

BOAK

BUSINESS OBJECTS ARBEITSKREIS | 2018

C2: SAP HANA 2.0 native Data Warehousing

Matthias Kupczak, Presales Engineer, SAP Switzerland

CONFIDENTIAL

Agenda - SAP HANA 2.0 native Data Warehousing



SAP Data Warehousing Strategie.



Design. Develop. Deploy. Run.

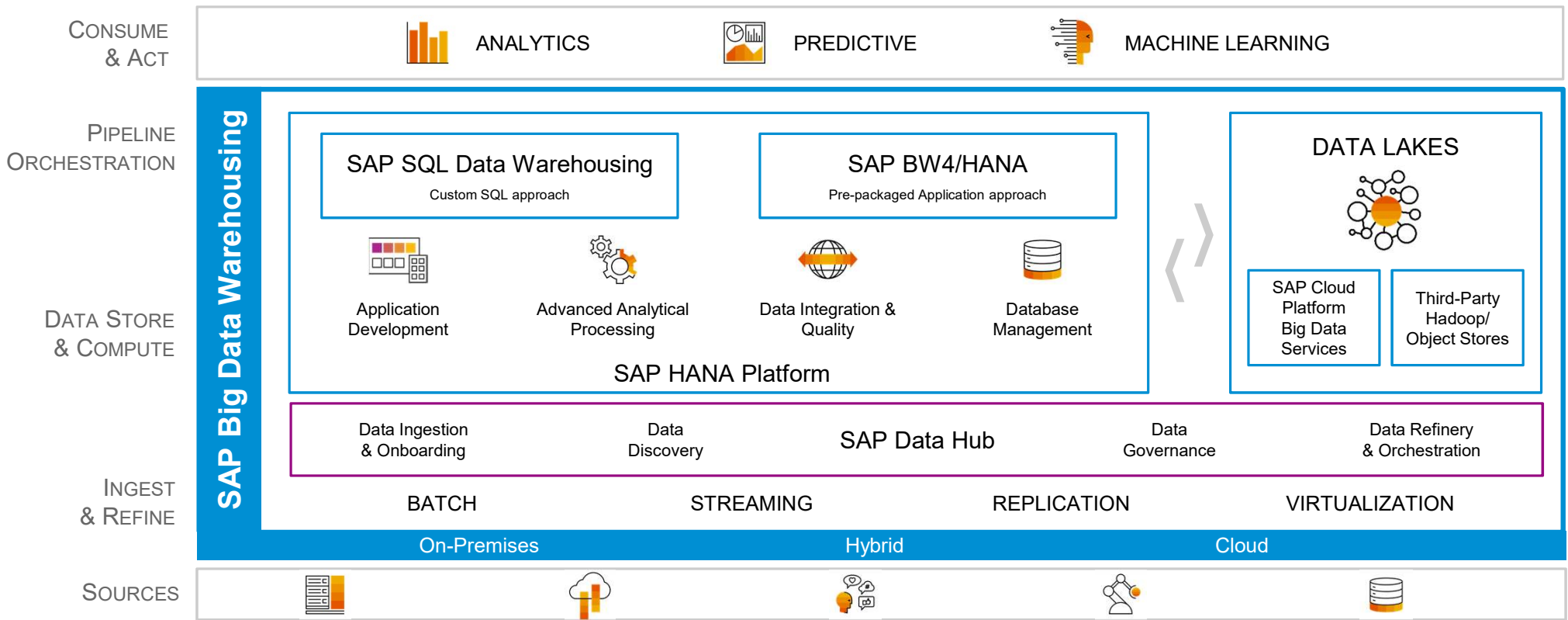


Fragen. Antworten.

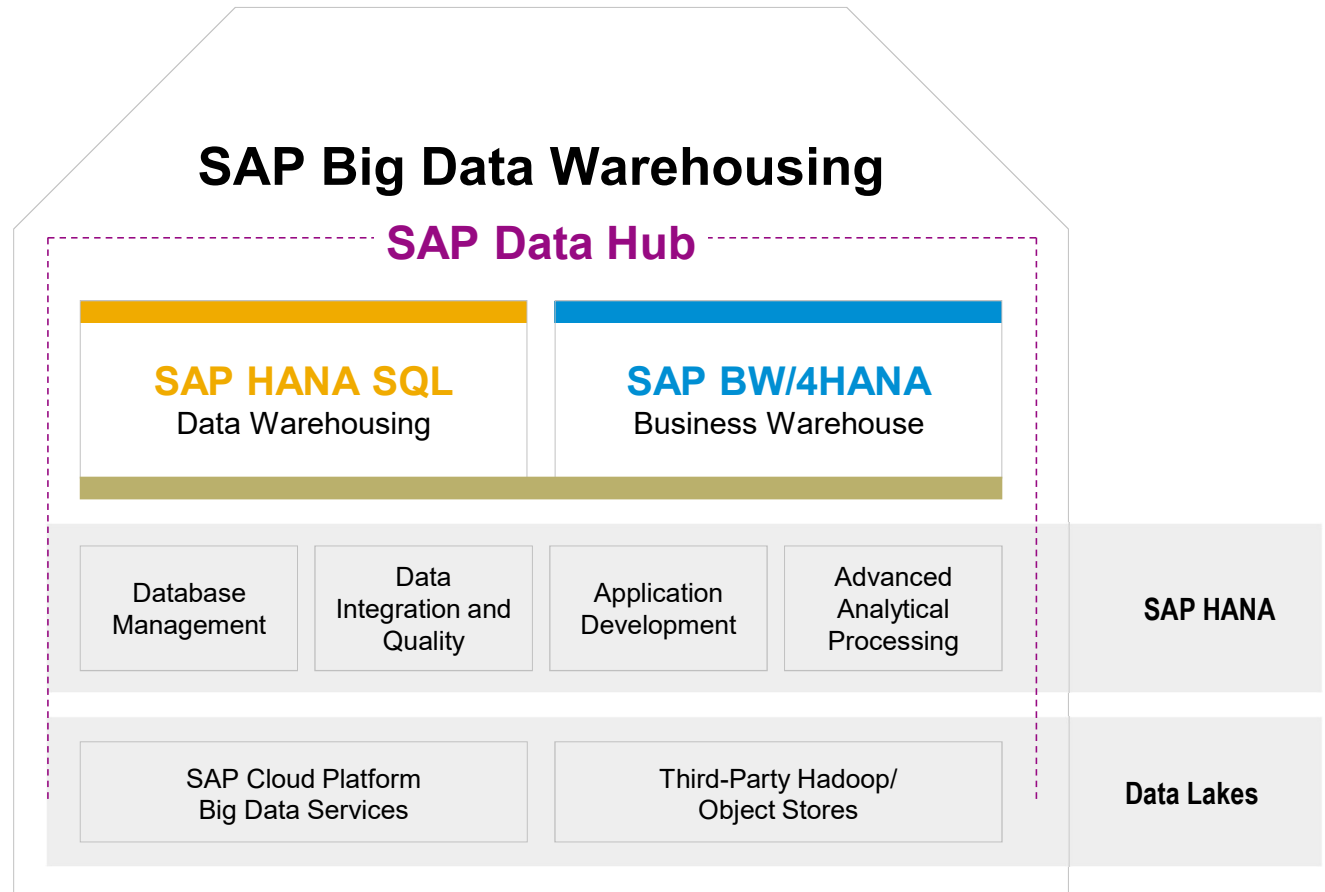
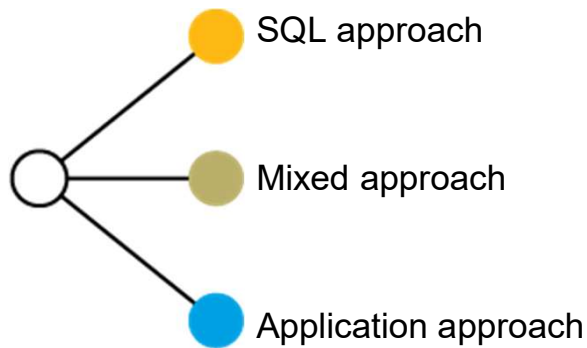


A Comprehensive Architecture to Consolidate Data Silos

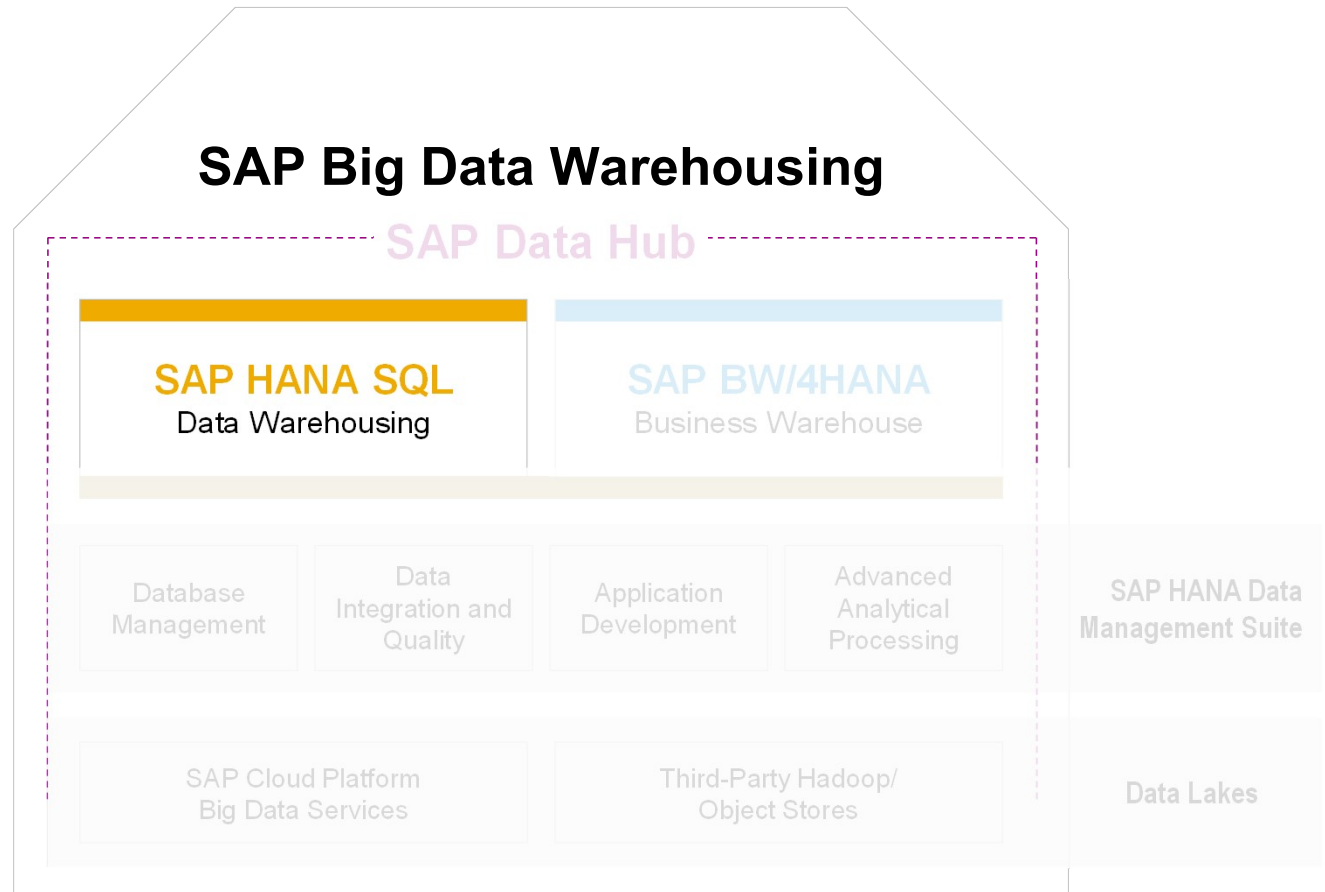
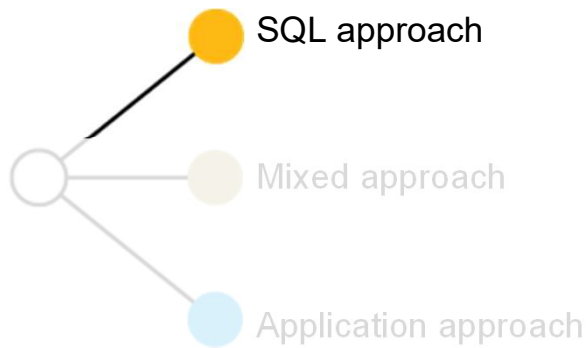
SAP Data Framework



The Three Approach-Strategy for SAP Big Data Warehousing

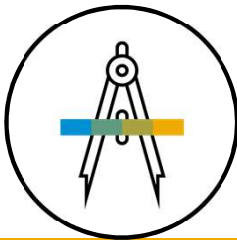


The Three Approach-Strategy for SAP Big Data Warehousing



The SAP HANA SQL DW toolset

Design



Develop



Deploy



Run

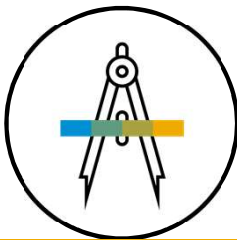


An integrated tooling platform which ties together separate and distinct tools based on the needs of different personas to simplify the innovation cycle based on the SAP HANA XSA engine and SAPUI5 framework.

Architect the SAP HANA Enterprise Data Warehouse

Model the requirements, tables, views and dataflow

Design



Develop



Deploy



Run



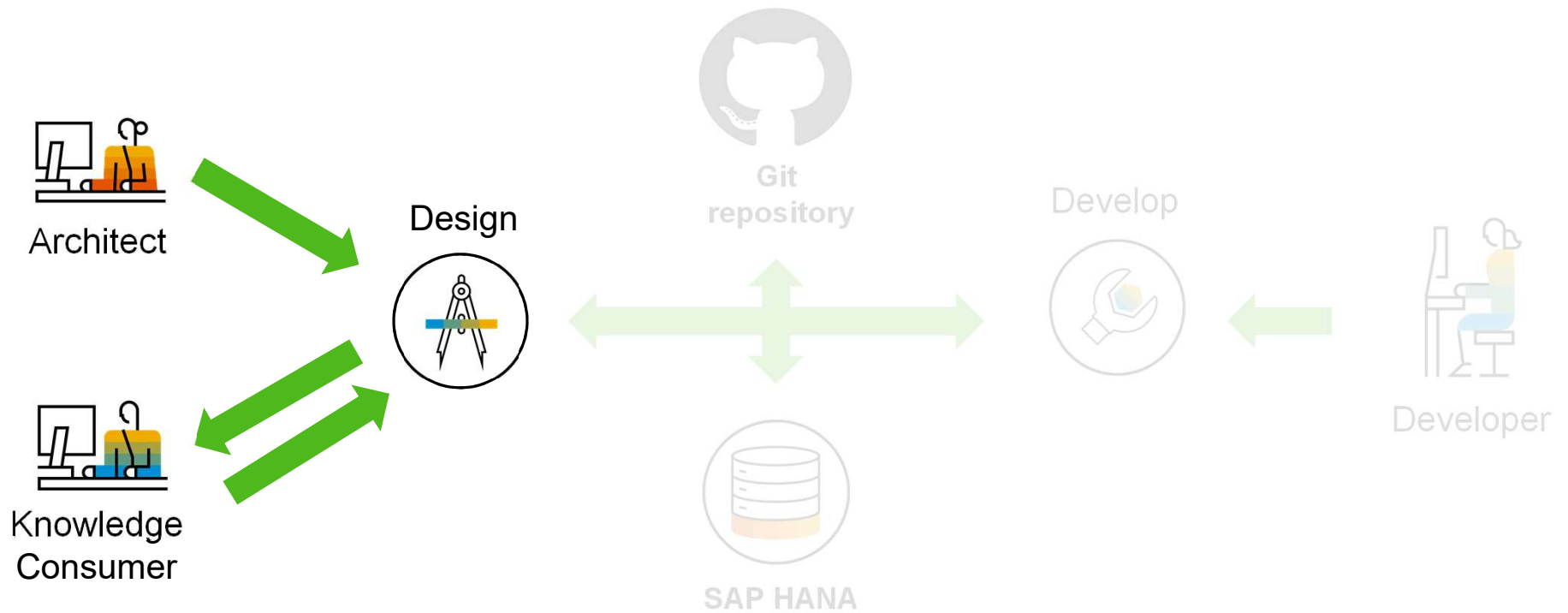
SAP Enterprise Architecture Designer

- Web browser UI
- Integrated with SAP HANA, SAP HANA tooling and SAP process solutions
- Configurable
- Single deployment

SAP PowerDesigner

- Client/Server UI with a supportive web UI
- Integrated with SAP EIM, process and database solutions
- Extensible & Customizable
- Multi-part deployment

SAP HANA Tooling Design and Design Scenario

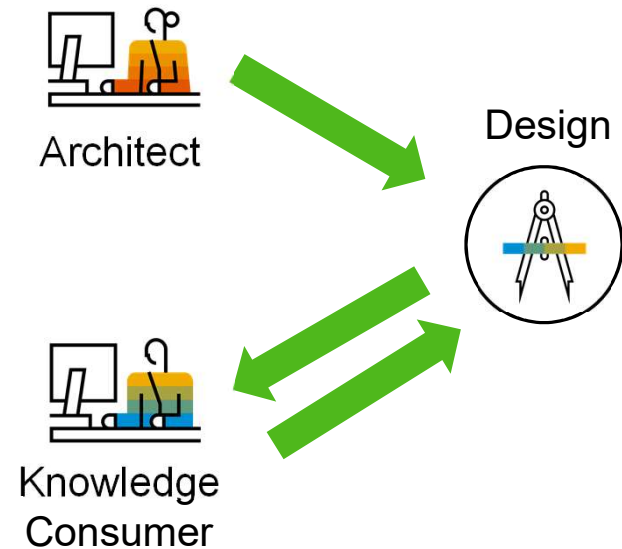


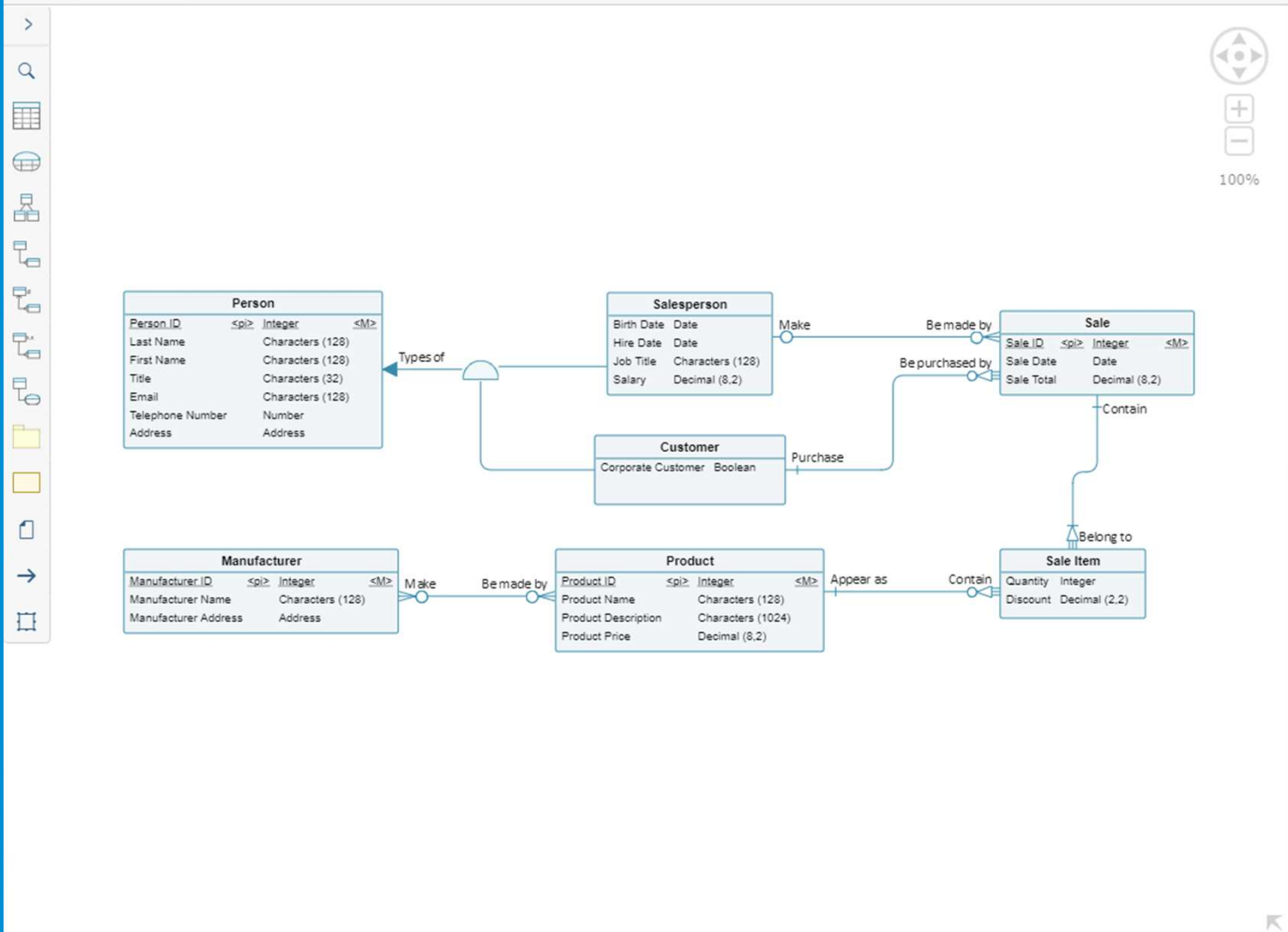
SAP Enterprise Architecture Designer

Edition for SAP HANA

Create and integrate enterprise, landscape, process and data models

- Business process architecture
- Landscape and application architecture
- Requirements management
- Strategy architecture to document goals and projects
- Physical data modeling & data architecture
- Reverse engineering capabilities
- Lineage & Impact analysis





☆

Sales

Conceptual Diagram

Modified Just now by jenny

Model: Sales

0 Dependencies 0 Diagrams

Info

General

Name: Sales

Code: SALES

Comment:

Stereotype:

Page scale: 100

Default diagram:

Definition

Version Info

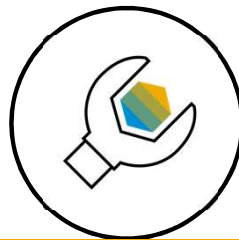
Develop the SAP HANA Enterprise Data Warehouse

One environment to develop all artifacts

Design



Develop



Deploy



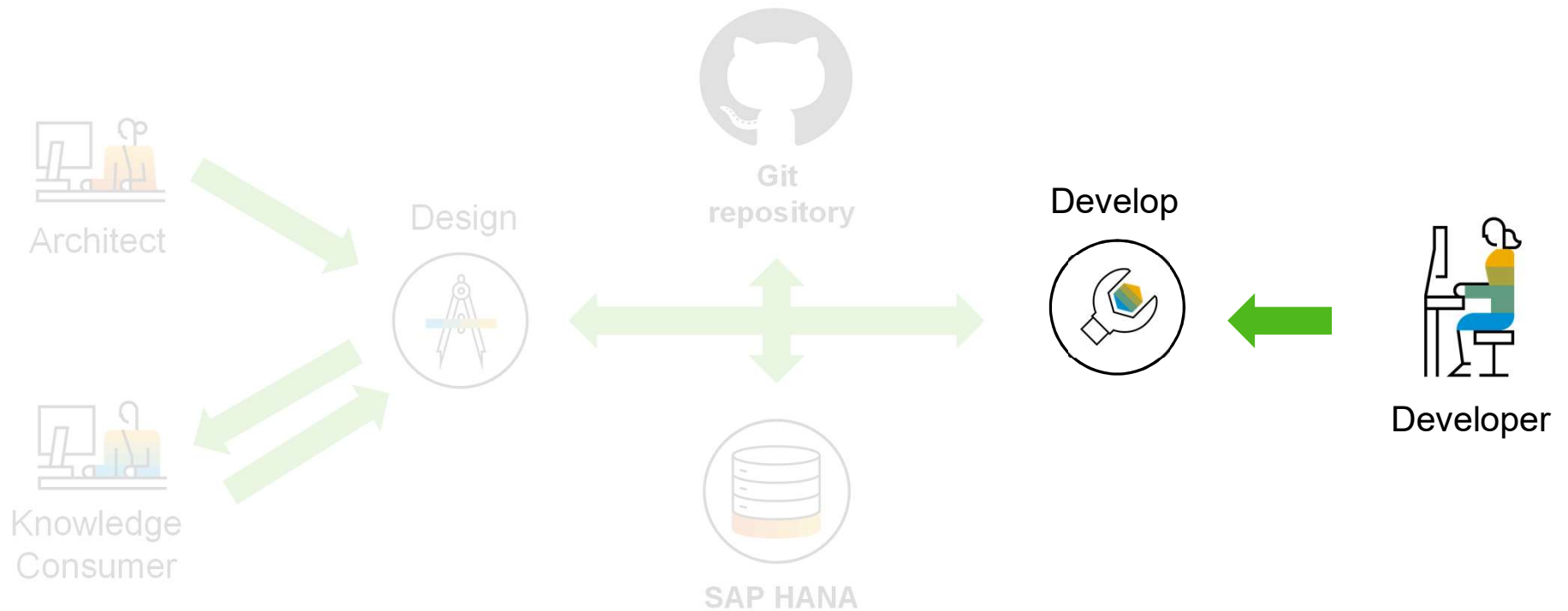
Run



SAP Web IDE for SAP HANA

- Develop the entire EDW from your web browser
- Major extensions for EDW functions (Flowgraphs, NDSO, DLM, Taskchains)

SAP HANA Tooling Design and Develop Scenario

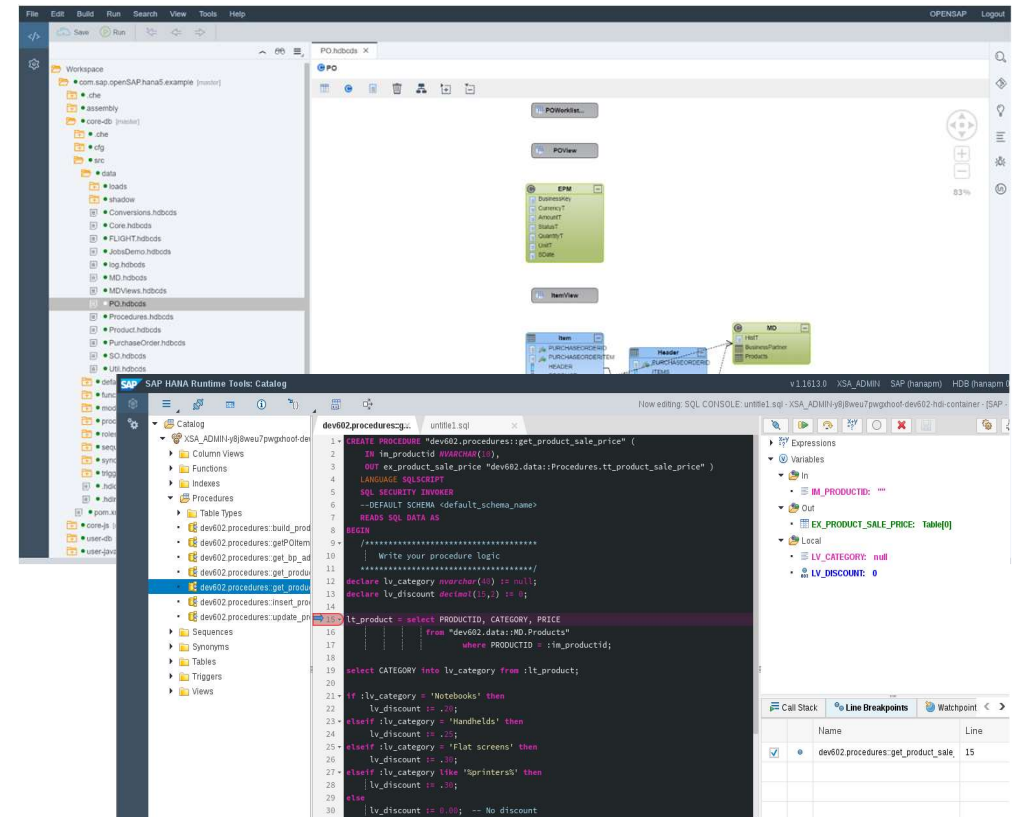


SAP Web IDE for SAP HANA

Streamline development

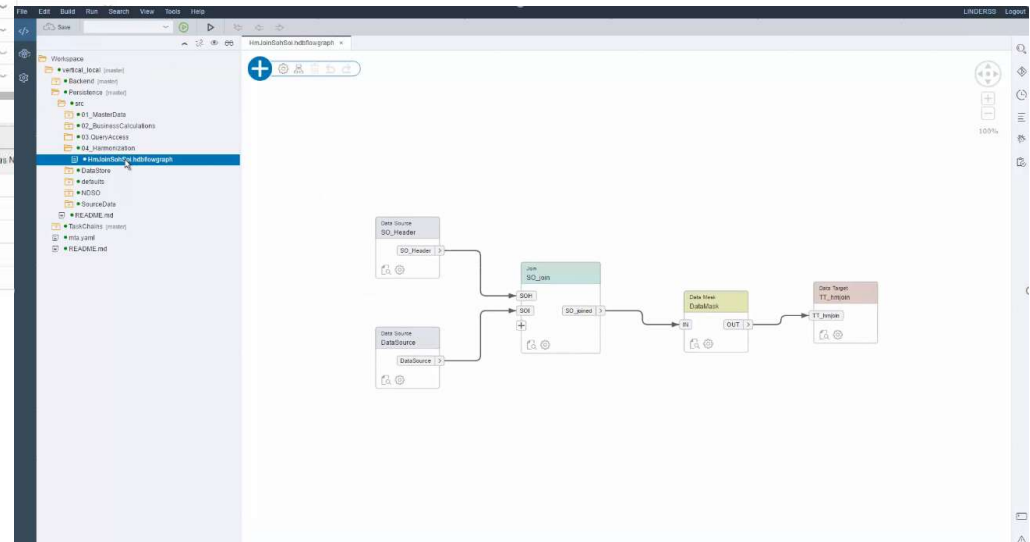
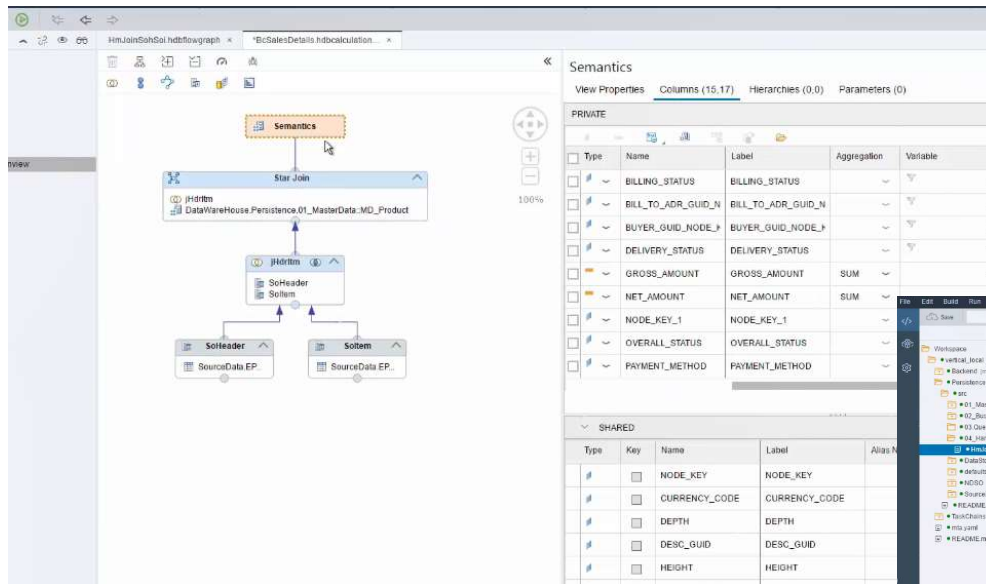
Comprehensive graphical web-based modeling tools for streamlined development

- Browser based XSA application (no installation)
- Development of SAP HANA content and models
 - Multidimensional modelling
 - Hierarchy support
 - Expanded support for spatial, graph, predictive, text analysis, native data store objects, CDS, ...
 - Consumption via standard interfaces (SQL, OData, etc.)
- Advanced Git capabilities: version management, branch viewing, for better source code management



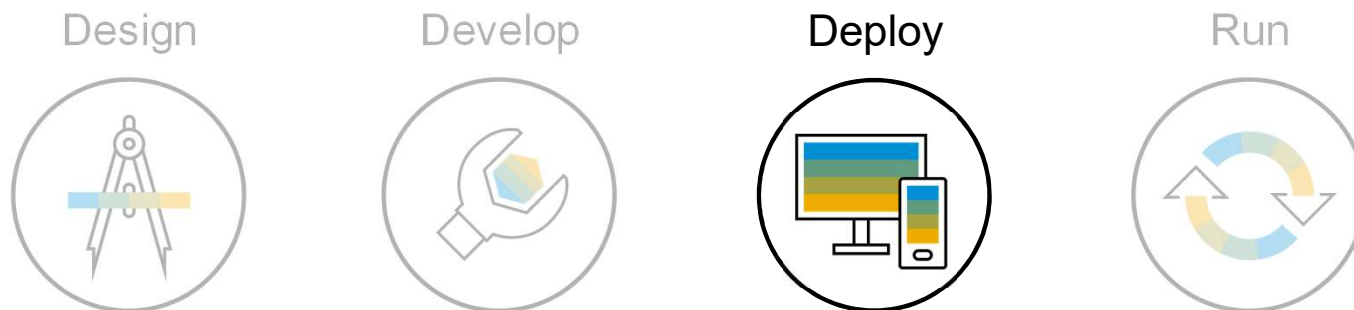
SAP Web IDE for SAP HANA

Calculation Views & Flowgraphs



Deploy the SAP HANA Enterprise Data Warehouse

Transport models, objects and options for integration testing



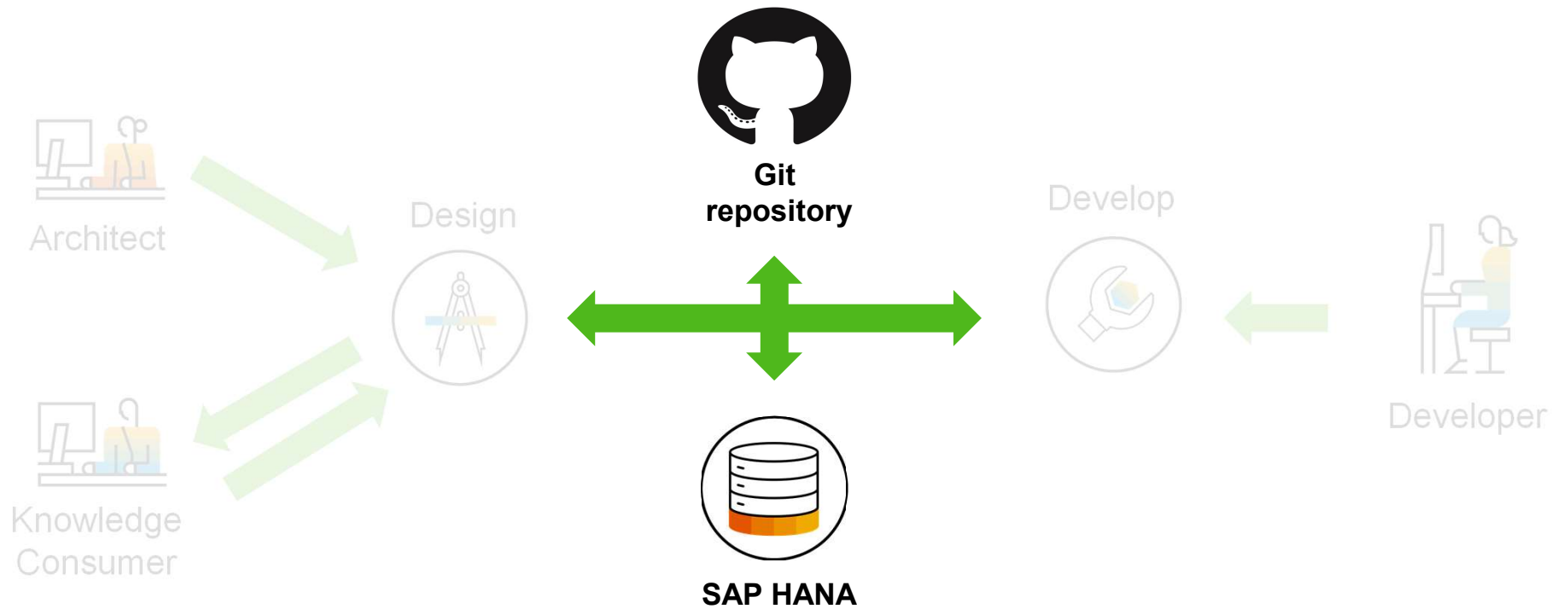
SAP HANA Application Lifecycle Management

- XSA integrates with SAP HANA
- Application Lifecycle Manager (HALM for XSA) to manage change and transport of content
- SAP HANA Product Installer

Open Source deployment

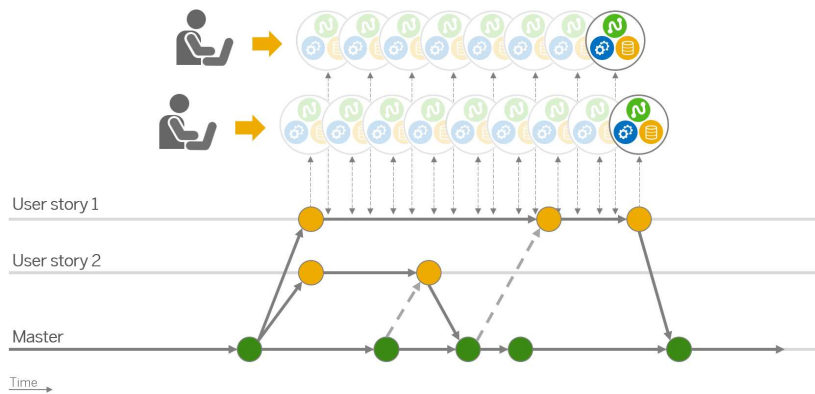
- Bring your own tools: Jenkins, XL release, etc.

SAP HANA Tooling Design and Deploy Scenario

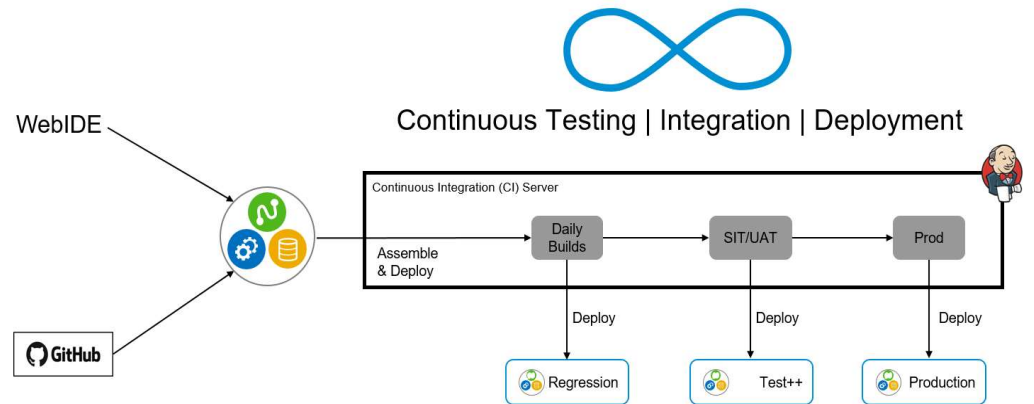


Agile Software Development in a typical Data Warehousing Scenario

Versioning, branching and development with GIT
Working in parallel on different repository versions



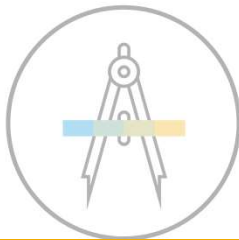
Deployment example
Continuous...



Run the SAP HANA Enterprise Data Warehouse

Integrated data warehouse processes

Design



Develop



Deploy



Run



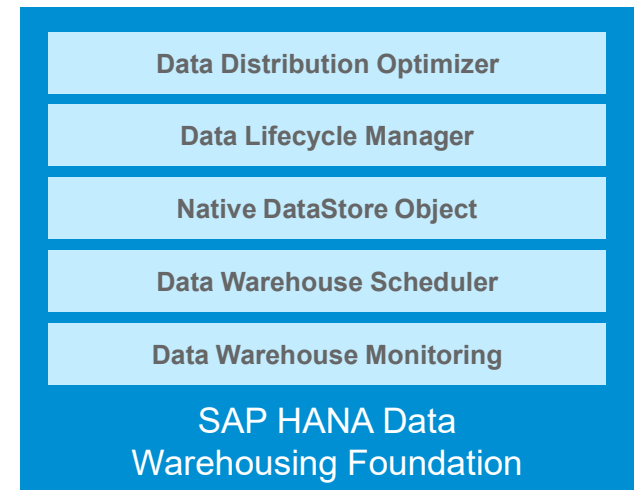
Data Warehousing Foundation

- Data Warehousing Scheduler
- Data Lifecycle Manager
- Data Warehousing Monitor
-

SAP HANA Data Warehousing Foundation 2.0

The SAP HANA Data Warehousing Foundation 2.0 provides specific data management tools, to support large scale SAP HANA use cases.

- **Data Distribution Optimizer** to plan, adjust and analyze landscape reorganizations for SAP HANA scale out systems
- **Data Lifecycle Manager** to deliver a possibility to archive / displace data from a SAP HANA persistency to Dynamic Tiering, SAP IQ or Hadoop
- **Native DataStore Object** to provide a central persistence object with the same capabilities of the BW standard advanced DataStore Object
- **Data Warehouse Scheduler** to maintain dependencies between single processes with the focus to provision data warehouse models
- **Data Warehouse Monitoring** to provide a comprehensive overview about current and past activities in the data warehouse

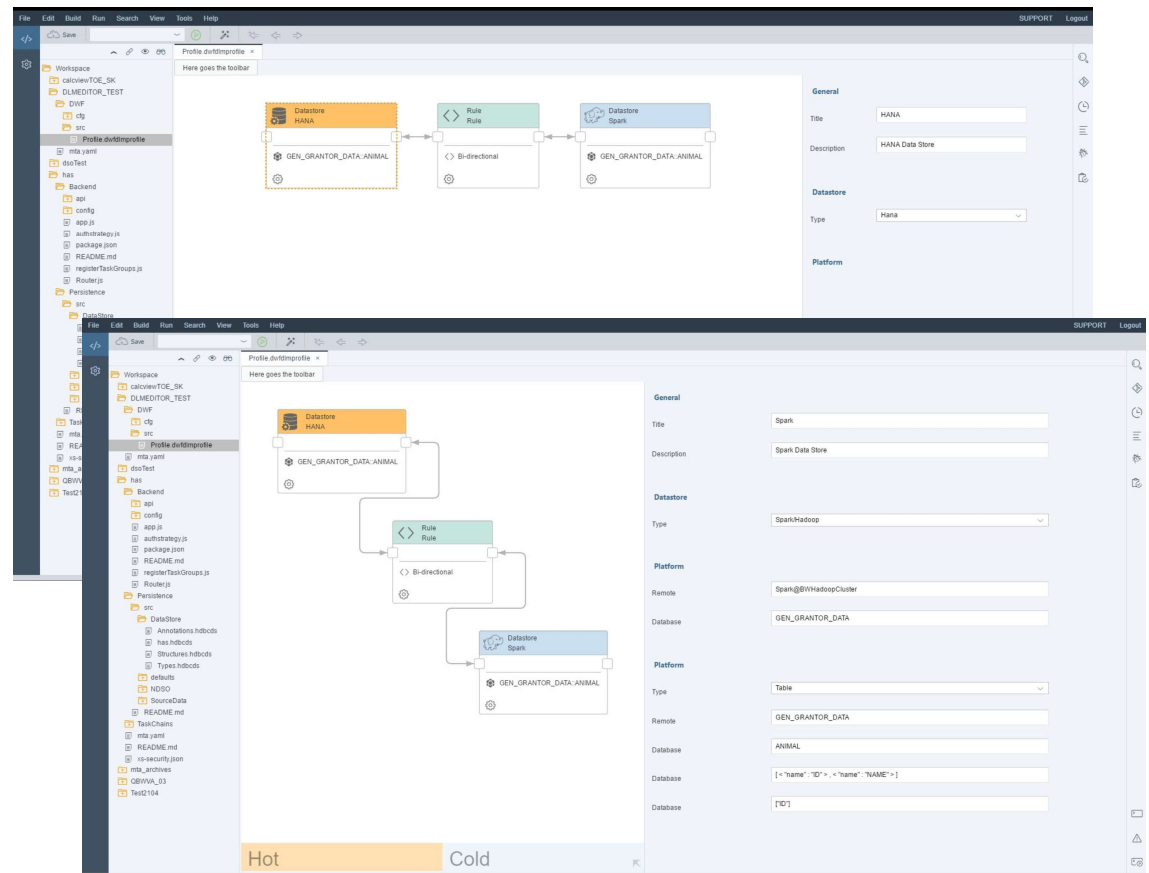


SAP Data Warehousing Foundation – Data Lifecycle Manager 2.0 SP2

Embedded to SAP Web IDE for HANA

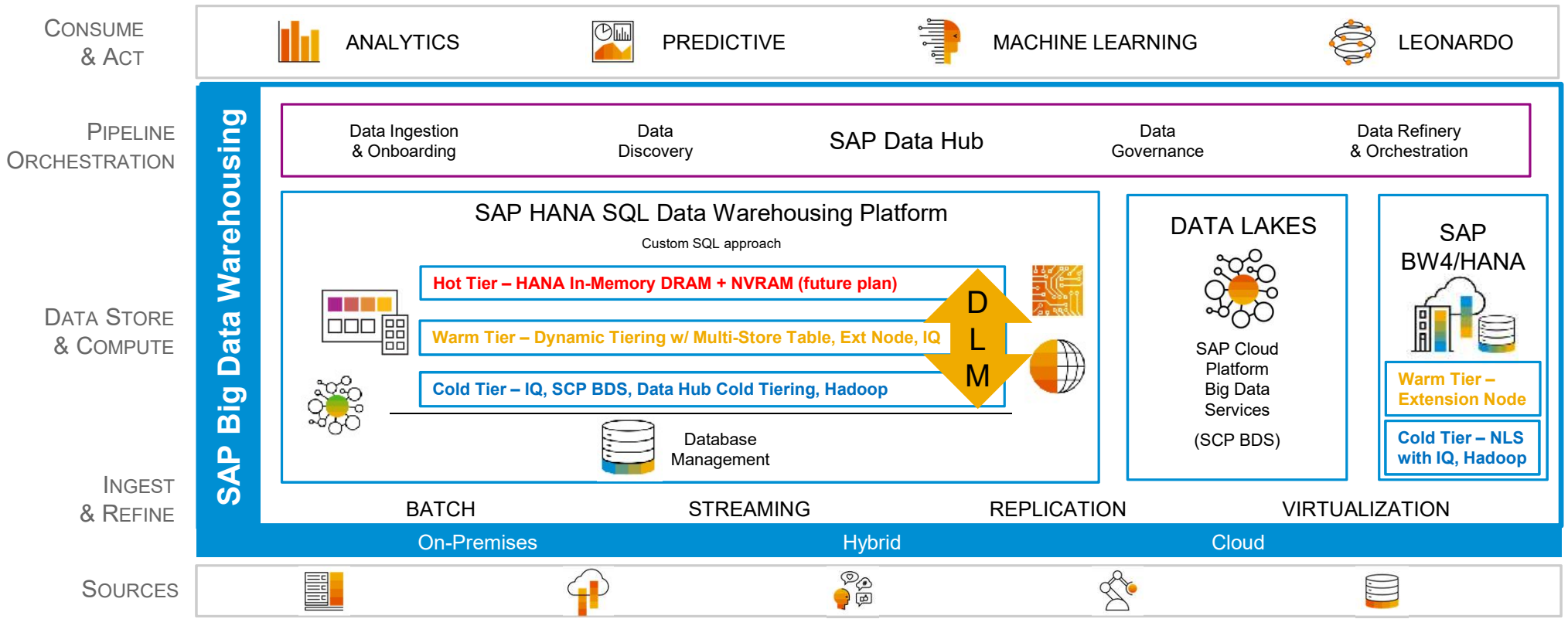
Data Lifecycle Manager (DLM)

- functionality to model data movement strategies from HANA column store tables to Hadoop, Vora, SAP IQ, Dynamic Tiering or HANA Extension
- Enable access to warm and cold data by generating pruning views (calculation views)
- Enable data movement by generating HANA database procedures
- Execution and Monitoring of DLM Profiles (Data Movement) embedded into HANA Data Warehousing Scheduler via generated “DLM task chains”





Big Data Warehouse Data Lifecycle Management

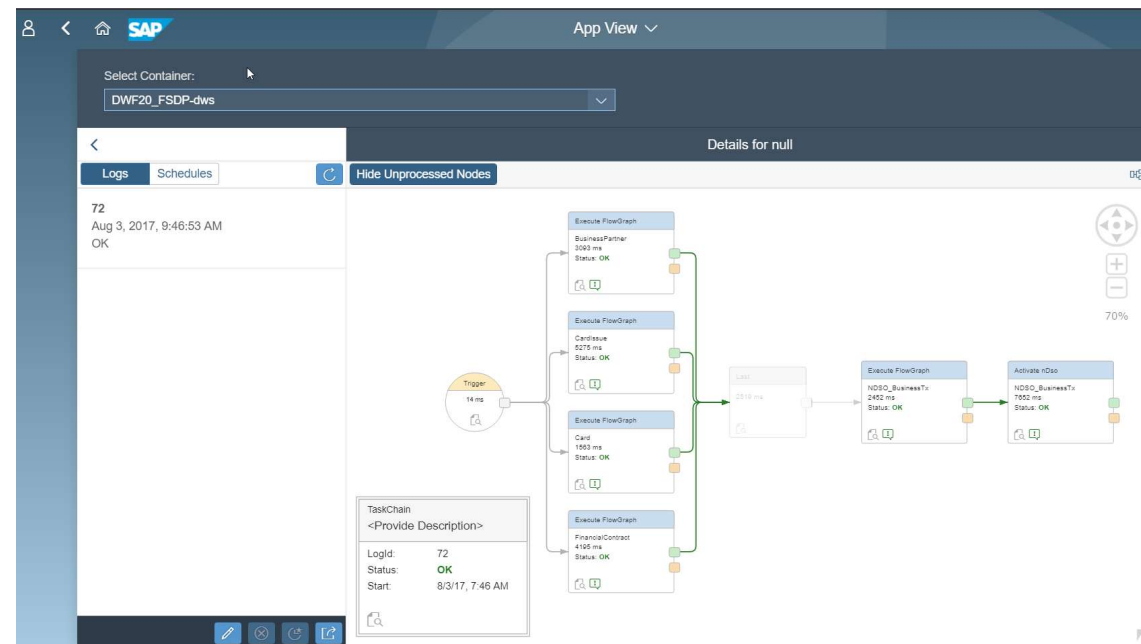


SAP Data Warehousing Foundation – Data Warehouse Monitor (DWM)

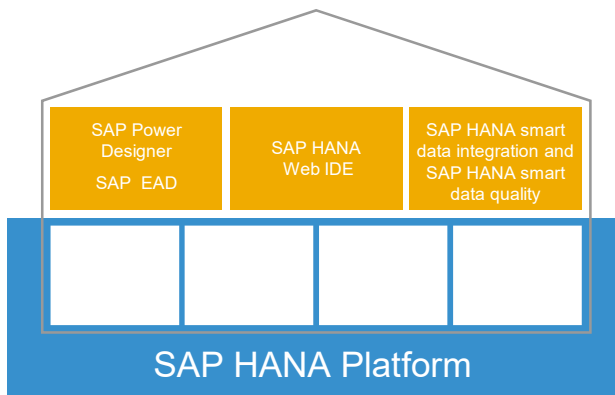
Fiori Style Application

Data Warehouse Monitor (DWM):

- Fiori-Style Application for (Production) System environment w/o access to SAP Web IDE for SAP HANA
- Schedule and Monitor Task chain execution
- Enhanced capabilities for database procedures and DLM related tasks



Summary. SAP HANA SQL DWH approach



Customer Needs and Descriptions

Customers looking for SQL based DW
 Technical DW approach preferred
 3rd party DW replacement
 Mainly non-SAP source system landscape
 SQL / SQL-Tool trained workforce

Tools & Functions

Coverage of a full data warehousing cycle

SAP PowerDesigner, Enterprise Architecture Designer

SAP HANA Web IDE

SAP HANA EIM Services

SAP HANA application lifecycle management

SAP Agile data preparation

Supportive Elements

SAP HANA extended application services

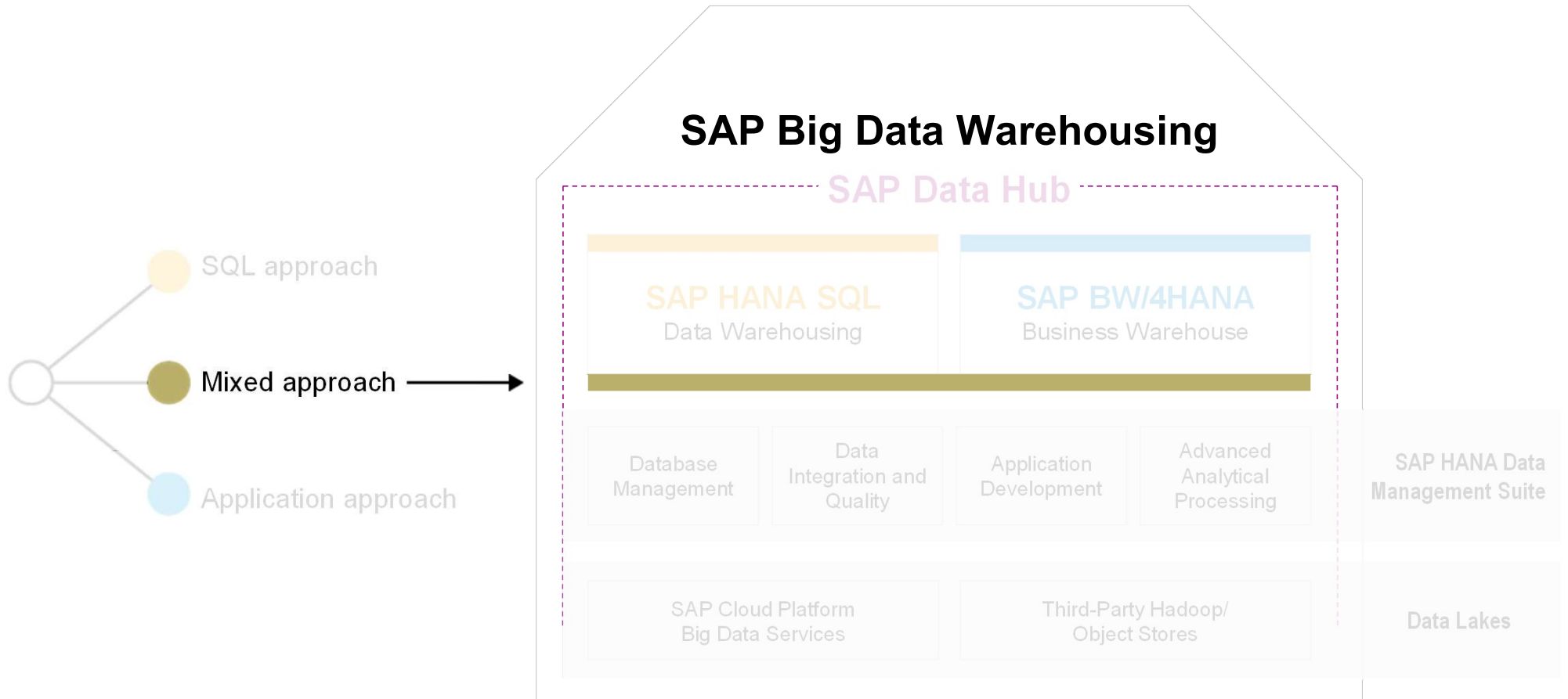
SAP HANA data warehousing foundation

SAP Data Hub (Vora, Data Lake integration,...)

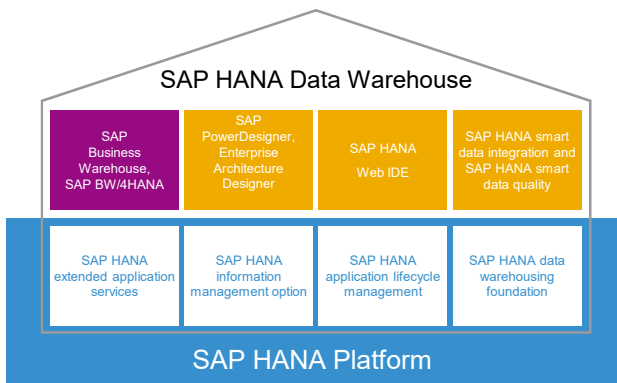
Characteristics

- Degree of Freedom: custom data models, data management processes and transformations with SQL
- Flexibility: Exchange and Integration of best of breed tools (SAP or third-party)
- Customizable level of simplicity, complexity and scale
- To consider: Integration between different tools , Governance and Development efforts

The Three Approach-Strategy for SAP Big Data Warehousing



The Mixed Approach



Customer Needs and Descriptions

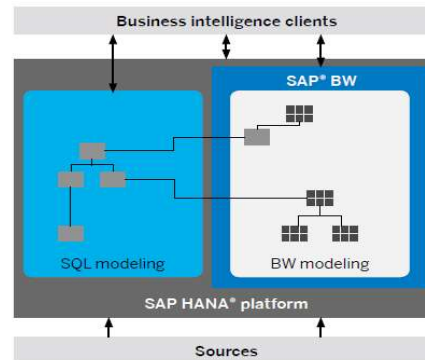
Customers having BW and/or non SAP DWs in place already

Existing SAP customers looking for a new DW implementation based on SAP HANA

SQL and guided approach required to fulfill requirements

Tools & Functions

Integrated tools for managing mixed scenarios end-to-end: modeling, transport mechanisms, consumption interfaces



SQL

Flexible Modelling Options

Open for any SQL Tool

...

SAP BW/4HANA

Data models, metadata

Data Tiering Optimization

Operations

Characteristics

- Profit from the benefits of both approaches
- Highly flexible implementation approach
- Tight integration between both approaches
- To Consider: Integration between different tools (e.g. multiple repositories, authorizations)

Fragen?

Vielen Dank!

[open.sap.com] SAP HANA Data Management Suite - Strategy Talk [#data deluge](#) <https://open.sap.com/courses/hdms1>

[free trial editions] Try out [#SAPDataHub](#) <https://www.sap.com/developer/tutorials/datahub-trial-setup.html> &
Get SAP HANA Express <https://www.sap.com/developer/topics/sap-hana-express.html>

Contact information:

Matthias Kupczak
Pre Sales Engineer

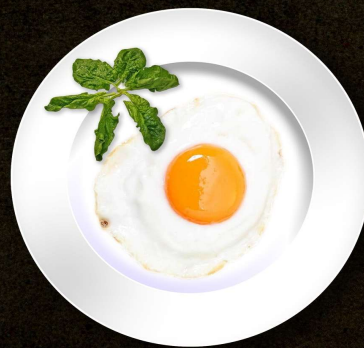
matthias.kupczak@sap.com

www.linkedin.com/in/MatthiasKupczak



Lunch break

En Gute!



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