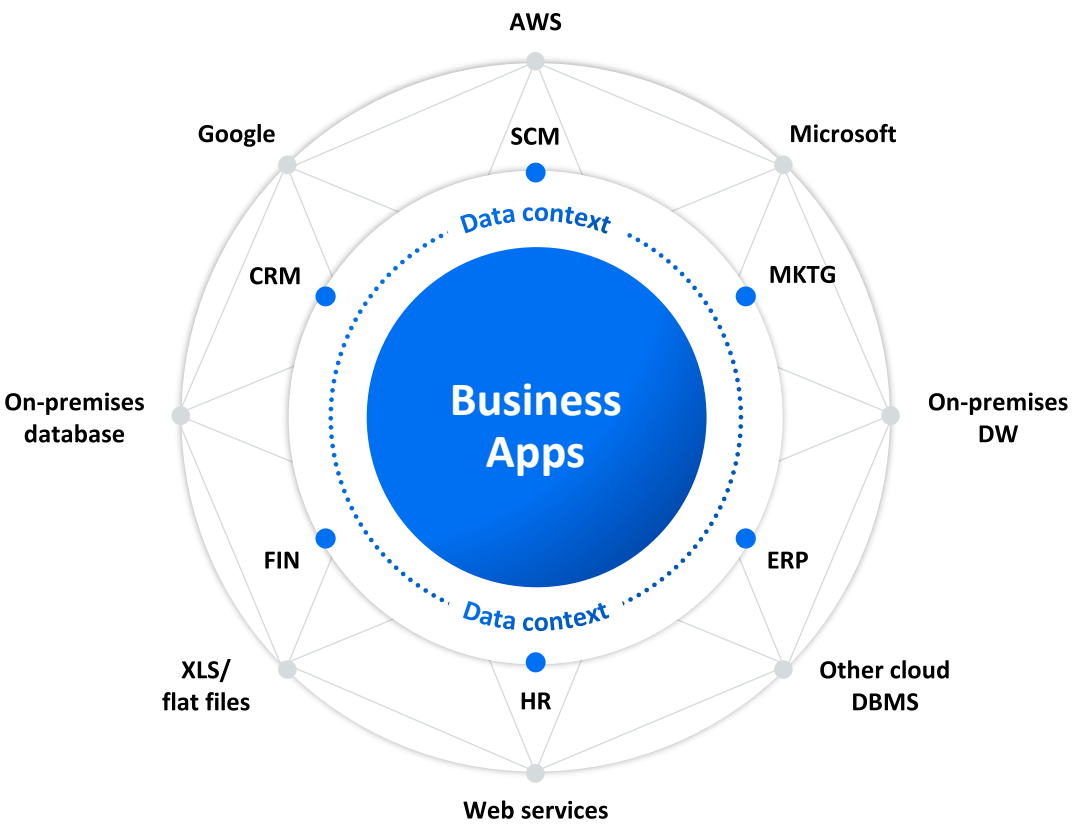
Intelligent Data Applications

Build apps leveraging analytical capabilities (ML, graph, spatial, vector) of data tier combining historical & real-time data. Supported by BTP Services (e.g. pro / no-code app, dev tools)

SAP HANA Cloud

Changing requirements

Bringing new opportunities
and challenges



What we hear in the market and from customers

Architecture Complexity

Data leaders say architectural complexity is a significant pain point.

Open Data Ecosystem

Open data ecosystem companies are now perfectly in the right place at the right time.

Discovery & Access

Companies control and offer their data at scale to those who need it.

Self service

Empowering all users across the organization is the most important reason to achieving successful data & analytics strategy.

Governance & Trust

Companies do not achieve their data & analytics goals due to lack of adequate governance.

External Data

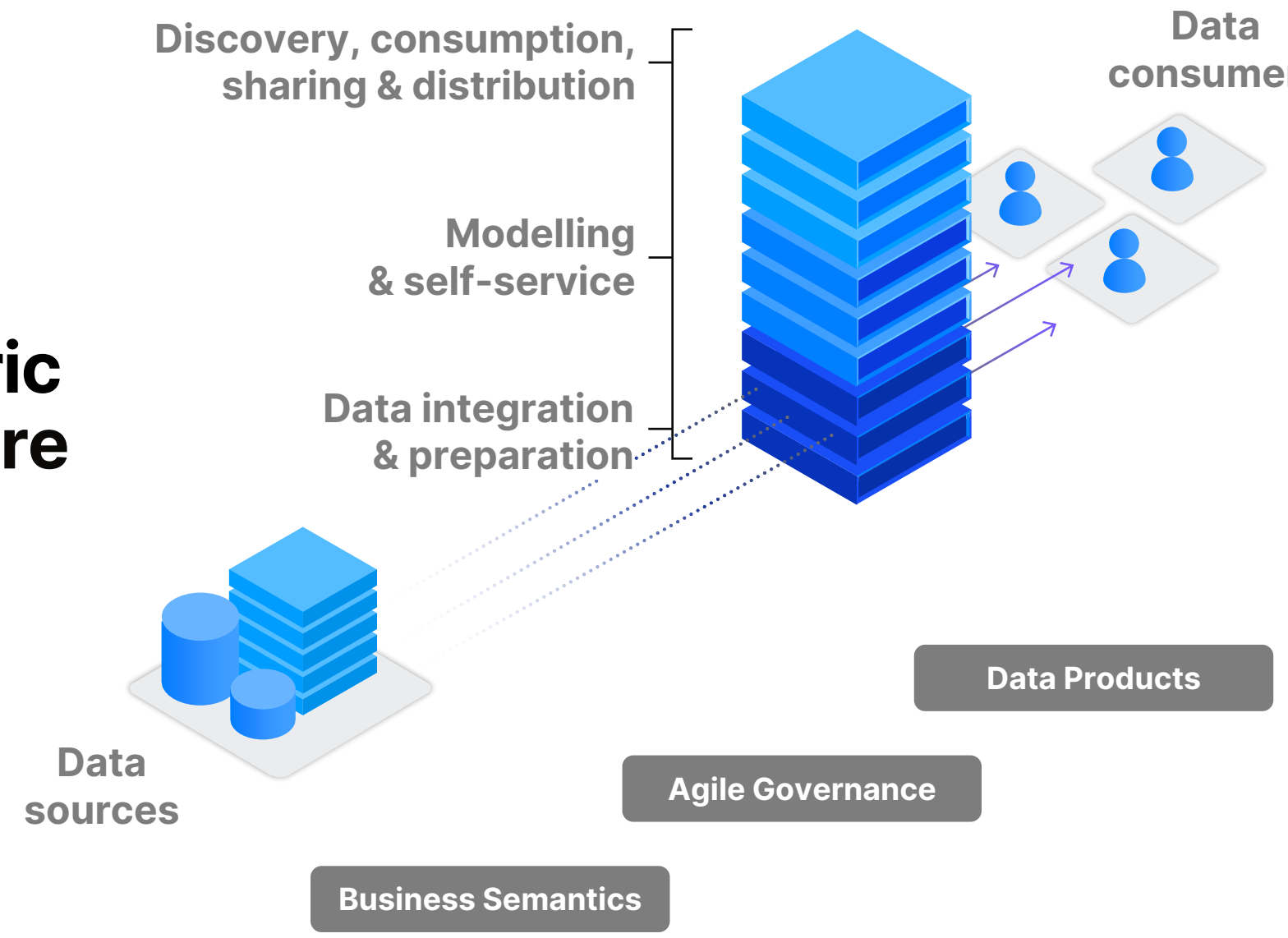
Data and analytics professionals see the need to increase the usage of external data sources.

SAP Datasphere

Product features

Universal yet opposing data needs for business and technology stakeholders

Towards a Business Data Fabric with SAP Datasphere



Business Data Fabric

SAP Datasphere is the foundation for a business data fabric architecture

Data consumers

Planning and analytics

Intelligent data apps

Data science

SAP Datasphere running SAP BTP

Discovery, consumption, sharing & self-service
space, data product, marketplace

Governance
cataloging, metadata management, lineage, privacy, quality

Business semantics
semantic onboarding, entity import, business content

Modelling
relational & rich analytic models, lifecycle management, authorizations

Data integration & preparation
real-time replication & federation, transformation, scheduling, monitoring

SAP and non-SAP data

Applications

On-premises Data Warehouses

Cloud Data Warehouses and Lakehouses

Relational Databases

Unstructured/ Semi-structured Data

SAP Data & Analytics: SAP Datasphere – partners

Data consumers

Planning and analytics

Intelligent data apps

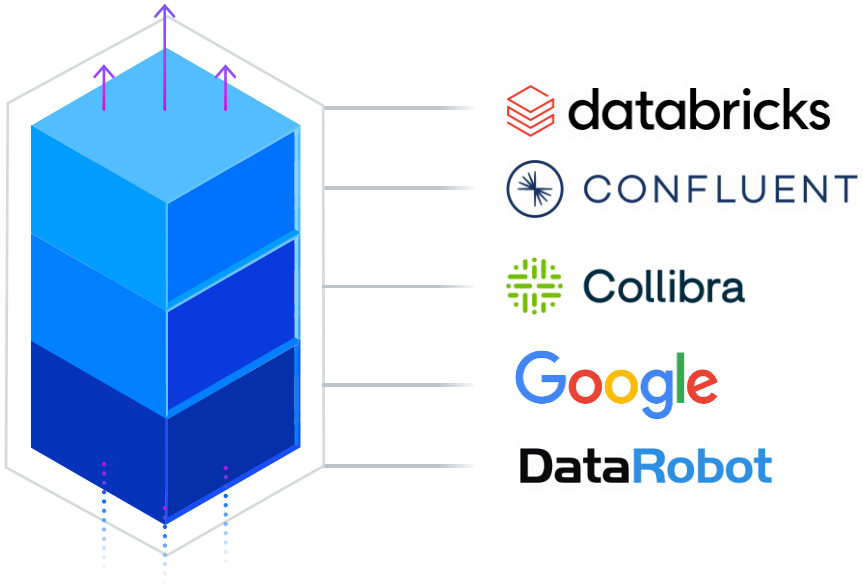
Data science

SAP Datasphere running SAP BTP

Security

Access control

Availability



databricks

CONFLUENT

Collibra

Google

DataRobot

SAP and non-SAP data

Applications

On-premises Data Warehouses

Cloud Data Warehouses and Lakehouses

Relational Databases

Unstructured/ Semi-structured Data

SAP Datasphere: Use Cases

Self-service Insights & Modeling on S/4HANA and other Eco systems

Seamless **interoperability** between Datasphere and key Hyperscalers

Modernization of SAP BW with extended functionality and innovative use cases

Consolidate Operational & Business Planning with SAP Datasphere

Self-service

Unified entry point for semantically rich model generation & import into SAP Datasphere

Semantic Onboarding

Bringing together all features & processes that allow SAP customers to make semantics available at ease & scale

Import Entities

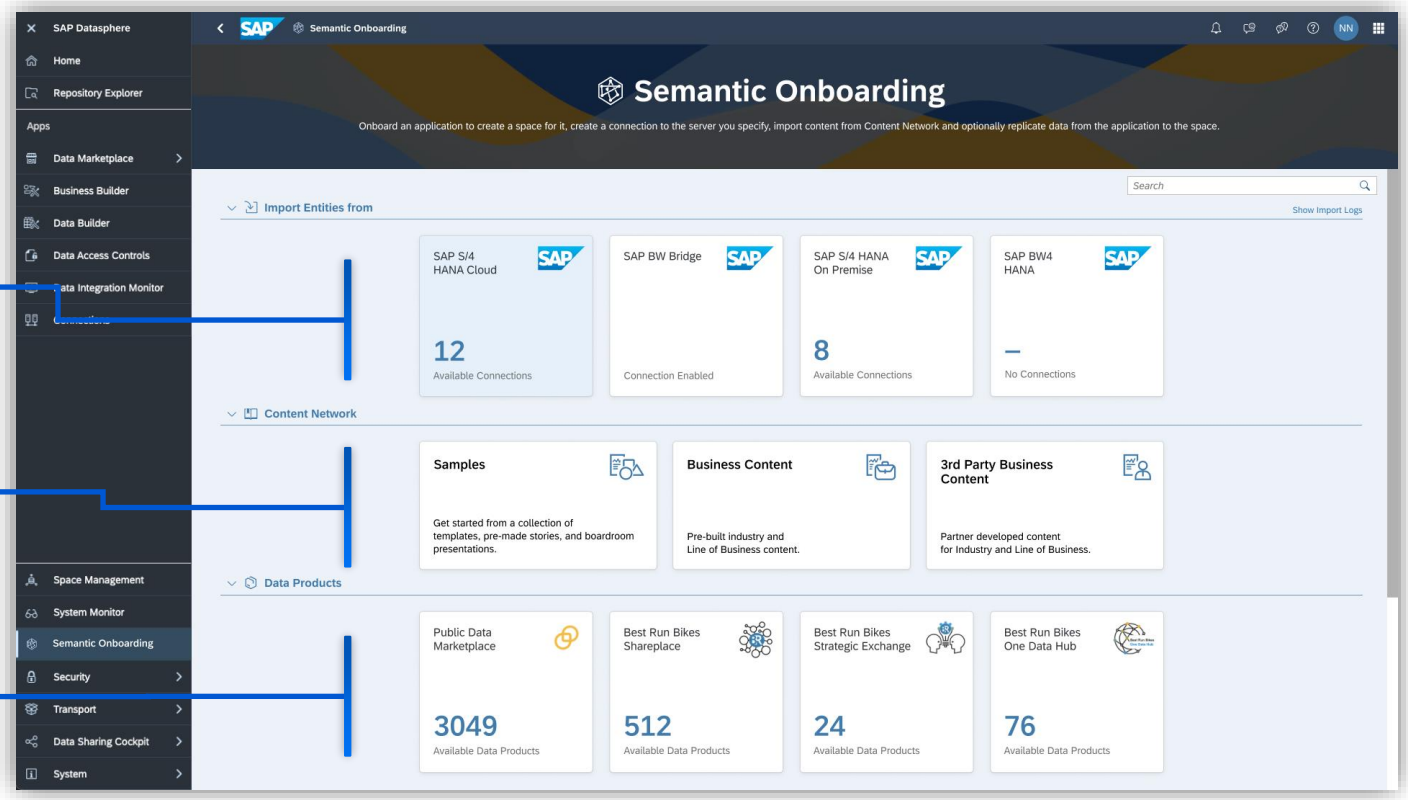
Harmonize existing metadata import options from SAP S/4HANA Cloud, SAP S/4HANA, SAP BW, SAP BW/4HANA

Content Network

Harmonize existing metadata import options from SAP S/4HANA Cloud, SAP S/4HANA, SAP BW, SAP BW/4HANA

Data Products

Access customer and partner managed data products to democratize SAP data within SAP Datasphere & beyond via API



SAP Datasphere: Use Cases

Self-service Insights & Modeling on S/4HANA and other Eco systems

Seamless **interoperability** between Datasphere and key Hyperscalers

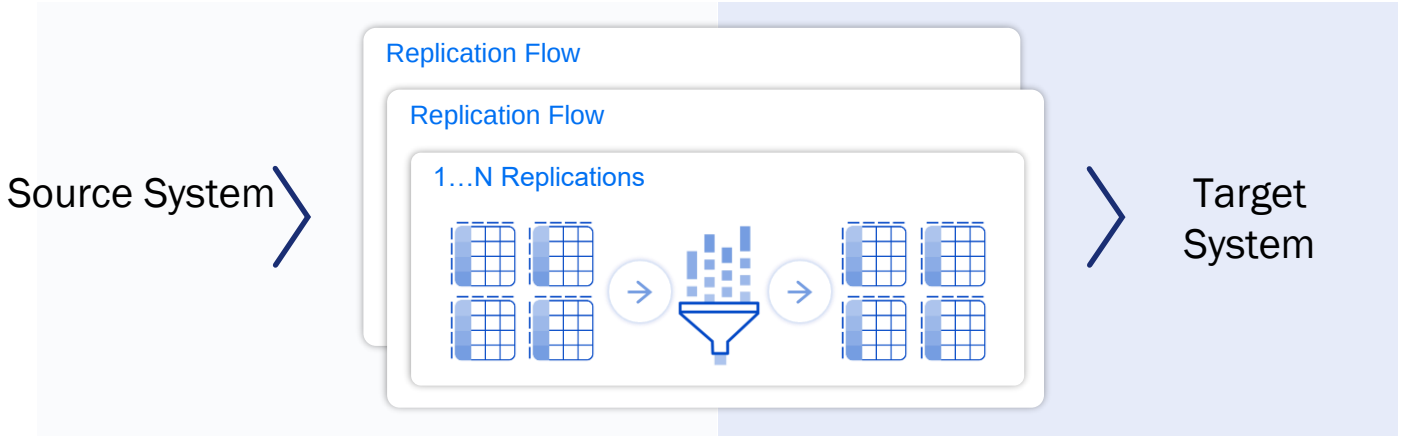
Modernization of SAP BW with extended functionality and innovative use cases

Consolidate Operational & Business Planning with SAP Datasphere

Enable mass data replication & transformation

Replication Flow

Available today



2024 Upcoming Innovations

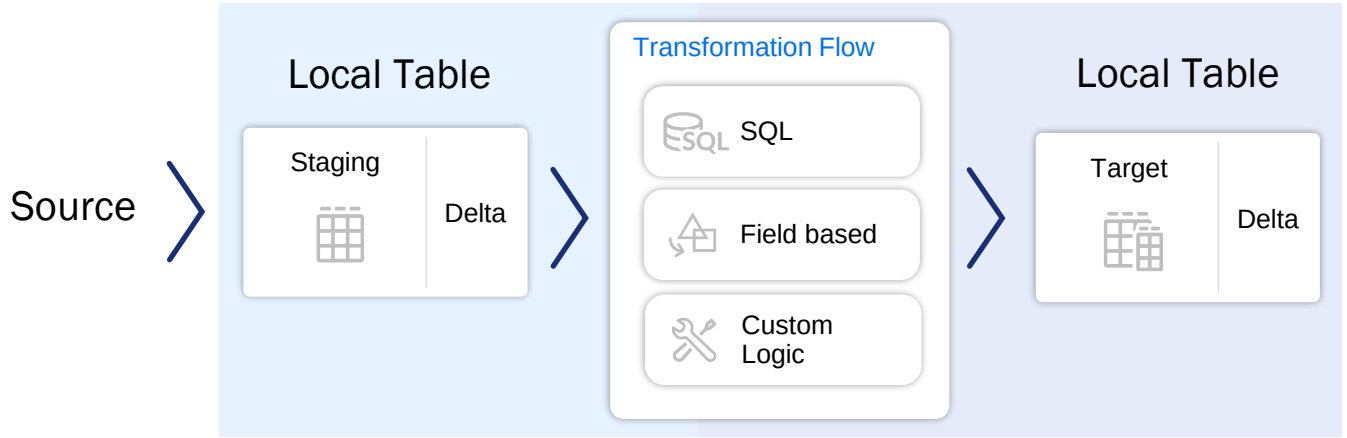
Outbound connectivity to non-SAP systems
(e.g. data lakes, Kafka)

Endorsed partner connectivity for Replication Flows
(Google, Confluent, Databricks)

Functional enhancements
(scheduling, schema evolution etc.)

Transformation Flow

Available today



2024 Upcoming Innovations

Delta staging in SAP Datasphere to enable SQL transformations, delta writing for multilevel staging, and storage of holistic truth after transformation

Schedulable via task chains and integrated in data integration monitor

interoperability

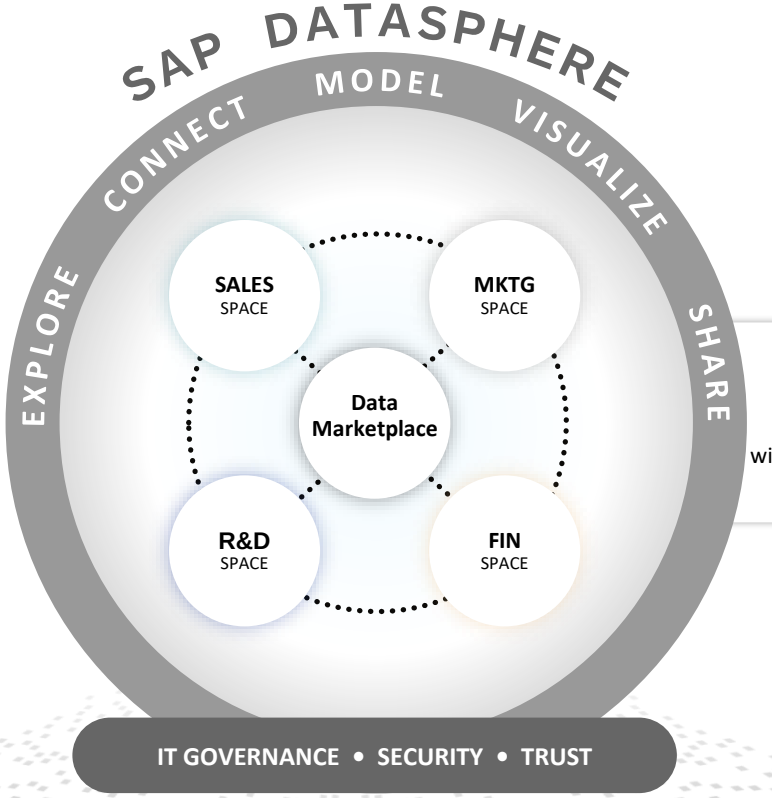
Access to External & Internal Data in Clicks

for better, faster & more scalable data collaboration

Independent virtual work environments
for departments, LOB's, data domains, project teams, and individual

Data sharing fosters collaboration
between IT, business units, and projects to connect global & local data

Get in control of data sprawl
by reusing shared data & avoid maintaining disconnected data sets



Public & Private Data Exchange
with other enterprises to access external data, collaborate or monetize data

Open Partner Ecosystem

Data Marketplace
3500+ Data Products

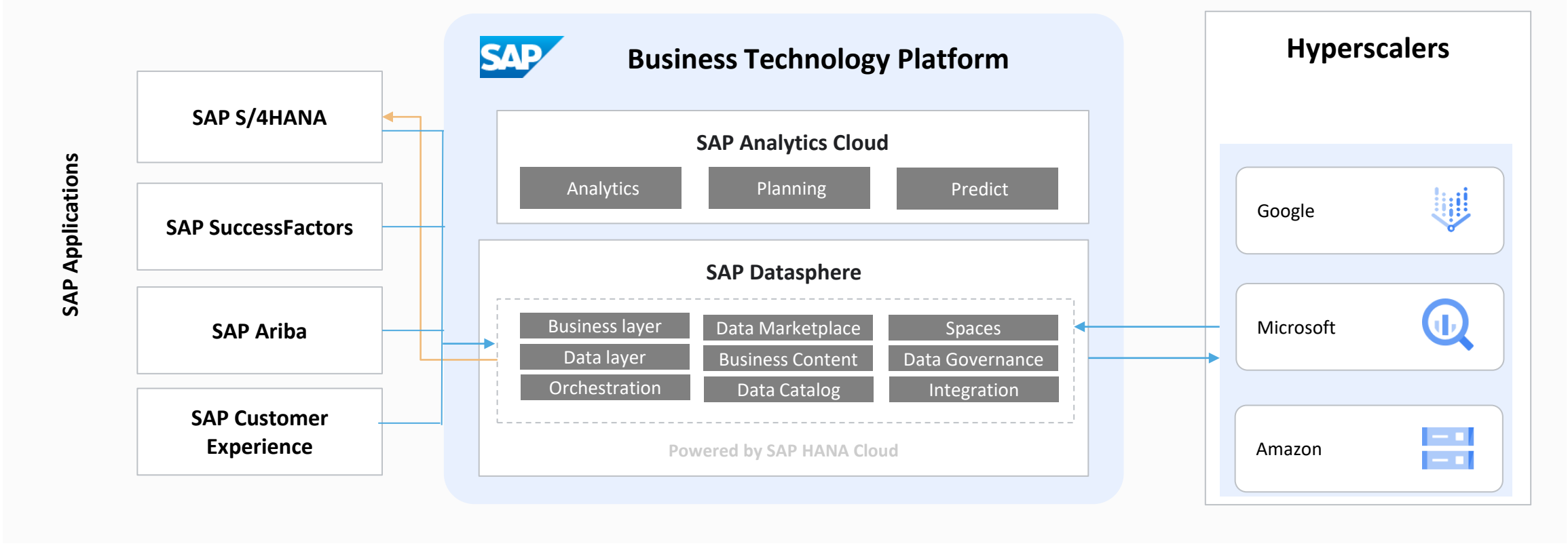
Customers with SAP Datasphere

SAP BW Bridge | Native Connectors | Open Interfaces

SAP data | 3rd party application data

interoperability

Open architecture



Datasphere use cases

Self-service Insights & Modeling on S/4HANA and other Eco systems

Seamless **interoperability** between Datasphere and key Hyperscalers

Modernization of SAP BW with extended functionality and innovative use cases

Consolidate Operational & Business Planning with SAP Datasphere

BW Modernization

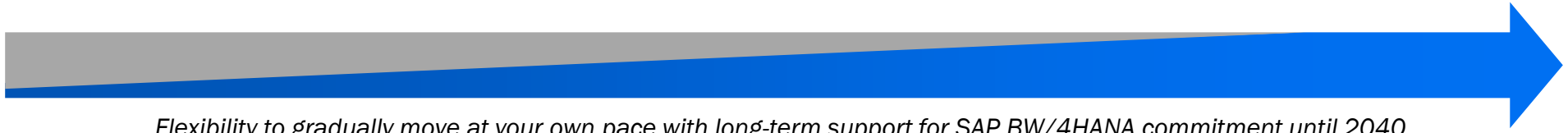
We recommend moving your SAP BW landscape in three steps

SAP BW/4HANA

Safeguard investments by retaining mature and complex on-premises systems or move to the private cloud – in support of the "RISE with SAP" strategy.

SAP Datasphere

Innovate with SAP's strategic target solution for all data warehousing use cases, in line with our data-to-value portfolio strategy.



Flexibility to gradually move at your own pace with long-term support for SAP BW/4HANA commitment until 2040.

1

Innovate with new use cases within SAP Datasphere

unique innovation with SAP Datasphere as the foundation for a Business Data Fabric architecture – driving agility, business empowerment, data warehousing, and accelerated time-to-value

2

Gradually Move in Alignment with your SAP S/4HANA transformation

Leverage hybrid functionality to modernize the planning and analytics stack on top of SAP BW (IBP, Add-Ons, Applications…)

3

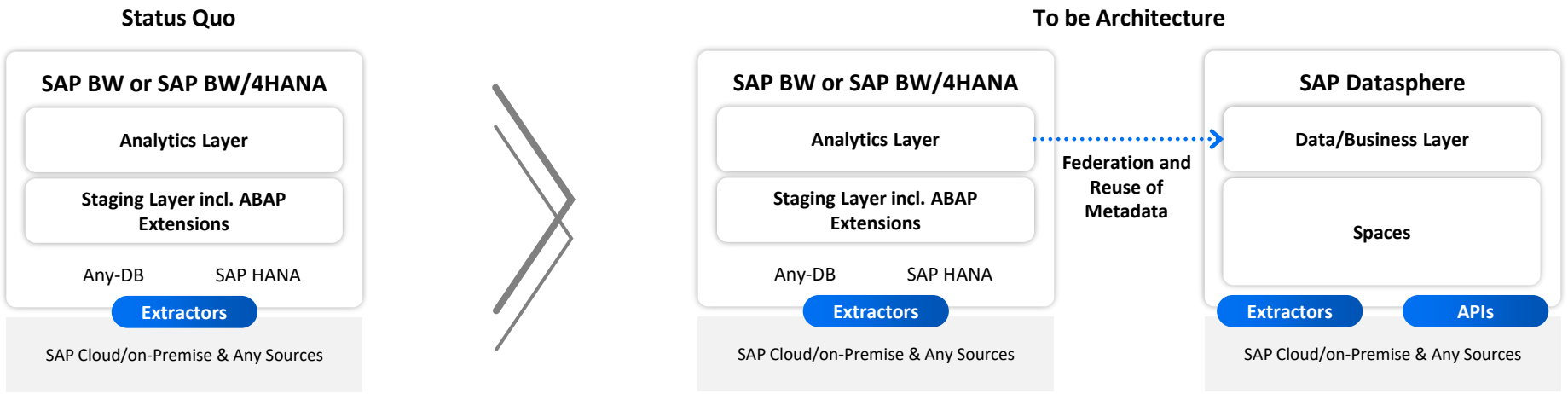
Replace SAP BW

with an modernized Analytics stack on top of SAP Datasphere

Transition to SAP Datasphere with full flexibility at your own pace

Hybrid.

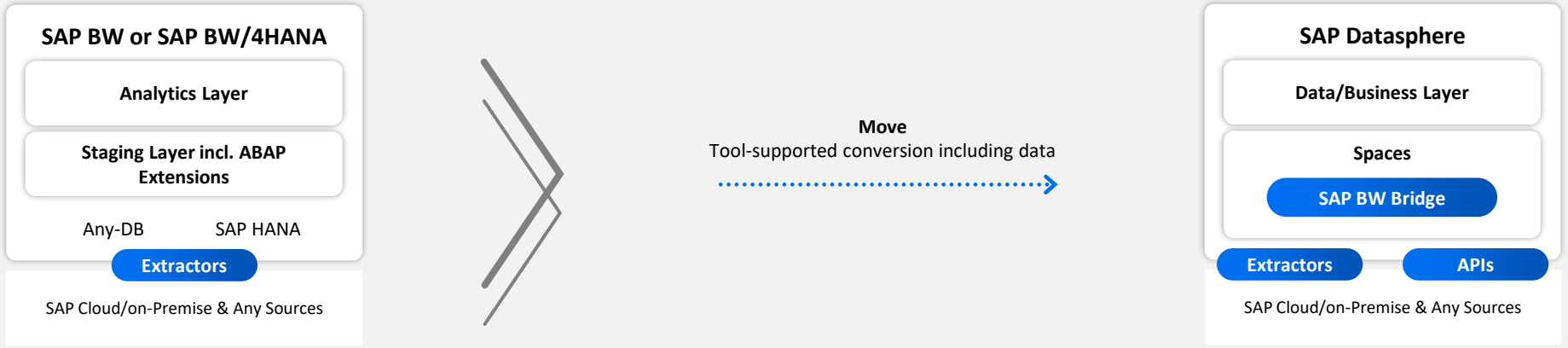
Combining SAP BW or SAP BW/4HANA with SAP Datasphere



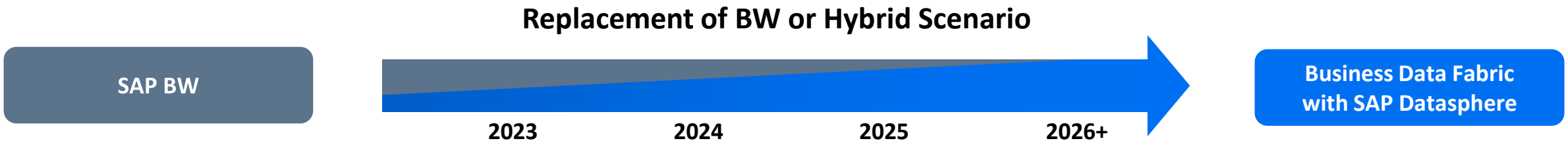
Switch/move from Hybrid to SAP Datasphere with SAP BW bridge

SAP BW bridge.

Replace parts of SAP BW or SAP BW/4HANA with SAP Datasphere



Move SAP BW Customers with SAP BW bridge



Partners & SAP can help with

- Tool-supported migration
- SAP RISE strategy full support
- Free 90-day trial
- System exploration tool
- SAP partner network

Today, SAP Datasphere covers calculated and restricted key figures, hierarchies, time dependencies, and many other features of the BW world

Upcoming features

- Non-Cumulative key figures, exit variables, constant selection & complex hierarchies
- Remote Table with Delta for heavy data loads from SAP BW bridge
- Unit Conversion support and expanded support of Input Variables from the status quo

Datasphere use cases

Self-service Insights & Modeling on S/4HANA and other Eco systems

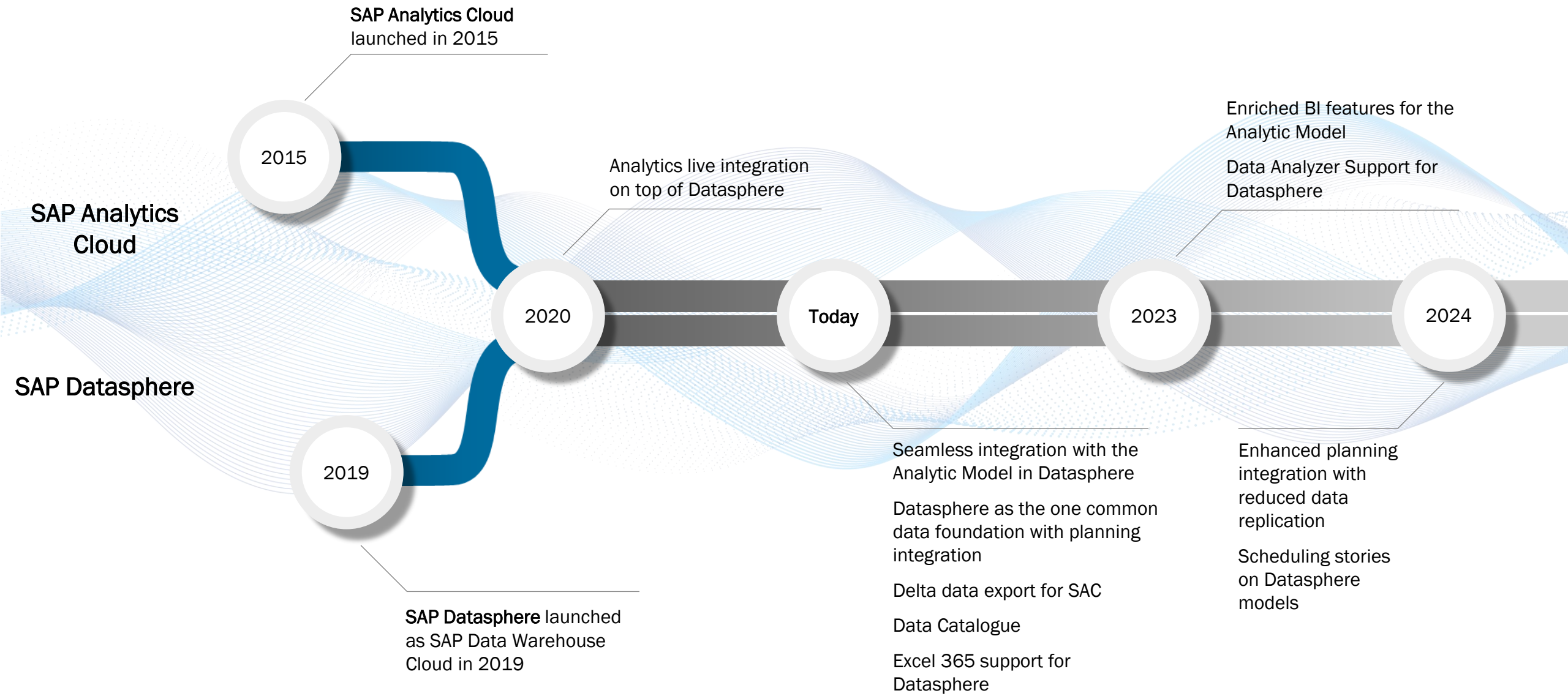
Seamless **interoperability** between Datasphere and key Hyperscalers

Modernization of SAP BW with extended functionality and innovative use cases

Consolidate Operational & Business Planning with SAP Datasphere

Consolidate planning

SAP Analytics Cloud and SAP Datasphere integration journey.



This is the current state of planning and may be changed by SAP at any time.

Customer use cases

Overview of use cases

SAP Datasphere customers typically drive one or multiple of these use cases to address key challenges in their current data & analytics setup

	KEY CHALLENGE
1	Resolving strong IT dependency
2	Breaking silos in data & analytics landscape
3	Establishing decentralized governance approaches
4	Realizing (Gen)AI use cases
5	Future-proofing Data Warehousing investments

Overview of use cases

SAP Datasphere customers typically drive one or multiple of these use cases to address key challenges in their current data & analytics setup

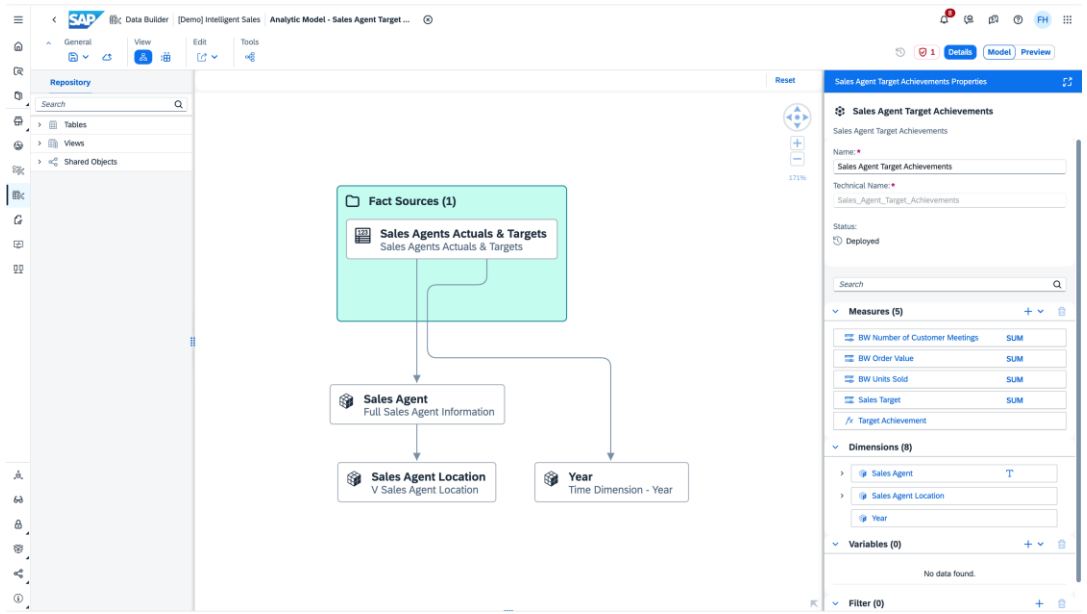
	KEY CHALLENGE	USE CASE
1	Resolving strong IT dependency	Empower business users with agile self-service
2	Breaking silos in data & analytics landscape	Achieve interoperability in best of breed architectures
3	Establishing decentralized governance approaches	Support data fabric architecture with data product governance and exchange
4	Realizing (Gen)AI use cases	Establish scalable and governed data and analytics foundation for (Gen)AI use cases
5	Future-proofing Data Warehousing investments	Modernize SAP BW in the public cloud

Business User Empowerment

with agile self-service

Advance the collaboration between Business departments and central IT by

- identifying business areas with increased demand for flexibility and time-to-value
- enabling data-savvy Business users for agile self-service in the data fabric
- balancing enhanced agility with central IT control and governance

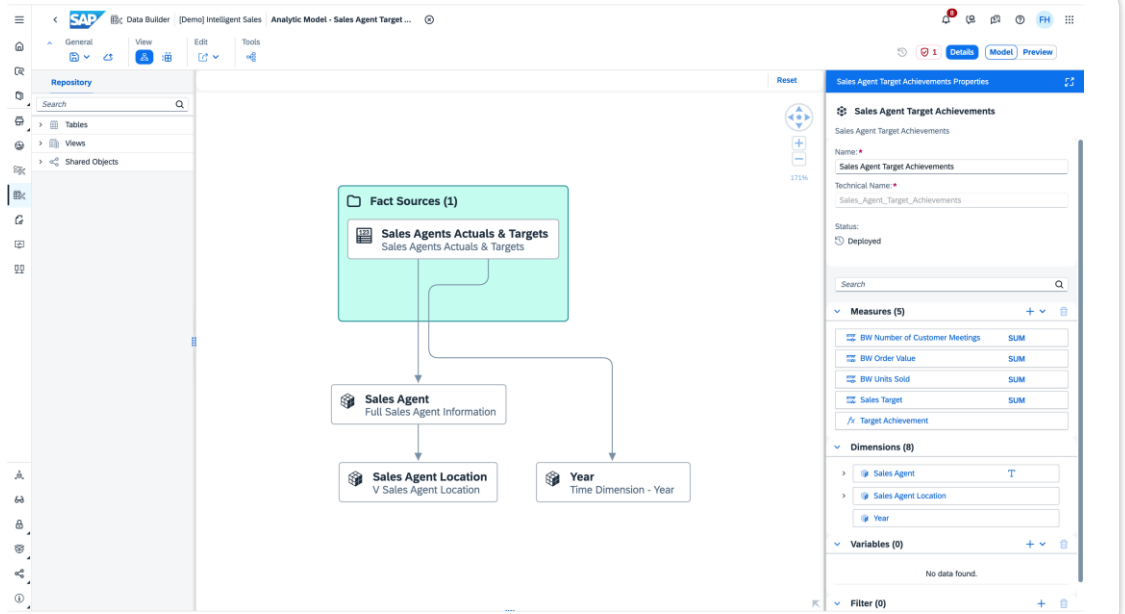


Customer Story

Based on the agile self-service approach a dairy products company enabled both data analysts and non-technical marketeers & business analysts. Harmonizing in the first identified use case market share and customer insights for global brand performance measurement.

Business User Empowerment

with agile self-service



Factors for Success

- Start with a clearly specified business area and use case
- Enable users with training material such as SAP's Learning Content & openSAP
- Revisit and adjust current governance approach in light of SAP Datasphere's capabilities
- Investigate quick-wins through packaged content and Semantic Onboarding
- Learn from the initial implementation to adjust and further scale the model

Customer Story

Based on the agile self-service approach a dairy products company enabled both data analysts and non-technical marketeers & business analysts. Harmonizing in the first identified use case market share and customer insights for global brand performance measurement.

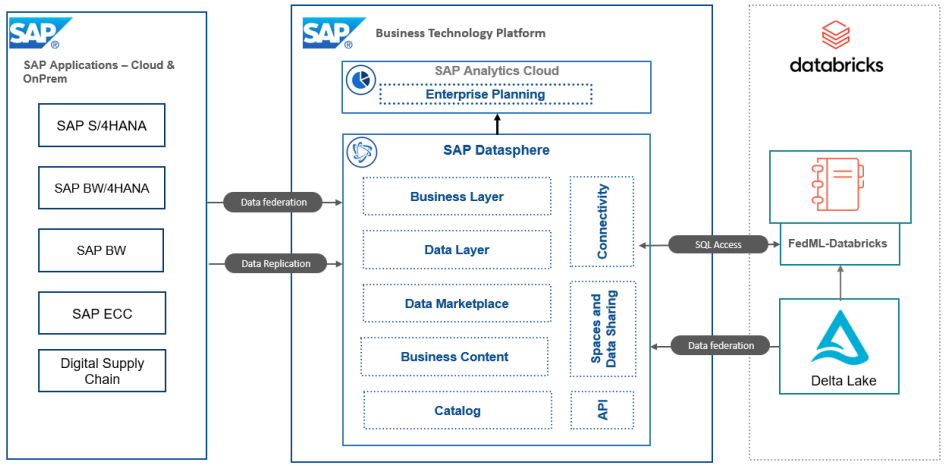
Interoperability

in best of breed architectures

Establish interoperability in architectures that span across SAP and non-SAP, on-premises and private/public cloud landscapes by

- establishing SAP Datasphere as the central semantical & connectivity layer
- following the reference architectures and connectors provided as part of SAP's Open Data Ecosystem
- using data integration options based on federation or replication

databricks CONFLUENT Google Cloud DataRobot Collibra

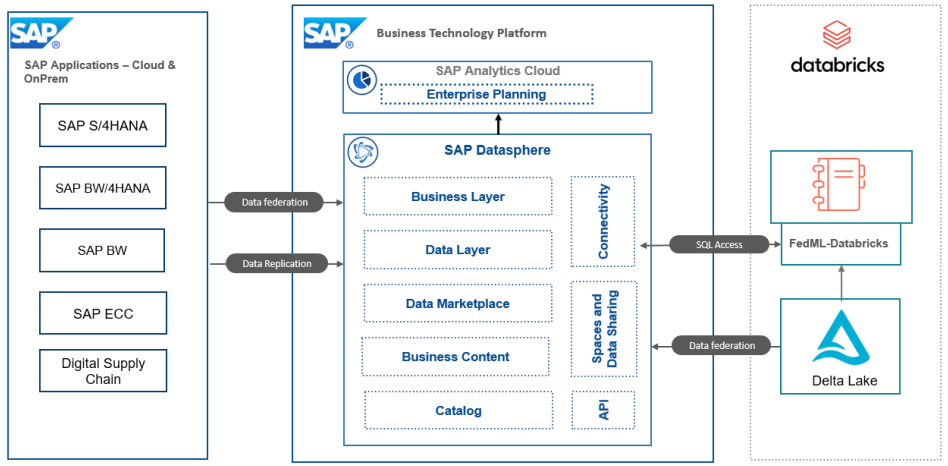


Customer Story

An international food processing company could eliminate the need of data extraction and replication of SAP data into additional systems by leveraging the out-of-the-box integration to Databricks. As such embedding SAP Datasphere into their heterogenous data landscape.

Interoperability

in best of breed architectures



Factors for Success

- Begin with a clearly defined scenario specified to gain quick wins leveraging our library of best practice scenarios
- Use the out-of-the-box reference architectures
- Utilize available and planned technical integration offerings with Collibra, Confluent, Databricks, DataRobot, Google, and others

Customer Story

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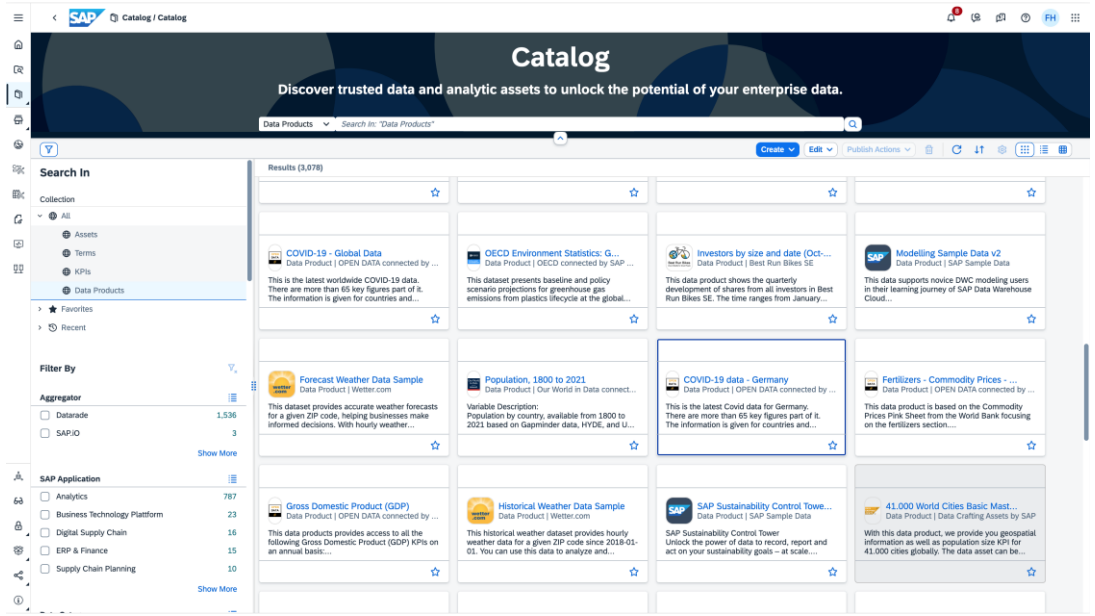
Modern Governance Approach

with data product onboarding and exchange

Establish a modern, decentralized data architecture and operating model by

- evolving to a “data as a product” mindset and in the organization’s governance & operating model to gain speed & flexibility
- enabling business areas to independently provision, exchange and govern data products around their areas of responsibility
- advancing IT’s role to creator of foundational data products and enabler to drive innovation at scale

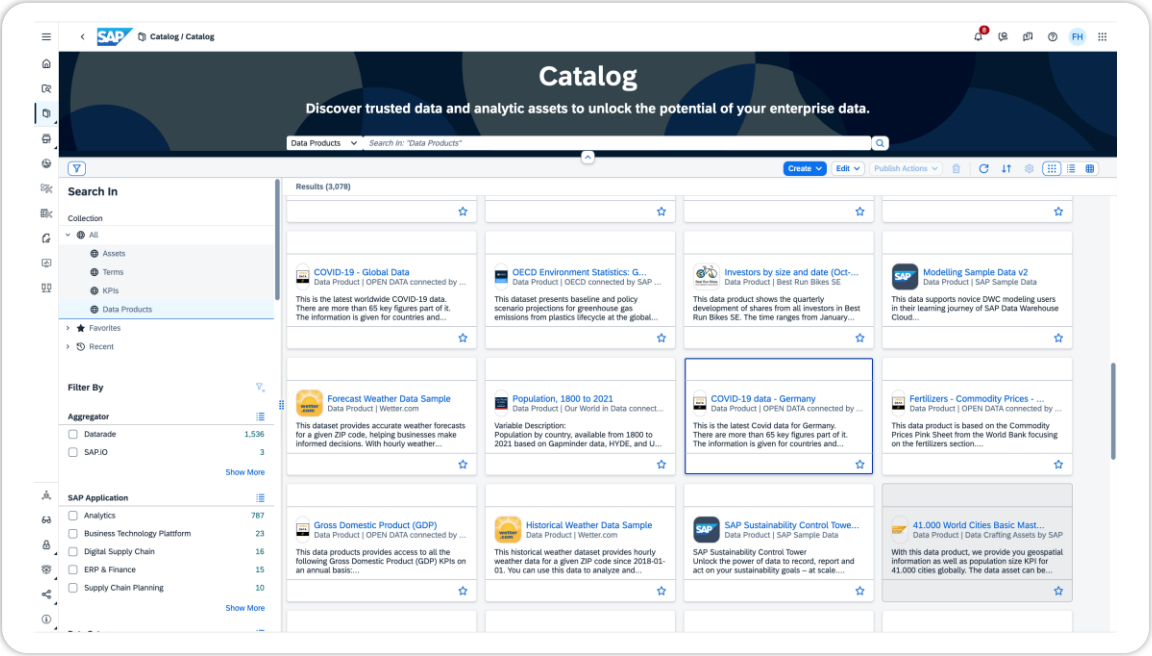


Customer Story

SAP’s Enterprise Analytics organization is establishing a data product architecture as their future data value chain. Enabling the business to bring own data and create own data products running under their governance in an integrated setup. Changing IT from a central delivery organization towards the enabler of a participation foundation where everybody can benefit from the data value chain in a self-service fashion.

Modern Governance Approach

with data product onboarding and exchange



Factors for Success

- Set up data & analytics landscape and data product architecture as future data value chain
- Fill the bar by offering foundational data products (created by IT) per domain that can be used by Business and IT to realize their use cases
- Use accelerators such as Semantic Onboarding and future SAP-provided Data Products
- Enable Business entities to largely independently curate and create data products – sharing them within the organization and B2B network

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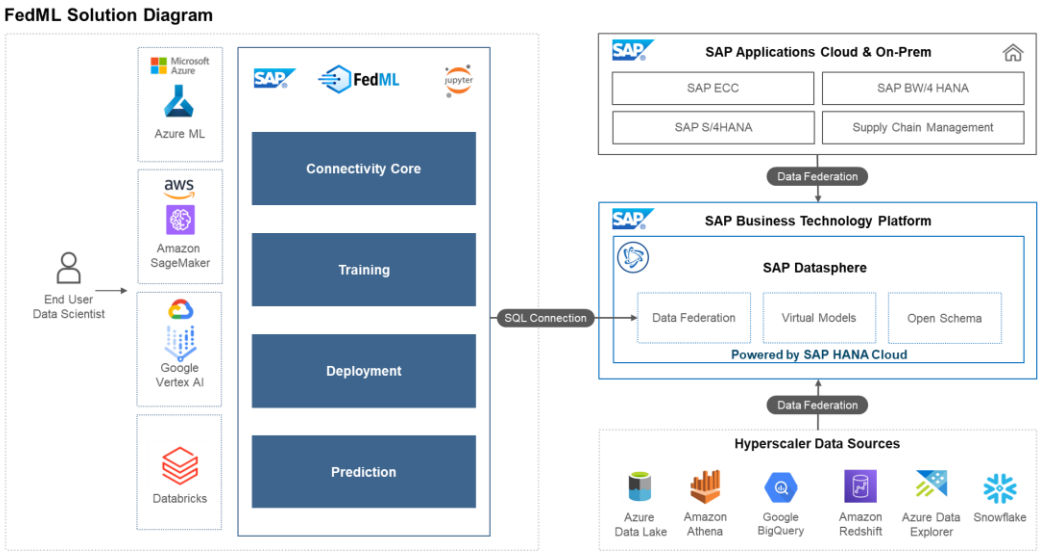
(Gen)AI Foundation

supporting integration across sources, governance and scale

Establishing a scalable and governed foundation for (Gen)AI use cases by

- creating the data foundation for (Gen)AI applications by integrating and harmonizing heterogeneous data sources across SAP and non-SAP into a central and governed semantical layer
- leveraging SAP Datasphere's native integration with justAsk for conversational AI based on reusable Analytic Models
- connecting with hyperscaler machine learning environments with live data exchange while keeping governance and security intact
- making Large Language Models truly understand your business data and analytics scenarios



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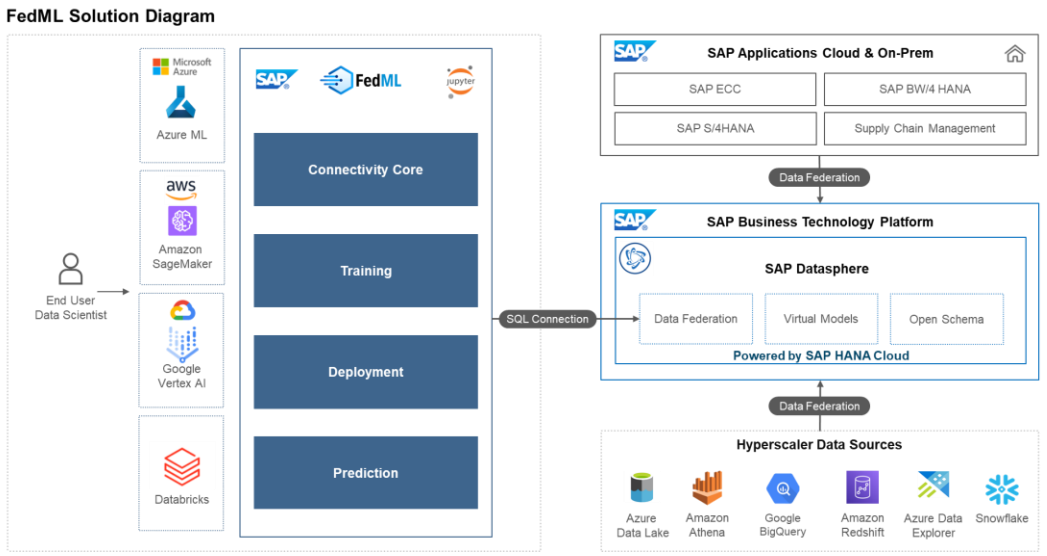


Factors for Success

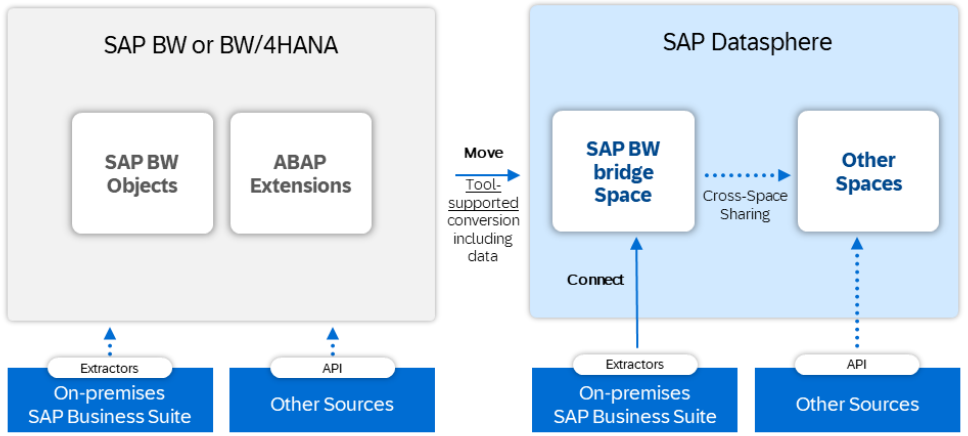
- Establish data foundation in SAP Datasphere leveraging SAP and third-party connectors
- Prepare data through the modeling environment creating a harmonized data foundation
- Provide access to existing and specifically build use cases. Utilizing FedML library for out-of-the-box integration with hyperscaler ML environments in a federated approach

Modernize SAP BW

by future-proofing data warehouse investments in the public cloud

Modernize your data warehouse landscape by

- deciding between options to start greenfield, gradually transform the existing SAP BW landscape in a hybrid approach or fully transition with tool support
- building on existing investments and skills
- combining traditional SAP BW features with cloud-based innovation and scale



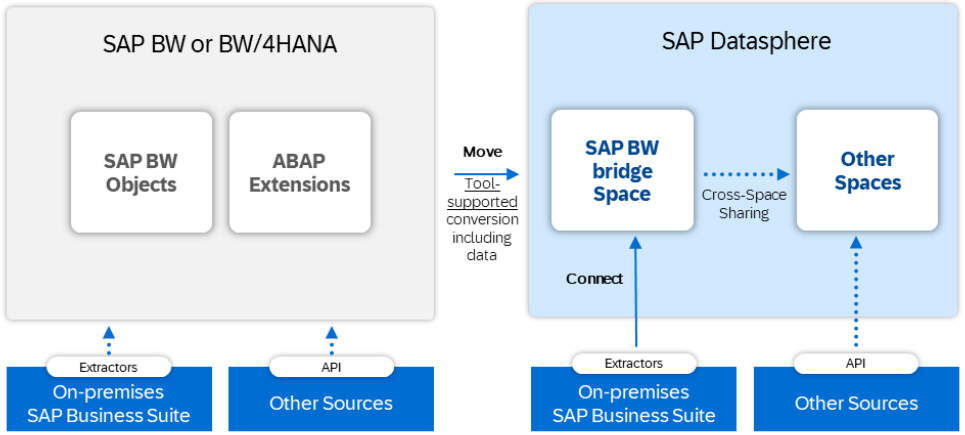
Customer Story

Modernizing of HR Reporting by replacing SAP BW & SAP HCM at an insurance company.
Starting greenfield with SAP Datasphere & SAP SuccessFactors.

Create a set of CEO/CFO dashboard in SAP Analytics Cloud at an US agriculture company by transitioning a legacy SAP BW/ECC sales & e-commerce scenario via SAP BW bridge to SAP Datasphere & SAP S/4HANA.

Modernize SAP BW

by future-proofing data warehouse investments in the public cloud



Factors for Success

- Leverage SAP enablement assets such as the SAP BW Modernization series
- Conduct the free SAP BW Move assessment and get additional support by SAP Consulting and Partner experts as needed
- Identify and plan transition of a relevant and feasible scenario as first step
- Start transition with support by tools such as SAP BW Bridge and Entity Import to protect investments

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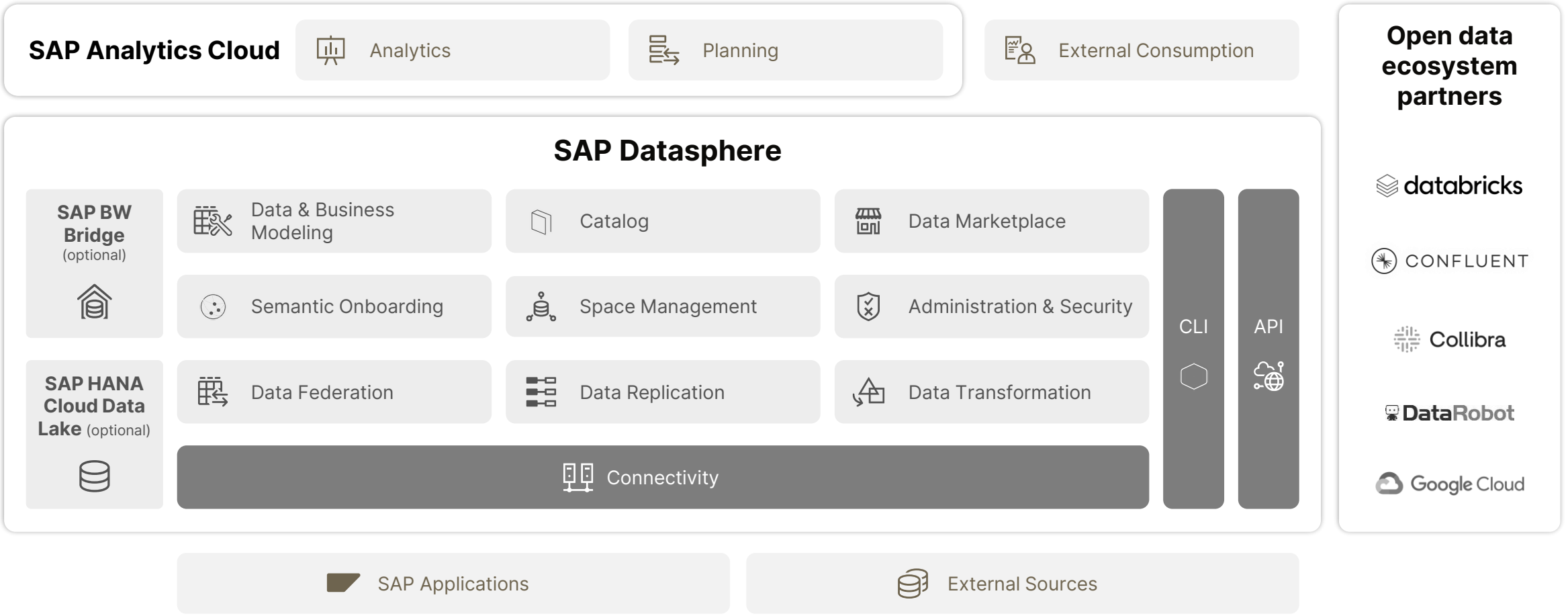
SAP Datasphere

Enabling a variety of use cases



Data to Value

Integrated Data & Analytics Portfolio

Extended planning and analytics

Take enterprise planning to the next level with an optimized, vertically integrated consumption layer for planning and analytics workloads.

SAP Analytics Cloud

Business data fabric

Deliver an integrated, semantically rich data layer over underlying data landscapes to provide smooth and scalable access to data without duplication.

SAP Datasphere

Intelligent data applications

Build apps leveraging analytical capabilities (machine learning, graph, spatial, Vector DB), combining historical and real-time data.

SAP HANA Cloud

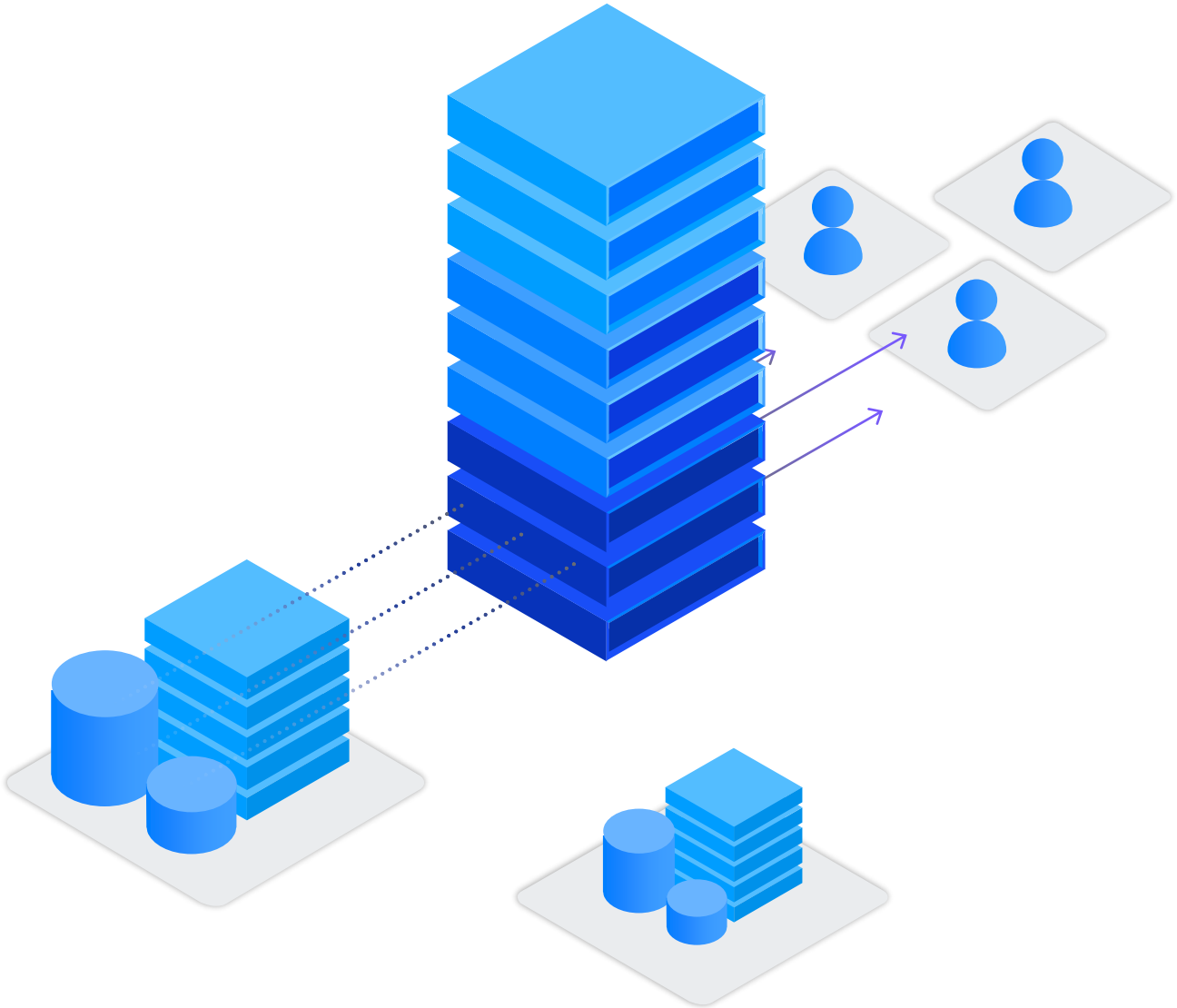
SAP Datasphere

Outlook

SAP Datasphere

What's next?

- **Tight Integration into SAP Applications**
- **Large systems**
- **Foundation for GenAI Enablement**



Datasphere - Roadmap

Preview subject to change

Just Released

Space Dependent Permissions for fine granular Space Management including CLI support.

Folder Support to better organize objects in the Data Builder

Semantic Onboarding focusing on Data Products, Importing Entities & Content

Replication Flow Premium Outbound Integration supporting data load into non-SAP Systems (e.g. Big Query, Kafka and more).

Boolean operators for Data Access Controls reducing maintenance effort while increasing flexibility and performance.

Unified discovery of data products and metadata in the catalog.

H1 2024

License-specific data selection for **Data Marketplace**.

Schedule **Replication Flows.**

Analytical OData API enabling external consumption of the Analytic Model.

Command Line interface for Data and Business Builder Objects.

Metadata translation.

BW bridge in **Google Datacenters.**

Define stable objects with **Compatibility Contracts** including lifecycle management.

Support **Stacking**, **Non-Cumulative Key figures, constant selection** and further SAP BW, SAP BW/4HANA capabilities.

On demand compute during peak consumption scenarios.

BW bridge and flat files **Delta loads.**

Future

Expanding **Data center coverage** with Google Cloud Platform.

SQL Script and **spill to disk** support w/ Transformation Flows.

Adding objects **beyond relational data** to Data Products in Data Marketplace.

Enabling **GenAI** through API first and accelerating business outcomes through e.g. automated modeling

Catalog expanding crawling reach to S/4HANA, SAP ECC, and SAP HANA.

Semantic Onboarding support for SAP HANA Cloud calculation view

Direct **Multi-Fact modeling** and **Business Layer support** in the Analytic Model

Outlook on Generative AI with SAP Datasphere

Enable (Gen) AI

SAP Datasphere & Knowledge Graph as a data foundation for SAP Business AI.

Joule

- Extend Joule dialogs with customer-owned content and 3rd-party data
- Enable Joule to perform analytical patterns, even across LoBs
- Provide Joule a customer-defined governance model

Generative AI Hub

- Offer tooling for data acquisition and management in genAI Hub architecture
- Expose Datasphere data to genAI-infused applications, e.g. within BTP apps

Infuse GenAI

SAP Datasphere itself becoming better with SAP Business AI.

Enhance existing functionality

Perform work within SAP Datasphere faster with genAI-boosted workflows (e.g., auto-generation of catalog metadata, genAI-based semantics, such as associations)

Wrap Up

SAP Datasphere is the rock solid foundation for all your SAP data in context.

SAP Datasphere enables smooth data blending with external data

Strong partnerships to beneficiate from the best tools

BW futureproof upgrade solution

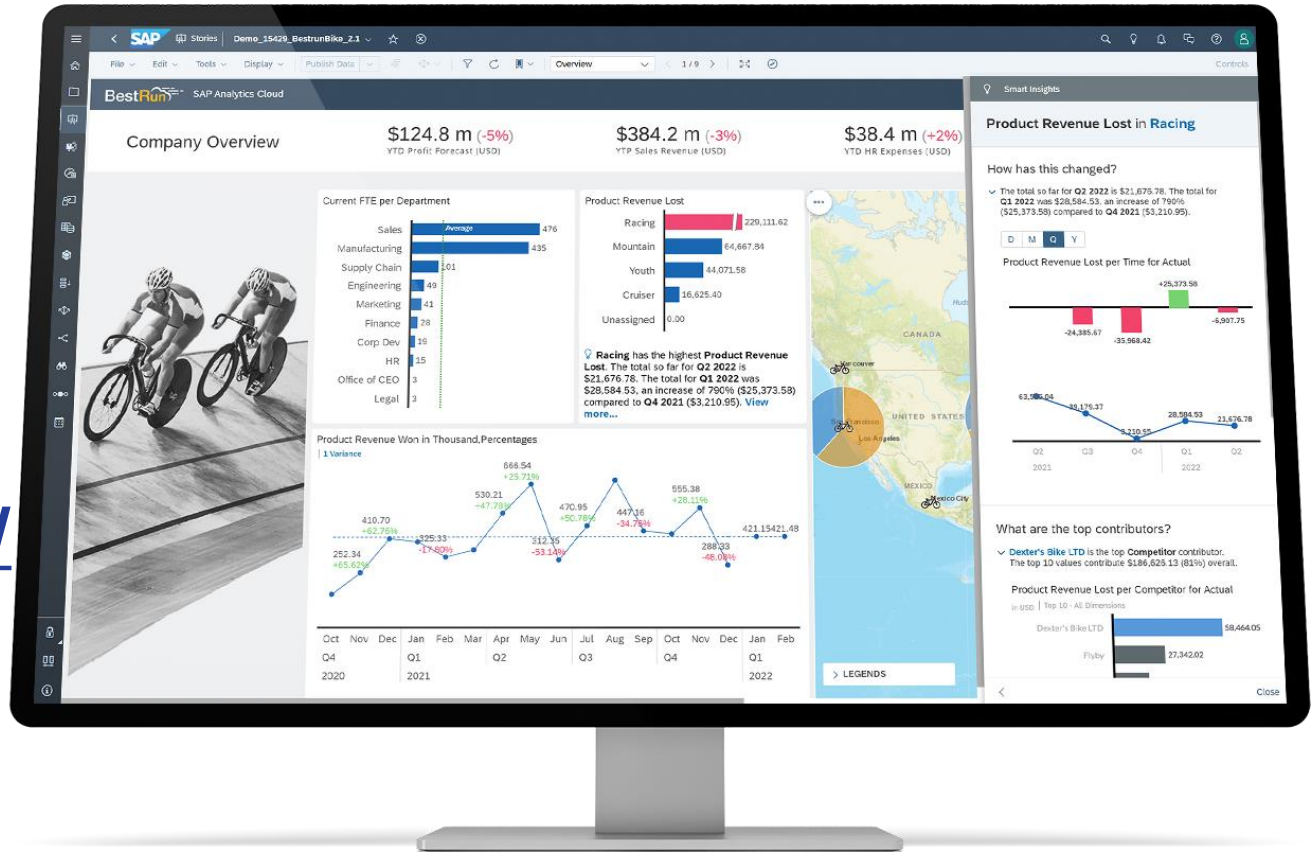
Where to Find More Information

Roadmaps.sap.com

- Explore the future of all SAP solutions

https://www.sap.com/uk/products/technology-platform/datasphere/guided-experience.html

- Discover, try the product



Key Points to Take Home

- SAP Datasphere is the rock solid foundation for all your SAP data in context.
- SAP Datasphere enables smooth data blending with external data
- Strong partnerships to beneficiate from the best tools
- BW futureproof upgrade solution

Thank you! Any Questions?

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Please remember to complete your session evaluation.

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