SAP Analytics Cloud: Overview, Latest News and Modelling

Abassin Sidiq
Product Management Analytics, SAP SE

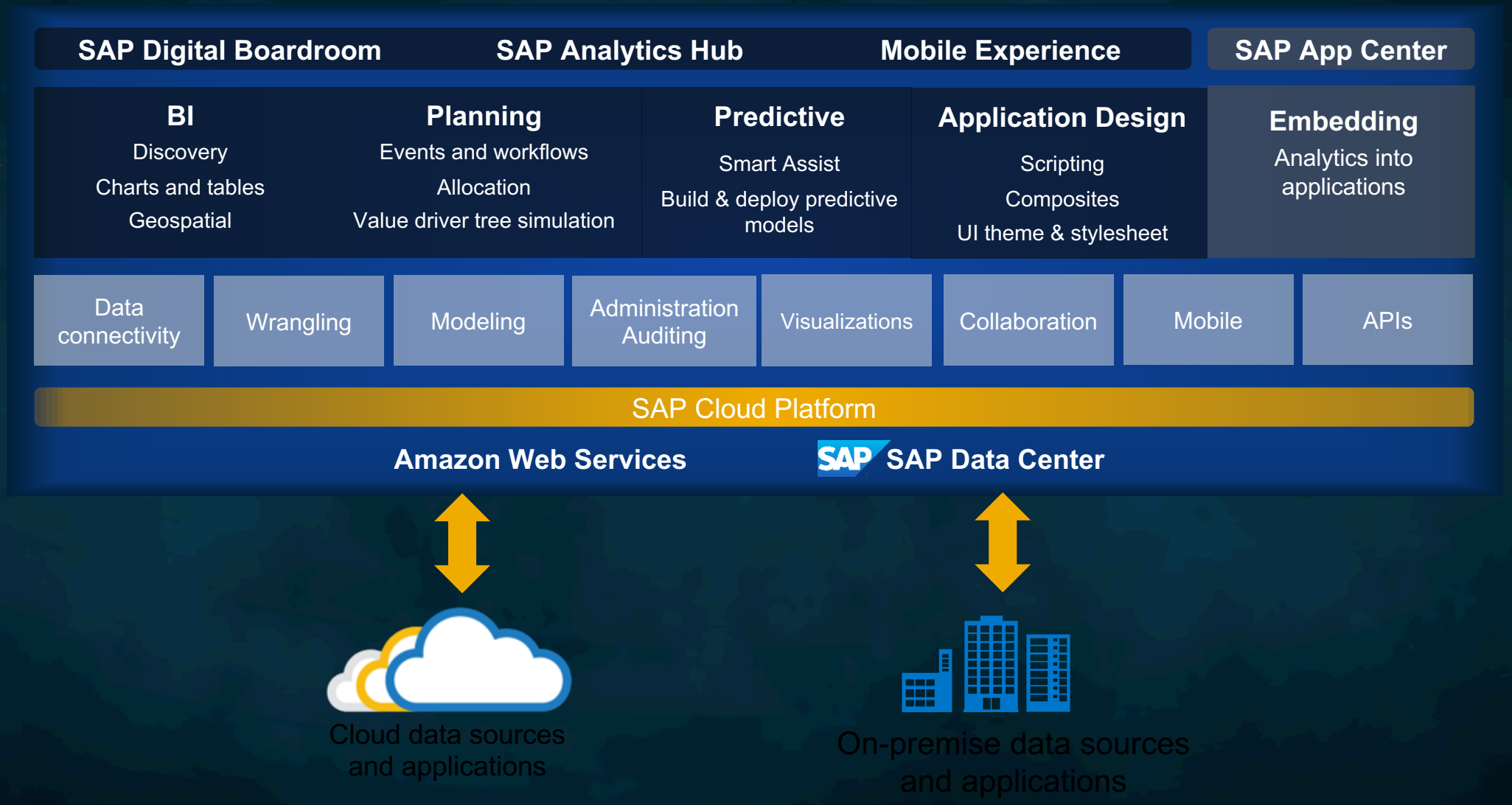
Disclaimer

The information in this presentation is confidential and proprietary to SAP and may not be disclosed without the permission of SAP. This presentation is not subject to your license agreement or any other service or subscription agreement with SAP. SAP has no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation and SAP's strategy and possible future developments, products and or platforms directions and functionality are all subject to change and may be changed by SAP at any time for any reason without notice. The information in this document is not a commitment, promise or legal obligation to deliver any material, code or functionality. This document is provided without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. This document is for informational purposes and may not be incorporated into a contract. SAP assumes no responsibility for errors or omissions in this document, except if such damages were caused by SAP´s willful misconduct or gross negligence.

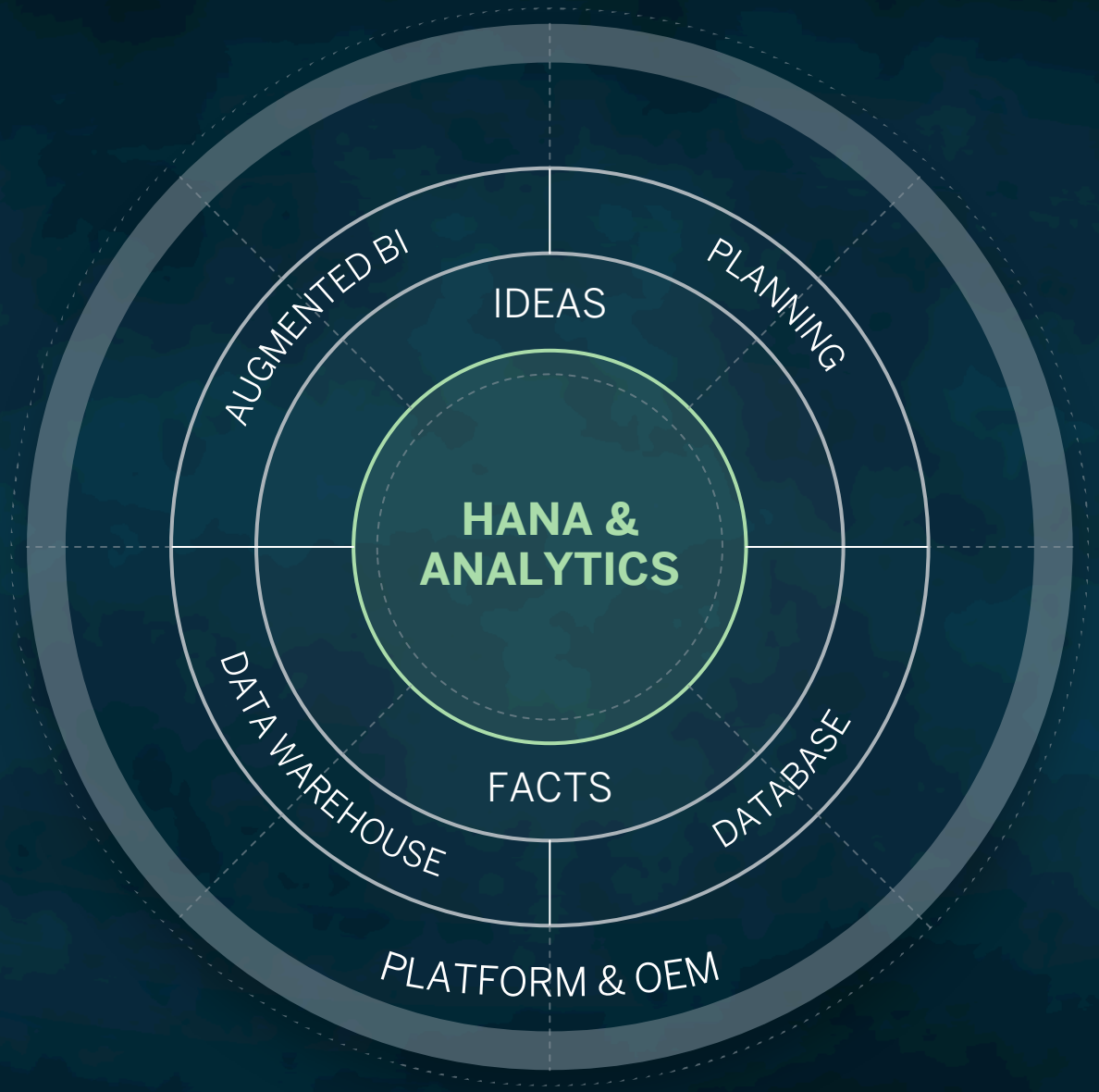
All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.

© 2019 SAP SE or an SAP affiliate company. All rights reserved. I CUSTOMER

SAP Analytics Cloud Architecture

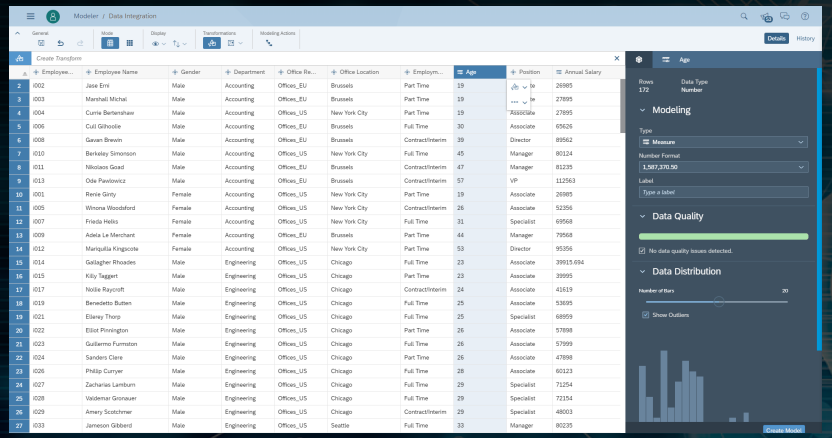


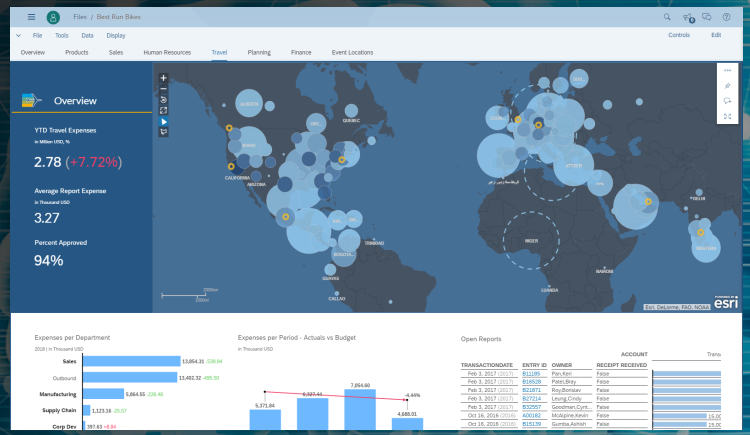
© 2019 SAP SE or an SAP affiliate company. All rights reserved. I CUSTOMER

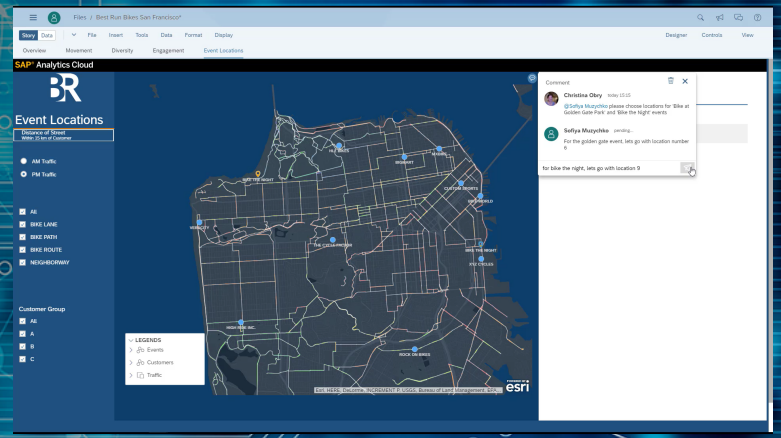


© 2019 SAP SE or an SAP affiliate company. All rights reserved. I CUSTOMER

From Self Service BI to Augmented BI







Connect and prepare your Information

- Prepare and model cloud and on-premise data from your browser
- Data connectors from SAP (BW, HANA, SAP Cloud Platform, Universes) and non-SAP sources
- Linking aggregated data
- Cross dataset calculations

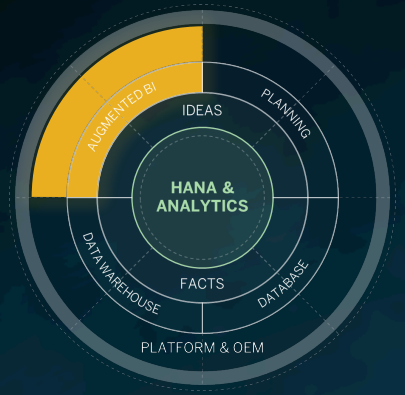
Visualize and build your views

- Design, visualize, and create your stories live
- Add simple location analytics into your visualizations
- Personalize your own dashboard views

Share with your team

- Simply collaborate with your team
- Take action on your data
- Use permissions to control who can view and edit your analytics

Augmented BI



Intelligent Augmentation

with SAP Analytics Cloud

Conversational

Ask questions in a conversational manner with instant results

Automated

Detect drivers of a KPI and take the next best action using automated machine learning

Predictive

Predict potential outcomes and forecasts with the push of a button

© 2019 SAP SE or an SAP affiliate company. All rights reserved. I CUSTOMER

Simplify Access to Insight with Augmented BI

Machine Learning Integrated into SAC

Search to Insight:

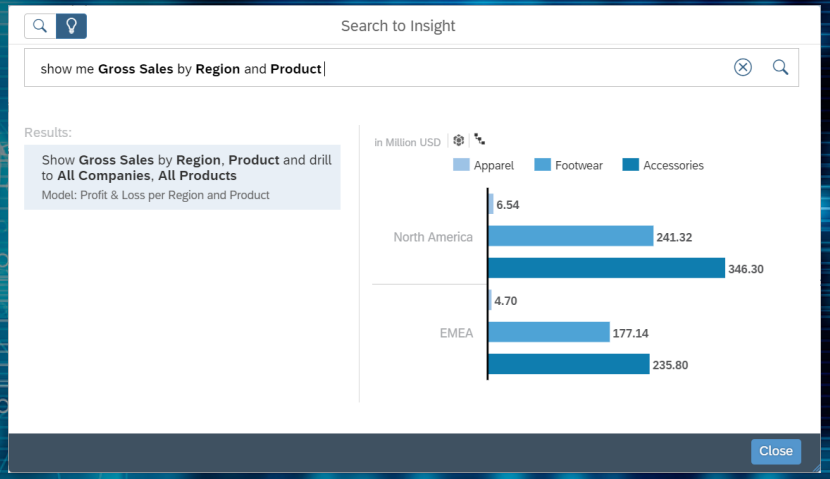
- Just ask your question in natural language
- Discover top influencers of performance without having to look and automatically predict future values to improve results
- Get insights on-the-fly and continue your exploration in the story

Smart Discovery:

- Auto-generate fully populated, multi-tabbed stories with Overview, Key Influencers, Unexpected Values and Simulation tabs
- Analyze outliers and expose key influencers driving business-critical KPIs
- Predict future outcomes with interactive what-if simulations

Smart Predict:

- Classification, Regression, Time Series Forecasting
- Predictive made simple for business users
- Identify areas of improvement and risk to missing targets
- Forecast future values based on trustworthy results

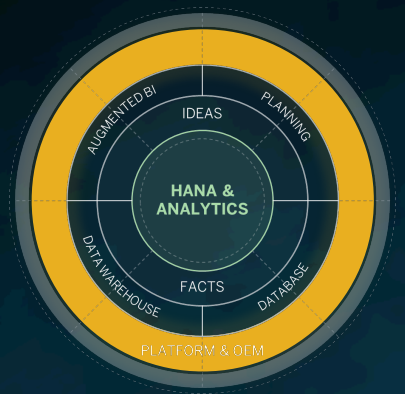


Search to Insight with natural language.

Smart Predict using forecasting.

Platform & OEM Services

Re-used in Data Management, Analytics and Applications



Platform & OEM

Analytics Hub

Pre-defined Analytical Content & Applications

- Semantics Modeler
- Analytics Designer
- Content & Application Lifecycle Management
- Integration / OEM Services (incl. live connectivity)
- Data Management (incl. data prep, ETL)
- Reporting Services (incl. broadcasting, scheduling, commenting)
- Search

Meta Data Repository

Multi-Cloud Foundation and Infrastructure Services

© 2019 SAP SE or an SAP affiliate company. All rights reserved. I CUSTOMER

Data Integration

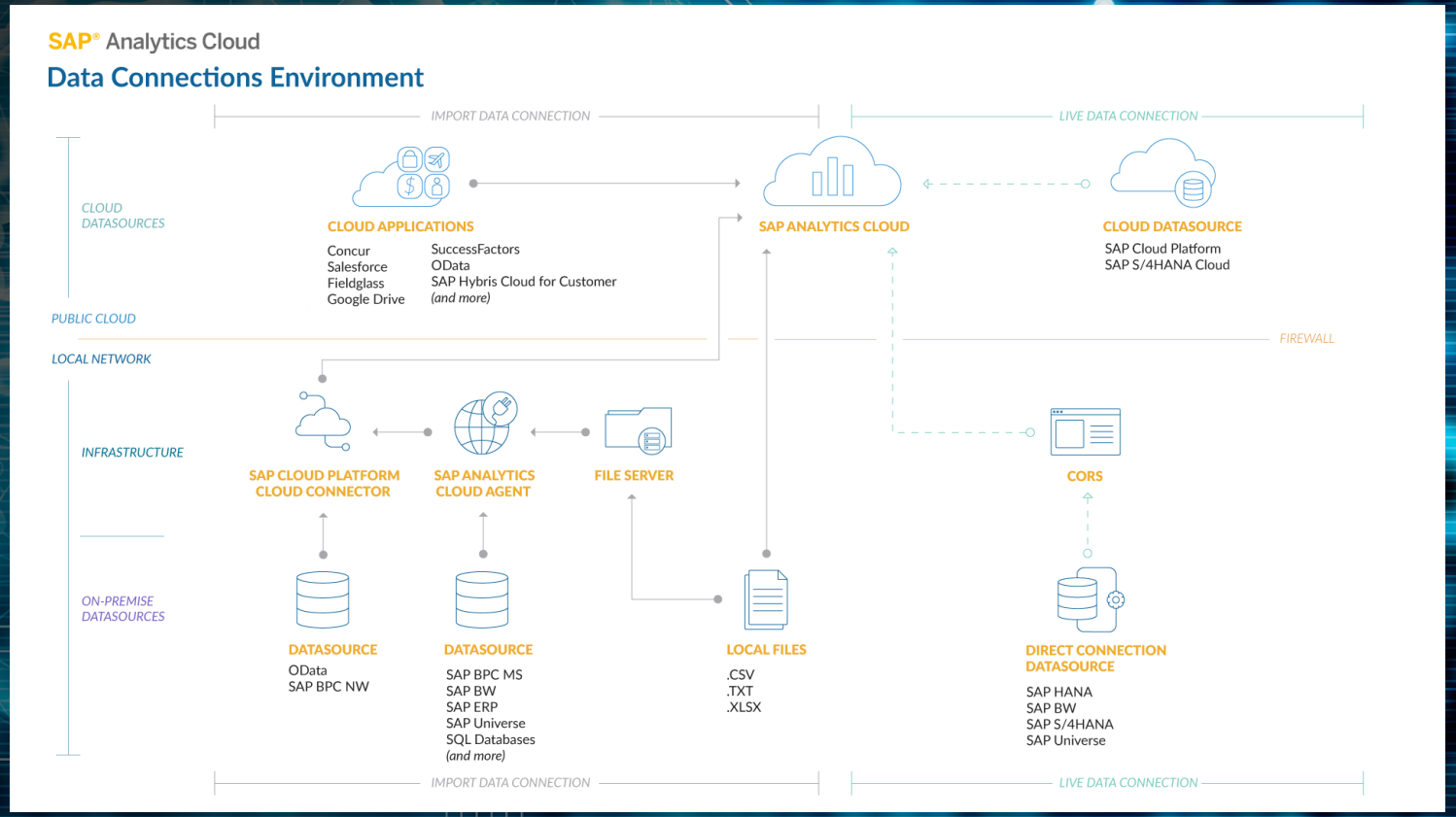
Connect to data anywhere stored in on-premise databases, cloud databases, and personal files. Enrich data and business metadata in preparation for self-service data analysis through purpose built data modeling capabilities and calculations

Live connections

- Data replication is not required
- Leverage business metadata directly without additional modeling
- Leverage existing security and data authorizations

Data import connections

- Business users can model data with Smart Data Preparation
- Easily track and reverse data transformations
- Refresh data on demand or via schedule



Data Sources

Live

Cloud data sources

SAP Cloud Platform[1] | SAP S/4HANA Cloud | SAP SuccessFactors | SAP Ariba

SAP data sources

SAP HANA | SAP BW | SAP BW4/HANA | SAP S/4HANA | SAP BPC Embedded | SAP BusinessObjects Universe

Access via SDI for SAP Cloud Platform & SAP HANA

Apache Hive | AWS | SAP Vora | SAP Sybase ASE, IQ, ESP | OData | Microsoft SQL Server | Spark SQL | Oracle | Teradata | MaxDB | IBM DB2 | MySQL | Netezza | Facebook | Google+ | Twitter

Partner delivered

APOS | DB2 | Denodo | Microsoft Analysis Services | Microsoft Azure | Microsoft SQL Server | MongoDB | MongoDB Atlas | MySQL | Netezza | Oracle | Oracle Essbase | Oracle Exadata | SAP IQ | SAP SQL Anywhere | Redshift | Teradata | Google BigQuery | Cloudera | Hortonworks | Amazon S3

■ Delivered ■ Planned within the next 6 months ■ Partners

Import

Cloud data sources

SAP Hybris Cloud for Customer | SAP Cloud Platform[1] | SAP Business ByDesign | SAP S/4HANA Cloud | SAP SuccessFactors | SAP Fieldglass | SAP Workforce Analytics | Concur | OData | Dow Jones DNA | Google BigQuery | Google Drive | Google Sheets | Salesforce | 3rd party CRM | 3rd party Cloud Storage

SAP data sources

SAP BPC NW & MS | SAP HANA | SAP ECC | SAP BusinessObjects Universe | SAP BW | SAP S/4HANA | SAP BW4/HANA

Other data sources

IBM | Microsoft SQL Server | MySQL | Netezza | OData | Oracle | CSV | Excel | Progress OpenEdge | Additional on-premise sources

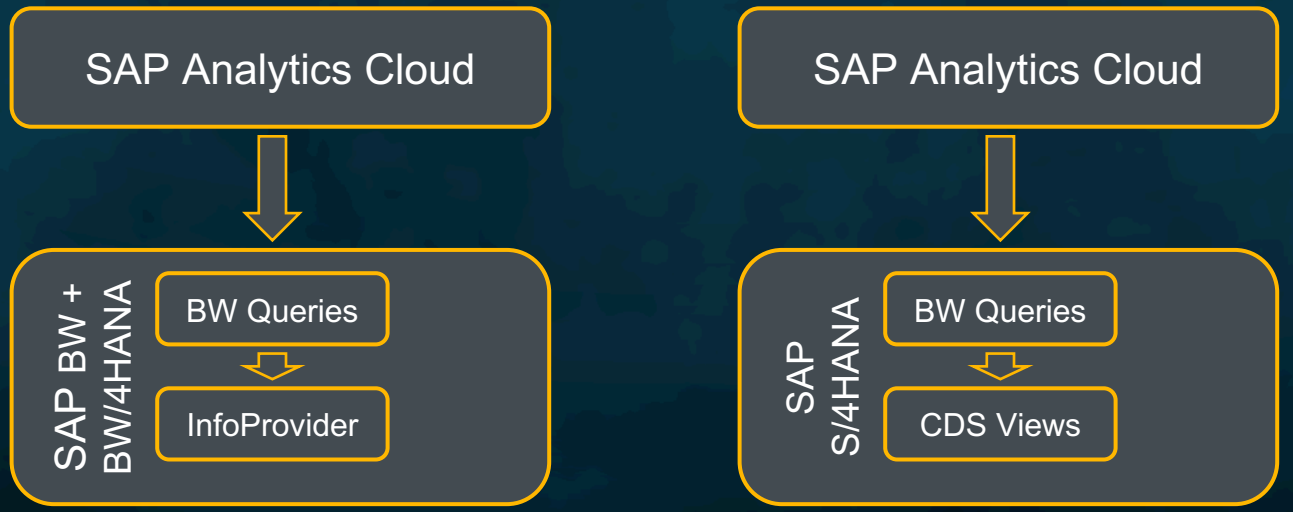
Partner delivered

APOS | CDATA | DataDirect Cloud | Web Intelligence | QuickBooks | eloqua | Microsoft SharePoint | Google Analytics | NetSuite CRM & ERP | Microsoft Dynamics CRM | Oracle Marketing Cloud | Hubspot | MongoDB | Marketo | SugarCRM

BW Live

Direct. Secure. Simple.

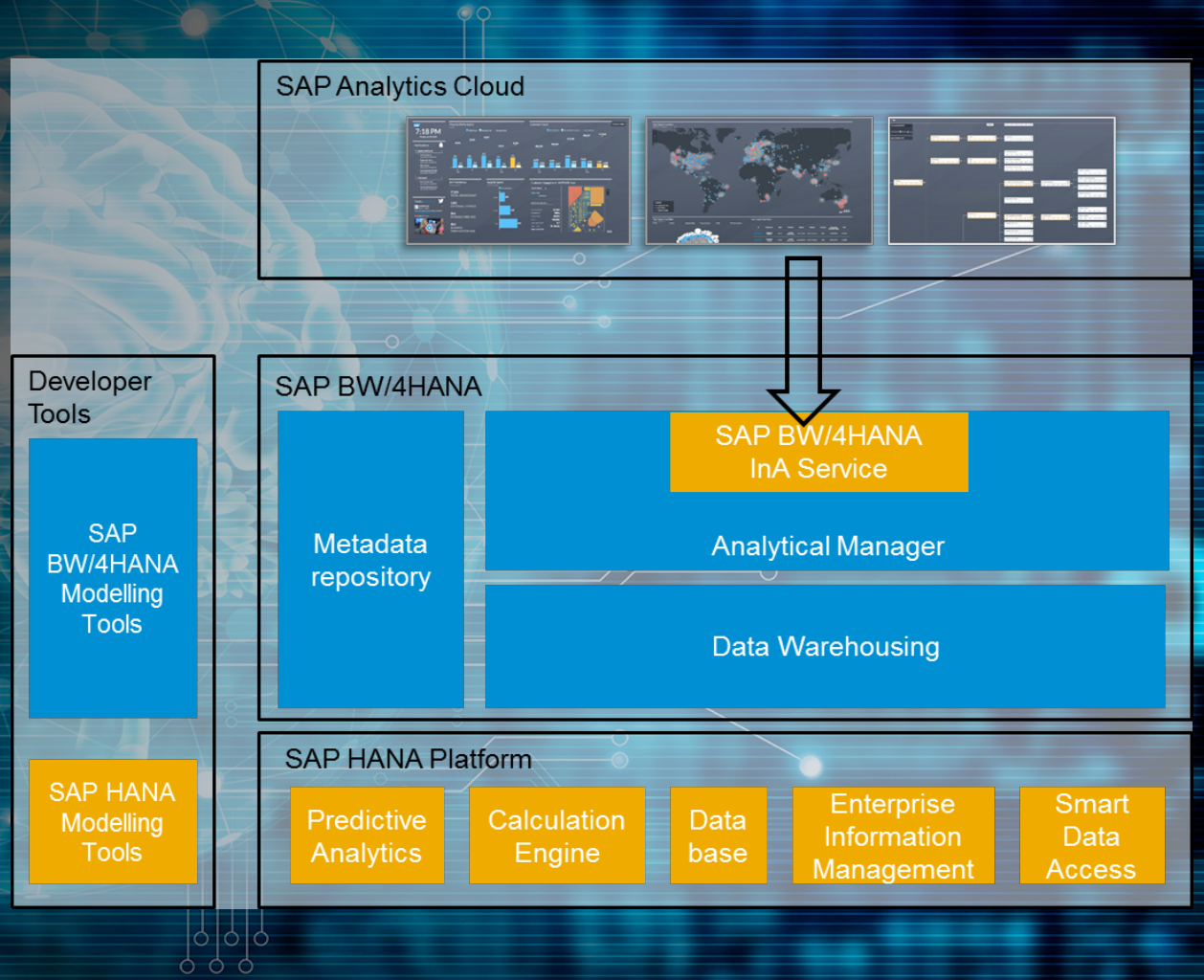
- "BW Live" embraces live connectivity to BW, BW/4HANA and S/4HANA.
- No additional modeling in SAC needed, BW query functionality supported out-of-the box.
- No data replication into SAC
- Data remains behind your corporate firewall all the time when running queries and displaying results.
- No authorization replication needed: Underlying Authorizations are fully respected.



SAP Analytics Cloud Integration with SAP BW and BW/4HANA

Unique Direct Connectivity With BW Leveraging Best-In-Class SAP Interfaces

- **Direct. Secure. Simple.**
  - Simply connect to BW Queries or generated HANA views in your on-premise BW systems
  - No additional modeling in SAC needed (renaming and grouping of measures and dimensions is possible, but optional)
  - No data replication into SAC
  - Data remains behind your corporate firewall all the time when running queries and displaying results
  - No authorization replication needed: BW authorizations are fully respected
- **Best Possible End-to-End Integration.**
  - Use of unique best-in-class query interface (Firefly) to BW and HANA engines
  - Ability to access BW and HANA features that cannot be accessed through standard query interfaces (SQL, MDX)
  - Firefly interface is continuously enhanced alongside BW and HANA engine enhancements



Analytics Designer - What it is

Professional design of centrally governable analytic content, ranging from dashboards via guided analytics to sophisticated planning and Smart Predict applications

What is an application?

- Applications range from simple dashboards to complex applications
- Applications expose custom logic based on scripting
- Applications are created by a few experts to be consumed by many

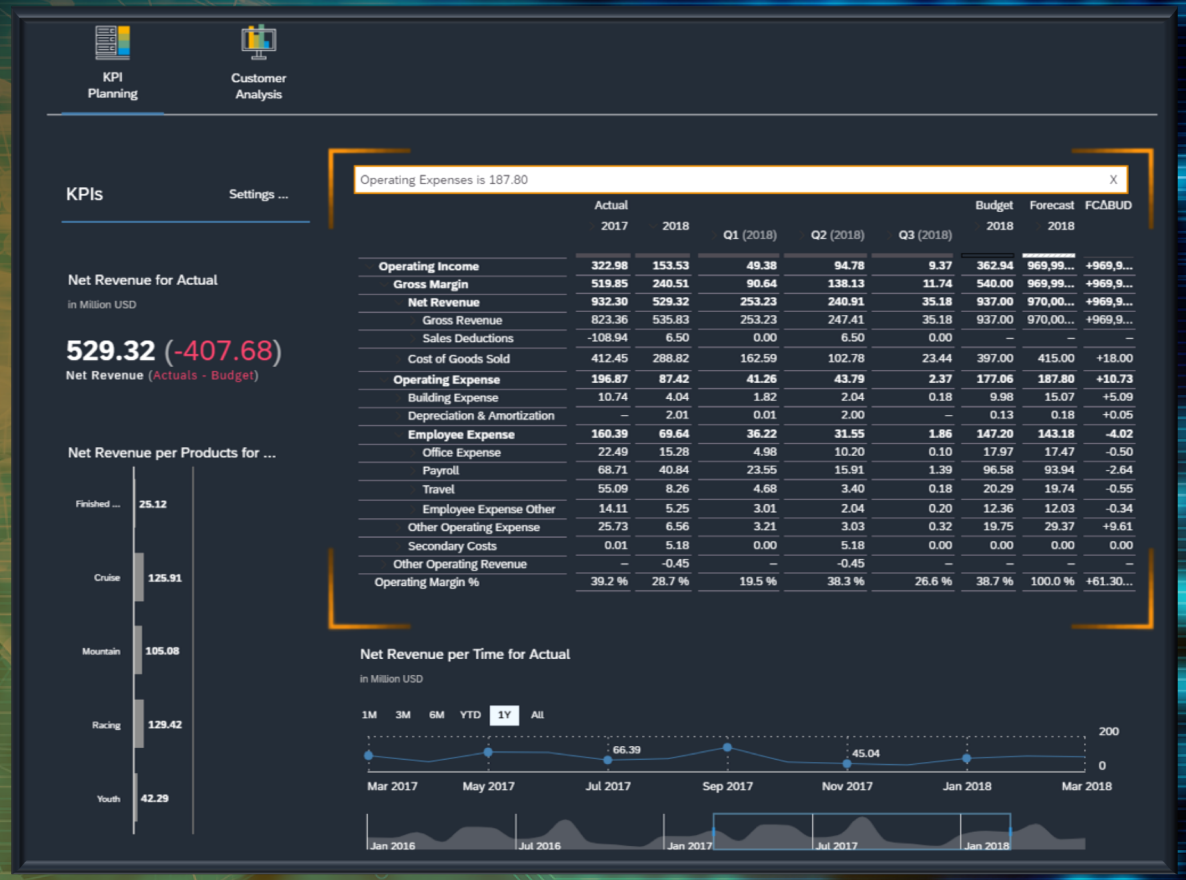
What is application design?

- Rich set of capabilities for professional designers of analysis applications to meet sophisticated business requirements
- Dedicated development environment with advanced scripting capabilities
- Drive standardization of analytics content, create reusable UI elements and application logic (such as headers, footers, toolbars)
- Extending Applications via Custom Widgets and APIs

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

Analytics Designer Fundamentals

- **Simple widgets**: images, buttons, dropdown menus, check box group, radio button group, shape, text, web page, RSS reader, clock
- **Data-driven widgets**: tables, charts, filter lines, R widget
- **Container Widgets**: pop-up/dialog and other container widgets
- **Dynamic Layouts**: Dynamic adjustment of screen real-estate without re-arranging all elements
- **Interactions** (e.g. filter, cascading behavior) between different widgets via scripting
- **Dynamic switch between widgets** (e.g. chart and table) at application run time
- Dynamic and flexible **selections on Crosstab and Charts**
- Powerful **scripting capabilities**
- Script Objects for **modularizing and reusing code** for enterprise applications

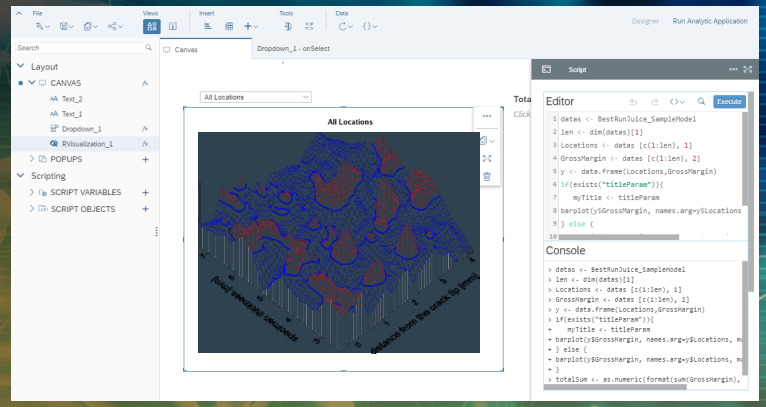


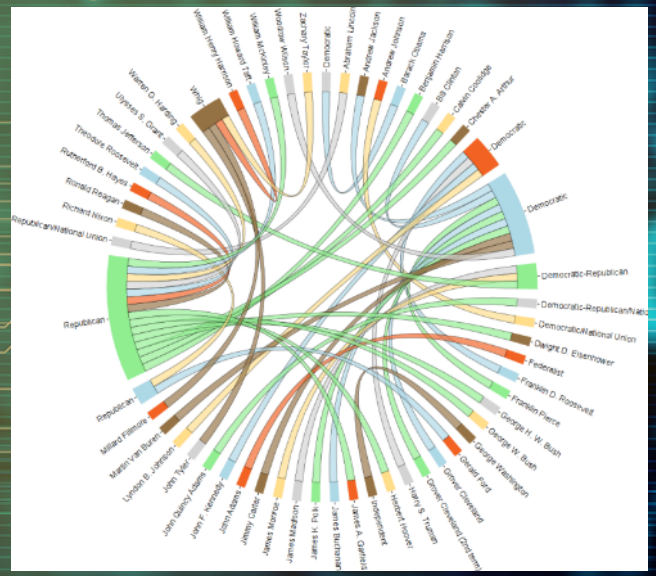
This is the current state of planning and may be changed by SAP at any time.

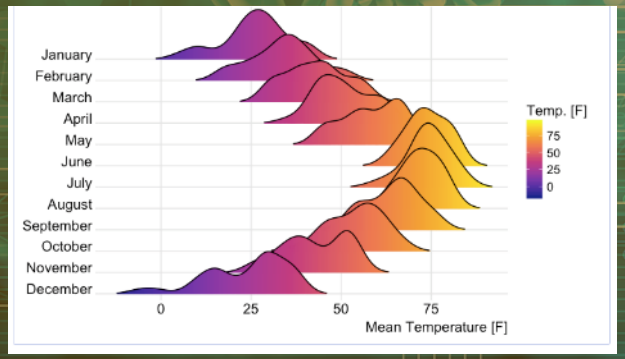
Extensions

Extension capabilities to enable customers or partners to extend the tool

- **R Widgets** with scripting access
- **Composites**
  - Designers can create a collection of widgets to make a composite
  - Format by drag and drop of standard widgets, logic definition by data binding and scripting
  - Re-usable across applications
  - Decompose complex applications into smaller, manageable parts
- **Custom Widgets**
  - Developers can create sophisticated custom widgets
  - Custom functionality







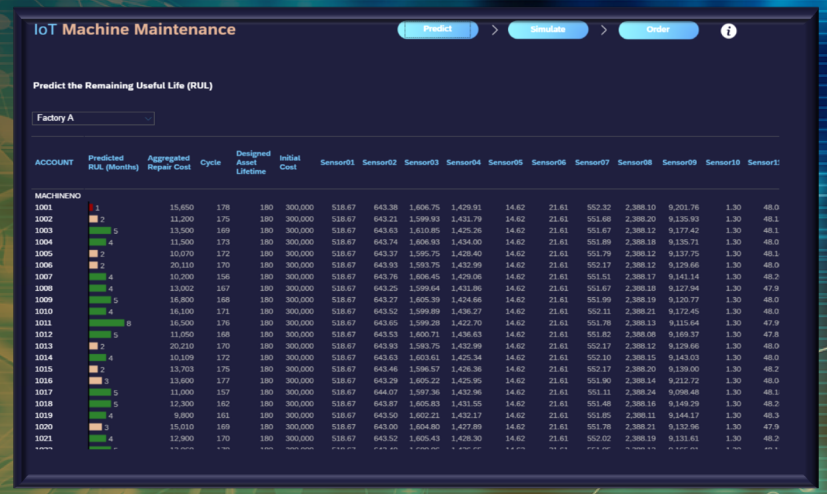
This is the current state of planning and may be changed by SAP at any time.

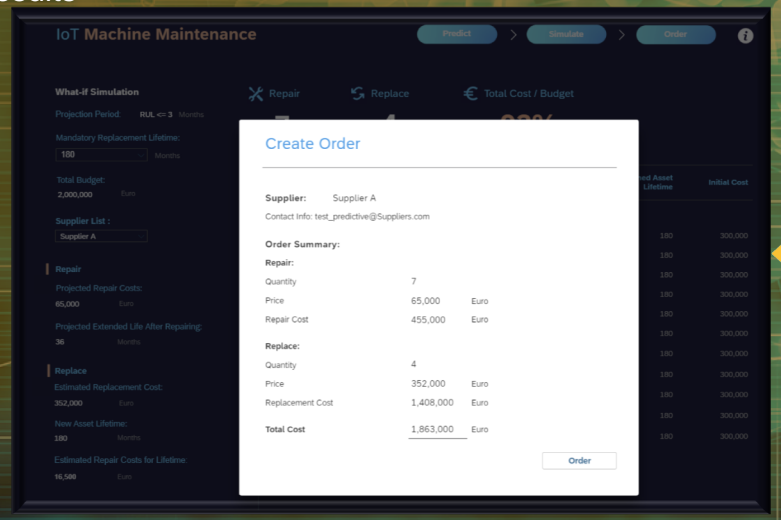
Closed-loop Scenarios

Capabilities for closed-loop scenarios

- **OData calls** to call into transactional system
- Support **planning** capabilities with scripting access
  - Expose Planning Features via toolbar and quick action menus
  - Customize the planning workflow programmatically by scripting
- Supporting **predictive capabilities** with scripting access
  - Use trained model to predict the future
  - Control prediction workflow by scripting
  - Visualize and access predictive results

Predict



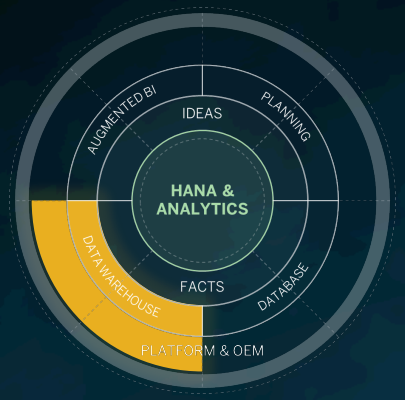


Order

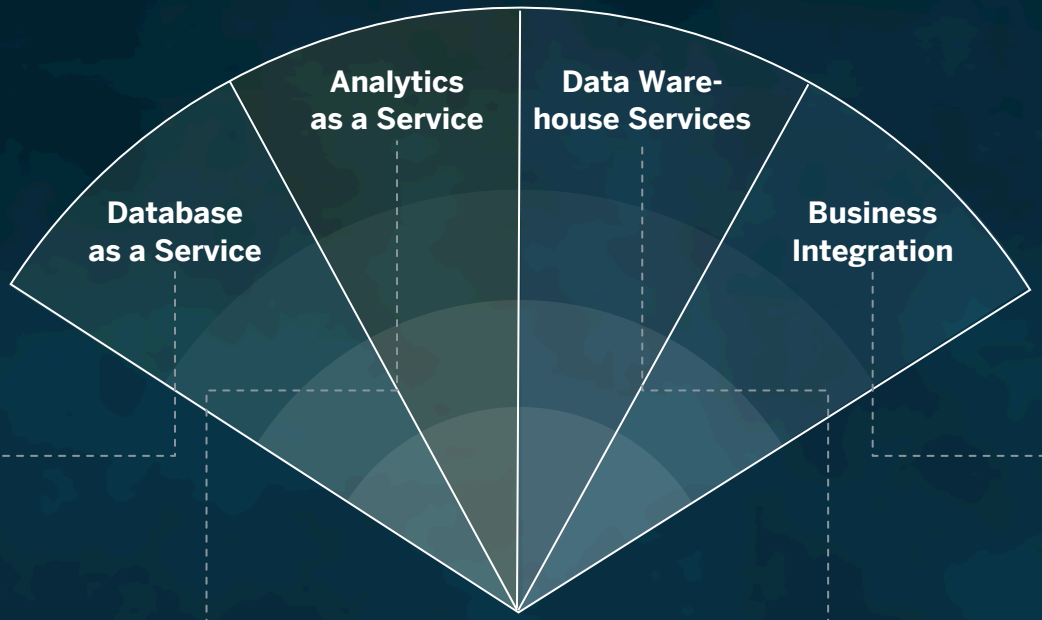
Simulate

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

SAP Data Warehouse Cloud



Data Warehouse



Database as a Service

A Data Warehouse in the cloud needs state-of-the-art elasticity and scaling capabilities. By using HANA we can offer this out-of-the box and are also open for sequel-based ecosystems.

Analytics as a Service

By building on SAC technology based on HANA, CDW natively brings a solid analytical engine and the respective visualization without the need for additional infrastructure.

Data Warehouse Services

With features like data governance and life cycle, modelling capabilities, and a space concept, CDW goes far beyond traditional scalable data storages as a true Data Warehousing tool.

Business Integration

Business content, semantic, modelling, consistent UX across SAP Cloud LoBs and CDW, and a hybrid model with customers' on premise solutions offer a seamless business integration.

© 2019 SAP SE or an SAP affiliate company. All rights reserved. I CUSTOMER

Join our Beta Program at www.sapdatawarehouse.cloud

1. EARLY ACCESS

As a Beta Experience Member, you'll be among the first to try out the SAP Data Warehouse Cloud Beta and provide feedback directly to our development teams.*

2. INTERACT WITH OUR EXPERTS

Get premium access to our Talk Show series featuring experts from SAP answering your questions.

3. STAY UP-TO-DATE

We'll keep you informed with helpful content on upcoming innovations and members-only events.

* Beta access is not guaranteed. Beta Experience Members must meet certain eligibility requirements to gain access to the SAP Data Warehouse Cloud Beta. Further terms and conditions may apply.

© 2019 SAP SE or an SAP affiliate company. All rights reserved. I CUSTOMER

© 2019 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

The information contained herein may be changed without prior notice. Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, and they should not be relied upon in making purchasing decisions.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies.
See http://global.sap.com/corporate-en/legal/copyright/index.epx for additional trademark information and notices.