

SAP BW/4HANA Road Map

April 2018

CUSTOMER



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About SAP road maps

Companies today are planning their digital journeys – transforming business models, reengineering business processes, and reimagining work.

SAP road maps highlight innovations that may help you plan and implement your digital journey. They span products relevant to lines of business in your industry and explain how our innovations may add value to your business.

In our road maps, you can learn about our innovations along four different timelines:

- 1. Recent innovations for our products that have been launched in the past weeks or months and can already be purchased
- 2. Planned innovations for our products that are intended to be launched in the short term or midterm
- 3. Product direction, providing a long-term perspective on high-level development plans for innovations for our solutions inspired by your requirements
- 4. Product vision, providing a high-level and long-term business perspective on innovations for our products

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Product description

SAP BW/4HANA is a cornerstone in SAP's enterprise data warehouse strategy and architecture. It is a model-driven solution that enables the next generation of modern enterprise data warehouses and provides a robust and agile platform for your end-to-end analytics strategy.



Simplicity

- Simplified data structures
- Simplified data flows
- Data lifecycle management



Modern interface

- New business user UX
- New modeler UX
- New administrator UX



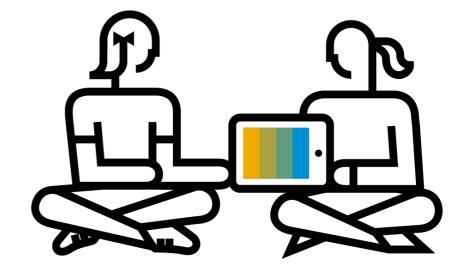
High performance

- In-memory data warehousing
- Algorithm pushdown
- Advanced analytics



Openness

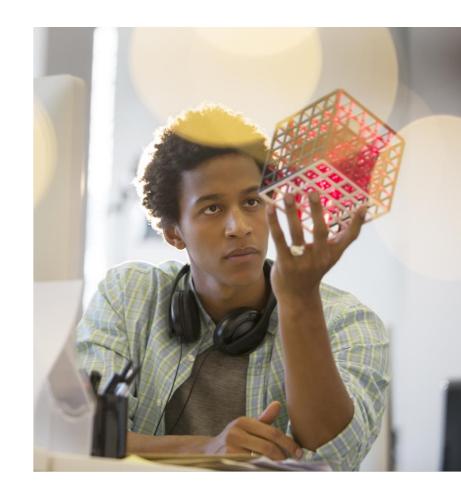
- Native SQL access
- Simplified data integration
- Consolidated source systems



Product description



- **Simplicity:** Reducing complexity to allow faster, more efficient responses to today's dynamic environment
- Modern interface: Increasing productivity and reducing training requirements
- High performance: Providing interactive analysis and enabling new types of analyses
- Openness: Allowing integration and leveraging of existing assets and new technologies



In the data warehouse solutions product portfolio

While there is technically no product portfolio for data warehouse solutions from SAP, there is a de facto one consisting of tools and technologies that enable all styles of analytics:

- For those favoring an application-based approach to the enterprise data warehouse (EDW), SAP offers the following products:
 - SAP Business Warehouse for organizations that would like to run their data warehouse on one of the industry-standard database platforms other than SAP HANA
 - SAP Business Warehouse powered by SAP HANA for organizations that have chosen SAP HANA as their platform but may not yet be ready to convert all of their existing BW objects to the new objects
 - SAP BW/4HANA for organization that are new to data warehousing, or who are ready to convert all their existing BW objects to the new objects
- For those who prefer the SQL-centric approach to the EDW, SAP offers a set of tools and technologies integrated with the SAP HANA platform to facilitate building a native data warehouse on SAP HANA including:
 - The enterprise information management capabilities of SAP HANA for data integration and quality management
 - The SAP HANA extended application services engine for building complex applications logic
 - SAP HANA application lifecycle management
 - SAP PowerDesigner for conceptual, logical, and physical data modeling

Key trends, customer needs, and value proposition

Key trends

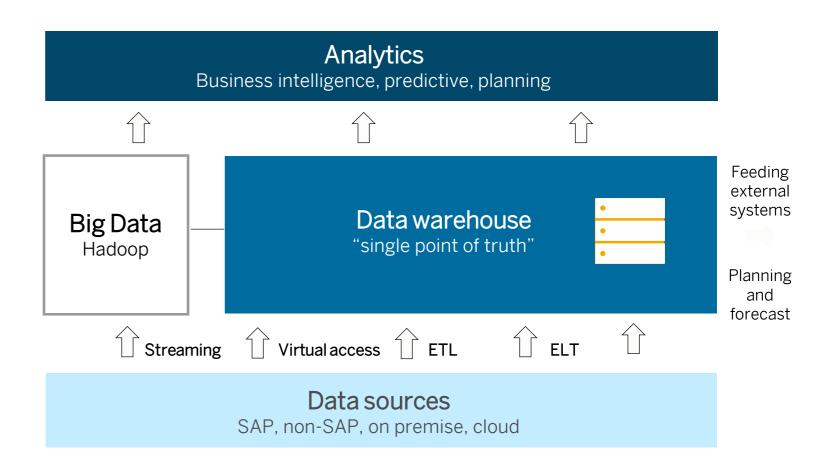
- New types of data behavioral data and the Internet of Things
- Growing data volumes petabytes with a twodigit annual growth rate
- New data locations cloud and data lakes
- Higher customer expectations toward agility and advanced analytics

Characteristics of solution

- Consolidation of data across the enterprise
- Standardized data model
- Support for decision-making

Main tasks

- Define common semantics
- Harmonize data values
- Establish a "single version of truth"
- Provide a single, comprehensive source of current and historical information



Product or portfolio areas of future investment

- Vision: Enabling the logical data warehouse across platforms
- Enhanced SAP BW/4HANA Cloud offering
 - Additional deployment options
 - Enhanced service offering
- Cloud, multicloud, and on-premise hybrid data warehouse architecture and best practices
- Intelligent data warehouse with machine learning and automated system health monitoring and prediction
- Further integration with SAP Data Hub and Big Data
- Further reduced total cost of ownership (TCO) with data tiering optimization (DTO)
 - Support for several external storage destinations
 - Further cold storage options based on SAP Vora and Hadoop

Product road map overview – key themes and capabilities (1)

Recent innovations

2018 - Planned innovations^{1,2}

Simplicity

- Enhanced SAP BW/4HANA Cloud offering
 - Additional deployment options

2019 - Product direction¹

- Enhanced service offering
- Integration with cloud solutions from SAP
- SAP SuccessFactors, SAP Ariba, and SAP Hybris Cloud for Customer solutions
- DTO
- Supporting updates to cold data (external storage)
- Enhanced data tiering automation
- Support of inventory ADSOs

Modern interface

- Web-based administration and monitoring
- DTO temperature maintenance cockpit
- Modeling tools in SAP BW/4HANA
- Mass modeling for objects in data flow and semantic group members
- Planning tools (planning functions)
- Data flow documentation generation (HTML)

Simplicity

- Data tiering optimization (DTO)
 - Unified concept covering hot, warm, and cold data
 - Based on partitioning- and temperature definition
 - Automatic data placement to extension nodes or NLS (SAP IQ)
- SAP BPC 11.0 support
- SAP BW/4HANA optimized business content
- Supply chain
 - Production planning and controlling (PP)
 - Extended warehouse management (EWM)
- Controlling
 - Product cost controlling (CO-PC)
- Quality management
 - Quality management (QM)

Modern interface

- SAP BW/4HANA modeling tools
 - Enhanced creation wizard for data sources (incl. NDSO support)
 - SourceSystem editor
 - Query with reference to base query
 - SAP Analytics Cloud live connection

Simplicity

- DTO
- Support for cold storage in SAP Vora (disk engine) and Hadoop
- API for temperature maintenance to enable datatiering automation implementation
- Support for multiple extension nodes

Modern interface

Modeling tools in SAP BW/4HANA

- Transformation and DTP maintenance
- Flat-file data source
- Planning tools (data slice, planning sequence)
- Document store

Web-based administration and monitoring

- Process chain maintenance
- SAP BW/4HANA cockpit

Simplicity

- DTO
 - Support for several external storage destinations

2020 - Product vision

 Further cold storage options based on SAP Vora and Hadoop

Modern interface

- System health monitoring and prediction
- Machine-learning-based data warehouse administration

1. This is the current state of planning and may be changed by SAP at any time without notice. 2. Planned innovations for SAP BW/4HANA were delivered with SP08 in March 2018.

Release 1.0

Product road map overview – key themes and capabilities (2)

Recent innovations

High performance

- Further push-down of OLAP capabilities
 - Exception aggregation incl. currency and unit conversion

Openness

- Big Data and data lake
 - SAP Vora support for Big Data source system
- Integration of enhanced enterprise information management capabilities of SAP HANA EIM
 - Delta and real-time streaming support for SAP HANA native tables (including deletions)
- Interoperability with native DW approach
 - SAP HANA native DataStore object integration with Open ODS view and data source

2018 - Planned innovations^{1,2}

High performance

- Enhanced master data loads
- Further query parallelization
- Query execution mode optimizer

Openness

- Big Data and data lake integration with SAP Data Hub
- Process and data integration between SAP BW/4HANA and SAP Data Hub
- SAP BW/4HANA metadata API for SAP Data Hub

2019 - Product direction¹

High performance

- Further push-down of OLAP capabilities
 - Conditions (having, ranking, ...)
- Stock coverage
- Current member

Openness

Big Data and data lake – integration with SAP Data Hub

- Metadata integration and governance enabling lineage/impact analysis
- Simplified SAP BW/4HANA data acquisition in SAP Data Hub

API Hub in SAP Cloud Platform

Availability of SAP BW/4HANA APIs

Interoperability with SAP HANA native DW approach

- SAP HANA view generation for Open ODS Views
- SAP HANA development infrastructure support

SAP Cloud Platform Integration and SAP Process Integration interface to SAP BW/4HANA

2020 - Product vision¹

High performance

 Leveraging new engine capabilities in SAP HANA for analytics and transformations

Openness

- Big Data and data lake integration with SAP DataHub
 - Repository interoperability between SAP BW/4HANA and SAP Data Hub (common transports and improved impact analysis)
- Open Hub modernization

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Release 1.0

Transfer cockpit for SAP BW/4HANA

Product road map overview – key themes and capabilities

Recent innovations

•

Customers can convert an existing system running on SAP HANA

 Will be made available using SAP Notes for SAP BW 7.5 SP 5 or higher

Shared features

In-place conversion

- Legacy functionality gets transferred into SAP HANA-optimized counterparts
- Customer exits are scanned for incompatible usages

Remote conversion

- Customers can convert systems on SAP BW >= 7.0 on any DB
- Conversion projects will be driven by the Data Management & Landscape Transformation group at SAP

In-place conversion

- Collection of statistic data
- More tool-based guidance
- Major add-ons available for SAP BW/4HANA (enable upgrade path)

2018 - Planned innovations^{1,2}

Shared features

- Complete set of supported scenarios (semantically partitioned objects, InfoSets, and more)
- Transfer of SAP BPC to SAP BPC, version for SAP BW/4HANA
- Transfer of standard authorizations
- Transfer of near-line-storage based on SAP IQ and Hadoop

Remote conversion

- Enhanced monitoring capabilities
- Simplified guided process steps

2019 - Product direction¹

In-place conversion

- Enhanced data verification capabilities
- Performance enhancements for data transfer

Shared features

- Comfort functions such as code replacement in customer exits
- Check tool for analysis process designer (APD)
- Data model optimizations

Remote conversion

- Transfer cockpit for SAP BW/4HANA released for partners
- Troubleshooting functions

2020 - Product vision

No plans beyond 2019

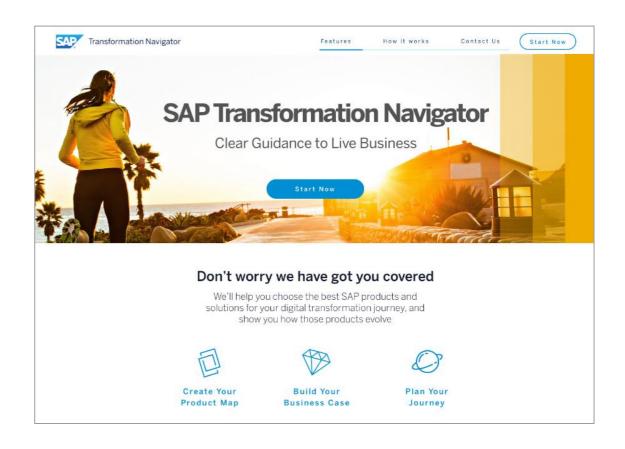
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SAP Transformation Navigator

Our customers are asking for clear guidance for their digital journey to reimagining business models, business processes, and how their people work.

The self-service SAP Transformation Navigator tool recommends an SAP S/4HANA–centric product map based on the products a customer is currently using and on their business and IT priorities.

SAP Transformation Navigator builds on SAP road maps and produces an individualized document that highlights business value, shows integration from SAP S/4HANA to our cloud solutions, explains available transformation services, and provides license information for additional products and solutions.



Discover **SAP Transformation Navigator*** for guidance to your future SAP S/4HANA–centric product map.

^{*}Accessible to all internal users and S-users as of May 15, 2017

Learn more

SAP customers and partners

- SAP Road Maps
- SAP Community
- ► <u>IT Planning Resources</u>
- Innovation Discovery
- SAP Transformation Navigator
- SAP User Groups
- SAP BW/4HANA Landing Page
- SAP BW/4HANA Community/Product Page
- ► SAP BW/4HANA Documentation
- SAP Best Practices for in-place system conversion to SAP BW/4HANA



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