What's New in SAP Datasphere – Q1

Product Management SAP Datasphere
April 2023

THE BEST RUN **SAP**
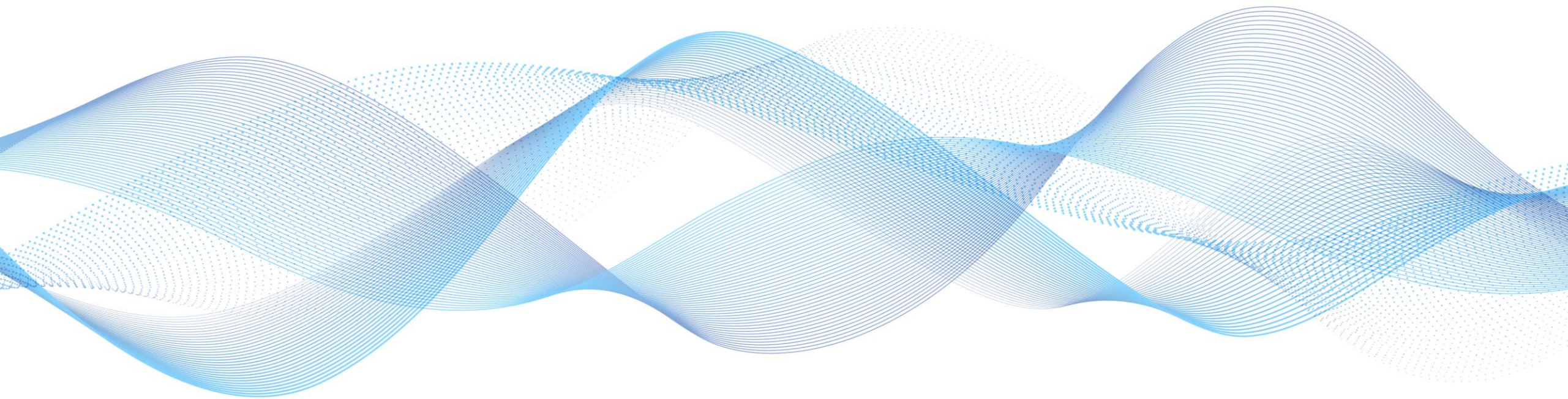
Agenda

1   **The Launch of SAP Datasphere and the new components**

2   **Updates in Modeling and Data Integration**

3   **Updates with the SAP BW Bridge**

4   **Updates in CLI and Data Marketplace**

The Launch of SAP Datasphere and the new components

Where to find more information about SAP Datasphere

https://www.youtube.com/watch?v=bzJwBWgK5Yc

- sap.com/datasphere
- SAP Community
- Roadmap
- FAQ
- Customer Influence
- Documentation

General Resources

- Unleash Event Replay for SAP Datasphere
- SAP Datasphere Press Release
- Announcement Blog by JG Chirapurath
- Technical Blog by Juergen Mueller
- Partner Quotes: SAP Introduces SAP Datasphere
- Testimonials: Lufthansa & Messer
- SAP Datasphere Launch Demo Video
- SAP Datasphere Solution Brief

Product Blogs

- Catalog: Unlock the full potential, Overview Q1 features
- Analytic Model: Part 1, Part 2, Part 3, Part 4, Part 5
- Replication Flow: SAP Datasphere – New Replication Flow
- Intelligent Lookup: Part 1, Part 2, Part 3
- Sample Content, LoB Sales, LoB Human Resources, LoB Finance

Catalog

SAP Datasphere Catalog

Discover

Discover data (*crawl*, *profile*, *organize*, *link*, and *enrich*) and make data **accessible** (*browse*, *search*)
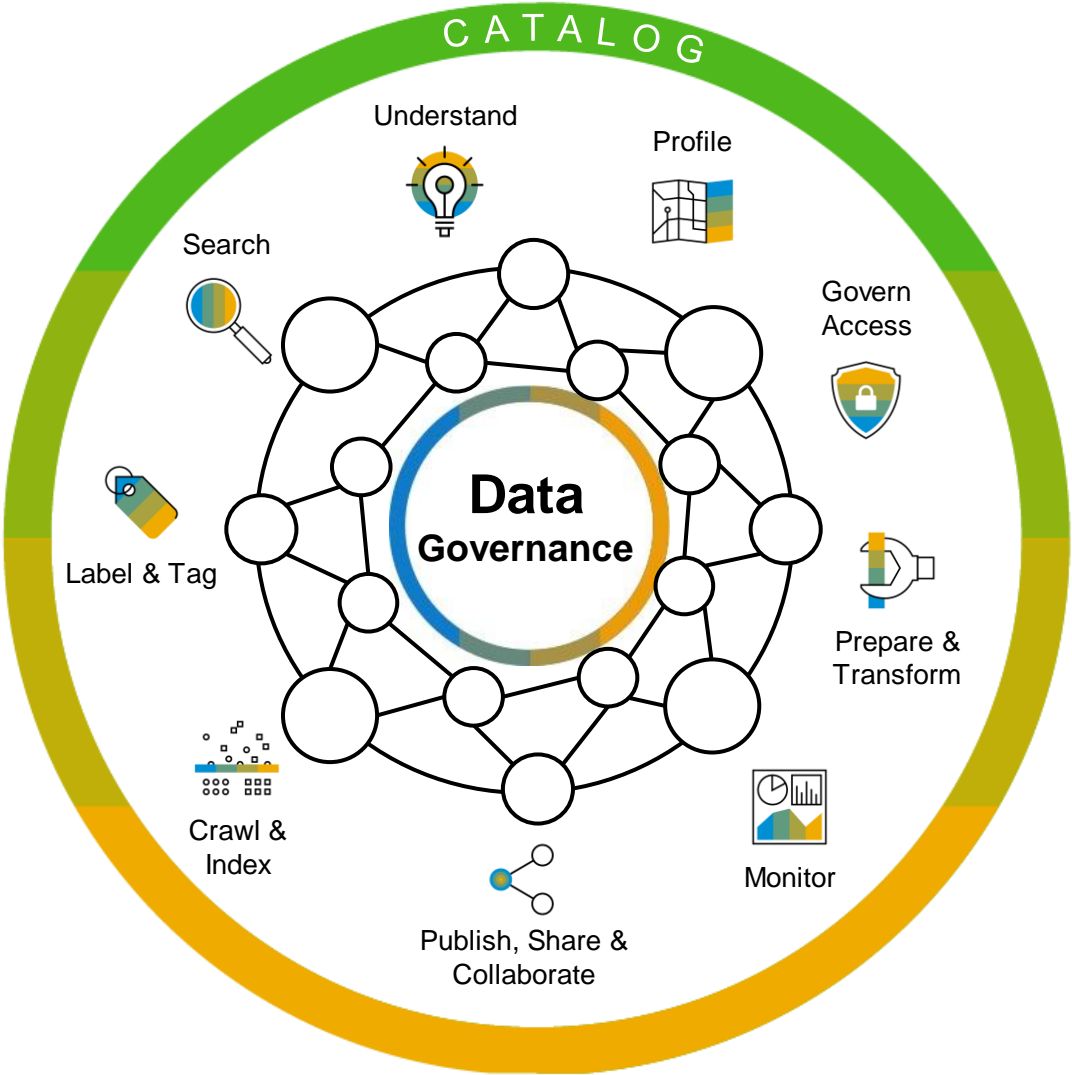
Organize

Classify, organize, and **understand data** (*location*, *attributes*, *quality*, *lineage*, *sensitivity*)

Curate

Enforce **centralized authorization** and **security** for data orchestration, and control **data quality standards**

CATALOG

Understand

Profile

Search

Govern Access

Data Governance

Label & Tag

Prepare & Transform

Crawl & Index

Monitor

Publish, Share & Collaborate

Analytic Model

Analytic Model

- The Analytic Model allows multi-dimensional and rich analytical modelling with less effort to answer business questions easier, faster and more efficiently

- It offers many features like
  - Calculated & restricted measures
  - Exception aggregation
  - Pruning of attributes and measures
  - Nested dimensions & variable support
  - Time-dependency for dimensions & texts
  - Multi-dimensional analytical preview incl. filtering, pivoting, hierarchies, etc.
  - Repository integration for impact & lineage analysis, model export/import, change management and transports
  - Migration support from Analytical Data Set
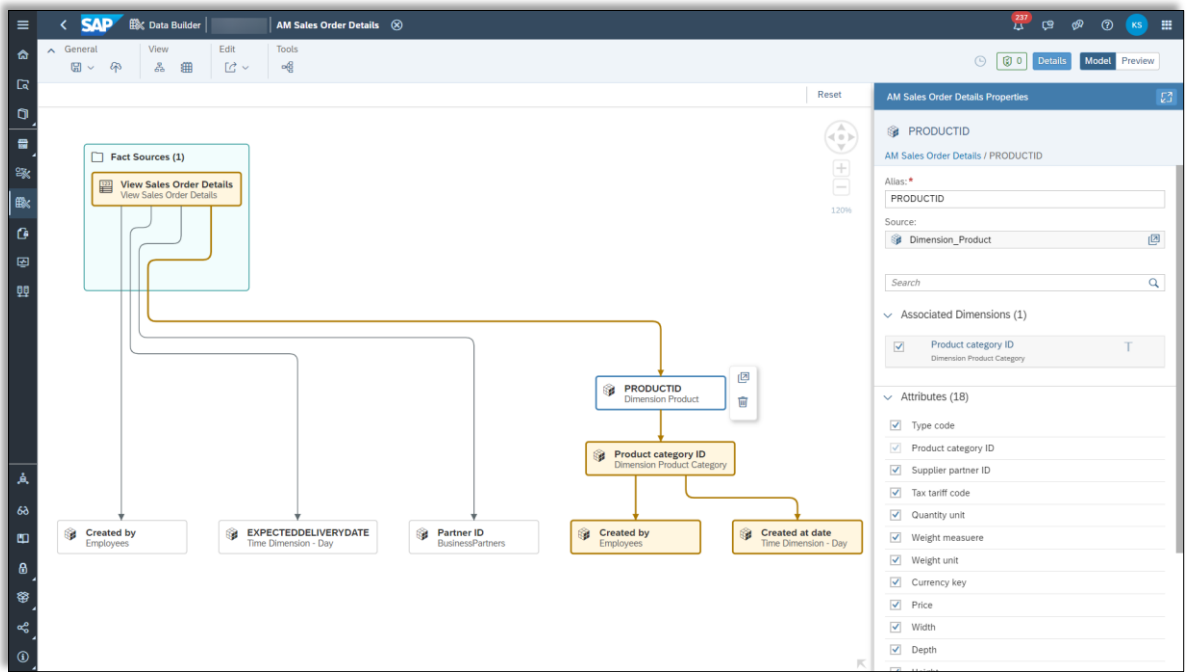
Analytic Model Preview

- The Analytic Model data can be previewed in detail without the need to create a separate story

- Preview has rich functions
  - Flexibly choose relevant attributes & measures to place them in columns or rows; drag & drop to re-arrange
  - Set flexible filters on any attribute or measure incl. value help
  - Display of hierarchies or flat presentation
  - Change sorting, filtering, totals, unbooked values & display behavior (e.g. ID and/or description, number formatting, etc.)
  - Preview without need to deploy first

- Preview reuses the same standard control for multi-dimensional analysis as the SAP Analytics Cloud Data Analyzer and SAP S/4HANA Finance Review Booklets, thus ensuring consistent UX and constant evolution of features


Analytic Model Blog Series: Part 1, Part 2, Part 3, Part 4, Part 5
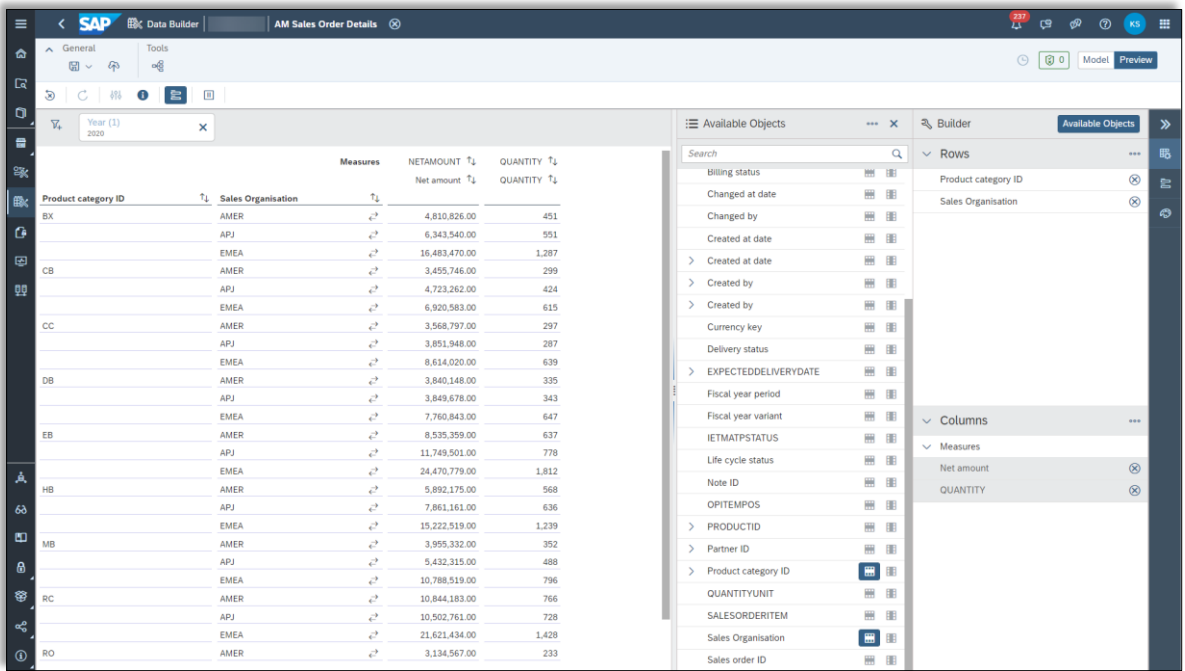
Replication Flow

Replication Flow

Enhancement of data replication use cases through a cloud based data replication tool

- Model data replication from a selected source to a selected target

- Focus on 1:1 replication with simple projections and filters

- Integrated user interface in Data Builder

- Integrated monitoring features in Data Integration Monitor

- Support initial load as well as delta load capabilities

Source System

Replication Flow

Replication Flow

1…N Tasks
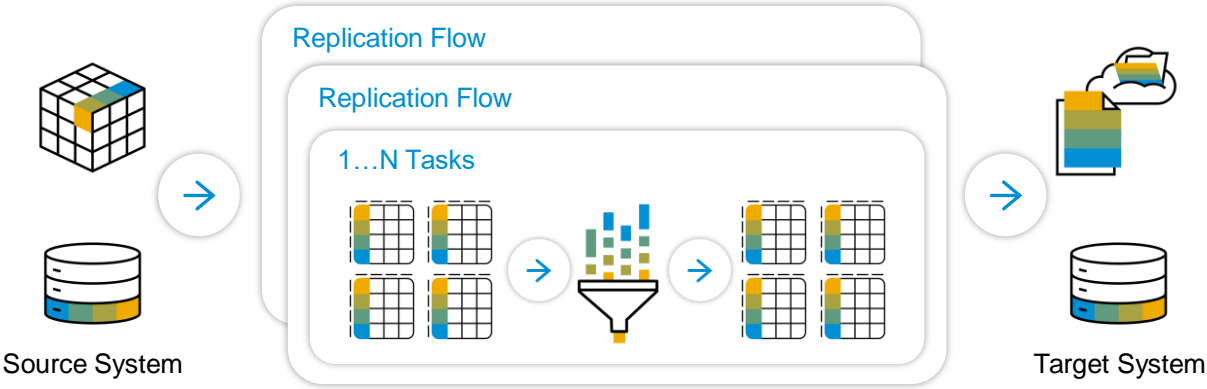
Target System

Replication Flow Connectivity

Source Systems

- Realize data replication via DB Triggers & logging tables from SAP and non SAP sources

- Leveraging initial load & initial + delta capabilities

→

SAP S/4HANA on-Premise	SAP S/4HANA Cloud
SAP Business Suite / SLT	SAP BW & BW/4HANA
SAP HANA Cloud	SAP HANA on-Premise
MS Azure SQL	

Target Systems

- Replicate data 1:1 with simple projections and filters via a simplified user interface inside Data Builder application

- Monitoring of Replication Flows integrated in Flow Monitoring inside the Data Integration Monitor

→

- SAP Datasphere
- SAP HANA on-Premise
- SAP HANA Cloud
- SAP HANA Data Lake Files
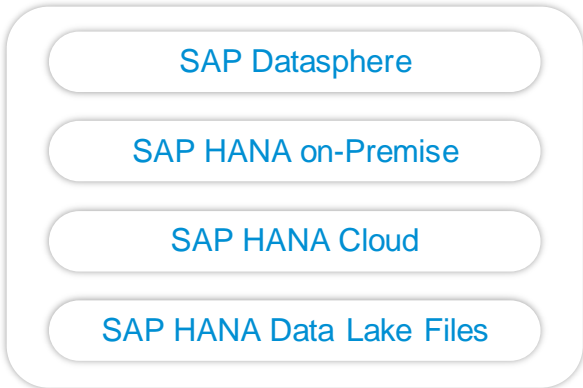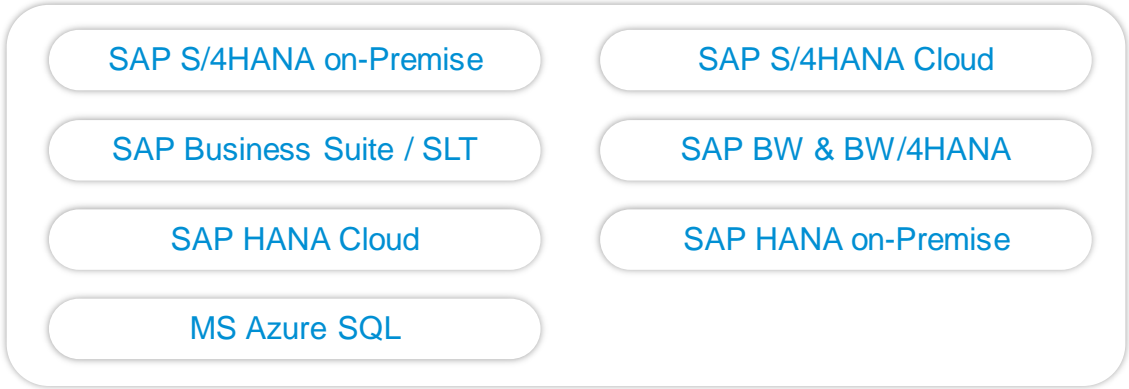
Creation of Replication Flows in the Data Builder

Creating a Replication Flow allows to write data in form of files to HDL-Files as a target using the following properties
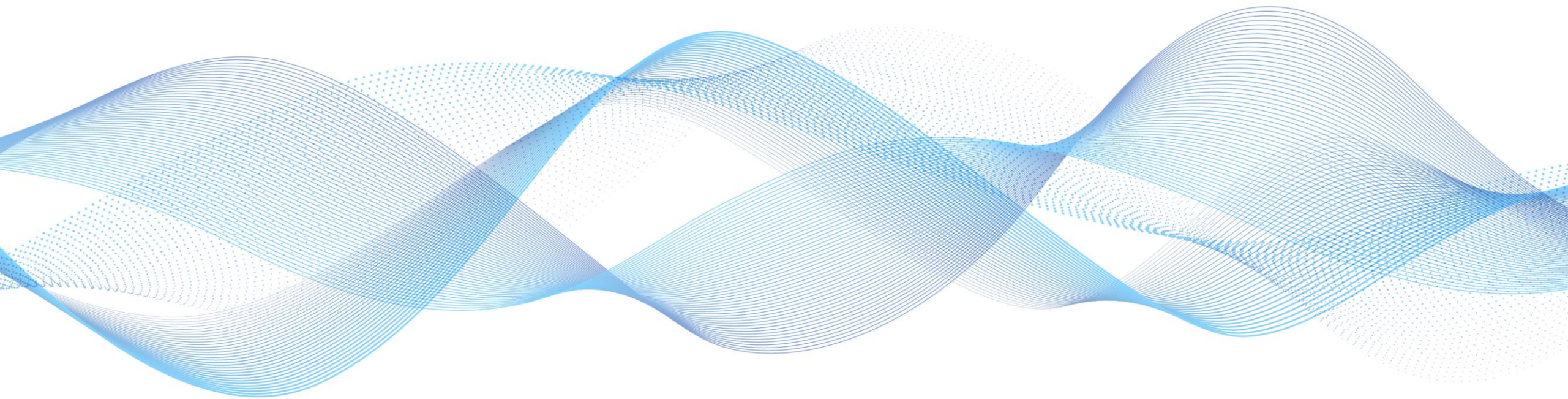
– Container (Target file root path)

– Group Delta By (none, date, hour)

– File Type (csv, parquet, json, json lines)

– Orient (only for json)

– File compression (only for parquet)

For each replication flow, you can add one or several tasks, where as each task consists of:

– a source data set (table, CDS View etc.),

– a target data set (table),

– load type (initial or initial with delta),

– filters and mappings / projections (optional)
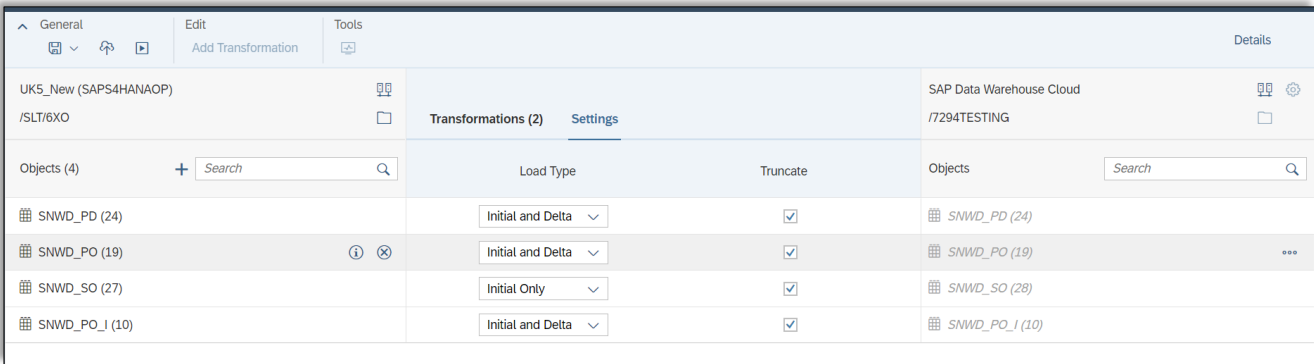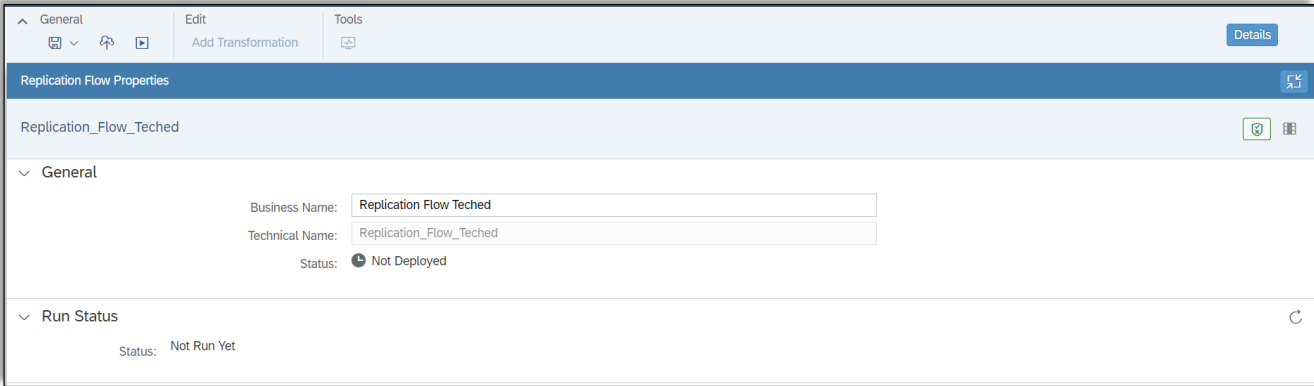
Updates in Modeling

Easy navigation to related entities in all Editors

New Feature / Enhancement

- Related entities can now be opened consistently in a <u>new</u> browser tab

- Opening via

  - own button in canvas

  - hyperlink everywhere else
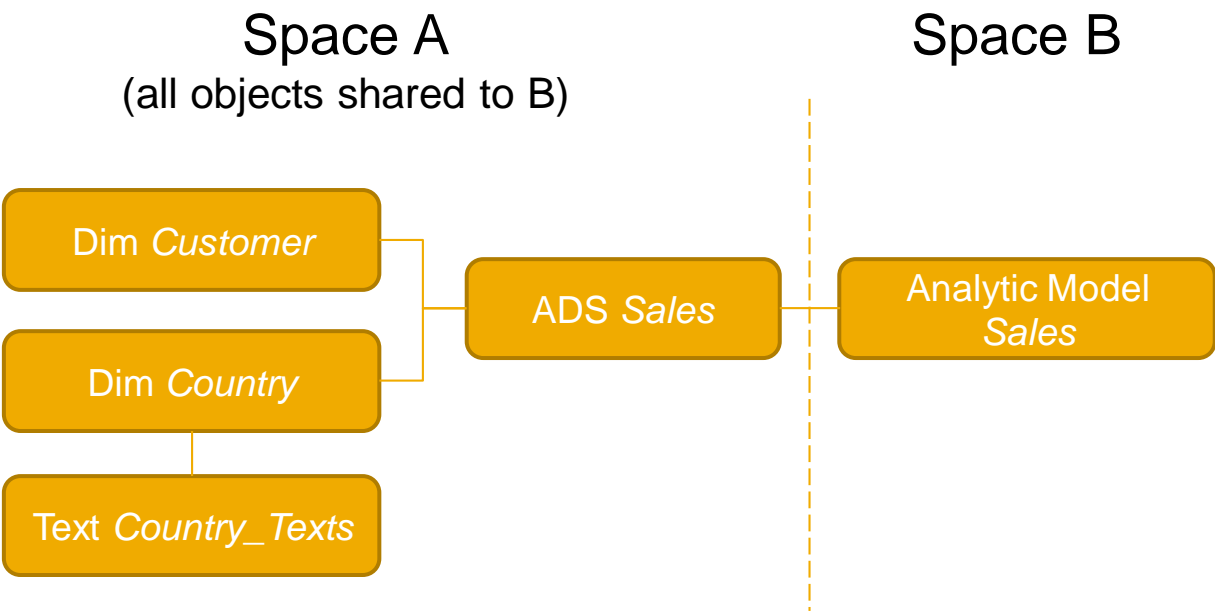   (mappings, popups, notifications, listings)

Business Value

- Easily inspect relevant entities while not losing context

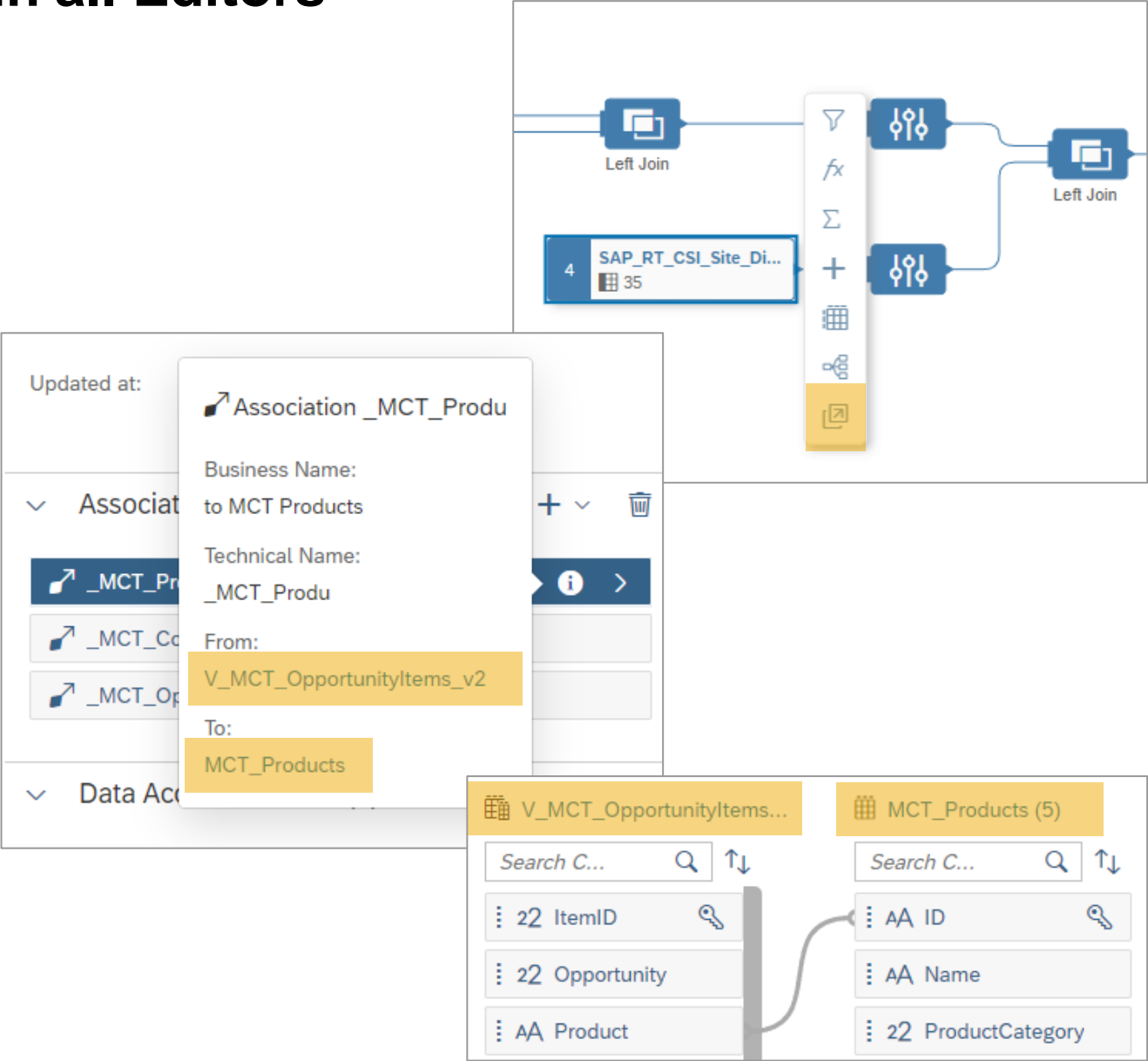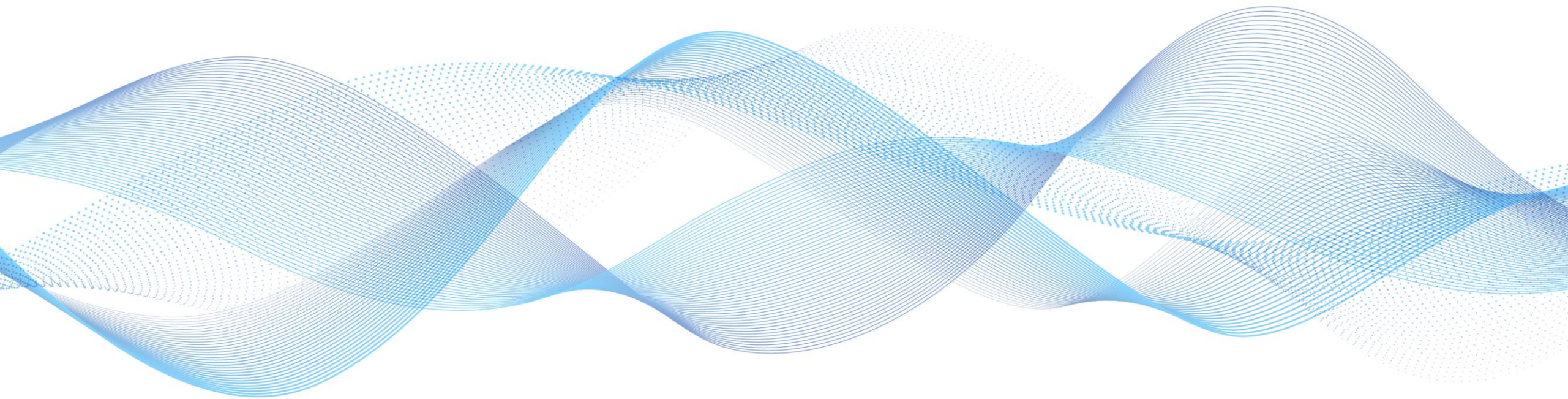# Analytic Model: Support Usage of Shared Objects in the Analytic Model

New Feature / Enhancement

- Shared Analytical Datasets can now be used as Fact Source to an Analytic Model

- Dimensions need to be shared as well in order to be visible from the target space.
  Dimensions of course preserve full functionality then (i.e. incl. text resolution, hierarchies and further associations)

- Analytic Models themselves <u>cannot </u>be shared to other spaces. Sharing today assumes that other artefacts are built on top of them in the target space. Since Analytic Models are not yet stackable, this notion of sharing does not work for them.

Space A
(all objects shared to B)

Space B

Dim *Customer*

Dim *Country*

Text *Country_Texts*

ADS *Sales*

Analytic Model *Sales*

Business Value

- Allow more complex space structures and sharing for analytic models.

Updates in Data Integration

Task Framework: Notifications in task chains

New Feature / Enhancement

- E-Mail notification in Task Chains
- Notify users of success and/or failure of task chains
- Include task chains into ticket tools via E-Mail
- Customizable E-Mail Text with Variables
- Multiple recipients
- Send to E-Mail addresses and user

Business Value

- Active Push notification for loading jobs

View Persistency - Partition-wise Refresh

New Feature / Enhancement

▪ Reload a single partition on demand

Business Value

▪ Fix errors in single partitions

▪ Reload changes in a single partition

View Analyzer - Part 2

New Feature / Enhancement

- Analyze view stacks for the resource consumption
- Analyze multiple view at the same time

Business Value

- See where time and resource are spend
- Identify bottle necks quicker
- Identify missing statistics

Remote Table Monitor - add columns for latest change of transferred data (latency) and number of records

New Feature / Enhancement

▪ Show the lates changes replicated in the source
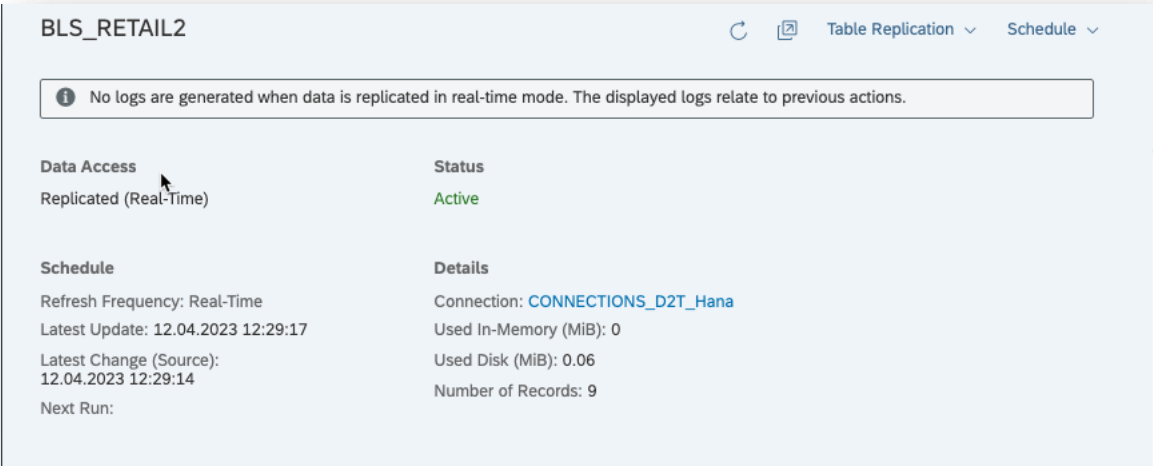
Business Value

▪ Understand the lag in real time replication

Task Framework - individual schedules pause

New Feature / Enhancement

▪ Pause a schedule, the schedule will not be executed until un-paused

Business Value

▪ When a schedule is temporarily not needed, you can pause now instead of deleting.

Updates with the SAP BW Bridge
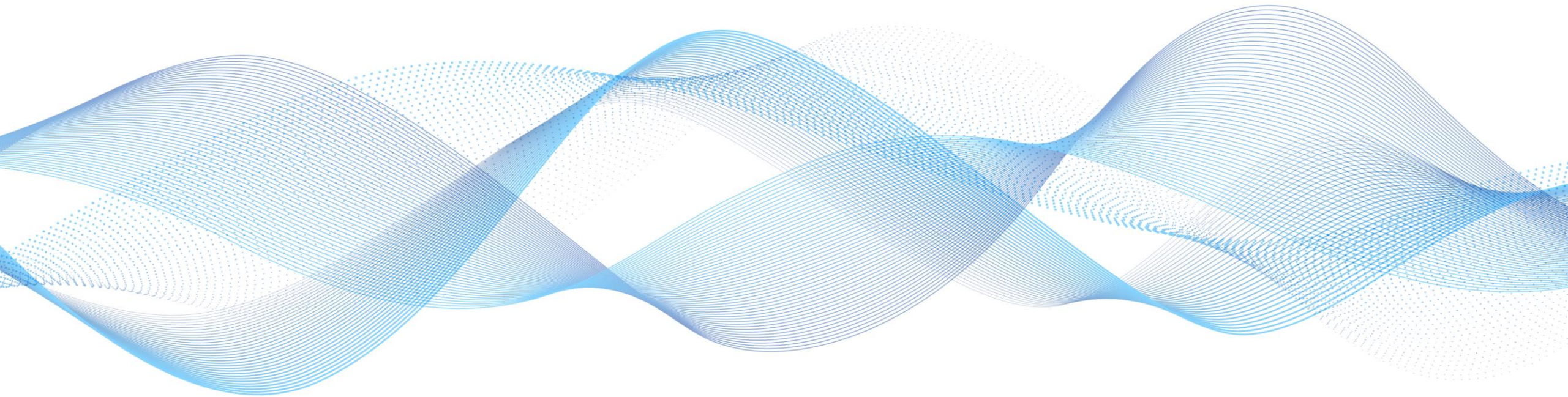
SAP BW/4HANA Sizing Report extended SAP BW bridge

The SAP BW/4HANA sizing report in
SAP Note 2296290 has now been updated and
can now also be used to size the BW bridge as
part of SAP Data Warehouse Cloud.

More information in the blog:
Get ready for SAP BW bridge & SAP Data
Warehouse Cloud – Sizing Report
by Dominik Kurz

Import Metadata: Include BW Bridge for one selected entity

New Feature / Enhancement

- Import wizard – semantic information reuse of bridge models
- Single query import BW Bridge

Business Value

- Securing existing investments
- Take over existing data models
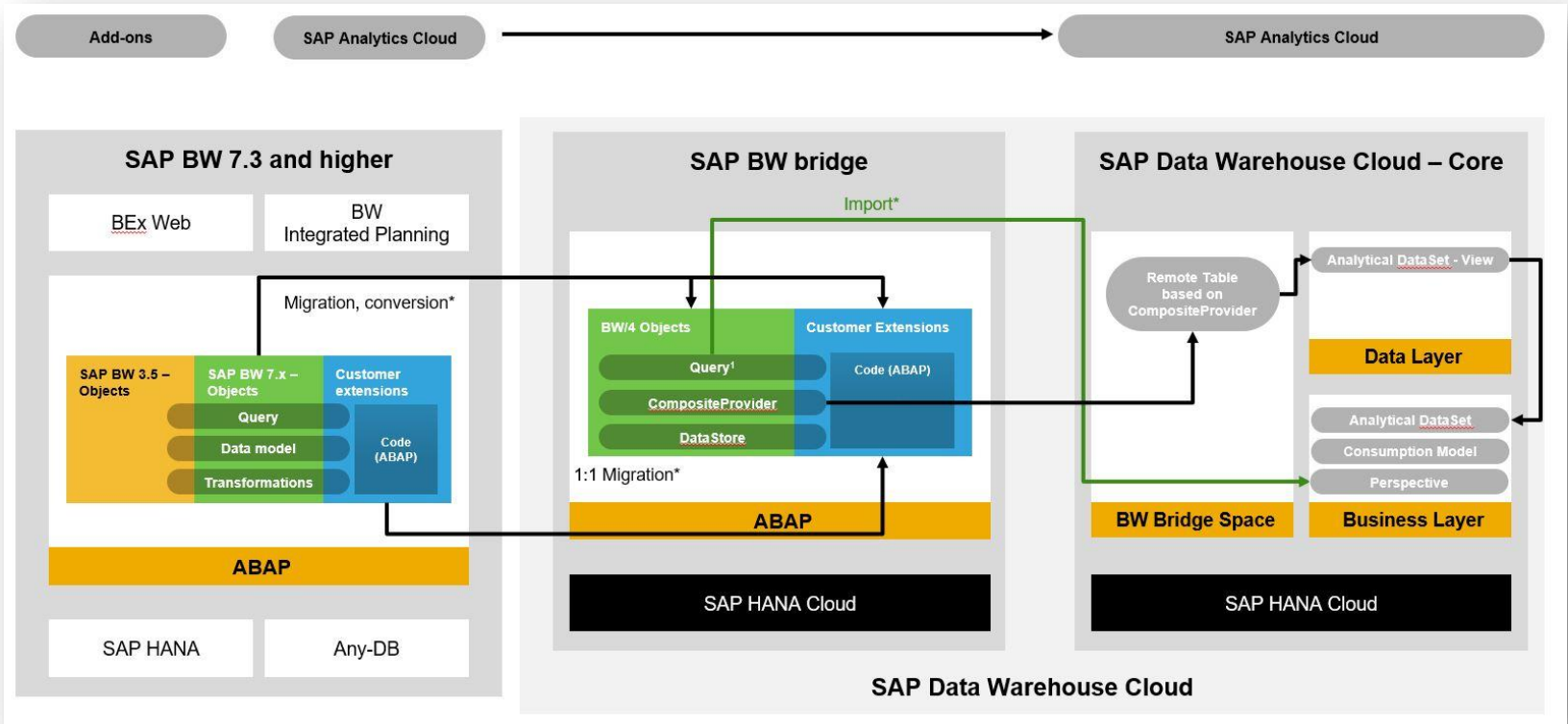
Prerequisites / Links

- Link to Blog Post

Updates in CLI and Data Marketplace

CLI: List Spaces

New Feature / Enhancement

- New CLI command that lists all spaces in a given tenant

Business Value

- Fills an automation gap as all other CLI "spaces" commands require a dedicated space name (which so far had to be known). With the new "spaces list" - command it is possible to loop over all existing spaces and subsequentially call the individual spaces commands

```
login: Tue Jan 24 10:43:29 on ttys000
497@FYK100V9JP ~ % dwc spaces list -P -H dwc-pm-demo.eu10.hcs.cloud.sap

0CAR_IL_CH1",
CAR_IL_AK",
CAR_IL_DF",
CAR_IL_FN",
CAR_IL_HD",
CAR_IL_HS",
CAR_IL_JH",
CAR_IL_JZ",
CAR_IL_PP",
CAR_IL_RW",
CAR_IL_XX",
11985E554D0400B96D9",
2A977E96D3B403497C0",
EA7EE6FFD9A4881B4FC",
JASCHA",
5DE4BB94BBA451DA098",
0162622CFFA4F298949",
EBA225519C043A98540",
AAAA1",
CN_DEV",
F3D7156ED67416DAE19",
F54C6720E2844389582",
IRPORT_DOMAIN",
K0308",
K1452",
K_BL_SOURCE",
K_BL_TARGET",
K_DATATIERING",
K_FACTDATA",
K_LCMTEST",
K_MASTERDATA",
K_SOURCE",
K_TARGET",
LL",
LTER",
```

Prerequisites / Links

- Help: https://help.sap.com/docs/SAP_DATA_WAREHOUSE_CLOUD/9f804b8efa8043539289f42f372c4862/5eac5b71e2d34c32b63f3d8d47a0b1d0.html#loio5eac5b71e2d34c32b63f3d8d47a0b1d0__section_list_spaces

CLI: DB User – Password Reset

New Feature / Enhancement

- New CLI command that allows to (re)set a new DB-User password

```
Last login: Tue Jan 24 10:44:44 on ttys000
[D029497@FYK100V9JP ~ % dwc dbusers password reset -S WHATSNEWDEMO -j WHATSNEWDEMO#CLI -P -H dwc-pm-demo.eu10.hcs.cloud.sap
{
  "password": "*rn1yFt6FR&I&5L0=-7*^BCH)z30n*2]",
  "username": "WHATSNEWDEMO#CLI",
  "host": "9ee99a70-9d98-481d-ab94-00b0417b66c5.hana.prod-eu10.hanacloud.ondemand.com",
  "port": 443
}
D029497@FYK100V9JP ~ %
```

Business Value

- I So far, it was possible to automatically create a DB User through the Spaces command, but the password had to be requested manually.

- SQL endpoints can now be fully automatically generated also the provisioning of the password is.

Prerequisites / Links

- Help: https://help.sap.com/docs/SAP_DATA_WAREHOUSE_CLOUD/9f804b8efa8043539289f42f372c4862/5eac5b71e2d34c32b63f3d8d47a0b1d0.html#loio5eac5b71e2d34c32b63f3d8d47a0b1d0__section_reset_dbuser_password
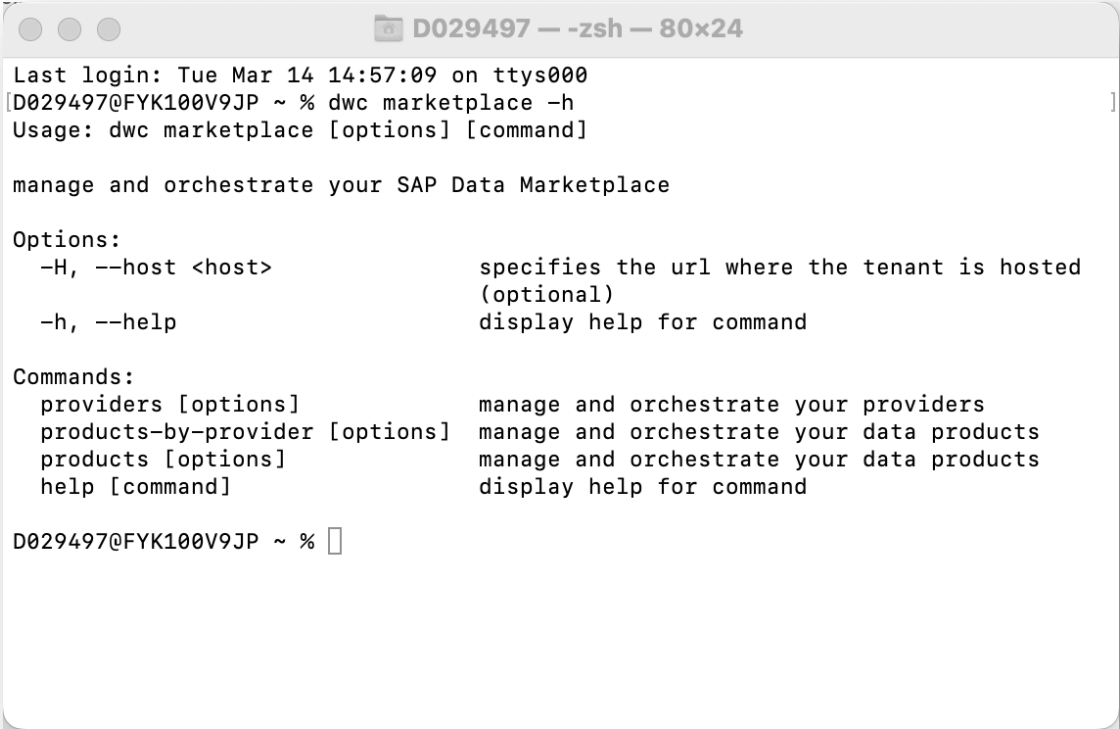
Command-line interface (CLI) for data-sharing cockpit

New Feature / Enhancement

- Set of new CLI commands for the Data Marketplace
- Represents the Data Sharing Cockpit perspective
- Details on commands via "dwc marketplace –h"

Business Value

- Provides programmatical access to discover and CRUD data provider profiles
- Provides programmatical access to discover and CRUD data products

```
                        D029497 — -zsh — 80×24

Last login: Tue Mar 14 14:57:09 on ttys000
[D029497@FYK100V9JP ~ % dwc marketplace –h
Usage: dwc marketplace [options] [command]

manage and orchestrate your SAP Data Marketplace

Options:
  -H, --host <host>                 specifies the url where the tenant is hosted
                                    (optional)
  -h, --help                        display help for command

Commands:
  providers [options]               manage and orchestrate your providers
  products-by-provider [options]    manage and orchestrate your data products
  products [options]                manage and orchestrate your data products
  help [command]                    display help for command

D029497@FYK100V9JP ~ % □
```

Prerequisites / Links

- Data Provider CLI Help Page:
  https://help.sap.com/docs/SAP_DATASPHERE/d0ecd6f297ac40249072a44df0549c1a/ca9f910607da4a9e8a2385f655edab95.html?locale=en-US

- Data Product CLI Help Page:
  https://help.sap.com/docs/SAP_DATASPHERE/d0ecd6f297ac40249072a44df0549c1a/34e88f7889734b1691fab7d8715c17fa.html?locale=en-US

Context Management

New Feature / Enhancement
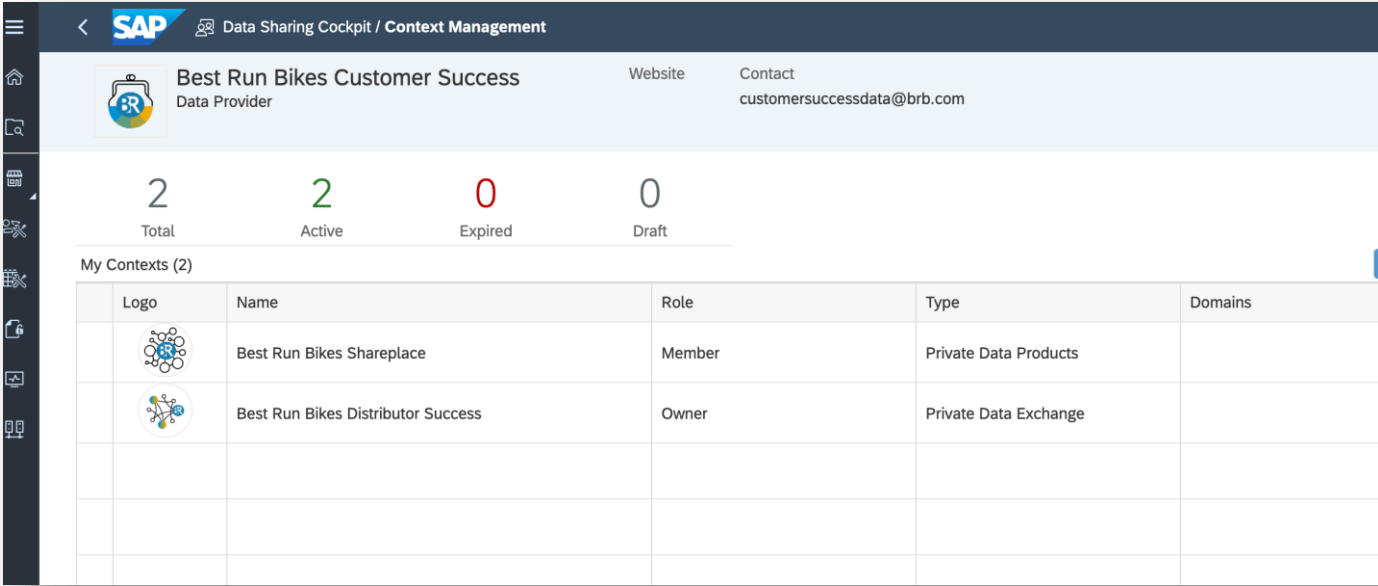
- Creation of "Contexts" as groups for private data sharing.
- Controls visibility of Data Products
- Data Provider Profile has "Public" and/or "Private" visibility
- Invitation of "Context" Member through Activation Keys
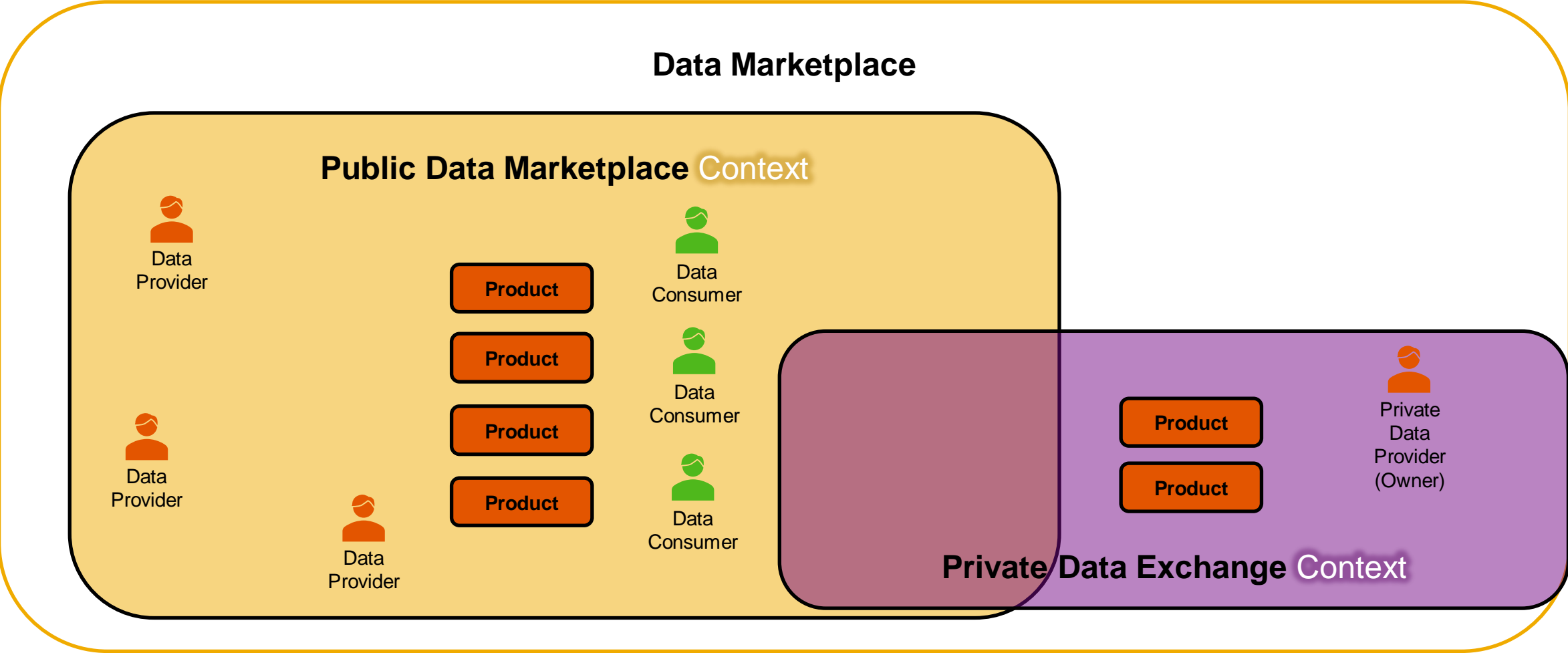- Publishing of Data Products into "Contexts"

Business Value

- Allows various scenarios of private data sharing or private data exchange within self-managed groups

Evolution of Data Marketplace: Context Management

A **context** defines the visibility of a Data Product in the Data Marketplaces and thus facilities trustworthy intra- and inter-company data collaboration at scale.

Evolution of Data Marketplace: Context Management

A **context** defines the visibility of a Data Product in the Data Marketplaces and thus facilities trustworthy intra- and inter-company data collaboration at scale.

Data Marketplace

Public Data Marketplace Context

Data Provider

Data Provider

Data Provider

Product
Product
Product
Product

Data Consumer

Data Consumer

Private Data Products Scenario

Product

Product

Private Data Provider

Private Data Consumer

Private Data Provider (**Owner**)

Private Data Exchange Context

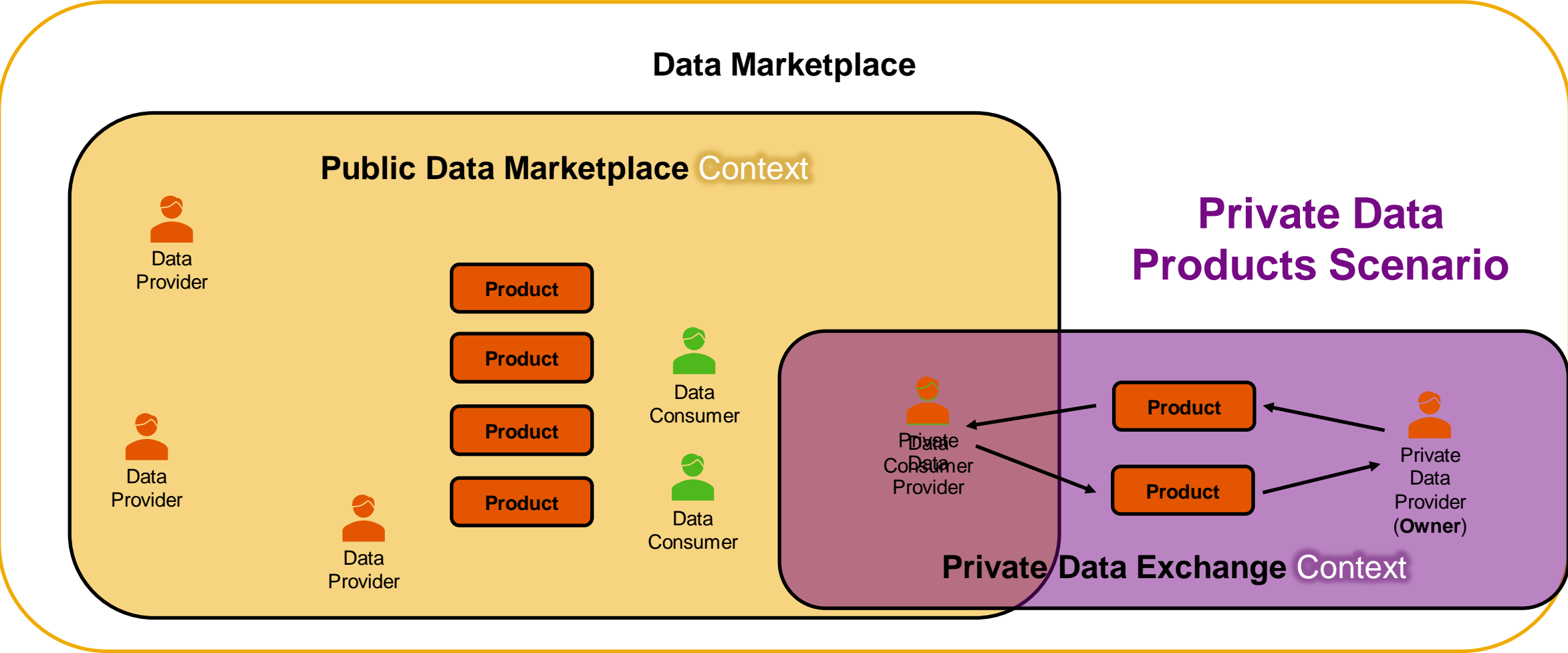# Evolution of Data Marketplace: Context Management

A **context** defines the visibility of a Data Product in the Data Marketplaces and thus facilities trustworthy intra- and inter-company data collaboration at scale.
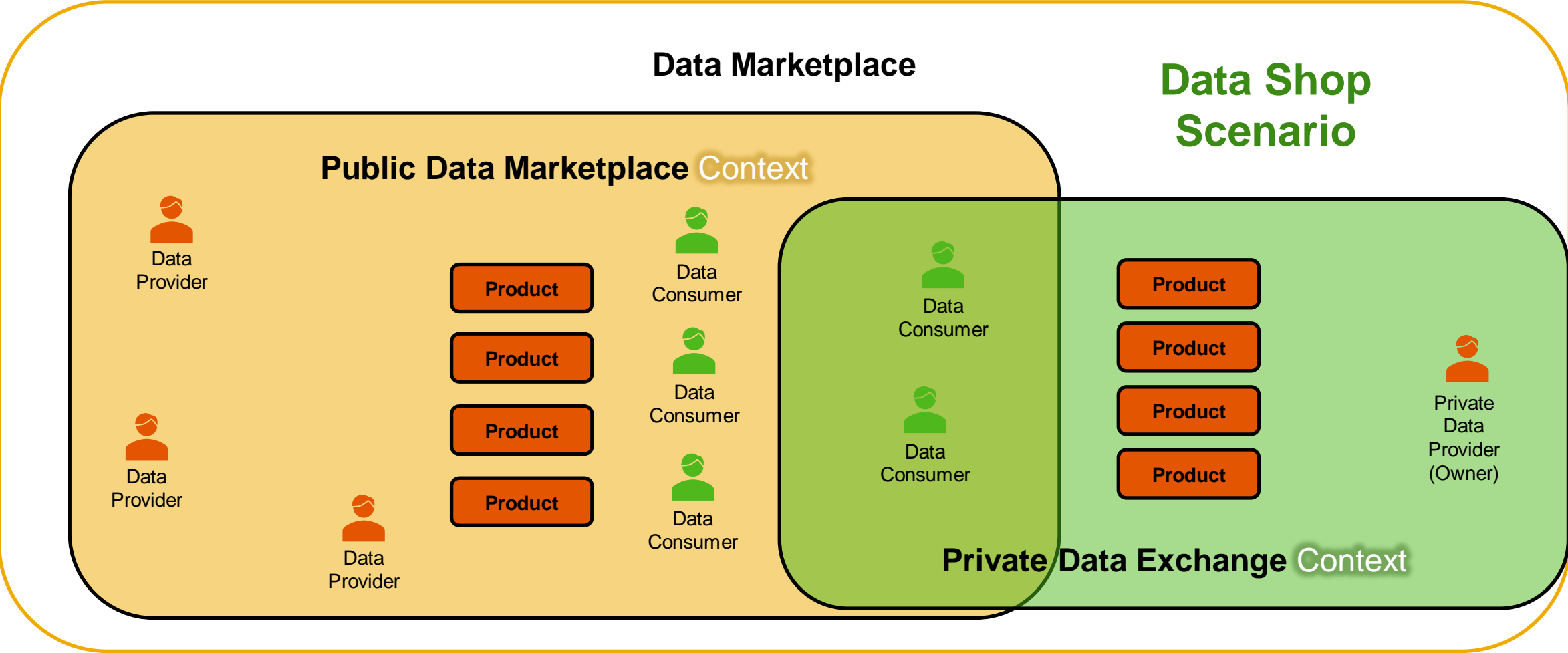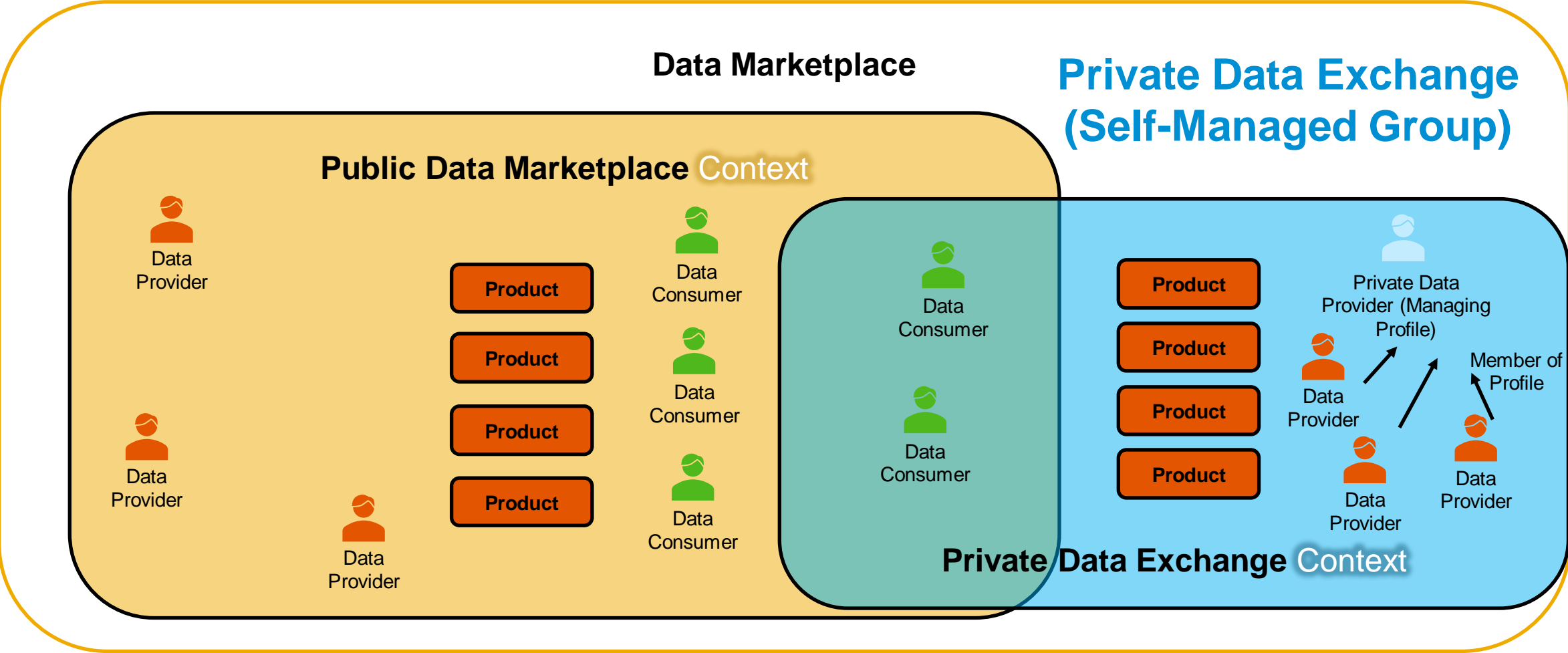
Evolution of Data Marketplace: Context Management

A **context** defines the visibility of a Data Product in the Data Marketplaces and thus facilities trustworthy intra- and inter-company data collaboration at scale.

Evolution of Data Marketplace: Context Management

Context Management Key Takeaway

- Controls <u>visibility</u> of Data Products. Access to data (payload) remains via product setup Free/License

- Products are published into one or multiple Contexts

- Data Provider can be "Private" and/or "Public"

- Context Management is available since 25.1.2023

- All Data Provider and Data Products being created so far are in the "Public" Context

- <u>Context Management enables Private & Internal Data Exchange</u>

Inner-Tenant Consumption with Live Access

New Feature / Enhancement

- New Delivery Mode: Live Access
- Product Load is enabled for intra tenant scenarios only (cross tenant scenarios planned)

Business Value

- Allows self-service cross space sharing through Data Product
- Will facilitate internal data marketplace scenarios without data duplication
- Activation can be license protects (license validity not enabled so far)
- Re-use of DACs
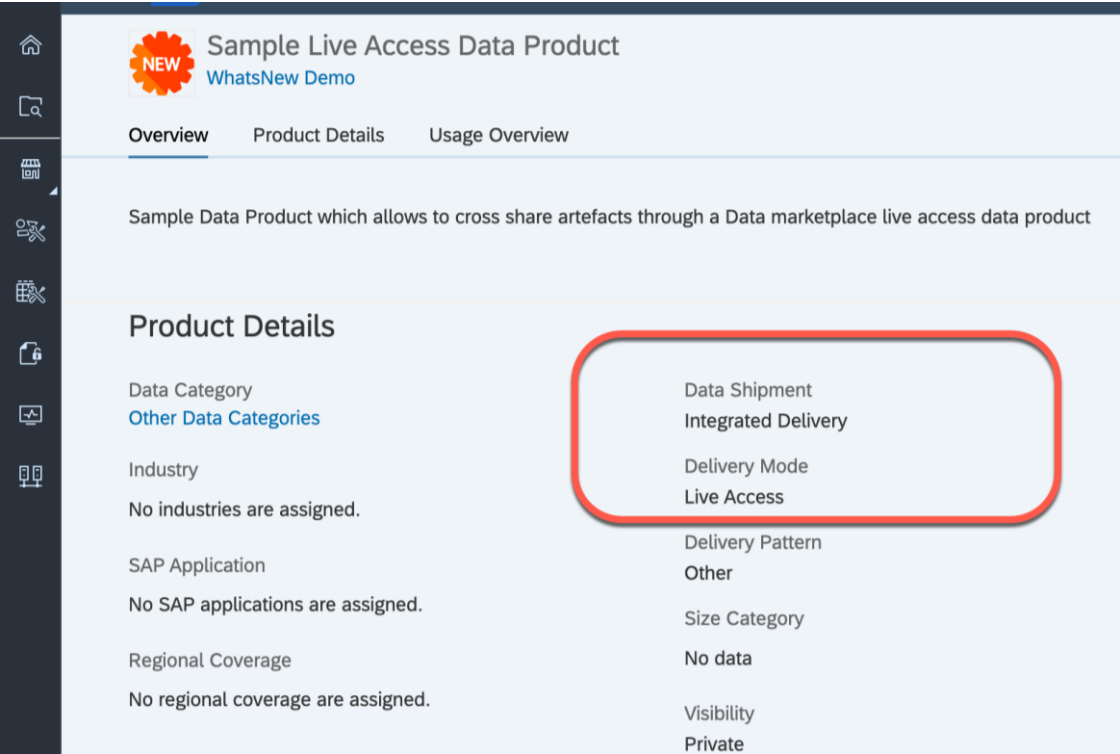
Overview of 2023 Priorities

Key priorities will add crucial capabilities and provide further integrated offering

SAP BW Bridge

Increased coverage

- Increase coverage of SAP BW, SAP BW/4HANA capabilities.
- Support Non-Cumulative Key figures, External Hierarchies, Exit Variables, etc.

SAP Analytics Cloud

Seamless integration

- Further extension towards a seamless planning experience with SAP Analytics Cloud
- Deepened model integration
- Data Analyzer

Space Dependent Permissions

More flexibility

- Granular assignment of permissions per space
- Grouping of users and spaces
- Automatic assignment based on SAML attributes and SCIM API

Modeling

Expanded capabilities

- Multi-Fact modeling and stacking support on the Analytic Model
- New modeling features (e.g., folder support, external hierarchies, fiscal year)

Data Integration

Increased data reach

- Advanced data transformation
- Coverage of additional DI use-cases and operators
- Additional data sources and targets for Replication Flows

Elasticity Concept

React to usage

- On demand compute during peak consumption scenarios
- Improved baseline sizing and TCO optimization

Discover and Share

Collaborate on data

- Catalog and Data Crawling
- Data product exchange within and between organizations

Life-Cycle Management

No disruption

- Delivery package management
- Content protection based on namespace
- Content management CI/CD

More information
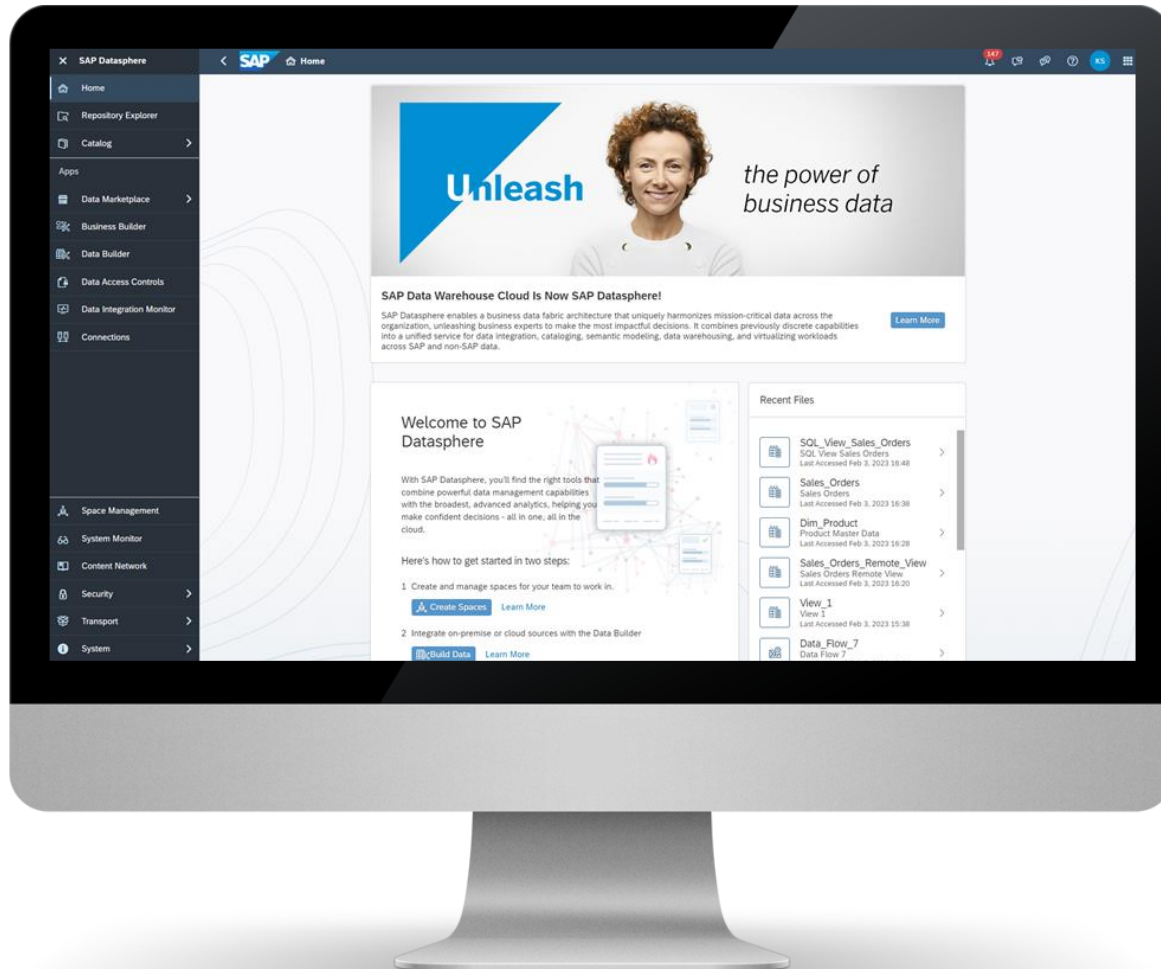
- Check out the product page on sap.com and get access to a Guided Experience Trial system

- Get started with documents & videos or visit our Learning Journey

- Use the tutorials to learn more

- Join the Community and check out the Best Practices recommendations

- Add your ideas and requests for new features on the SAP Datasphere Customer Influence

- Online Documentation on SAP Help

Thank you.

Contact information:

Your Product Management Team for
SAP Datasphere

THE BEST RUN **SAP**