

SAP Integrated Business Planning Road Map

February 2019

PUBLIC



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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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- Value proposition

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- SAP Integrated Business Planning for demand
- SAP Integrated Business Planning for inventory
- SAP Integrated Business Planning for response and supply
- Planned integration capabilities summary for SAP Integrated Business Planning

Product description

Powered by SAP HANA in-memory technology, this real-time supply chain planning solution combines capabilities for strategic, tactical, and operational planning. Take advantage of powerful supply chain algorithms, analytics, what-if simulation, alerts, and more – in the cloud.

SAP Supply Chain Control Tower

- End-to-end visibility into your entire supply chain, including alerting, decision support, and fast corrective actions
- Business network collaboration processes, including supplier forecast collaboration with SAP Ariba
 Supply Chain Collaboration for Buyers

Sales and operations planning

 Flexible, unified data model across demand, finance, and supply chain to support strategic and tactical planning at any level of granularity and dimension

Demand planning and demand sensing

 Development of more-accurate statistical forecasts and consensus demand plans, combining midand long-term planning horizons with short-term demand-sensing capabilities

Inventory optimization

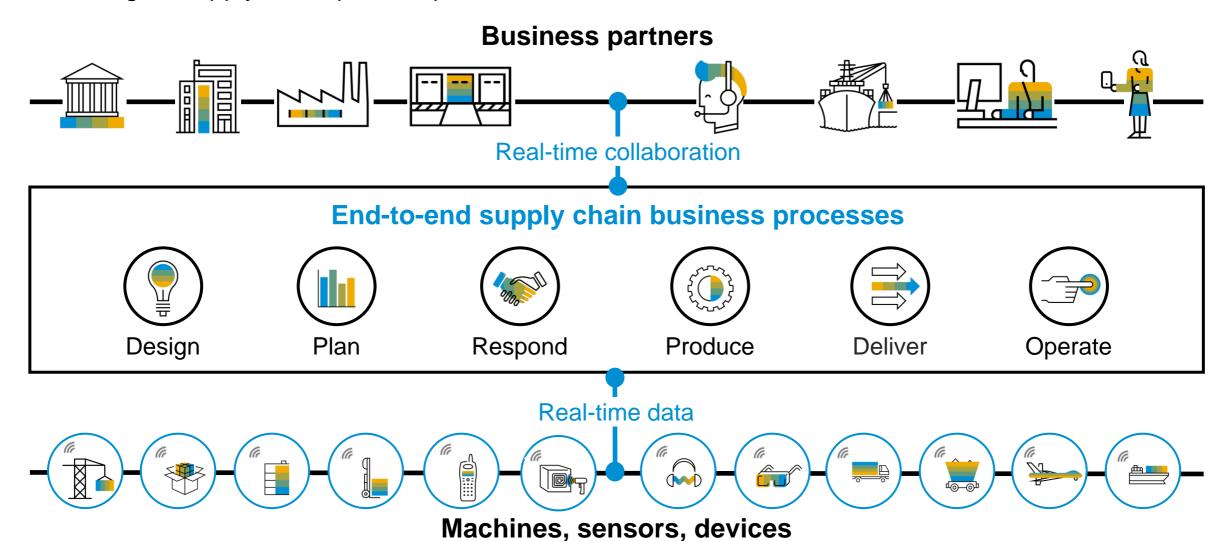
- Prescribing total inventory targets to maximize profit while buffering for uncertainty
- Coordination of multistage inventory plans across complex global supply chain networks
- Support for the demand-driven MRP (DDMRP) methodology for example, by calculating buffer levels and recommending decoupling points

Response and supply planning

- One solution for tactical (rough cut) supply planning, as well as operational response and supply planning
- Constrained and unconstrained supply planning, order-based supply and allocations planning, response planning, and deployment planning



In the digital supply chain product portfolio from SAP



The evolution of planning







Interactive problem-solving





Current state



Multienterprise collaboration



Big Data and predictive capabilities

New paradigm



Self-regulating adaptive models



Automated touchless planning



Individualized customer experience



Intelligent segmentation



Sub-daily plan-to-deliver cycle



Value-chain oriented



Key trends, customer needs, and value proposition

Productivity



- Real-time insight and monitoring
- Social collaboration for transparent communication and record decisions
- Process automation and management by exception

Strategy



- Smart algorithms leveraging machine learning
- Integrated business processes and value chain

Responsiveness





- Shorter, real-time planning cycles
- What-if scenario simulation and analysis
- Fast adoption of new innovations to remain competitive

Simplified user experience and automation

Digital transformation and business networks

Flexibility, agility, and innovation

Product areas of future investment

Product direction

Cloud operations

- Scaling and performance
- Security
- Test automation
- Monitoring

Integration and business network collaboration

- Flexible and robust integration
- Near real-time integration
- Collaborative enterprise planning (SAP Analytics Cloud)
- Supplier and customer collaboration

Integrated Business Planning

Extensibility

Intelligence and automation

- Machine learning
- **Decision support**
- Process automation

Usability

- Web-based planning
- Advanced visualization
- Embedded analytics
- Flexible modeling and configuration

Advanced planning

- Seamless planning processes
- Operational supply planning
- Demand-driven MRP
- Industry-specific support

Product road map highlights

V1902 - Recent innovations

Key new functionality and processes

- New Web-based planning SAP Fiori app for business users who need to perform basic planning tasks
- Integration with SAP Analytics Cloud through OData service
- New naïve forecast algorithm in demand management
- Predecessor chains and flexible phasein/phase-out curves in product lifecycle management
- Exception management: Custom alert monitor based on new visual design and contextual navigation from an alert to SAP S/4HANA stock requirements list
- Order-based planning: Enable a separate integration source for each order-based planning area
- Minute-based data capturing of system resource usage for "System Monitoring" SAP Fiori app

V1905 - Planned Q2/20191

Key new functionality and processes

- New permission to control visibility of attributes in Excel, Web-based planning, analytics, alerts, and external OData APIs
- Driver-based planning to manage assumptions, risks, and opportunities planning
- S&OP process notifications
- New forecast algorithm in demand management: ARIMAX/SARIMAX
- Model configuration: Simplified key figure calculations calculation for cumulative aggregation
- Order-based planning: Maximum lateness of demands and advanced forecast consumption
- Order-based planning: Simplified optimizer cost maintenance
- Subnetworks for shelf-life heuristic
- Write OData service to update the master data and key figures directly from the external systems

V1908 - Planned Q3/20191

Key new functionality and processes

- Analytics: Drill down from charts on dashboards
- Support basic simulation and user-defined scenarios in the "Web-Based Planning" SAP Fiori app
- Exception management: Alert notifications
- Aggregated lifecycle planning respecting phase-in and phase-out on detailed level
- Forecast automation: Anomaly detection
- Set inventory targets for demand ramp down/phase out
- Order-based planning: Goods receipt time processing in heuristics and optimizer
- Collaborative enterprise planning digital boardroom and financial integration content with SAP Analytics Cloud
- Simplified key figure calculations to offset key figure values

V1911 – Planned Q4/2019¹

Key new functionality and processes

- Persistent sorting of attribute values in edit planning view and advanced planning filters on planning view (wildcards and ranges) of the SAP Integrated Business Planning, addin for Microsoft Excel
- Planning notes on analytical charts and in the "Web-Based Planning" SAP Fiori app
- Extensibility of forecasting with custom algorithms from R studio
- Aggregated lifecycle planning respecting reference products from detailed level
- Simplified supply optimizer cost maintenance
- Production frozen window for inventory optimization
- SAP Fiori app "Change History Analytics"
- Order-based planning: Quota arrangements
- Order-based planning: Transport, shipping, and receiving calendars
- Order-based planning: Multiple integration sources for one common planning area
- Tactical supply planning (heuristic): Holiday or blackout time-period support on sources of supply

Release 1902

1. This is the current state of planning and may be changed by SAP at any time without notice.

SAP Integrated Business Planning, foundation and platform

Product road map overview – Key themes and capabilities

V1902 - Recent innovations

Model configuration

- Configuration
 - Enhancements to "Planning Areas"
 SAP Fiori app (attribute as key figure)
 - New SAP Fiori app for global configuration

Analytics

 Table view and export to MS Excel for Supply Chain Network app

Web-based planning

 New "Web-Based Planning" SAP Fiori app for business users who need to perform basic planning tasks

General enhancements

- Minute based data capturing of system resource usage for "System Monitoring" SAP Fiori app
- Enhancements to unified planning area and SAP Best Practices
- New job template "outlier jobs detection" to detect unusual execution time using machine learning
- New objects "Web-based planning" and "alerts overview" for Content Administration app

V1905 - Planned Q2/20191

Model configuration

- Configuration
 - Advanced search and filter for key figures in "Planning Areas" SAP Fiori app based on key figure properties
- Activation
 - Simplified key figure calculation for cumulative aggregation
 - Performance improvements for planning area activation

Analytics

- New semantic colors for geographic charts
- Support planning filters in charts and dashboards
- Improved grid structure to handle hybrid nodes and rationalize customer-related nodes for Supply Chain Network app

Web-based planning

Support versions (other than base version)

Attribute permission

 New permission to control visibility of attributes in Excel, Web-based planning, analytics, alerts, and external OData APIs

General enhancements

 Enhancements to unified planning area and SAP Best Practices

V1908 - Planned Q3/20191

Model configuration

- Configuration
 - Enhancements to "Planning Areas"
 SAP Fiori app (version, key figure edit mode)
 - Replace configuration user interface with "Planning Areas" SAP Fiori app
 - Flexible planning levels to support, such as driver-based planning
- Activation
 - Simplified key figure calculations to offset key figure values

Analytics

- Dashboard filters for versions and scenarios
- Drilldown from charts on dashboards
- Product node expansion for Supply Chain Network app
- Multiple key figures for heatmaps in Supply Chain Network app

Web-based planning

- Support basic simulation and user-defined scenarios
- Display fixation of cell

Attribute permission

Support write access control

General enhancements

 Enhancements to unified planning area and SAP Best Practices

V1911 - Planned Q4/20191

Model configuration

- Configuration
 - Enhancements to "Planning Areas"
 SAP Fiori app (simplified key figure calculations for conversions, simplified assignment of new attribute to multiple planning levels)
 - New SAP Fiori app for simplified maintenance of multiple key figures
- Activation
 - Simplified key figure calculations for conversions

Analytics

- Planning notes on analytical charts
- Horizontal and vertical layout options for Supply Chain Network app

Web-based planning

- Support planning notes
- Support fixation of cells

General enhancements

- Enhancements to unified planning area and SAP Best Practices
- Merge of existing "copy operator" and "disaggregation operator"

Release 1902

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SAP Integrated Business Planning, foundation and platform Direction update

- Simulation mode for SAP Fiori app for key figure calculations
- Calendars
- Further simplified key figure calculations, such as last period aggregation
- Test automation for customers
- Extended industry support
- Planning object maintenance
- Usability and feature enhancements in foundation

SAP Integrated Business Planning, add-in for Microsoft Excel

Product road map overview – Key themes and capabilities

V1902 - Recent innovations

V1905 - Planned Q2/20191

V1908 - Planned Q3/2019¹

V1911 - Planned Q4/20191

Time-dependent planning notes on cell level

 Support version of copy planning operator

Planning view definition

Most-used list for attributes and key figures

Usability enhancements in planning operators

- Time period selection for the copy operator and the copy and disaggregate key figure operator
- Scenario definition for the copy and disaggregate key figure operator

Time-dependent planning notes on cell level

 Store planning notes on a higher planning level than the base level of the key figure

Planning view definition

 Permissions for master data types and attributes: Control visible attributes in SAP Integrated Business Planning, add-in for Microsoft Excel

Usability enhancements

 Simplification of the SAP Integrated Business Planning ribbon

Planning view definition

- Intelligent planning view filters based on attributes and key figures
- Permissions for master data types and attributes: Support write access control

Planning view definition

- Persistent sorting of attribute values in edit planning view
- Alert key figure formatting and usability on planning view
- Advanced planning filters on planning view (wildcards and ranges)

Release 1902

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SAP Integrated Business Planning, add-in for Microsoft Excel, V1905

Upcoming midterm innovations

Time-dependent planning notes on cell level

 Ability to store planning notes on a higher planning level than the base level of the key figure, to support use cases where the planning notes are used on a very high aggregation level but where this information does not need to be disaggregated down to the lowest level

Permissions for master data types and attributes

 Control visible attributes in SAP Integrated Business Planning, add-in for Microsoft Excel – for example, one user is allowed to see a certain master data attribute, while others are not allowed to see it

SAP Integrated Business Planning, add-in for Microsoft Excel, V1908 and V1911 Upcoming long-term innovations

Usability enhancements

- Simplification of the SAP Integrated Business Planning ribbon
- Alert key figure formatting and usability on planning view, such as additional formatting options including cell background color, copying to scenarios, and more

Planning view definition

- Ability to keep a persistent, user-defined custom sorting

 for example, of the attributes within the planning view
 filters and wildcards
- Extending filter options in SAP Integrated Business Planning, add-in for Microsoft Excel, with wildcard characters and ranges
- Intelligent planning view filters based on attributes and key figures
 - When attributes are chosen, the system will indicate which key figures are available for the selected attributes/planning levels
 - When key figures are chosen, the system will indicate which time profile and which attributes/planning levels are available for the selected key figure

SAP Integrated Business Planning, add-in for Microsoft Excel

Direction update

Planning filters

- Sharing of planning filters: Possibility for end users to share their planning filters directly within SAP Integrated Business Planning, add-in for Microsoft Excel
- Folders for planning filters: Group planning filters in folders, similar to the folders in the templates/favorites area
- Planning workbook filter: Apply attribute filters across all sheets of a workbook at once

Time-dependent planning notes on cell level

 New mass-maintenance planning view that provides an overview around the planning notes in the system, allowed editing and deleting of multiple planning notes on one screen

Refresh all sheets in a workbook at once, such as when opening a planning view template or favorite

Custom grouping of attributes and key figures, such as in the *Edit Planning View* window, improving usability

Group attribute and key figures based on business usage

Side panel

 Quickly change the layout and definition of the planning views from an SAP Integrated Business Planning side panel

Pivot-alike functionality

 Create your own pivot tables on top of data from SAP Integrated Business Planning

Calling SAP Integrated Business Planning functions from VBA code

 Provides further extensibility options for the customers, and could also be used to create custom automated tests

Master data workbook

Define the order of the attributes, formatting, and more

Key figure expansion on planning view

- Expand key figure list based on input key figures
- Expand key figure list based on custom groups

SAP Supply Chain Control Tower

Product road map overview – Key themes and capabilities

V1902 - Recent innovations

V1905 - Planned Q2/20191

V1908 - Planned Q3/20191

V1911 - Planned Q4/2019¹

Exception management

- Improvements to custom alert monitor based on new visual design
- Contextual navigation from an alert to on-premise SAP systems
- Support for user scenarios in alerts
- Machine learning parameters for DBSCAN

Supply-side collaboration

 Excess and obsolescence sample content

Exception management

- Filter alerts from the dashboard to the alert monitor using the alert overview
- Application of planning filters
- Allow alert definition across all version and scenarios

Exception management

- Alert notifications
- Aggregated alerts on alert overviews
- Drill down with multiple views in the alert overviews

Exception management

- Alerts based on order data
- User-defined key figures in alerts

Release 1902

1. This is the current state of planning and may be changed by SAP at any time without notice.

Recent innovations – SAP Supply Chain Control Tower

Exception management

- Navigation from an alert to the SAP on-premise systems, passing the attributes of the alert to the transaction
- Improvements to the custom alert monitor to improve usability
- Support for user scenarios in alerts
- Editing of machine learning parameters for DBSCAN, including cluster radius and minimum points per cluster

Supply-side collaboration

Excess and obsolescence sample content

Upcoming midterm innovations – SAP Supply Chain Control Tower

Exception management

- Filter alerts from the dashboard to the alert monitor using the alert overview
- Application of planning filters to alert subscriptions
- Allow a single alert definition to include all versions and scenarios without changing the definition

Supply-side collaboration

Excess and obsolescence sample content

SAP Integrated Business Planning V1908 and V1911

Upcoming long-term innovations – SAP Supply Chain Control Tower

Exception management

- Alert notifications to proactively trigger review by the user, including notification within SAP Integrated Business Planning and through e-mail
- Drill down with multiple views in the alert overviews
- Alerts based on order data
- Introduction of user-defined key figures for alerts

Direction update – SAP Supply Chain Control Tower

- Further enhancements to KPIs
- Alerts based on master data
- Supply-side collaboration
 - Forecast collaboration with suppliers using an Excel-like planning UI
- Demand-side collaboration
 - Demand forecast collaboration with your customers for example, to receive customer forecasts and include in your demandplanning processes
- Business partner management
 - Ability to create and manage external business partners and their users
 - Onboarding of external business partners
- Collaborative process adherence management
- Advanced sell-side (customer) collaboration, such as vendor-managed inventory (VMI)
- Further enhancements to supplier collaboration use cases, such as supplier-managed inventory (SMI)
- Recommendations for exception handling using machine learning techniques

SAP Integrated Business Planning for sales and operations

Product road map overview – Key themes and capabilities

V1902 - Recent innovations

V1905 - Planned Q2/20191

S&OP process management

- Purge processes application job template
- Process steps without tasks
- Recurring processes Gantt chart view

New SAP Fiori app "Change History Settings"

Tactical supply planning

- Enhancements to the time-series-based supply planning
 - Combined static and dynamic periods of supply in lot-sizing procedures
 - Enable forecast consumption for non-supplyplanning areas
 - Enhanced lot-size policy to consider only customer demand in periods of supply

S&OP process management

Process notifications

Driver-based planning

 Manage assumptions, risks, and opportunities planning

Tactical supply planning

- Enhancements to the time-series-based supply planning
 - Support transportation resources
 - Alternative components (component substitution) with priority for optimizer
 - Support subnetworks for shelf-life heuristic

S&OP process management

 Automated processes with exception management: Integration of process management and alerts

V1908 - Planned Q3/20191

Driver-based planning enhancements

Flexible planning levels

Collaborative enterprise planning:

Financial integration content with SAP Analytics Cloud – scenario covering SAP Analytics Cloud to SAP Integrated Business Planning

Tactical supply planning

- Enhancements to the time-series-based supply planning
 - Aggregate constraints using conversion factors
 - Assembly scrap (for heuristic)

V1911 - Planned Q4/20191

- Steps and tasks; sequence and dependencies
- Task completion by anyone

S&OP process management

New SAP Fiori app "Change History Analytics"

Collaborative enterprise planning:

Financial integration content and best practices with SAP Analytics Cloud – scenario covering SAP Analytics Cloud to SAP Integrated Business Planning

Tactical supply planning

- Enhancements to the time-series-based supply planning
 - Flexible mapping for attributes and key figures
 - Alternate components with component coefficients for optimizer
 - Holiday or blackout time-period support on sources of supply
 - Simplified optimizer cost maintenance
 - Assembly scrap (for optimizer)

Release 1902

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SAP Integrated Business Planning for sales and operations V1902

Recent innovations

Process management enhancements

- Purge processes: Application job template to delete processes older than user-specified dates filtered by process templates
- Process steps without tasks: Support for process steps that are milestones and don't need tasks for example, process integration with SAP Ariba solutions
- Recurring processes: Gantt chart view to view and adjust recurring process calendar; roundoffs on recurring processes

New SAP Fiori app "Change History Settings"

 Manage which source of change (such as data integration, planning operators, and more) for a key figure can write change history records. This helps with managing data for change history, thereby improving performance.

Enhanced forecast consumption for non-supply-enabled planning areas

Enhanced lot-size policies:

- Periods-of-supply calculation to consider only customer demands (no distribution or dependent demand)
- Combined static and dynamic periods of supply in lot-sizing procedures

SAP Integrated Business Planning for sales and operations V1905

Upcoming midterm innovations

Enable transportation resources

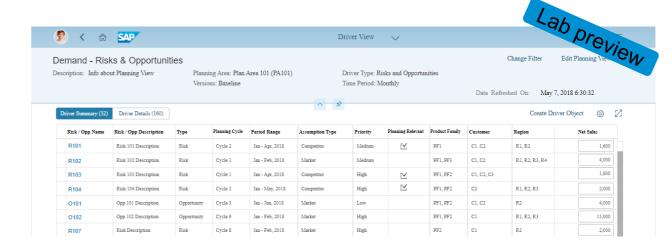
- Transportation resources on location source of supply
- Enabled for unconstrained heuristics and optimizer

Alternative components

Enable alternative components with substitution priorities for optimizer

Driver-based planning

- New SAP Fiori app to create and maintain assumptions, risks, and opportunities or any business events
- Capture qualitative input to drive quantitative plans
- Create at different hierarchy levels and include in planning



SAP Integrated Business Planning for sales and operations V1908 and V1911 Upcoming long-term innovations

S&OP process management

- Process automation with exception management check alert conditions after process step is complete; for example, if forecast accuracy > 85% go to supply step
- Sequence for process steps and tasks to manage dependencies; tasks completion by anyone in participant group

SAP Fiori app "Change History Analytics": For reason code reporting – number of changes per cycle, top 5 changes, and more

Financial integration content with SAP Analytics Cloud and SAP Business Planning and Consolidation optimized for SAP S/4HANA – best-practice business process and template

Driver-based planning enhancements

Flexible planning levels: Create drivers at multiple hierarchy levels without creating multiple combinations at lower level; analytics

Tactical supply planning

- Enhancements to the time-series-based supply planning
 - Holiday or blackout time-period support on sources of supply (first version)
 - Simplified optimizer cost maintenance
 - Assembly scrap
 - Flexible mapping for attributes and key figures for supply planning
 - Simplified optimizer cost maintenance

SAP Integrated Business Planning for sales and operations Direction update

- Approvals process and business workflow
- S&OP process analysis including balanced score cards and extended decision support
- Capacity-leveling heuristic
- Product cost rollup through supply chain network for contribution margin and profitability analysis
- Effectivity and validity dates for components with supersession
- Dynamic projected coverage or "periods of supply" calculation at request level
- Ad hoc collaboration of forecast changes and out-of-cycle changes
- SAP CoPilot integration for process management
- Process adherence KPI and analytics
- Process hierarchies and dependencies
- New SAP Fiori tasks app with task dependencies and delegations
- Integration with SAP C/4HANA SAP Sales Cloud and SAP Marketing Cloud solutions
- Enhancements to product and portfolio review process

SAP Integrated Business Planning for demand

Product road map overview – Key themes and capabilities

V1902 - Recent innovations

V1905 - Planned Q2/20191

V1908 – Planned Q3/2019¹

Demand management

- New forecast algorithm
 - Naïve algorithms
- Product lifecycle management/like modeling
 - Flexible phase-in/phase-out curves
 - Predecessor chains (nonoverlapping periods)
- Time-series analysis
 - Display result details
- Realignment
 - Version-specific realignment
 - Transport of realignment projects
- Background forecasting on scenarios
- Forecast accuracy calculation
 - Usage of lag-based snapshots

Demand management

- New forecast algorithm
 - ARIMAX/SARIMAX
- Product lifecycle management/like modeling
 - Predecessor chains (overlapping periods)
- Time series analysis
 - Introduction of new category "Insufficient data"
 - Refined logics for seasonality, trend, and lumpy test
- Realignment:
 - Recurring execution of realignment projects

Demand management

- Product lifecycle management/like modeling
 - Aggregated lifecycle planning respecting phase-in and phase-out on detailed level
- Forecast automation
 - Anomaly detection

Demand sensing

 No decimals for EA/PC-type unit of measure

Demand management

Product lifecycle management/like modeling

V1911 - Planned Q4/20191

- Aggregated lifecycle planning respecting reference products from detailed level
- Extensibility of forecasting with custom algorithms from R studio
- Clean sales history from promotion impact: Monthly promotion elimination

Demand sensing

- User-specified periods to influence results
 - Periods to be ignored in learning
 - Periods to be ignored in balancing

Release 1902

1. This is the current state of planning and may be changed by SAP at any time without notice.

SAP Integrated Business Planning for demand V1902

Recent innovations

Demand management – new forecasting algorithm: Naïve algorithms

Naïve algorithm: "Forecast = sales data of last year * x%"

Demand management – time-series analysis

 Display and report on results of time-series analysis on planning-object level Provide filtering possibilities to show, for example, all product/location/customer combinations with seasonal sales pattern

Demand management - product lifecycle management/like modeling

 Flexible phase-in/phase-out curves: Enable user to upload individual curves – such as a predip (initial fill of shelves in the store)

Demand management – forecast accuracy calculation

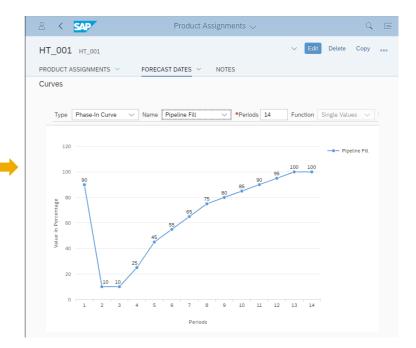
 Usage of lag-based snapshots: Usage of forecast snapshot key figures with "lag" as root as input for forecast accuracy calculation

Demand management – realignment

- Version-specific realignment: Run realignment only on selected versions
- Transport of realignment projects between systems

Demand management – background forecasting on scenarios

Run background forecasting in a selected user-defined scenario



SAP Integrated Business Planning for demand V1905

Upcoming midterm innovations

Demand management – new forecasting algorithm: ARIMAX/SARIMAX

 ARIMAX/SARIMAX: Enhanced version of existing ARIMA model with the capability to support additional explanatory variables X₁, X₂,...

Demand management – product lifecycle management/like modeling

Predecessor chains: Possibility to define start and end dates for reference products within predecessor chains such as Product_{new} → Product₋₁ → Product₋₂ within the Product Lifecycle app

Demand management – time series analysis

- Introduction of new category "insufficient data" for time series which cannot properly be analyzed due to lack of data (for example, new products)
- Refined logics for seasonality, trend, and lumpy test

Realignment

Recurring execution of realignment projects: Option to schedule a realignment project for recurring execution

SAP Integrated Business Planning for demand V1908 and V1911 (1/2)

Upcoming long-term innovations

Demand management - product lifecycle management/like modeling

- Aggregated lifecycle planning
 - Respecting phase-in/out on detailed level: Adapt statistical forecast created on aggregated level, such as product group level, according
 to the phase-in/out settings defined on product/launch dimension level
 - Aggregated lifecycle planning respecting reference products from detailed level: Construct the sales history that is used during forecasting on aggregated level, such as product group level, by respecting the product reference settings defined for the individual products

Demand management – forecast automation

 Anomaly detection: Automatically detect anomalies of the sales pattern, such as level shift, and consider it within statistical forecasting

Demand management – extensibility of forecasting with custom algorithms from R studio

 Possibility to use customer-specific forecasting algorithms from R studio within SAP Integrated Business Planning process

Demand management – clean sales history from promotion impact

 Enhance the promotion elimination preprocessing step to run in monthly time granularity (currently only daily and weekly time frames are supported)

SAP Integrated Business Planning for demand V1908 and V1911 (2/2)

Upcoming long-term innovations

Demand sensing – no decimals for EA/PC-type unit of measure

 Ensure that generated sensed demand quantity respects the number of decimals of the product unit of measure (UoM); for example, no decimals for UoM "each" or "piece"

Demand sensing – user-specified periods to influence results

 Option to mark "periods to be ignored in learning" and "periods to be ignored in balancing" in order to avoid any negative impact certain extraordinary periods, such as periods heavily impacted by a special event, may have on the sensed demand quantity

SAP Integrated Business Planning for demand

Direction update

- Forecast automation
- Forecasting enhancement, including new advanced algorithms and forecasting libraries (such as Automated Predictive Library [APL], Unified Demand Forecasting [UDL])
- Planning calendar support for demand processes
- Range forecasting
- Market- and customer-driven enhancements, and extended industry support

Demand-driven replenishment in SAP Integrated Business Planning Direction update

- A new application for demand-driven MRP (DDMRP) is planned for release with SAP Integrated Business Planning 1905.
- The planned scope for DDMRP in SAP Integrated Business Planning will include steps 1 through 5 natively in a new SAP Integrated Business Planning planning area with integration into SAP ERP.
- The current SAP Integrated Business Planning for inventory features related to DDMRP will move toward the new application.
- A detailed road map for DDMRP will be introduced with the next road map update for SAP Integrated Business Planning release 1905 – scheduled in May.
- It is intended to certify this application as DDMRP-compliant with the Demand Driven Institute.

SAP Integrated Business Planning for inventory

Product road map overview – Key themes and capabilities

V1902 - Recent innovations

V1905 - Planned Q2/20191

V1908 – Planned Q3/2019¹

V1911 - Planned Q4/20191

Inventory optimization

- Manage Forecast Error Calculation app supports multiple lag-based snapshots
- Allow configuration of multistage inventory optimization and inventory components planning operators with different planning horizons

Inventory optimization

 Handle inventory target settings with time-varying binary sourcing

Inventory optimization

- Set inventory targets for demand ramp down/phase out
- Expose business user logs for algorithm handling of cyclical sourcing
- Improved handling of bill of material inventory targets with multiple raw material components

Inventory optimization

- Unit of measure handling from base unit of measure
- Production frozen window
- Manage Forecast Error Calculation app filtering default settings
- Consume minimum safety stock days of supply as input

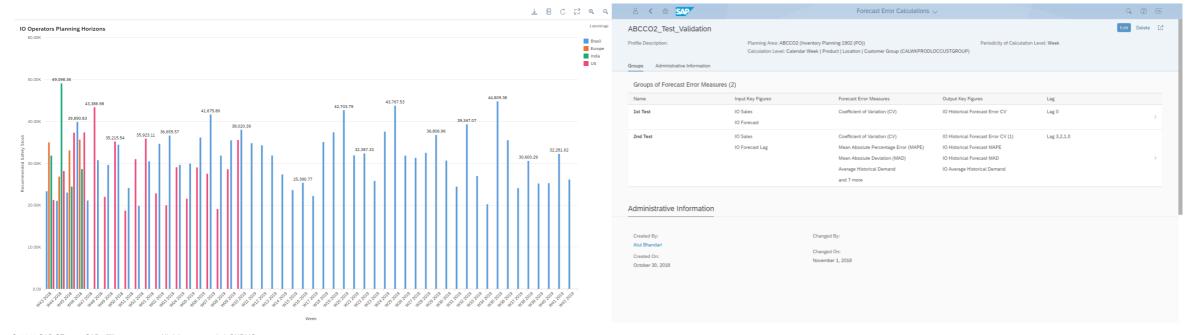
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SAP Integrated Business Planning for inventory V1902

Recent innovations

- Manage Forecast Error Calculation app supports multiple lag-based snapshots: The Manage Forecast Error Calculation app for demand planning and inventory optimization calculates forecast error measures using lag-based snapshots; the forecast key figure selected is a lag-based snapshot key figure, or any other key figure with the lag attribute in the base planning level.
- Allow configuration of multistage inventory optimization and inventory components planning operators with different planning horizons: User has the ability to define planning-horizon parameters (equal to calendar weeks) for inventory-optimization planning operators global (multistage) inventory optimization and calculation of target inventory components.



SAP Integrated Business Planning for inventory V1905

Upcoming midterm innovations

 Handle inventory target settings with time-varying binary sourcing: Recommend safety stock for nodes sourcing a downstream node with time-varying binary sourcing ratios

SAP Integrated Business Planning for inventory V1908 and V1911

Upcoming long-term innovations

- Model rules to set inventory targets for demand ramp down/phase out: Flexibility to set target inventory plans given demand ramp-down and/or product-phasing-out rules
- Expose business user logs for algorithm handling of cyclical sourcing: Provide logs to users of identified cyclical sourcing
- Improved handling of bill of material inventory targets with multiple raw material components
- Unit of measure handling from base unit of measure: SAP3 sample model handling UoM conversion for input, intermediate, and output key figures
- Production frozen window: Consume input for optimization and setting target inventory plans
- Manage Forecast Error Calculation app filtering default settings. In a single KPI profile, introduce attribute filters for calculations settings: Default CV value and maximum CV value.
- Consume minimum safety stock days of supply as input

SAP Integrated Business Planning for inventory

Direction update

- SAP Fiori app "Inventory Planning Profile"
- Calculate lead time and lead time variability
- Inventory planning filtered by network ID
- Manage Forecast Error Calculation app calculating forecast error over lead time
- Integration to SAP Integrated Business Planning for demand PIPO (product phase-in, phase-out)
- Scenarios/simulations with master data attributes as key figures
- Viewing and editing timeless key figures in Excel UI
- Effectivity/validity dates for sources of supply

SAP Integrated Business Planning for response and supply

Product road map overview – Key themes and capabilities

V1902 - Recent innovations

V1905 - Planned Q2/20191

V1908 – Planned Q3/2019¹ V1911 – Planned Q4/2019¹

Order-based planning

- Integration
 - Enable a separate integration source for each order-based planning area
 - Deployment STR visible in SAP S/4HANA
- Usability and traceability enhancements
 - Additional location material attributes
 - Additional demand fulfillment key figures
- Target and safety days of supply

Tactical supply planning

- Enhancements to the time-series-based supply planning
 - Combined static and dynamic periods of supply in lot-sizing procedures
 - Enable forecast consumption for nonsupply-planning areas

Order-based planning

- Flexible optimizer cost maintenance with new profile
- Maximum lateness of demands
- Advanced forecast consumption
- Assembly scrap
- Consider goods receipt processing time
- Capacity base quantity

Tactical supply planning

- Enhancements to the time-seriesbased supply planning
 - Support transportation resources
 - Alternative components (component substitution) with priority for optimizer
 - Support subnetworks for shelf-life heuristic

Order-based planning

- Optimization
- Goods receipt processing time
- Cost maintenance on demand attributes
- Priority heuristic improvements
 - Reduction of projected stock
- Default prioritization of manual adjustments
- Maximum lateness of demands on demand attributes

Tactical supply planning

- Enhancements to the time-series-based supply planning
- Aggregate constraints using conversion factors
- Assembly scrap (for heuristic)

Order-based planning

- Integration
 - Multiple integration sources for one common planning area
- Quota arrangements
- Flexible planning periodicity
- Transport/receiving/shipping calendar
- Priority heuristic improvements
 - Alternating usage of sources of supply

Tactical supply planning

- Enhancements to the time-series-based supply planning
- Flexible mapping for attributes and key figures
- Alternate components with component coefficients for optimizer
- Holiday or blackout time-period support on sources of supply
- Simplified optimizer cost maintenance
- Assembly scrap (for optimizer)

Additional road map detail is available on request

Release 1902

1. This is the current state of planning and may be changed by SAP at any time without notice.

SAP Integrated Business Planning for response and supply V1902

Recent innovations

Order-based planning – safety days of supply

- Support buffer strategy safety days of supply (SDoS) in orderbased planning runs
- Target levels for safety stock and SDoS to define reorder quantity in case of safety level violation in priority heuristic
- Maximum levels and violation costs for projected stock and DoS in order-based optimizer

Order-based planning – usability and traceability enhancements

- Additional location material attributes: Location materialspecific attributes for SAP Fiori app "View Projected Stock"
- Additional demand fulfillment key figures
 - Key figures for in-time fulfilled sales order and forecast quantities
 - Key figures for late fulfilled sales order and forecast quantities
 - Key figures for unfulfilled late sales order and forecast quantities

Integration of multiple sources for order-based planning

- Enable the integration of multiple sources into individual planning areas. Sources are SAP ERP, SAP S/4HANA, or other SAP and non-SAP systems.
- Integration from and to SAP ERP and SAP S/4HANA systems will be provided as a built-in option.

SAP Integrated Business Planning for response and supply V1905

Upcoming midterm innovations

Order-based planning – maximum lateness of demands

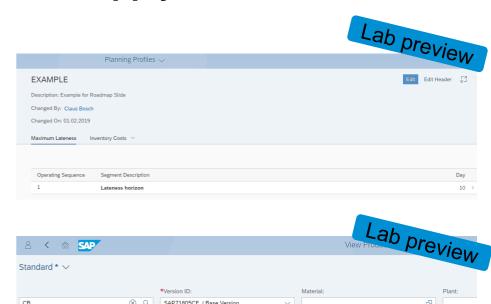
 Define the maximum limit for demands to be fulfilled late, based on the location and material attributes

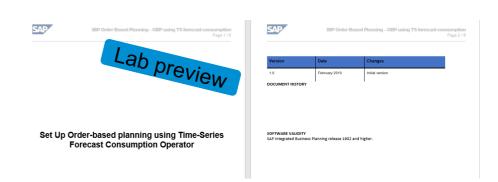
Order-based planning – assembly scrap

- Enable consideration of assembly scrap as defined in material master in ERP
- Is supported in priority heuristic as well as optimizer
- Define assembly product data structure specific scrap

Order-based planning – advanced forecast consumption

- Use of time-series forecast consumption operator for order-based planning
- Consulting note with documentation to describe the setup of the process





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Production Data Structures (18)

SAP Integrated Business Planning for response and supply V1905

Upcoming midterm innovations

Goods receipt processing

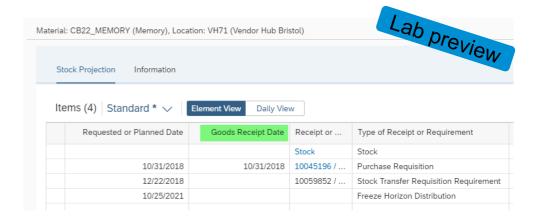
- Consider goods receipt processing time in order-based priority heuristic for production/purchasing/distribution
- Introduce goods receipt date in SAP Fiori apps and offer new supply key figures

Flexible optimizer cost maintenance with new profile

- Minimize cost maintenance effort for order-based optimizer with new SAP Fiori app
- Offer cost maintenance through flexible conditions based on master data (attributes)
- Assign cost profile to constrained forecast run using optimizer

Capacity base quantity

 Support operation base quantity (base quantity used referring to an operation)







SAP Integrated Business Planning for response and supply V1908 and V1911 (1/2)

Upcoming long-term innovations

Optimization

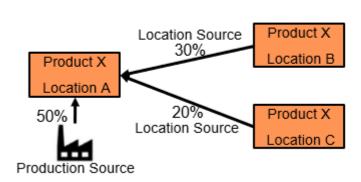
- Consider production activity for component lead-time offset
- Consider goods receipt processing time in order-based optimizer
- Enhance cost profile and maintenance by cost settings for nondelivery/late delivery costs using demand attributes

Quota arrangements (inbound quota)

- Offer time dependent maintenance of quotas
- Offer quotas for various sources of supply (such as T-lane, PDS)

Flexible planning periodicity

- Support time periodicities of planning area (such as day, week, month, quarter,...)
- Offer flexible display of periodicities in order-based planning SAP Fiori apps (such as "view projected stock")



SAP Integrated Business Planning for response and supply V1908 and V1911 (2/2)

Upcoming long-term innovations

Order-based planning – priority heuristic improvements

- Reduction of projected stock: In case of lot sizes, manual adjustments, and high-prioritized demands in the far future, the planning logic is improved to decrease the projected stock
- Default prioritization of manual adjustments: Improved default prioritization of manual adjustments to ensure that dependent demands of stock transfer orders, purchase orders, or production order are satisfied in case of concurrent manual adjustments
- Alternating usage of sources of supply: Ability to define for the priority heuristic to first attempt to plan supply on a lower-priority source of supply at the requested date of the demand, instead of backward scheduling on the highest-priority source of supply

Order-based planning – integration of multiple sources

- Enable the integration of multiple sources into a common planning area. Sources are SAP ERP, SAP S/4HANA, or other SAP and non-SAP systems with harmonized data and independent supply chains.
- The integration from and to SAP ERP and SAP S/4HANA systems will be provided as a built-in option.

SAP Integrated Business Planning for response and supply

Direction update

Enhancements in order-based planning

- Telescopic planning
- Periodic lot sizes
- Multiple activities in planned orders
- Near-real-time integration from SAP S/4HANA and SAP ERP to SAP Integrated Business Planning and multi-ERP integration
- MRP areas
- Subcontracting support
- Scheduling agreement support
- Production in another plant
- Coproducts and by-products
- MRP segments for make-to-order and project segments
- Characteristics-based planning and shelf-life planning
- Product and location substitution

Supply and allocations planning

Delta planning, enhanced parallel planning

Response planning

Allocation on components and aggregate levels

Deployment planning

- Deployment optimization
- Push deployment
- Load consolidation
- Transportation and handling capacities

Operational supply planning

- Infinite supply planning heuristics on order data
- Capacity leveling on infinite planning result
- DDMRP replenishment

Planned integration capabilities

Product road map overview – Key themes and capabilities

V1902 - Recent innovations

V1905 - Planned Q2/20191

V1908 – Planned Q3/2019¹ V1911 – Planned Q4/2019¹

Time-series-based integration with SAP S/4HANA and SAP ERP

- SAP Integrated Business Planning add-on in SAP ERP and SAP S/4HANA as data source
- Master data: Source production, production source item (BOM), customer, unit of measures (as extractors)

Order-based integration with SAP ERP and SAP S/4HANA

- Enable a separate integration source for each planning area
- Deployment STR visible in SAP S/4HANA

Analytics

 OData service delivered for integration with SAP Analytics Cloud

Time-series-based integration with SAP S/4HANA and SAP ERP

- SAP Integrated Business Planning add-on in SAP ERP and SAP S/4HANA as data source
- Master data: Customer source of supply, location source of supply

Analytics

 How-to guide to integrate SAP Analytics Cloud (digital boardroom scenario)

Write OData service

 Write OData service to update the master data and key figures directly from the external systems

Time-series-based integration with SAP S/4HANA and SAP ERP

- SAP Integrated Business Planning add-on in SAP ERP and SAP S/4HANA as data source
- Further enhancements to the master data such as production resource
- Key figure: CAPASUPPLY (capacity supply)

Financial integration

- Integration with SAP Business Planning and Consolidation optimized for SAP S/4HANA
- Collaborative enterprise planning: Financial integration content with SAP Analytics Cloud – scenario covering SAP Integrated Business Planning to SAP Analytics Cloud

Time-series-based integration with SAP S/4HANA and SAP ERP

- SAP Integrated Business Planning add-on in SAP ERP and SAP S/4HANA as data source
- Further enhancements to Master data and key figures

Order-based integration with SAP ERP and SAP S/4HANA

Multiple integration sources for one common planning area

Financial integration

Collaborative enterprise planning:
 Financial integration content with SAP Analytics Cloud – scenario covering SAP Analytics Cloud to SAP Integrated Business Planning

Release 1902

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Planned integration capabilities

Direction update

Time-series-based integration with SAP S/4HANA and SAP ERP

 Enhancements to the add-on concept approach to enrich integration content with SAP Cloud Platform Integration for data services

Order-based integration with SAP S/4HANA and SAP ERP

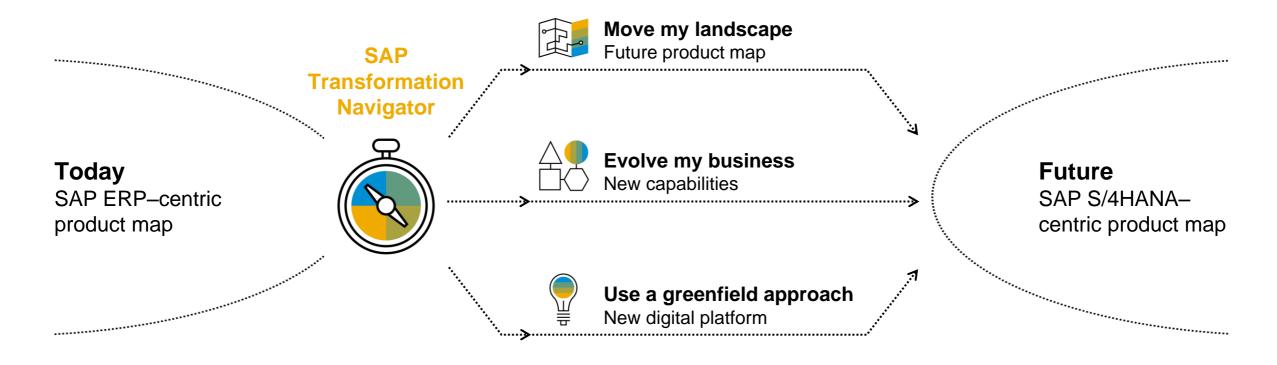
Near real-time integration

Integration with SAP C/4HANA – SAP Sales Cloud and SAP Marketing Cloud solutions

- Outbound integration of demand plans
- Inbound integration of opportunities into sales forecast quantity

SAP Transformation Navigator

Supporting your digital transformation



SAP Transformation Navigator provides you with clear guidance to chart the Intelligent Enterprise:

- Based on your currently used products, this free self-service produces an individualized report highlighting business value, detailing integration to SAP S/4HANA and other cloud products, and explaining transformation services and license information.
- With the new time-slider feature, you can even identify the best point in time to engage in your journey to becoming an intelligent enterprise.
- Discover the tool and your transformation path at https://support.sap.com/stn.

Related road maps

SAP Integrated Business Planning is closely related to and integrated with corresponding operation processes in execution systems such as SAP S/4HANA. Furthermore, SAP Integrated Business Planning leverages SAP Fiori front ends and takes an active part in the SAP Fiori UI journey.

Related product road maps available on sap.com/road maps:

- SAP ERP
- SAP S/4HANA
- SAP Fiori



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