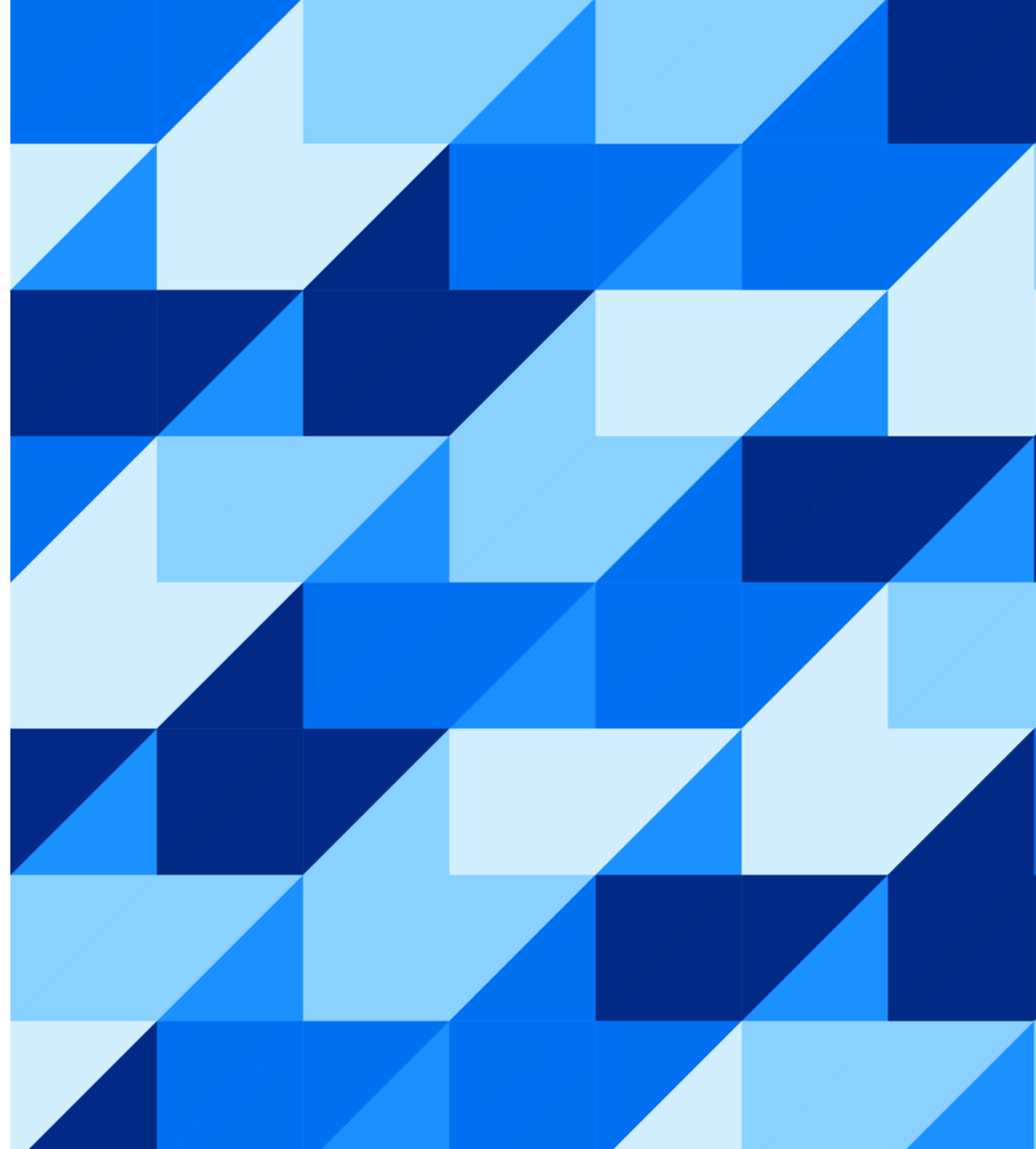




# Demystifying SAP's Data & Analytics solutions

Thomas Hammer, SAP  
March 14, 2024

Public



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# Data is at the heart of the new, sustainable enterprise

Organizations are striving to be  
more intelligent and sustainable

Focus is on serving the needs of  
customers, employees, and society

New business value is expected from  
generative AI



# Applications, AI, and planning require context from quality, trusted data

Business context and logic, especially metadata, has been removed from business data

Gen AI can be next revolution in productivity, but it requires context and quality data

The majority of business users lack data context necessary for data to be useful



# Distributed data landscapes bring new opportunities and challenges

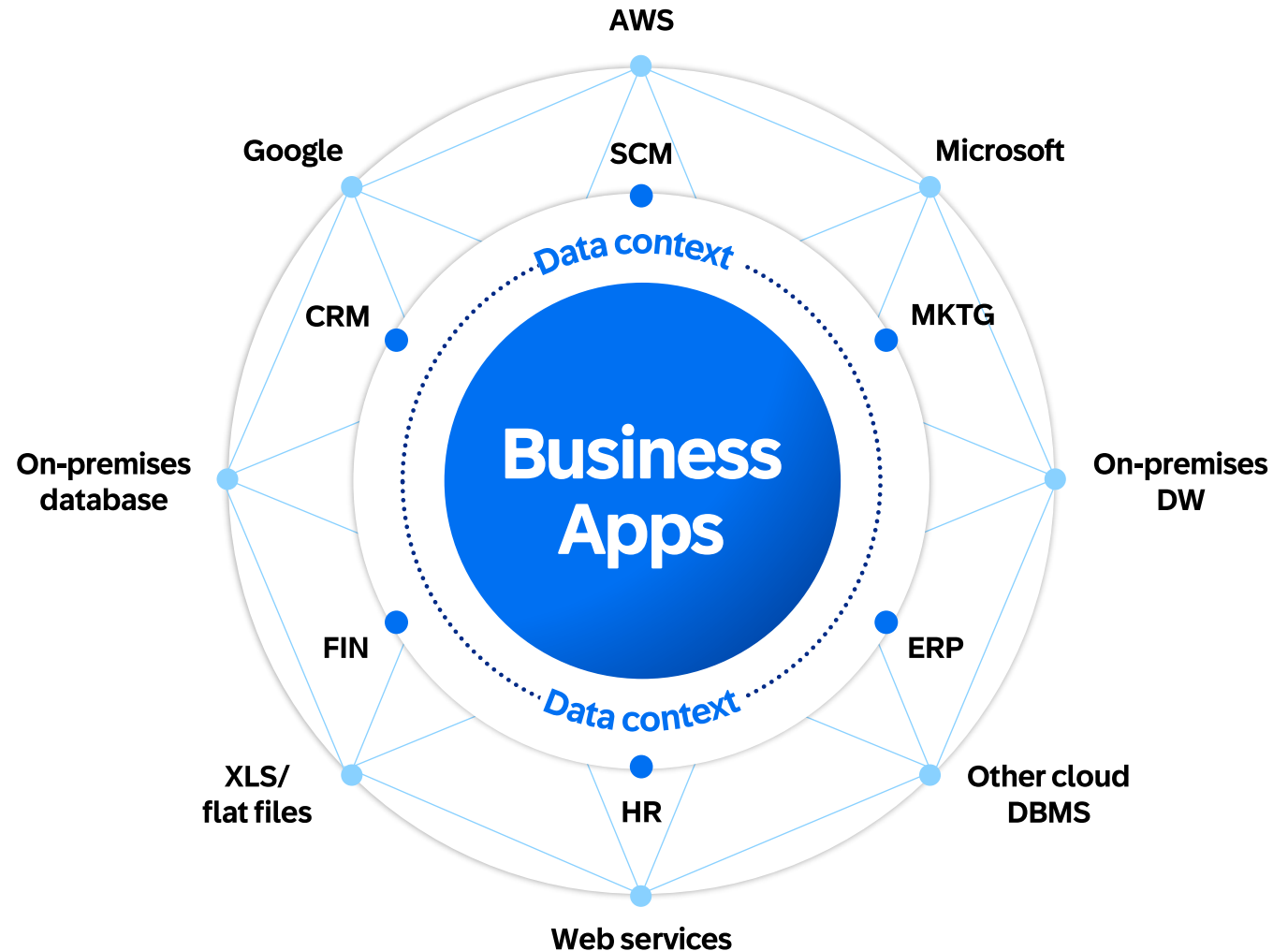
New data sets spawn new projects

On-premises sources remain

Landscape complexity has increased

Data governance and integration are key

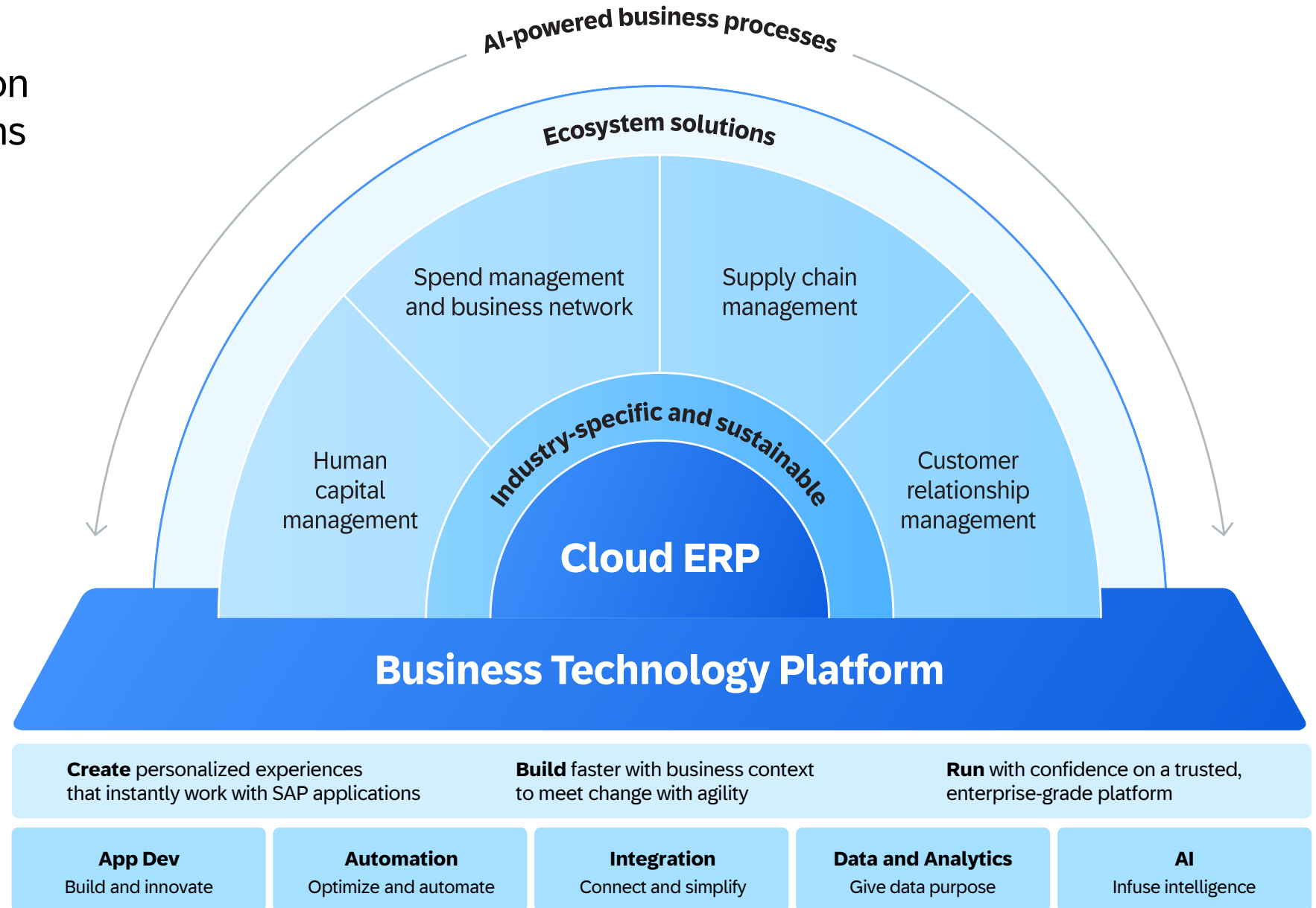
Multi-cloud architectures requires harmonization





# SAP BTP

Unleash digital innovation  
across business functions



# SAP data and analytics

## Business Data Fabric

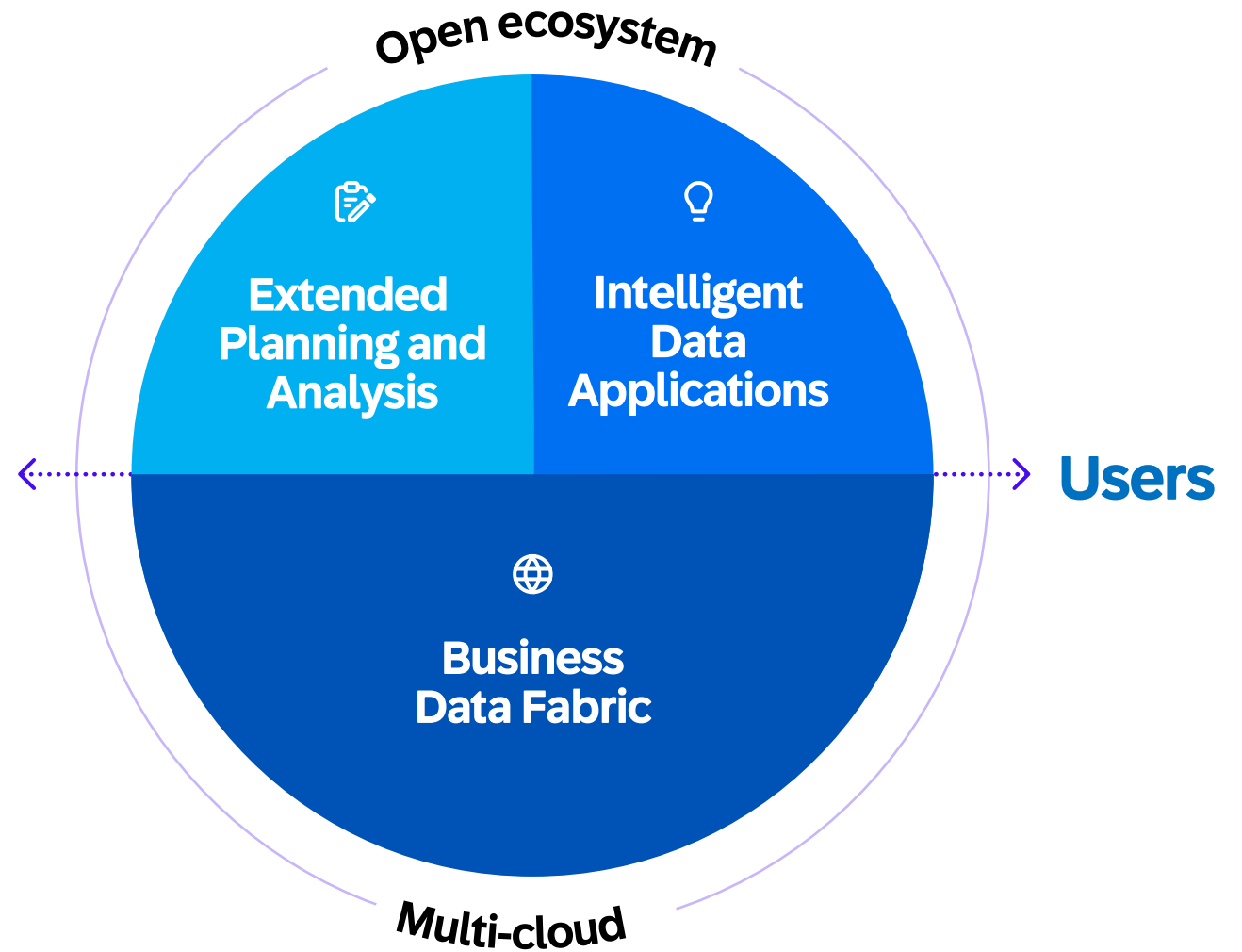
Deliver semantically-rich, trusted data to every data consumer with business context and logic intact

## Intelligent Data Applications

Empower developers to build apps that utilize generative AI, are context-aware, and connect to vital business data

## Extended Planning and Analysis

Connect finance, HR, operational, and strategic planning with data and analytics on a single stack



# Unified 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) of data tier combining historical & real-time data Supported by BTP Services (e.g. pro / no-code app, development tools)

SAP HANA Cloud





# SAP data and analytics



 databricks

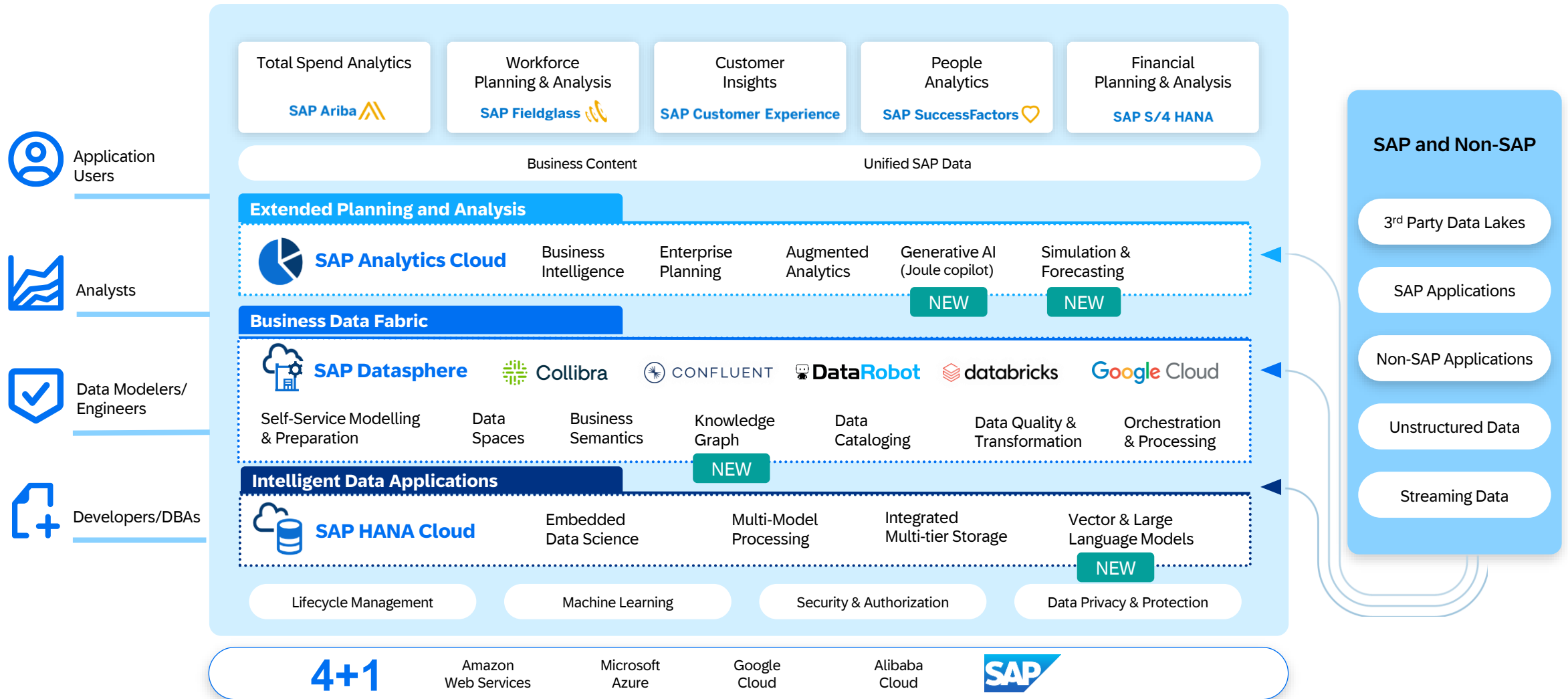
 Collibra

 CONFLUENT

 DataRobot

 Google Cloud

# SAP data and analytics capabilities and personas overview



# SAP HANA Cloud

## **Build and deploy intelligent data applications at scale**

SAP HANA Cloud is a multi-model database management system that empowers the architects of the future to build and deploy the next generation of intelligent data applications at scale.

## **SAP DATA AND ANALYTICS CAPABILITY HIGHLIGHT**

---

- I. SAP HANA Cloud**
- II. SAP Datasphere
- III. SAP Analytics Cloud

# SAP HANA Cloud

Fueling intelligent data applications with scalable database services

## SUPPORT ALL DATA

Smart multi-model support to natively manage structured and unstructured data

## RUN ALL WORKLOADS

In-memory-first architecture to combine advanced analytics on live transactional data

## CONNECT ALL DATA

Memory-powered virtualization and integration for real-time performance on trusted data



## DATA AT SCALE

Intelligent data tiering, elastic scalability and advanced compression for cost-effective and unlimited scale

## DATABASE AS A SERVICE

Managed database services to streamline operational efforts and provide lowest total cost of ownership

## RELIABILITY BUILT IN

Advanced HA/DR and enterprise-class data security and privacy

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**AGILITY · INNOVATION · EFFICIENCY**

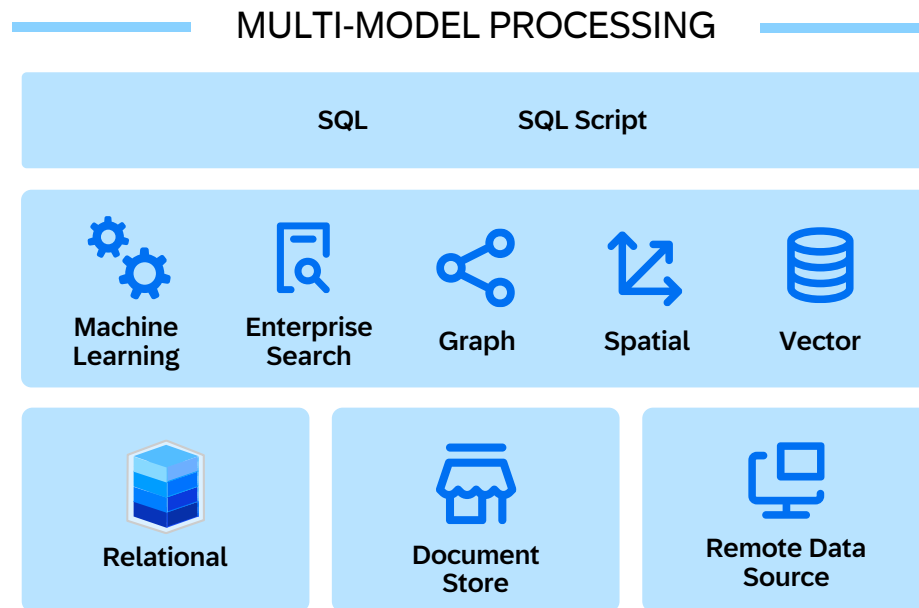
# SAP HANA Cloud

Unify dissimilar and disassociated data into a single powerful solution

Virtually blend data from remote sources  
with locally tiered data

Process all types of business data  
regardless of data model, type, or volume

Interact in real-time using an industry  
standard language



## Spatial

Location-based intelligence

## Graph

Storage and traversal of highly connected data and associated properties

## Document Store

ACID-compliant, flexible management of JSON documents

## Enterprise Search

Find business entities within the database

## Machine Learning

Expert library designed and optimized for fastest in-memory processing

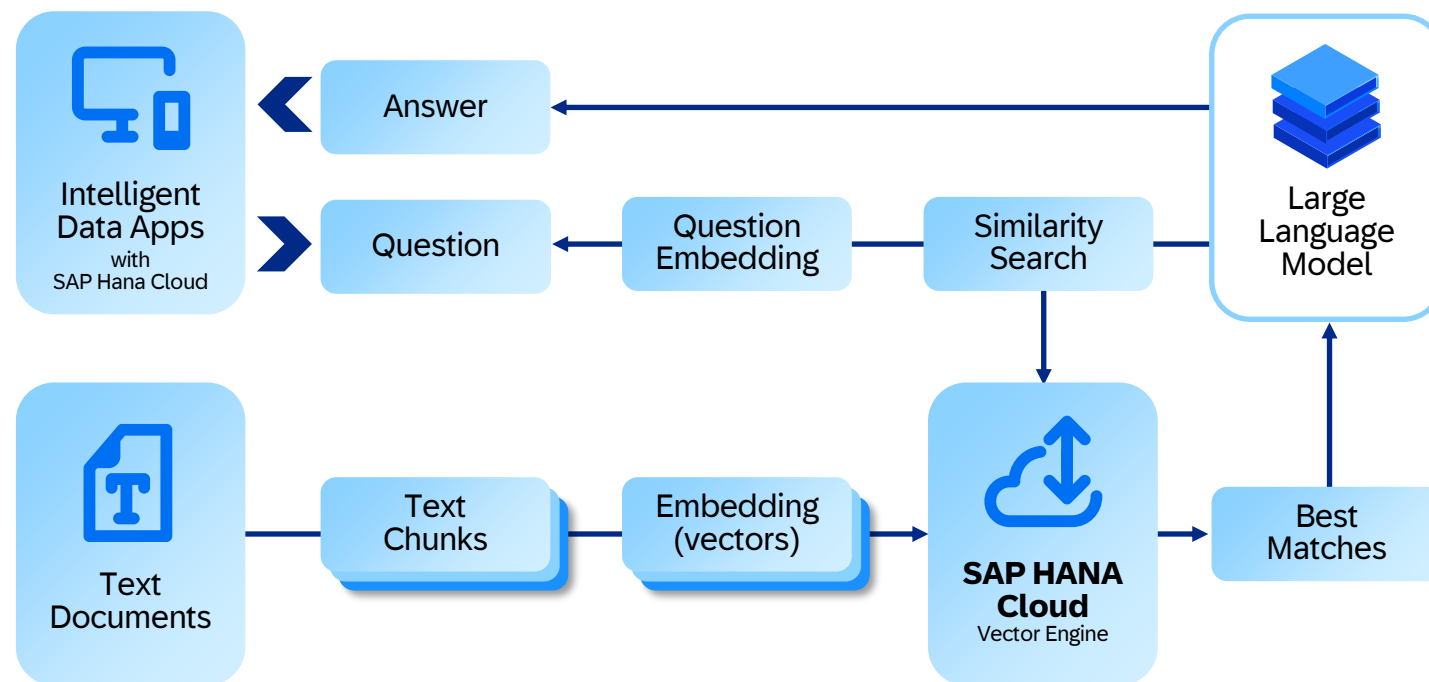
## Vector

Embedding storage and similarity search functions

# Vectorized and GenAI-ready data

Store and query vector embeddings to provide context to GenAI & intelligent data applications

- Native storage and search of vector embeddings with business data enables in-memory semantic search and retrieval
- Data silos eliminated with graph, vector, spatial, JSON, and more combined with business data on a single platform
- Context and meaning provided for GenAI and intelligent data applications with Retrieval Augmented Generation (RAG)





# SAP Datasphere

## Unleash the power of business data

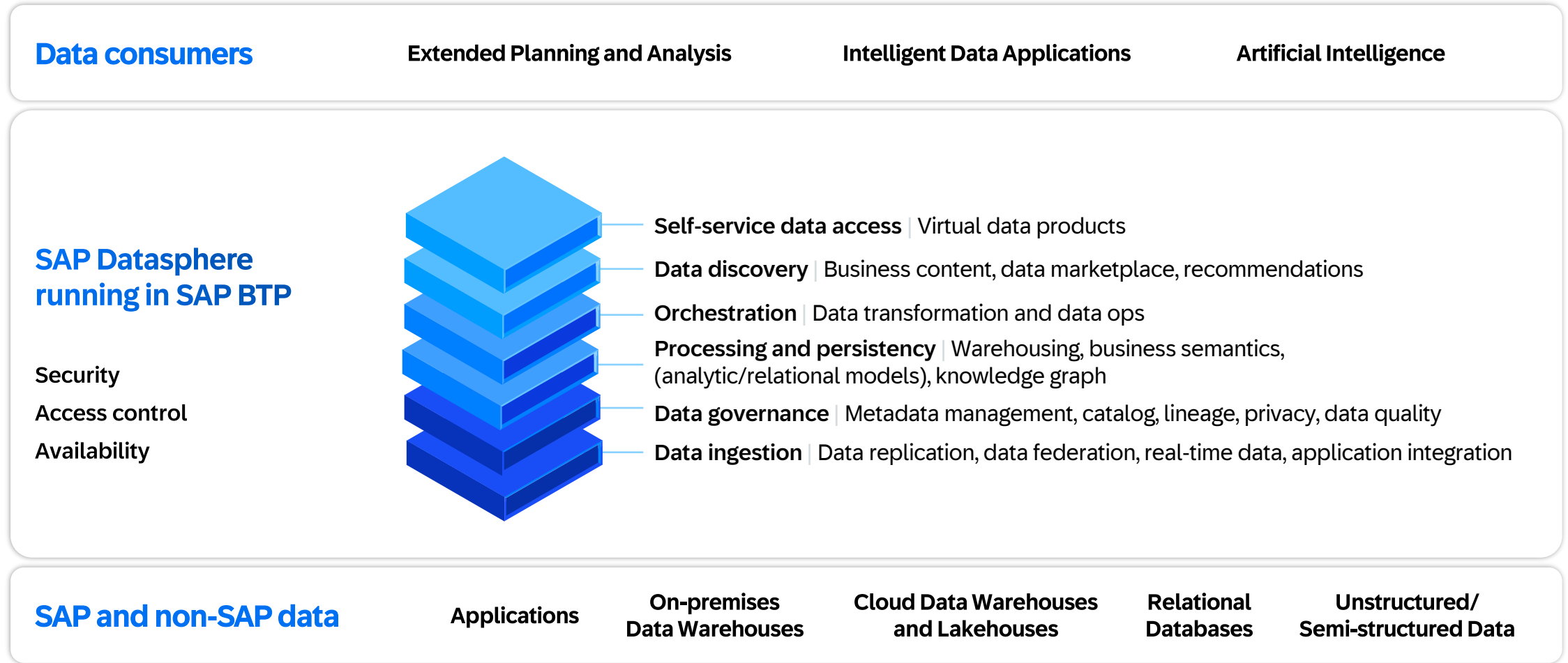
SAP Datasphere is a comprehensive data service that enables every data professional to deliver seamless and scalable access to mission-critical business data. It provides a unified experience for data integration, data cataloging, semantic modeling, data warehousing, data federation, and data virtualization.

## SAP DATA AND ANALYTICS CAPABILITY HIGHLIGHT

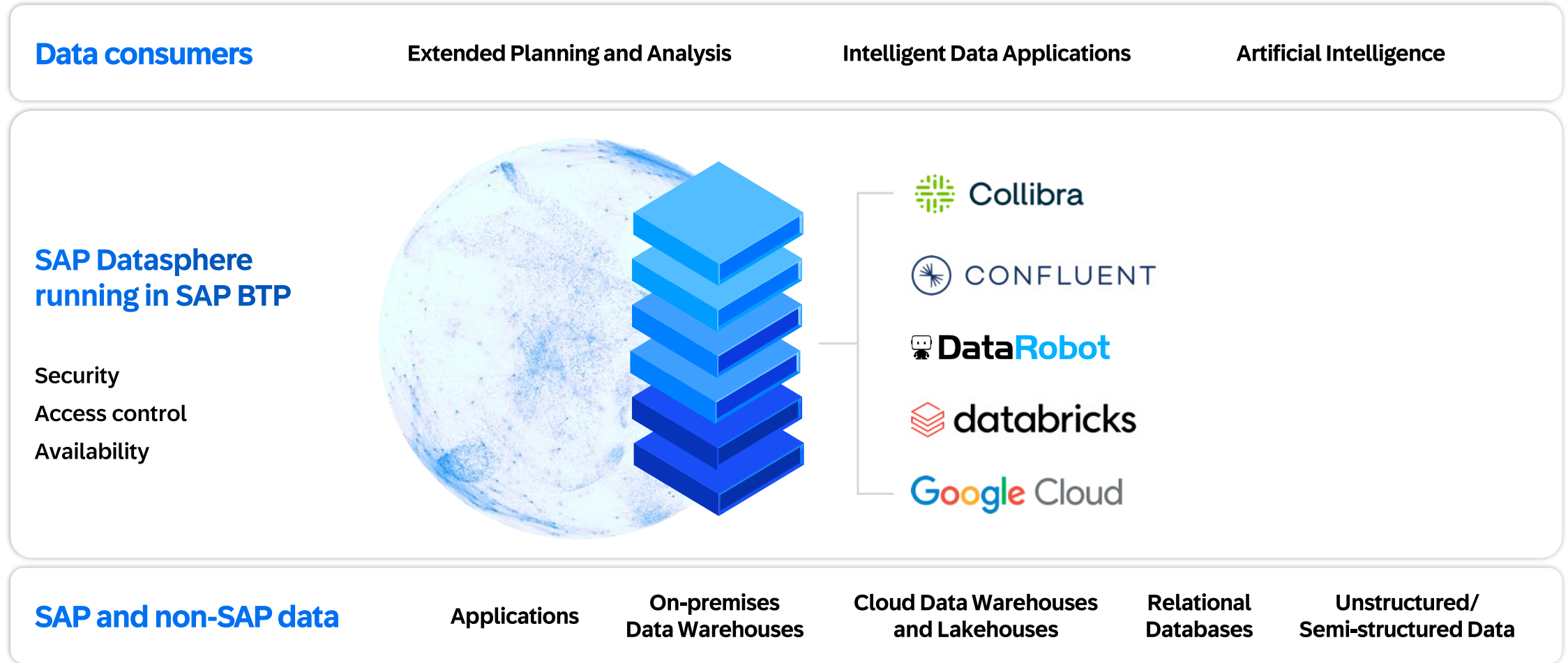
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- I. SAP HANA Cloud
- II. SAP Datasphere**
- III. SAP Analytics Cloud

# SAP Datasphere is the foundation for a business data fabric architecture



# Together with our open data partners



# SAP BW Hybrid

## Integration overview

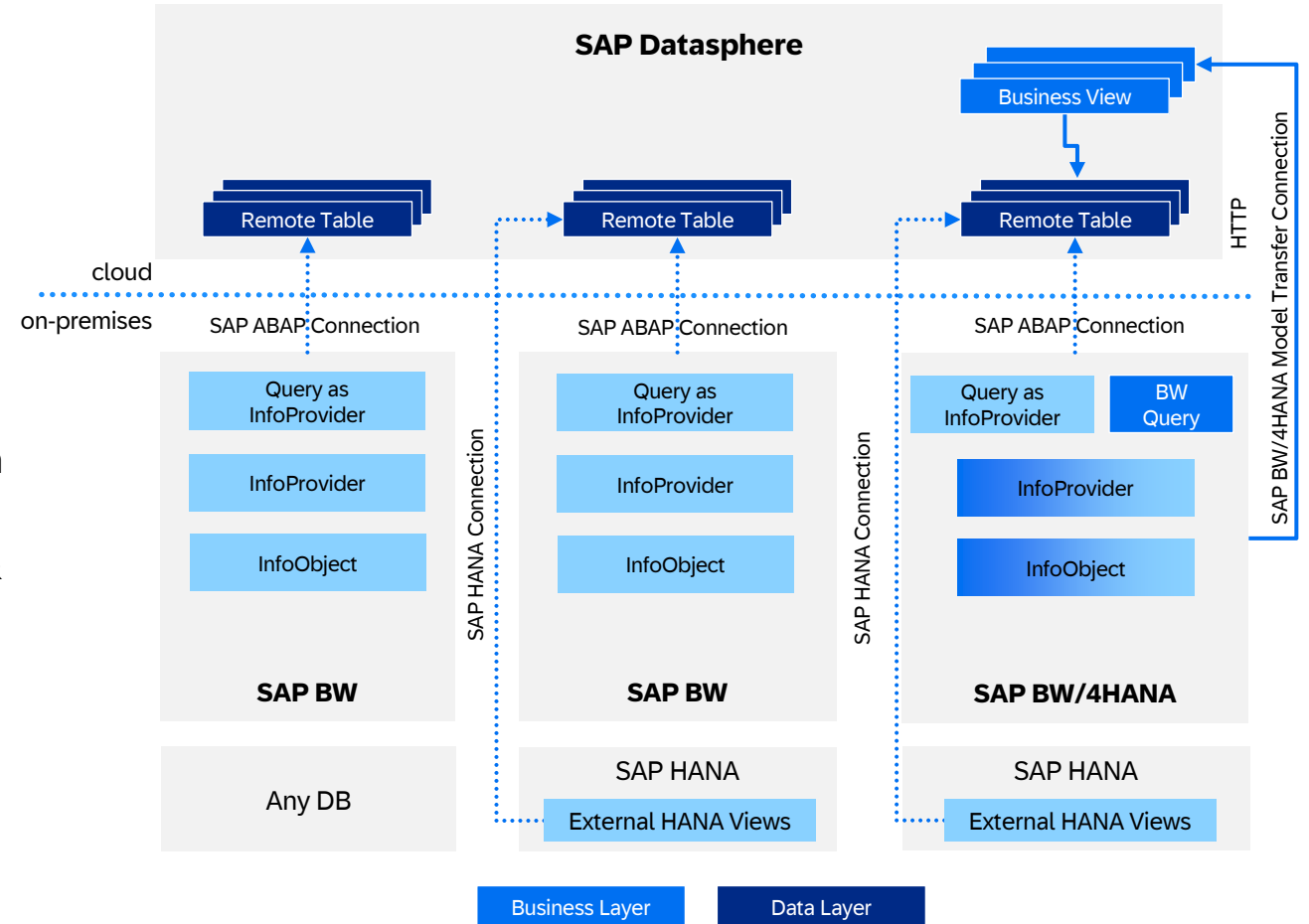
- Two different ways available for integrating SAP BW and SAP BW/4HANA systems:

### Federated/replicated data consumption scenarios via

- Operational Data Provisioning framework (SAP ABAP connection)
- External SAP HANA Views (SAP HANA connection)

### Federated/replicated business semantics integration scenarios via SAP BW/4HANA Model Transfer connection

- Differences in support of consumable entities, supported entity features, federated or replicated scenarios, location & usage of calculation engine
- Remote or replicated data consumption scenarios supported with SAP BW & SAP BW/4HANA
- Business semantics migration support for SAP BW/4HANA only via SAP BW/4HANA Model Transfer connection



# SAP Analytics Cloud

## **Make decisions without doubt**

SAP Analytics Cloud is a comprehensive solution for analytics and planning with native connection to SAP applications and third-party data.

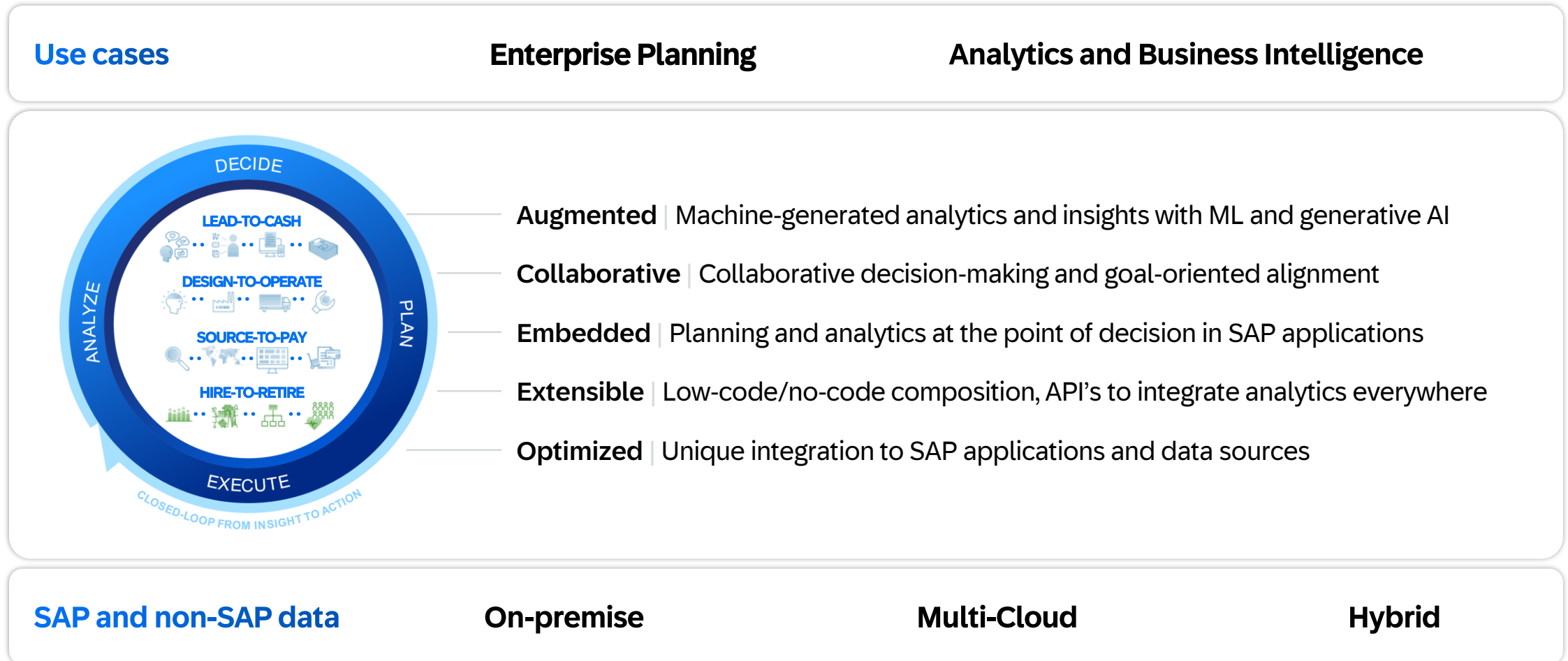
## **SAP DATA AND ANALYTICS CAPABILITY HIGHLIGHT**

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# SAP Analytics Cloud

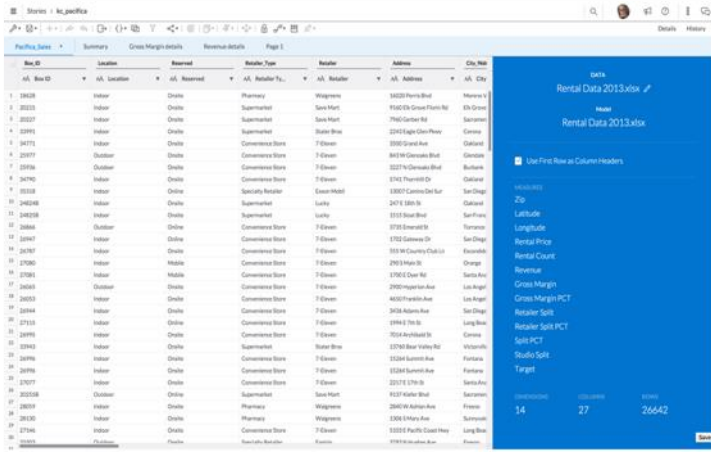
In-the-moment decision support, planning and simulation, and best practices





# Analytics and business intelligence

Explore data across the organization and deliver insights at the point of decision



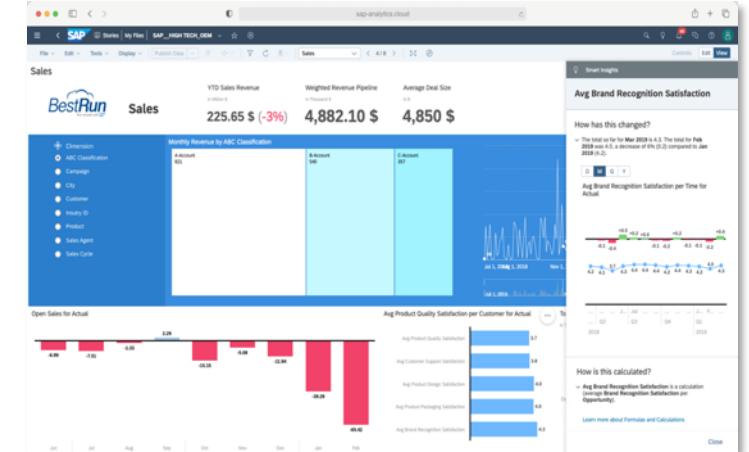
## Data Modeling & Preparation

Set key performance metrics, dimensions, and hierarchies and automate data wrangling to gain deeper insights.



## Data Exploration & Visualization

Discover insights and inspire audiences with interactive visualizations and data stories by slicing and dicing data, regardless of volume size.

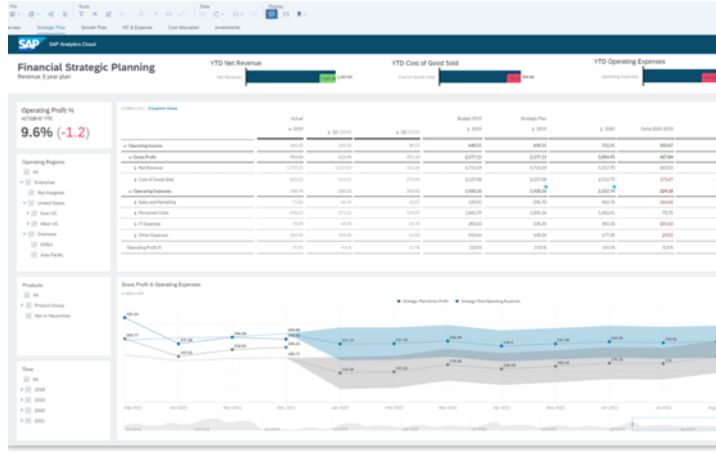


## Augmented Analytics and Generative AI

Go the last mile of data-driven decision-making with machine-generated analytics and insights.

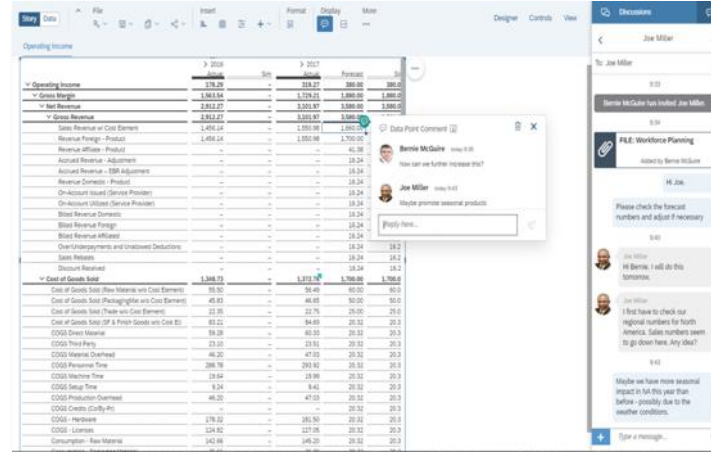
# Enterprise planning

Create and link financial and operational plans smoothly in one solution



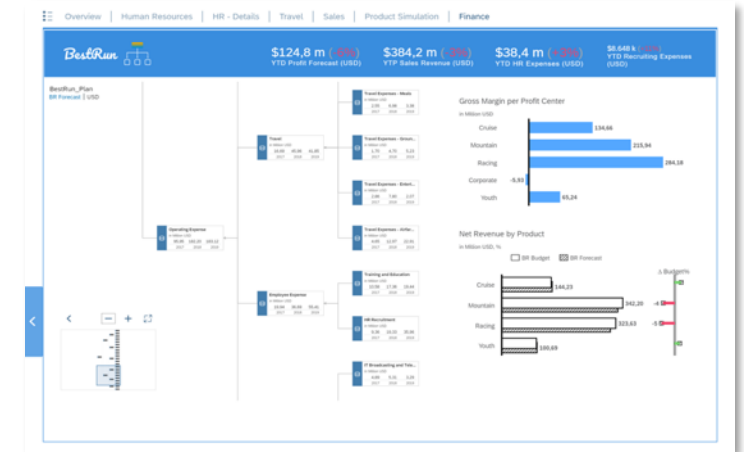
## Predictive planning

Anticipate business needs and stay agile with predictive forecasting and machine learning tools.



## Collaboration

Collaborate across plans on data points, reports, and stories with comments and group discussions online from any device.



## Scenario planning

Create and modify versions of one connected planning model for data-driven budgeting, forecasting, and analysis through one cloud interface.



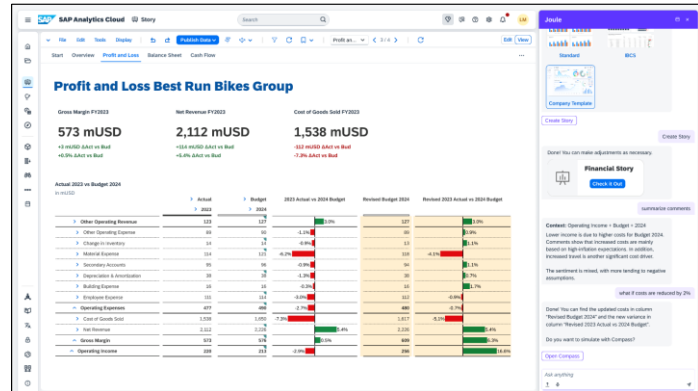
# **SAP Data Unleashed**

Recap

# Planning & Analytics

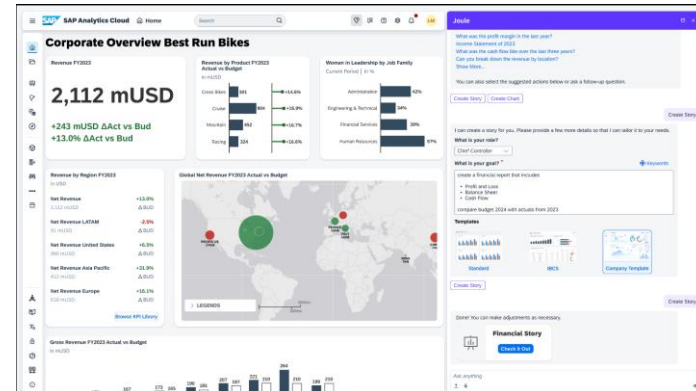
## Enhanced integration for seamless planning

The combination of SAP Analytics Cloud and SAP Datasphere marks a significant evolution in our approach to planning and data



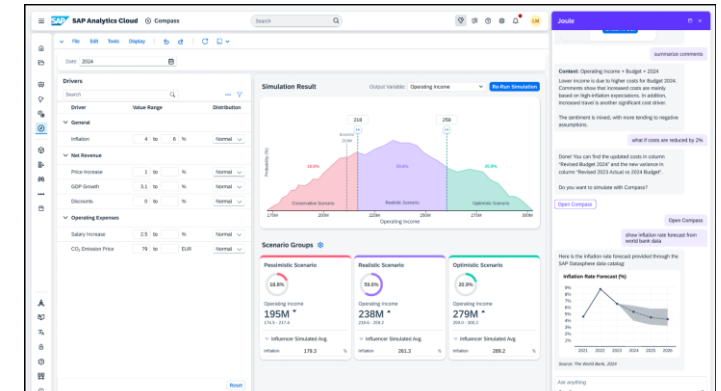
## Generative AI with Joule copilot

Leverage generative AI to create and simulate business plans with the power of Joule, SAP's generative AI copilot



## SAP Analytics Cloud compass

Enables users to simulate the uncertainties in critical drivers and see the probable impact on the organization's overall profitability



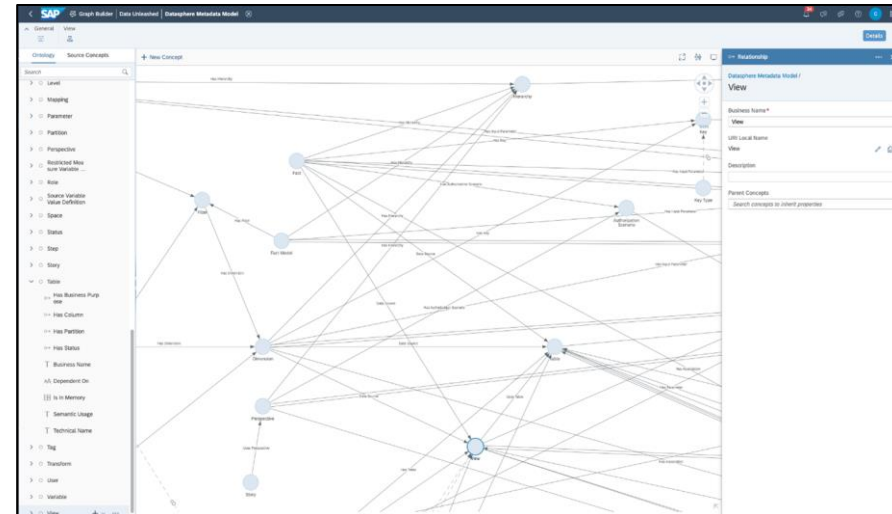
# Business Data Fabric

## Open Data Ecosystem



## SAP Datasphere knowledge graph

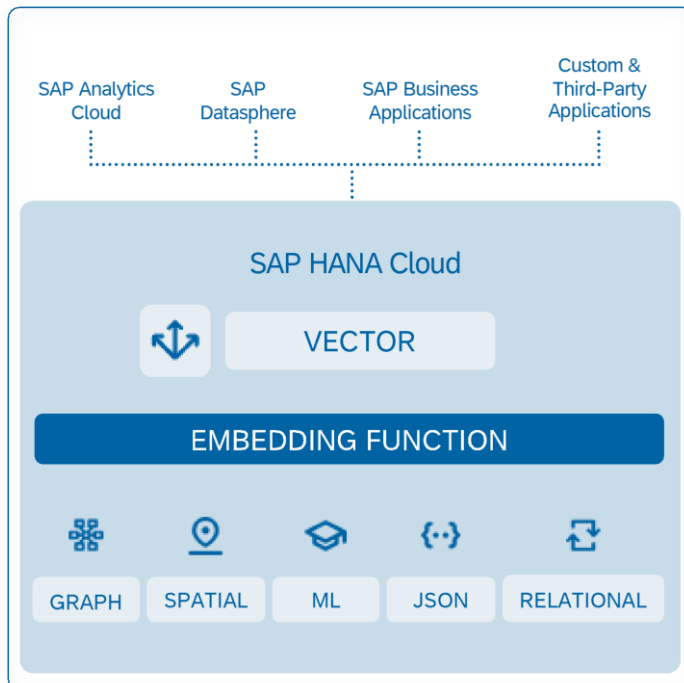
SAP Datasphere automatically creates a rich knowledge graph as data is onboarded, transformed, and integrated, to better respond to open-ended questions.



# Intelligent Data Applications

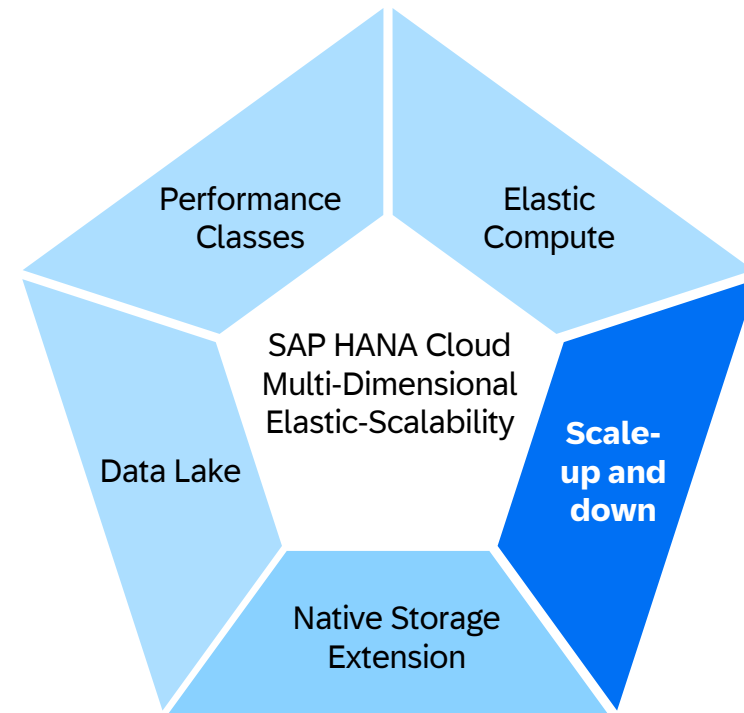
## SAP HANA Cloud Vector Engine

Embedding native capabilities to support generative AI use cases and power the next-generation of intelligent data applications on SAP HANA Cloud



## Increased memory capacity

Enhanced elastic-scalability deployment options for additional flexibility via increased scale-up memory capacity up to 24 TB





# SAP Data Unleashed 2024

March 6, 2024 | Replay available

Replay Now!



## Bring out your best with SAP data and analytics

At last year's SAP Data Unleashed, we set out on a mission to enable organizations to fully harness the power of their data. With SAP Datasphere and our open data partners, we announced the business data fabric architecture that equips any organization to deliver meaningful data to every data consumer — with business context and logic intact. Now, that mission continues.

**Replay SAP Data Unleashed 2024, a 60-minute virtual event to learn how to bring out your best in data, AI, and planning.**



- Hear directly from customers benefiting from a business data fabric
- Discover new data and generative AI capabilities that are revolutionizing planning and analysis
- Get updates on the powerful open data ecosystem around the SAP Datasphere solution

## FEATURED SPEAKERS



### **Julia White**

Chief Marketing and Solutions Officer and Member of the Executive Board, SAP



### **Juergen Mueller**

Chief Technology Officer and Member of the Executive Board, SAP

# Take the next step

Find out more about SAP Data & Analytics

## Learn more

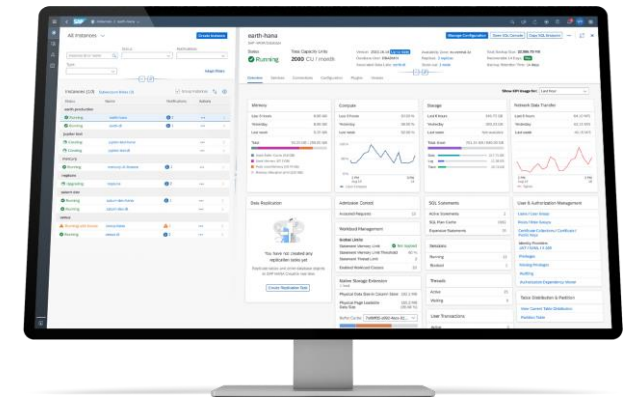
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guided experience



Dive deeper via  
SAP Discovery  
Center



Get the real experience: [sap.com/analytics](https://sap.com/analytics)

**100% for free**

# SAP HANA Cloud

Don't miss out on the upcoming

## **SAP HANA Cloud Vector Engine**

Webinar on April 4th





Questions?

# Thank you.

Contact information:

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