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MANNHEIM
HANA Tech Night
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SAP Datasphere

EXCHANGE OF EXPERIENCES

EXPERIENCES

- High interest and a lot of PoC
- In past 2-3 years we had seven projects (not PoC)
- Very different use cases

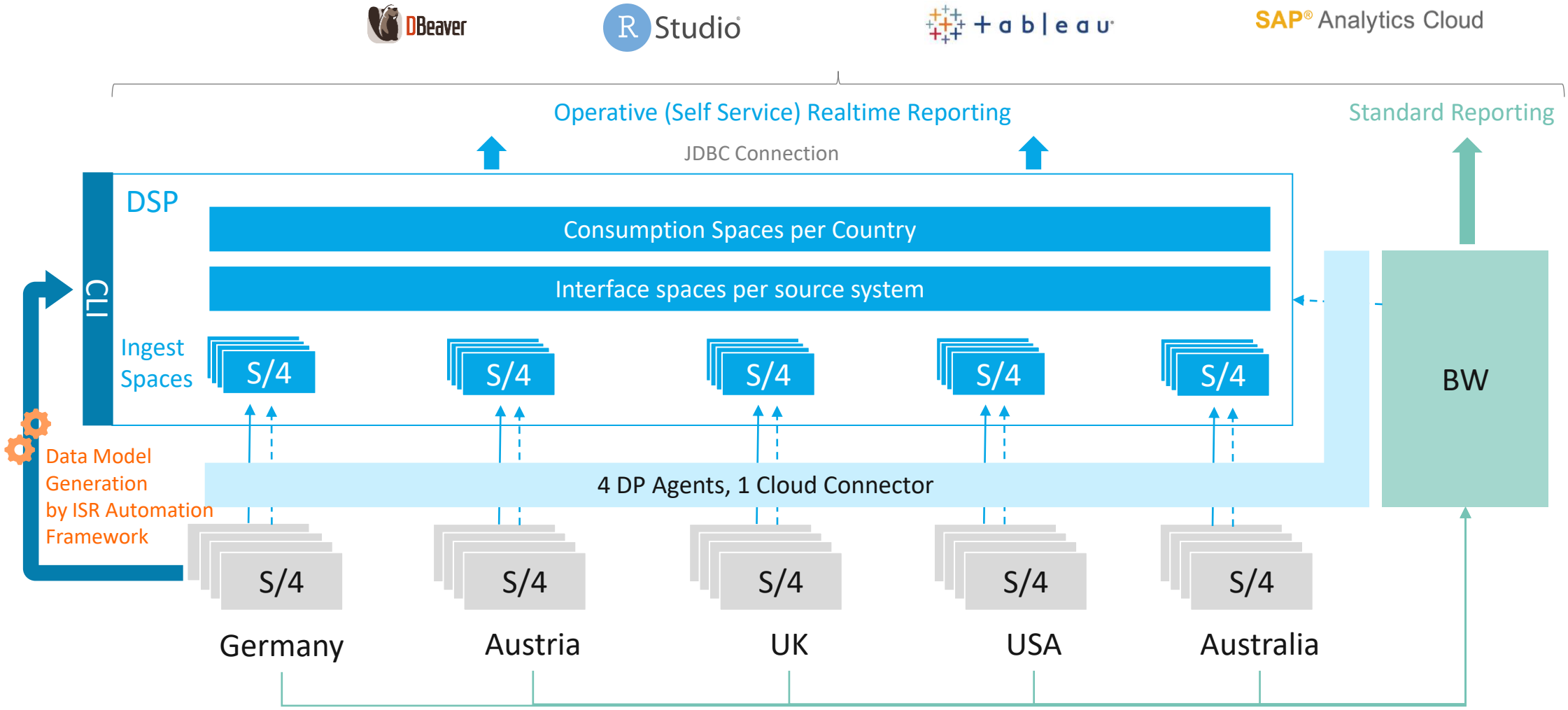
DATA FEDERATION PLATFORM

& AUTOMATED DATA MODELING

REQUIREMENTS

- Development of an operational real-time platform
- High-performance provision of approx. 1,000 tables from more than 20 systems
- Access to real-time data via nonSAP
- Planned project duration approx. 3 months

Data Federation Platform



CHALLENGES

- Very high data volumes
- Partly “bad code” of the nonSAP tools
- SAP Datasphere as federation platform
- Planned project duration approx. 3 months

HR ANALYTICS WITH DATASPHERE

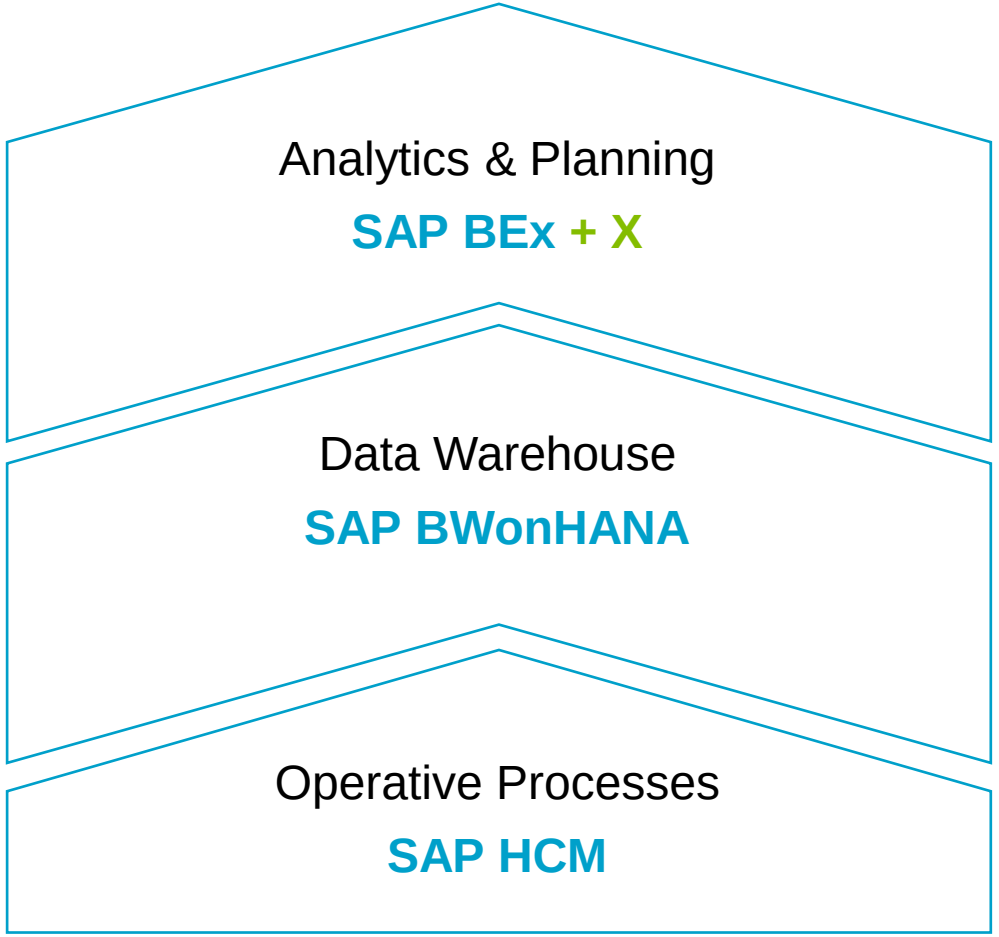
SUBSTITUTE SAP BW

Starting point

Challenges of existing reporting

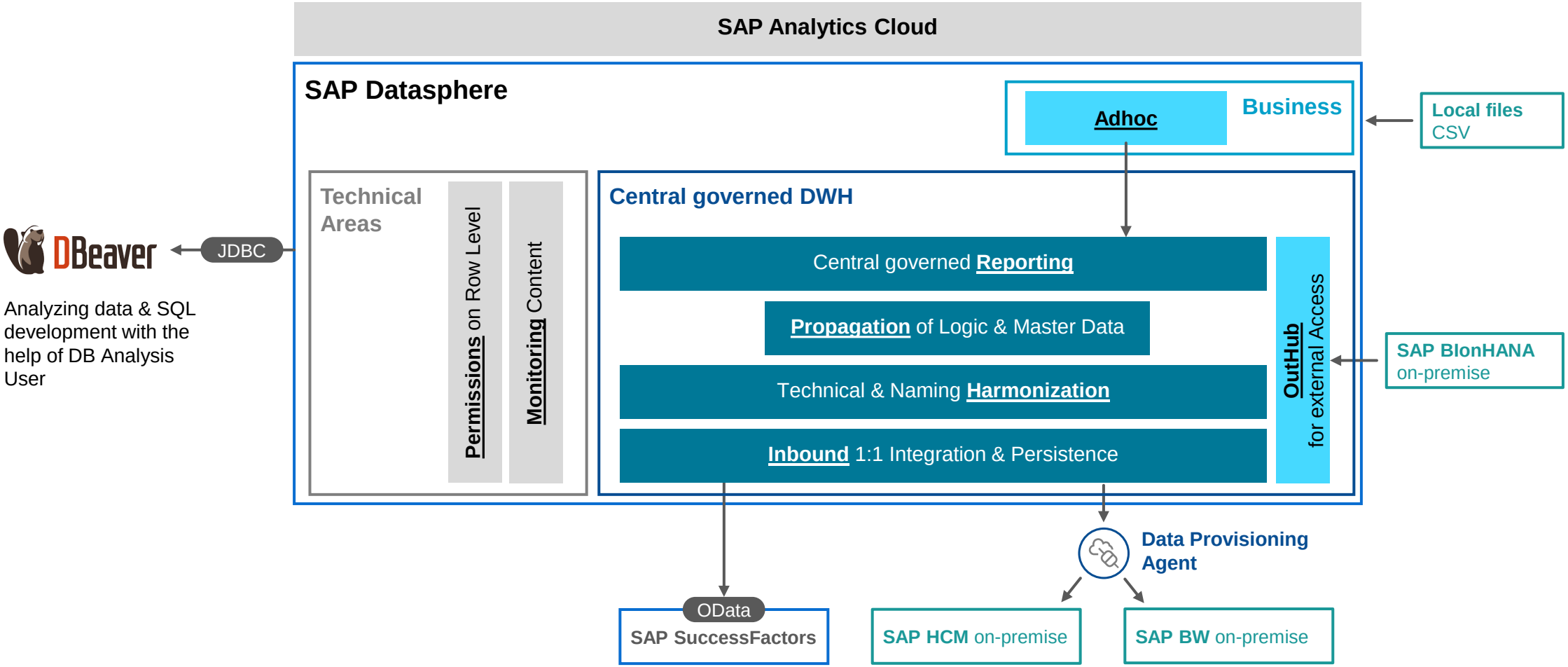
Historically grown SAP BW system not future-proof

- Complex, intransparent system
- No uniform architecture and modeling
- High operating costs and long duration of development
- Hardly any options for visualization
- High (manual) effort for analysis and planning



Solution architecture

Central governance and a high degree of freedom for the department



Bitemporal Master Data Modeling

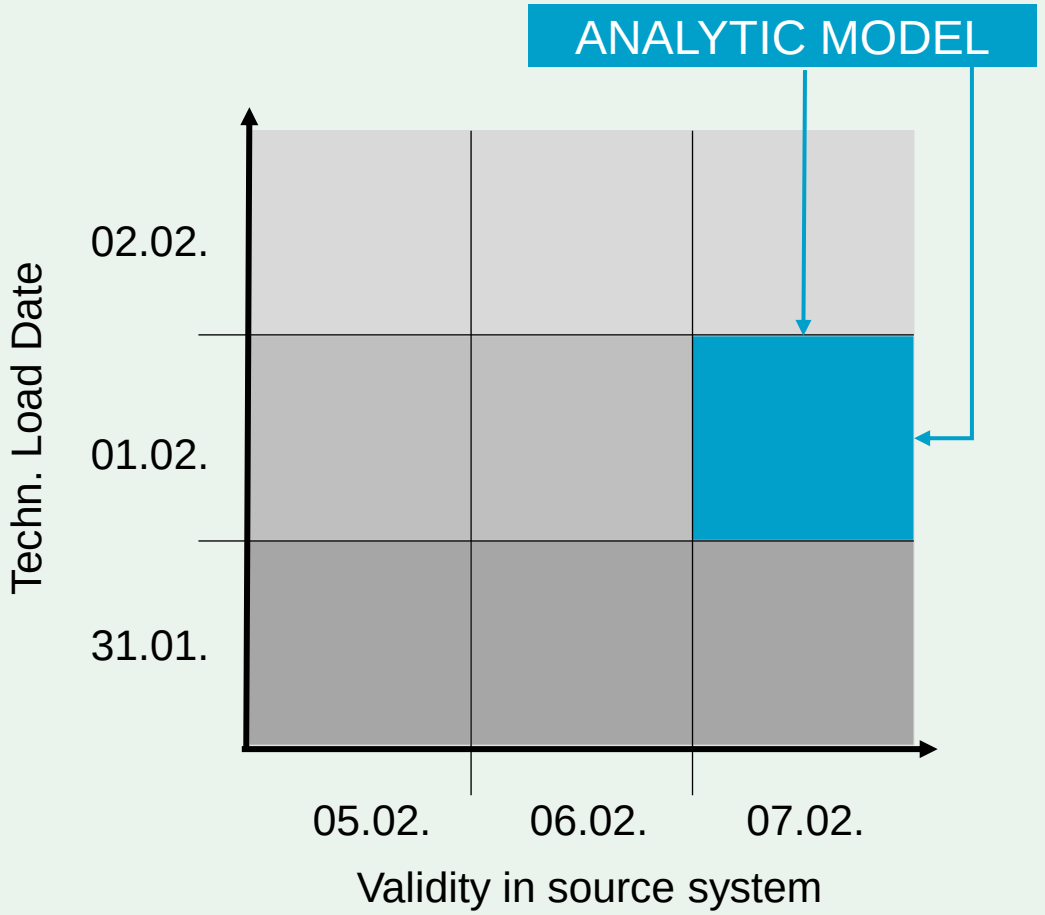
Special feature of the data model

Master Data Modeling take two timelines into account (Source System + technical Load Date).

Generation of primary keys as a combination of
- Business Key
- Validity in source system
- technical load Date

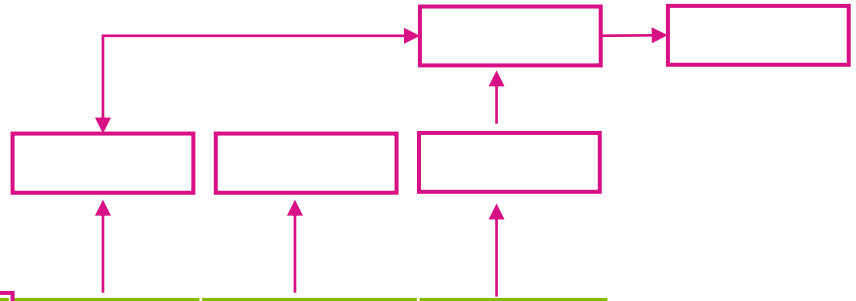
Master data associations take this into account

The reporting system allows different “versions” to be displayed



Bitemporal Master Data Modeling

In the HR data model, almost all information is time-dependent and interlinked over time. Creating a historically correct view is therefore complex.



Technical keys must take into account dependencies on other dimensions!

Job BK	Valid From	OrgUnit	Position	ContractType	…
Job1	01.01.2022	Abt1			

Abt BK	Valid Fromt	Name	Cost Center
Abt1	01.01.2022	OrgUnit 1	123
Abt1	01.01.2023	OrgUnit 10	123

Cost Center	Valid From	Name
123	01.01.2022	Cost Center 123
123	15.05.2023	Cost Center 12

Bitemporal Master Data Modeling

Example Dimension Job

A **point-in-time table** is generated for each dimension

- Generation of new temporal validities for a dimension, taking into account all temporal dependencies through other associated dimensions
- Generation of technical keys per dimension
- Associations between dimensions work via technical keys
- Integration of the correct dimension key in analysis models necessary

Job TK	Job BK	Valid From	OrgUnit TK
Job1 20220101	Job1	01.01.2022	Abt1 20220101
Job1 20230101	Job1	01.01.2023	Abt1 20230101
Job1 20230515	Job1	15.05.2023	Abt1 20230515

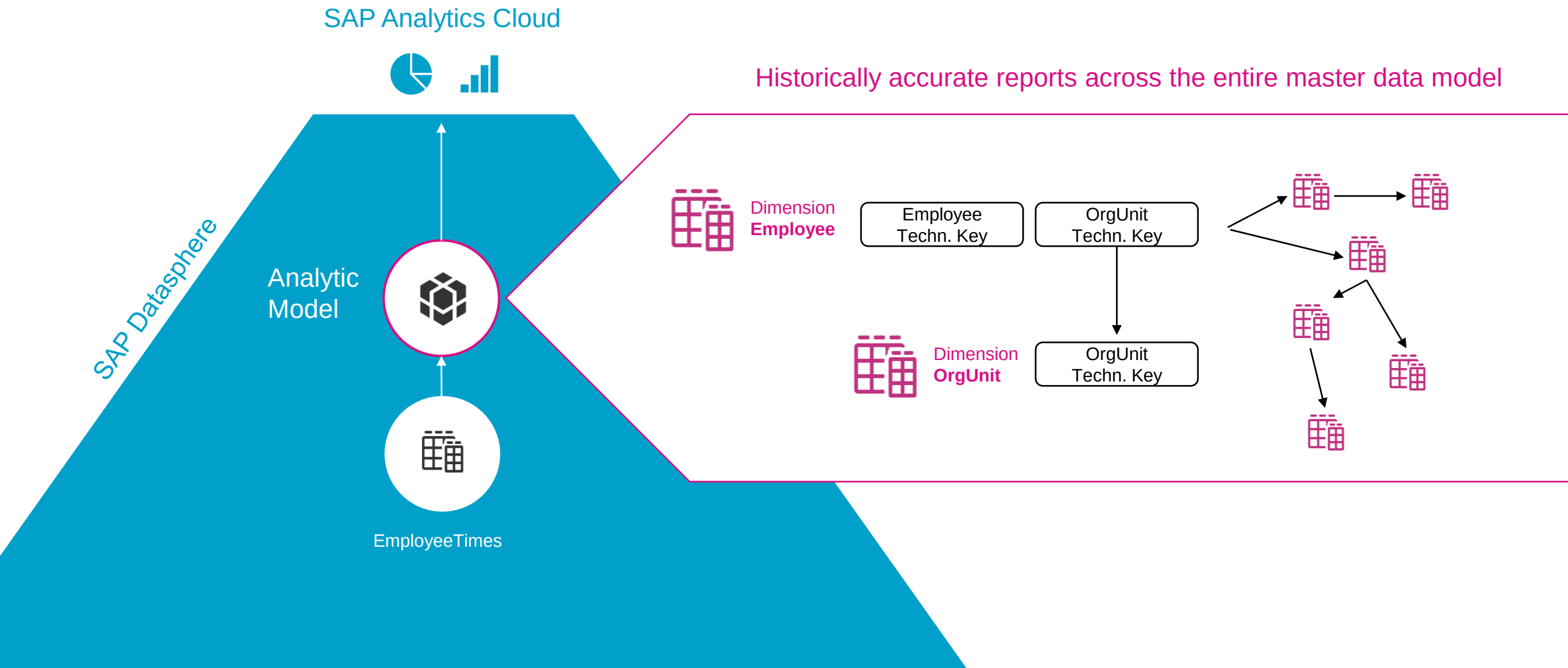
Assoziation

OrgUnit TK	OrgUnit BK	Valid From	Name	CostCenter TK
Abt1 20220101	Abt1	01.01.2022	OrgUnit 1	123 20220101
Abt1 20230101	Abt1	01.01.2023	OrgUnit 10	123 20220101
Abt1 20230515	Abt1	15.05.2023	OrgUnit 10	123 20230515

Assoziation

CostCenter TK	Cost Center	Valid Fromt	Name
123 20220101	123	01.01.2022	CostCenter 123
123 20230515	123	15.05.2023	CostCenter 12

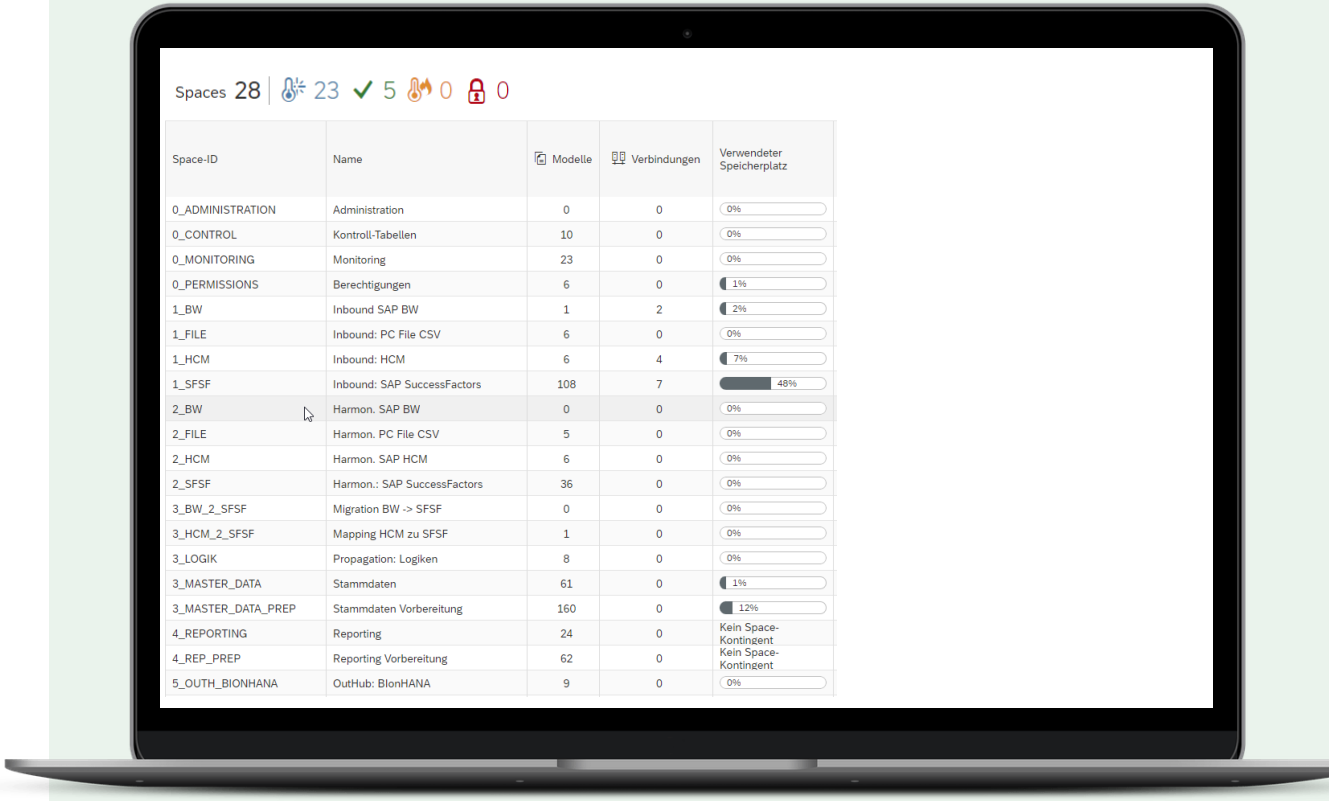
Historical truth with SAP Datasphere



Challenges

What kept us busy

- Bitemporal data storage / master data
- Data migration
- No stable functional requirements
- Product development SAP Datasphere
- Some functions still missing (e.g. cross-space task chains, Structures)
- Change management

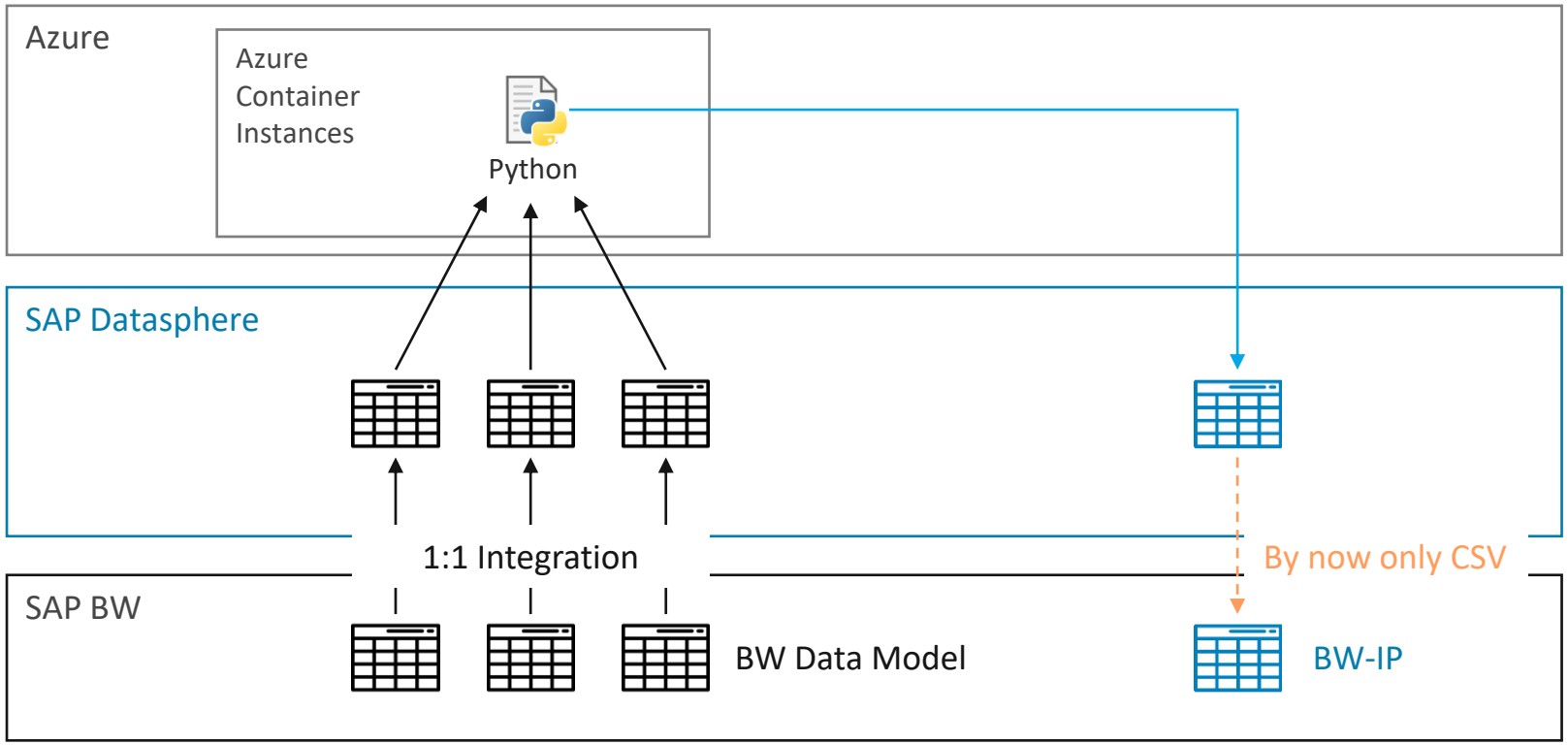


INTEGRATION JUPYTER NOTEBOOK

REQUIREMENTS

- Integration of prediction model in SAP BW based planning
- Creation of algorithms in Jupyter Notebook
- Integration between SAP BW and nonSAP needed
- Replacement of Data Intelligence based solution

Solution architecture



CHALLENGES

- Integration von Datasphere Data to SAP BW (oDATA)

QUESTIONS?
REMARKS?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