

ANA207

# Hybrid Analytics: SAP Analytics Cloud, SAP BW/4HANA, and the BI Platform

Ingo Hilgefort, Global Product Evangelist  
SAP Canada

PUBLIC

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# The hybrid reality

New **IT spending** is moving to the cloud.



This is for new applications and projects.

**Innovation** is in the cloud.



Customers are adopting SAP Analytics Cloud to benefit from it.

Customers have large **on-premise investments**.



Some workloads will stay on-premise for coming years.

Nearly **two thirds** of companies anticipate that the future state of their analytics, BI, and data processing will be comprised of a mix of on-premise and cloud resources.\*

# Hybrid strategies benefit analytics and data

## BI Forrester hybrid research for SAP



**Nearly two thirds** of companies anticipate that the future state of their analytics/BI solution will include a mix of on-premise and cloud (hybrid) resources.

Companies are achieving success by:

**49%** Increasing investment in analytics/BI technology and resources

**46%** Pursuing greater use of the cloud for data storage

**45%** Adopting more powerful analytics/BI tools

**41%** Implementing tighter security controls on data usage



**60%** of companies currently use a hybrid strategy for analytics and data



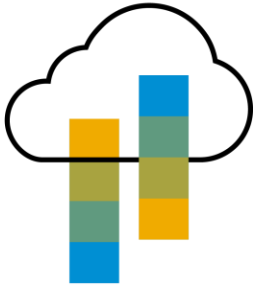
**88%** of companies regard hybrid analytics/BI platforms as important to their company



**82%** of companies agree that a hybrid approach is a critical next step in the evolution of their analytics/BI strategy

Source: [SAP BI Forrester Hybrid Research](#)

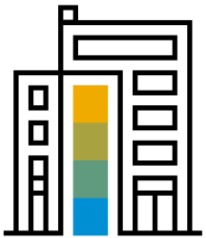
# BI portfolio comprises two key solutions



## SAP Analytics Cloud



- Take advantage of the flexibility of the cloud.
- Leverage latest innovation.
- Use this strategic analytics platform for all cloud solutions from SAP.

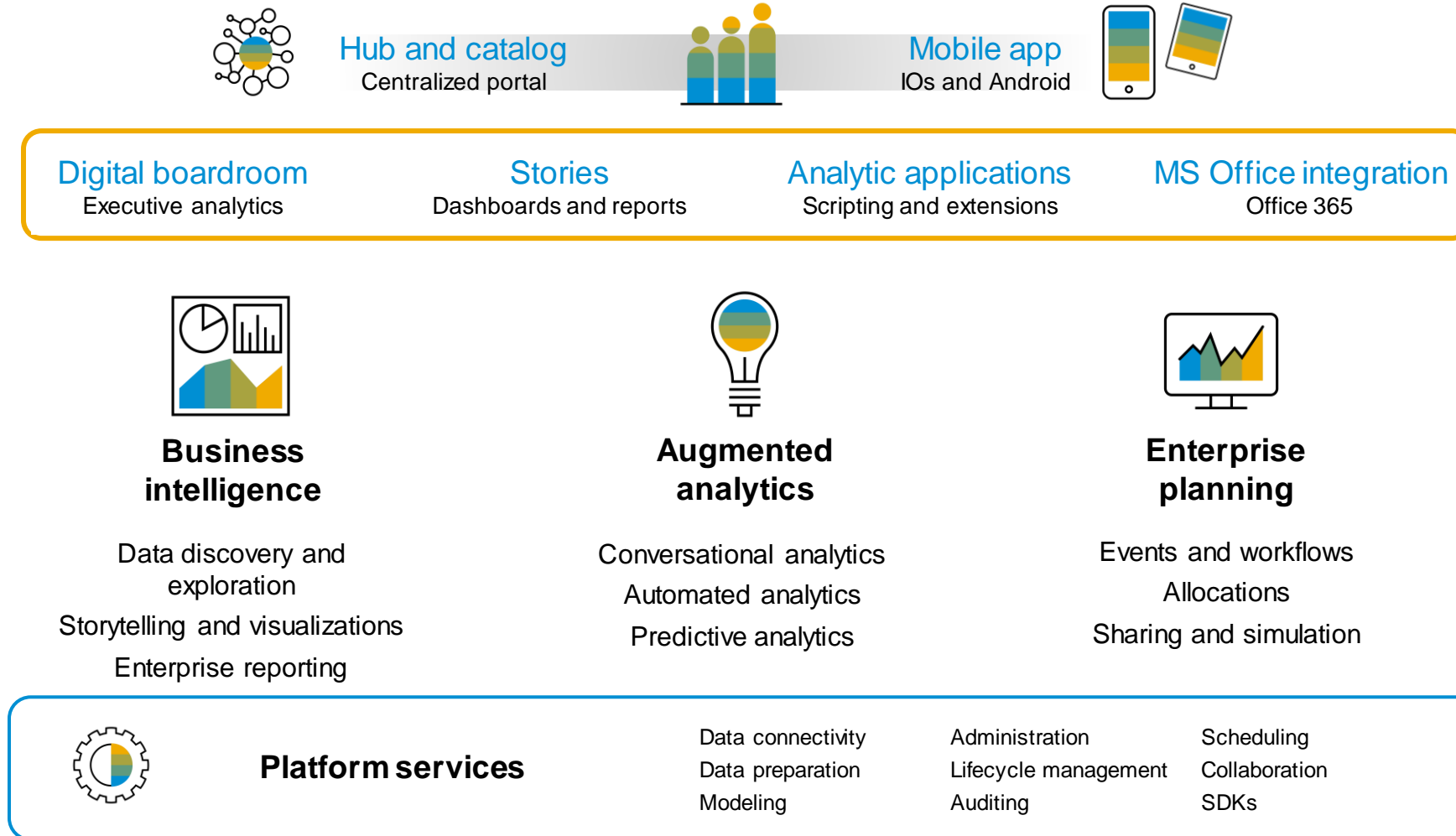


## SAP BusinessObjects BI Suite



- Leverage the breadth of capabilities of the BI platform
- Focus on continuity on a stable core with a familiar reporting user interface.
- Run large-scale, often mission-critical solutions.

# SAP Analytics Cloud



# SAP Analytics Cloud – Data connectivity type

## **Live connectivity: Direct. Deep. Secure. Simple.**

- Leverage data directly from your back-end system without additional modelling or data replication .
- Always report on latest information.
- Leverage all data authorizations over SSO.
- When connecting from the corporate network, data is kept behind your firewall. No sensitive data will be moved to the Internet

## **Import connectivity**

- Import data into local models of SAP Analytics Cloud.
- Use all SAP Analytics Cloud features that are available with local models (smart assist features).
- It might provide a performance edge for overview dashboards with highly aggregated data and limited in-dashboard drill-down (drill-through to dashboards with live connectivity possible).

# SAP Analytics Cloud: Live connectivity with SAP BW4/HANA





# SAP Analytics Cloud – Data connectivity to SAP BW

## **Live connectivity: Direct. Deep. Secure. Simple.**

- No data replication
- Always report on latest information in SAP BW
- Leverage all data authorizations from SAP BW
- Leverage all investments in queries and other meta data such as hierarchies in SAP BW
- Seamless drill-down from aggregated data to lowest data granularity in SAP BW
- Best-in-class query interface to SAP BW: Access SAP BW features that cannot be accessed through standard SQL or MDX query interfaces
- When connecting from the corporate network, data is kept behind your firewall. No sensitive data will be moved to the Internet
- Support of BW queries with two structures and cell calculations
- Support of all BW variable types
- Support of multiple BW parent-child hierarchies
- Parallel execution of BW queries

## **Import connectivity**

- Import BW query data into local models of SAP Analytics Cloud
- Use all SAP Analytics Cloud features that are available with local models (smart assist features)
- Might provide a performance edge for overview dashboards with highly aggregated data and limited in-dashboard drill-down (drill-through to dashboards with live connectivity possible)

## Back-end version recommendation for SAP BW

In order to use SAP Analytics Cloud with live connections to SAP BW in a seamless manner, we recommend customers upgrade their SAP BW system to SAP BW 7.50 or SAP BW/4HANA as soon as possible.

Best support of planned SAP Analytics Cloud features will be provided with SAP BW 7.50 SP16 on SAP HANA or SAP BW/4HANA 2.0, so customers are recommended to plan for a respective upgrade once those versions become available.

# Data blending – Functionality

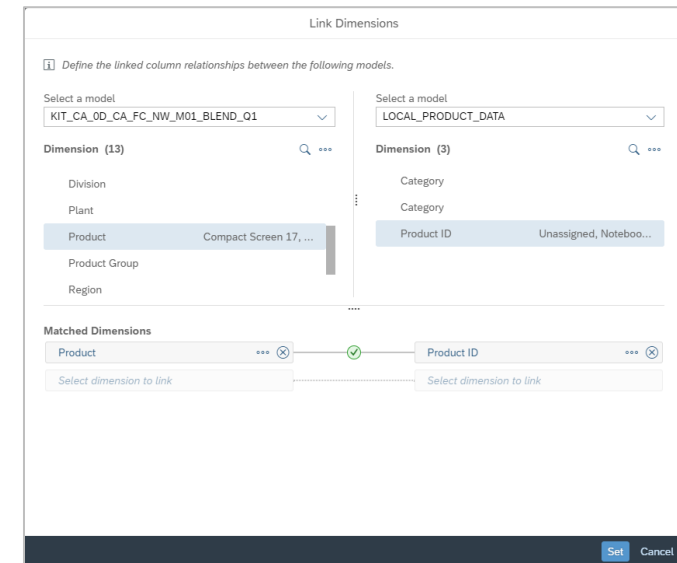
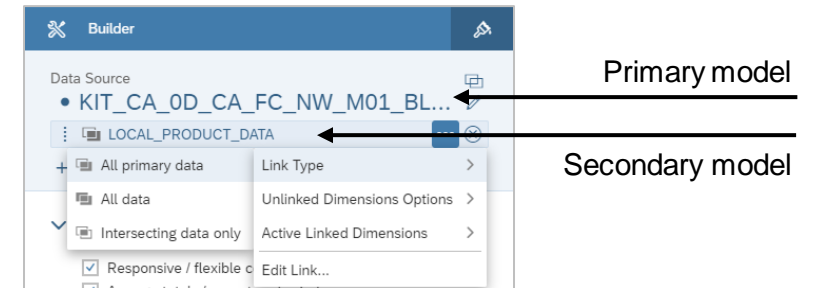
## Blend data from live BW queries with imported data (for example, from local files) to analyze and visualize combined data sets

### Blend operations (link types)

- Left outer join, inner join and union supported as blend operations
- It is possible to link by ID (internal BW key) and description
- It is possible to link on hierarchical dimensions of primary model (if primary model is BW query, hierarchy must be active in BW query)

### Blending engine and data transfer

- Blend operations are executed in the SAP HANA engine of SAP Analytics Cloud (blending engine)
- Data transfer to blending engine through SAP HANA smart data integration or Web browser (secured channels)
- Data is not persisted by the blending engine, caches are cleared automatically and instantly after the blend operation



# Time-series chart and date range filtering

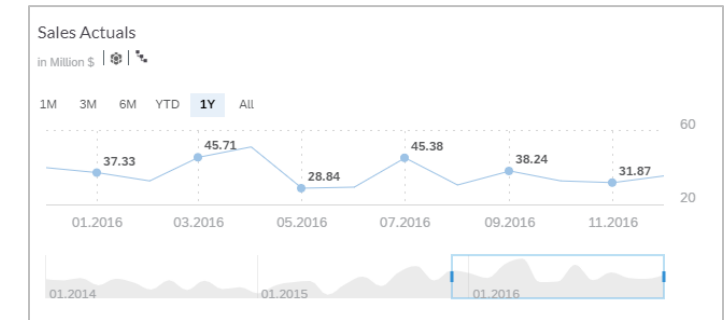
## Extended support of date dimension through time-series charts and dynamic date range filters

### Time-series chart

- Analyze date-based measures effectively
- Simple navigation by standard intervals
- Out-of-the-box drill-down by BW virtual date hierarchies (year-month-date)
  - For active hierarchy
  - All hierarchy level dimensions for drill-down must be contained in Query
- Restrictions: Nonconcatenated and fiscal date dimensions (0CALMONTH2, 0QUART1, 0FISCPER) are not supported. 0CALYEAR as finest time granularity is not supported.

### Date range filters

- Define a fixed date range filter based on static dates
- Define a dynamic date range filter based on offsets from current selected date granularity (for example, last 3 months)
- Supported on actual date dimensions only (0CALDAY)



The dialog box 'Set Date Range for SU ref to 0CALDAY' allows configuring date range filters. It includes options for Type (Fixed/Dynamic), Hierarchy (0YEA\_QUA\_MON\_E), and a range slider from 2011 to 2014. A specific range is set for 'Range 1: Nov 1, 2013 - Dec 10, 2013' with a granularity of 'Day'. Additional settings for users, such as 'Allow viewers to modify selections' and 'Display entire range slider', are also present.

Type: ☒ Fixed ☐ Dynamic

Hierarchy: 0YEA\_QUA\_MON\_E

Range 1: Nov 1, 2013 - Dec 10, 2013

Granularity: Day

Settings for Users:

- Allow viewers to modify selections: ☒
- Hide in Controls Panel: ☐
- Multiple Selection: ☐
- Display entire range slider: ☐

# Geo maps (except choropleth layer)

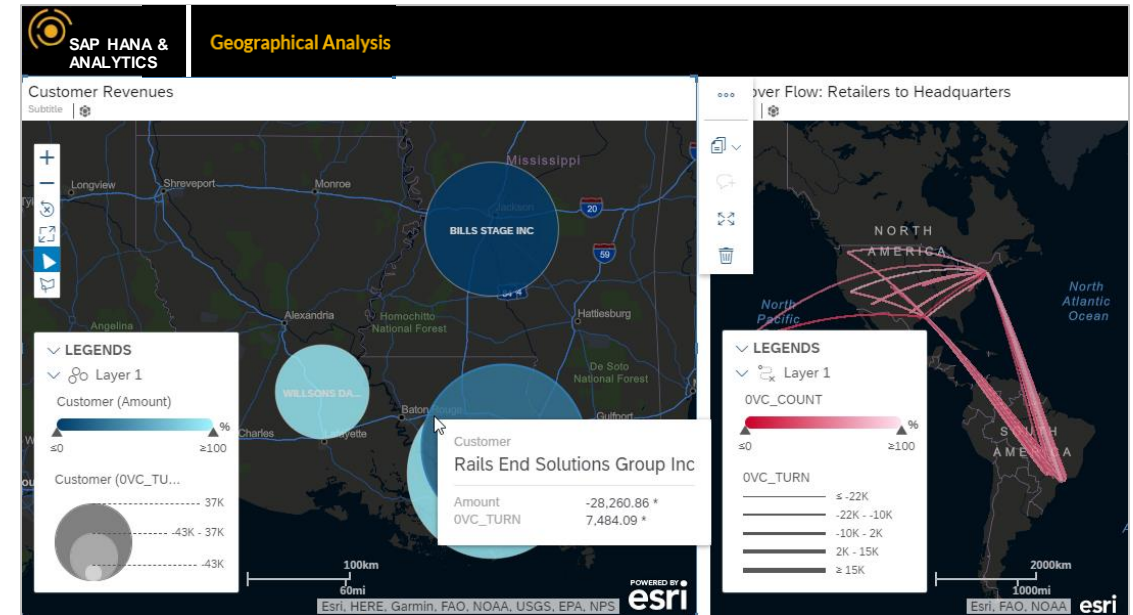
## Display live BW query data in geo maps

Display measure values at geo coordinates

- Display measure values as bubbles (color and size by measure value)
- Display flows from source to destination coordinates
- Requires geo dimensions, i.e. geo-enabled InfoObjects (with latitude / longitude coordinates) in the BW Query
- Geo filtering and distance filter supported
- Restrictions on Queries with geo dimension (not yet supported)
  - Hierarchy drilling in bubble layer, color by dimension, support of default filter from Query, exit variables and text variables
  - Recommendation is to create dedicated Queries for geo map layer feeding
- Current Limitation: Choropleth Layer support

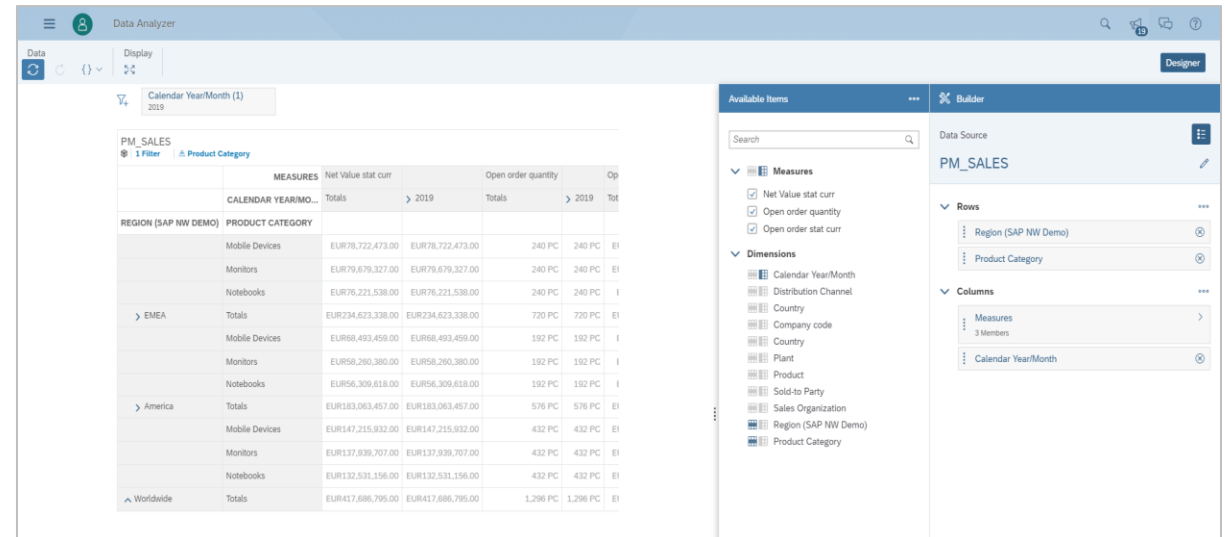
## Back-end prerequisites

- Requires SAP BW/4HANA 2.0 or SAP BW powered by SAP HANA 7.50 SP16, see [SAP note 2715030](#) for more details



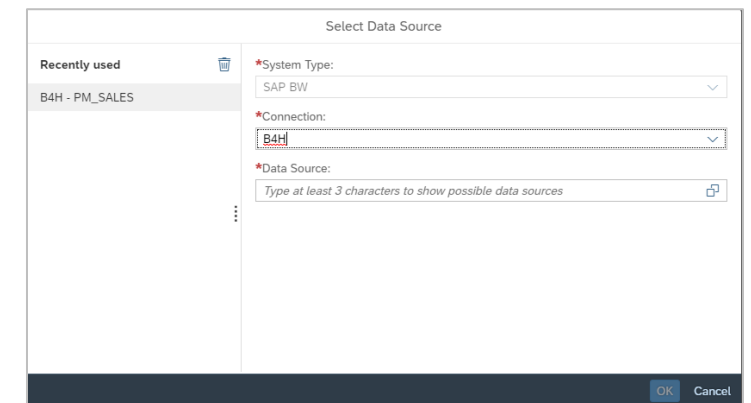
# Data analyzer

- The data analyzer is a predefined ready-to-run service for queries in SAP BW.
- Use the Builder panel and the Available Items area to navigate and analyze your data by adding and removing dimensions from the table, filter for item, and change its display and sort order.
- The data analyzer uses live connections SAP BW created in the tenant of SAP Analytics Cloud. All queries in SAP BW can be accessed directly in the Select Data Source dialog and no additional model is created.
- You can open it by writing a script that uses the function openDataAnalyzer.
- There's a new execute permission for the data analyzer that you need to grant to your users before they can start working with it.



The screenshot shows the SAP Data Analyzer interface. The main panel displays a table for the data source 'PM\_SALES'. The table has columns for 'MEASURES', 'Net Value stat curr', 'Open order quantity', and 'Op'. The data is filtered by 'Calendar Year/Month (1) 2019' and 'Product Category'. The table is organized into a hierarchy with 'REGION (SAP NW DEMO)' as the top level, followed by 'PRODUCT CATEGORY' and 'Mobile Devices'. The data is further broken down by 'EMEA' and 'America' regions, and 'Worldwide' totals.

MEASURES	Net Value stat curr	Open order quantity	Op
CALENDAR YEAR/MO...	Totals	> 2019	Totals
REGION (SAP NW DEMO)	PRODUCT CATEGORY		
Mobile Devices	EUR76,722,473.00	EUR76,722,473.00	240 PC 240 PC EI
Monitors	EUR79,679,327.00	EUR79,679,327.00	240 PC 240 PC EI
Notebooks	EUR76,221,538.00	EUR76,221,538.00	240 PC 240 PC EI
EMEA	Totals	EUR234,623,338.00	720 PC 720 PC EI
Mobile Devices	EUR66,493,459.00	EUR66,493,459.00	192 PC 192 PC EI
Monitors	EUR58,260,380.00	EUR58,260,380.00	192 PC 192 PC EI
Notebooks	EUR56,309,618.00	EUR56,309,618.00	192 PC 192 PC EI
America	Totals	EUR183,063,457.00	576 PC 576 PC EI
Mobile Devices	EUR147,215,932.00	EUR147,215,932.00	432 PC 432 PC EI
Monitors	EUR137,039,707.00	EUR137,039,707.00	432 PC 432 PC EI
Notebooks	EUR132,531,156.00	EUR132,531,156.00	432 PC 432 PC EI
Worldwide	Totals	EUR417,686,795.00	1,296 PC 1,296 PC EI



The screenshot shows the 'Select Data Source' dialog box. It has a 'Recently used' section on the left with a list of data sources, including 'B4H - PM\_SALES'. The main area on the right contains fields for 'System Type' (set to 'SAP BW'), 'Connection' (set to 'B4H'), and 'Data Source' (with a placeholder text 'Type at least 3 characters to show possible data sources'). There are 'OK' and 'Cancel' buttons at the bottom right.

# Variance chart (time- and version-based)

## Display live BW query data in variance charts

### Version-based

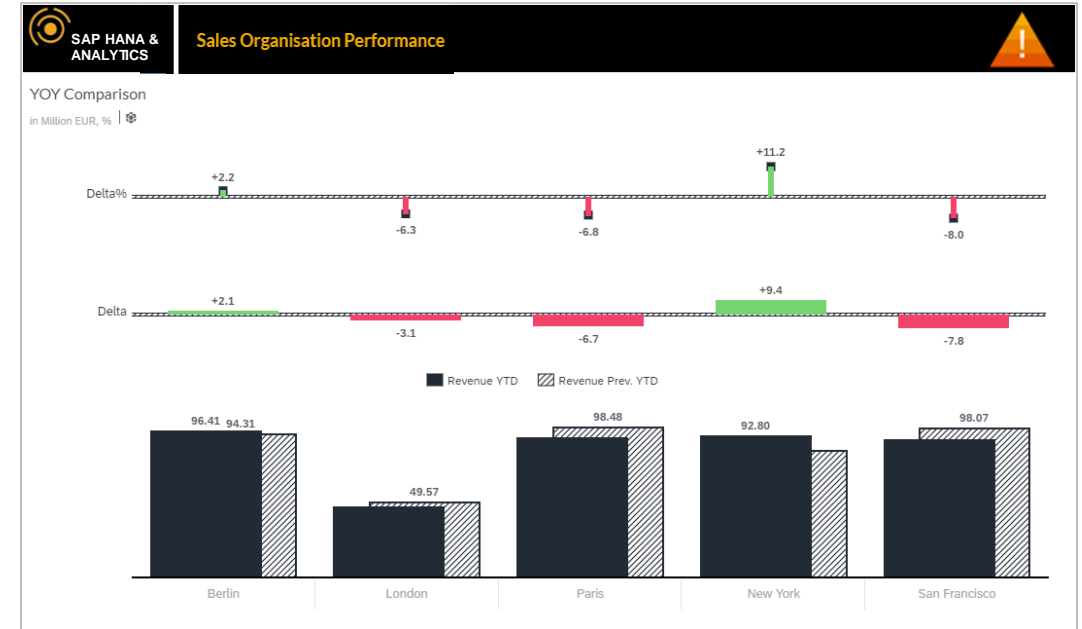
- Add a variance to your chart to compare the differences between versions (such as, actuals versus forecast in an account-based model).
- Assign versions in the BW live model in SAP Analytics Cloud.

### Time-based

- Add a variance to your chart to compare the differences between periods (current versus previous period).

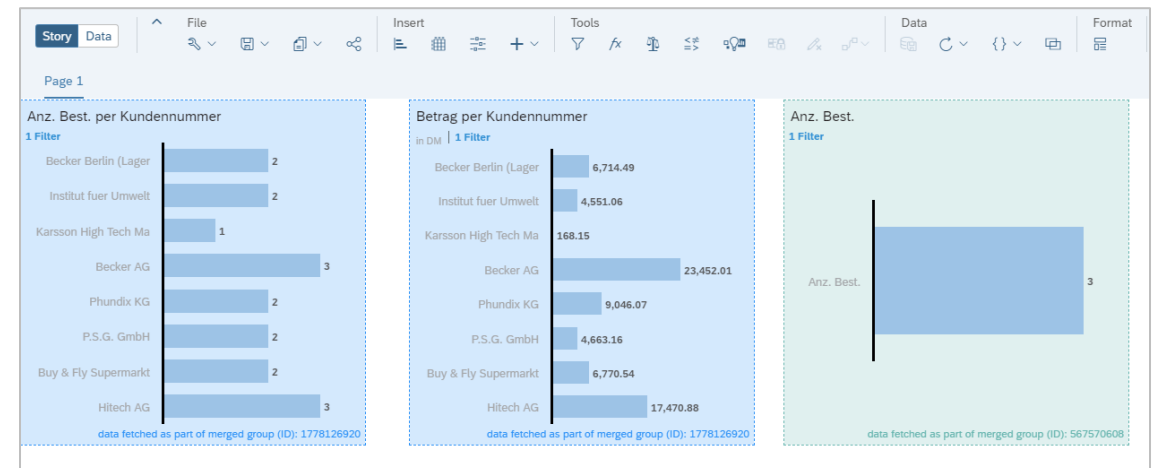
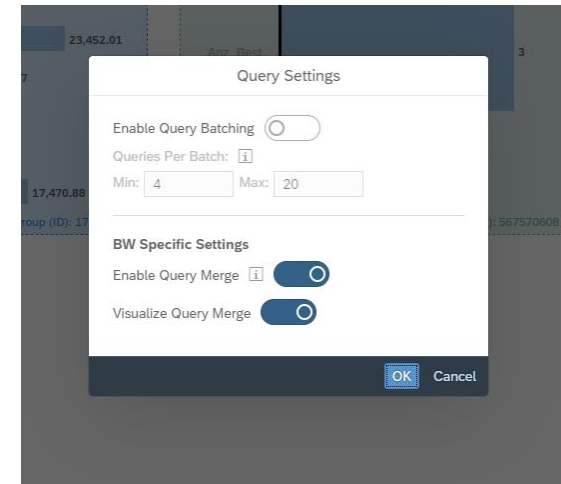
### Prerequisites

- Please note that version- and time-based variance charts have different back-end system prerequisites, see [SAP note 2715030](#) for more details.
- Hint: You can define restricted measures (in the BW query) and then use measure-based variances to meet respective business requirements with BW versions that do not support version- and time-based variances natively.



# Query merging

- Improve performance by saving time, round trips, and memory by merging back-end calls for multiple charts within a story.
- Select visualize merging requests to display colored charts in the edit mode.
- You can merge queries if the following factors apply:
  - Queries contain the same dimensions with the same hierarchies and drill
  - Queries use the same sorting and ranking
  - Queries do not have an active threshold with threshold filters
  - The widget does not have a local filter on a dimension that is also used in a restriction in SAP BW
  - Queries are part of the same receiver group if they use linked analysis
  - There is no widget filter on a secondary structure query
  - The widget filter is not defined as complex tuple or range filter
  - Presentation types are the same





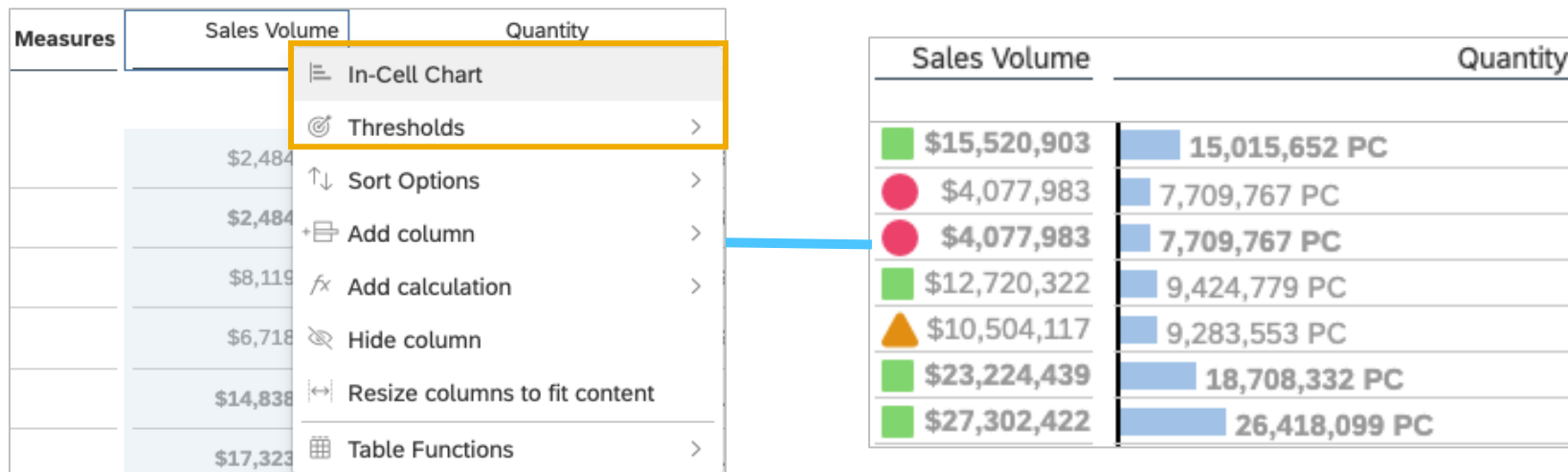
# Integration with BW concepts – Improved support of two structure queries

## New features on tables

Enhance your table with in-cell charts to see where you stand today.

- Bar or column chart
- Variance bar or variance pin

Create thresholds and add them to your table to measure performance, compare and indicate when an action may need to be taken.



# Integration with BW concepts – Prompting enhancements

## New variable dialog arrived

The new variable dialog is a complete redesign and as a cross-feature works for all connections as well as mobile.

It offers now:

- Clipboard functionality
- Display of and search for attributes

Set Variables for W4XPM Sales Data Supermarket

Supermarket - Multiple Single Values ⓘ

Enter Member ID

Set Cancel

A clipboard icon is highlighted with an orange box next to the 'Enter Member ID' input field.

Select Member for Supermarket - Multiple Single Values

Available Members

Show Description

Description

Attributes

Select Attribute

Geographical Height

Feature ID/Region

Selected Members

No data

A search bar and a list of attributes are highlighted with an orange box.

Paste Filter Values

Orange Juice

Apple Juice

Champaign

Append Overwrite Cancel

Select Member for Supermarket - Multiple Single Values

Description

Description

ID and Description

ID

Geographical Height

Feature ID/Region

Latitude

Longitude

Geo-precision

DatSrc.ID of GeoLoct

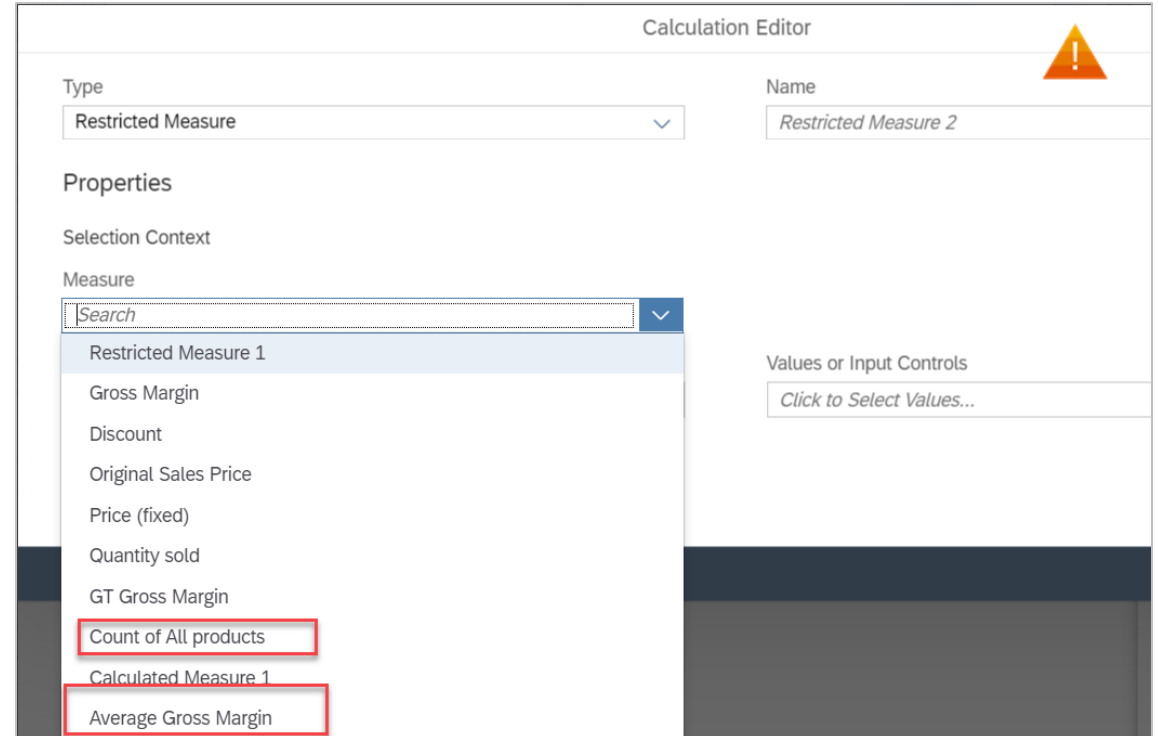
Geopoint

Chain

# Enhanced analytic capabilities – Restricted measure

## Restricted measure based on calculations

- Within the calculation editor, you can now create restricted measures based on calculations in a live scenario of SAP BW.
- Any calculations created from the calculation editor and BW formulas can be used to create a new restricted measures.



The screenshot displays the 'Calculation Editor' interface. At the top right, there is a warning icon (an orange triangle with an exclamation mark). The 'Type' dropdown is set to 'Restricted Measure'. The 'Name' field contains 'Restricted Measure 2'. Under the 'Properties' section, the 'Selection Context' is empty. The 'Measure' dropdown is open, showing a search bar and a list of available measures. The measures listed are: 'Restricted Measure 1', 'Gross Margin', 'Discount', 'Original Sales Price', 'Price (fixed)', 'Quantity sold', 'GT Gross Margin', 'Count of All products', 'Calculated Measure 1', and 'Average Gross Margin'. The last three measures are highlighted with red rectangular boxes. To the right of the measure list, there is a section titled 'Values or Input Controls' with a button labeled 'Click to Select Values...'.

# SAP Analytics Cloud and SAP BW4HANA

## Important information

Unsupported features for live SAP BW:

<https://launchpad.support.sap.com/#/notes/2788384>

SAP BW version dependencies for features of SAP Analytics Cloud:

<https://launchpad.support.sap.com/#/notes/2715030>

Support for metadata for SAP BW :

<https://help.sap.com/viewer/00f68c2e08b941f081002fd3691d86a7/release/en-US/ba7ee8dc6dcd4069b210ec712be52a31.html>

Required note for latest features of SAP Analytics Cloud:

<https://launchpad.support.sap.com/#/notes/2541557>

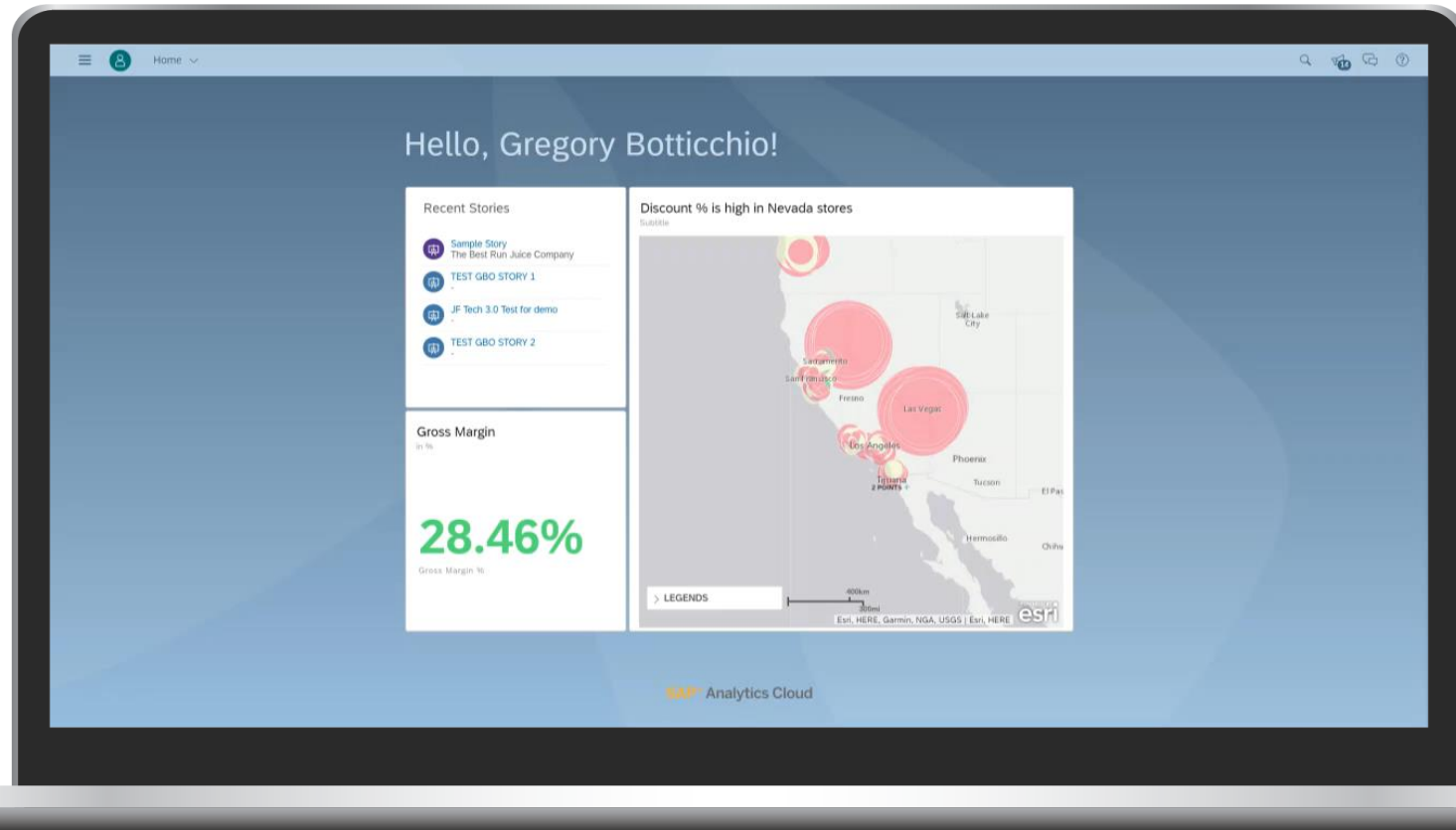
# SAP Analytics Cloud: Live connectivity with universes



# SAP Analytics Cloud – Live data connect for universes

Enable hybrid

**Reuse your existing relational universes with SAP Analytics Cloud in order to enable agile BI and new scenarios**



## BI platform synergies

- SAP Analytics Cloud enabling end to end workflows with the “Query Builder” for all relational universes (.unv + .unx)
- Support BIP for Single Sign On

## Go beyond universes data

- Add calculations (Support for SAP Analytics Cloud – calculated measures, restricted measures, aggregations concept)
- Consume Web intelligence data model (data provider or tables with context, planned with BI4.3)

# SAP Analytics Cloud – Live data connect for universes

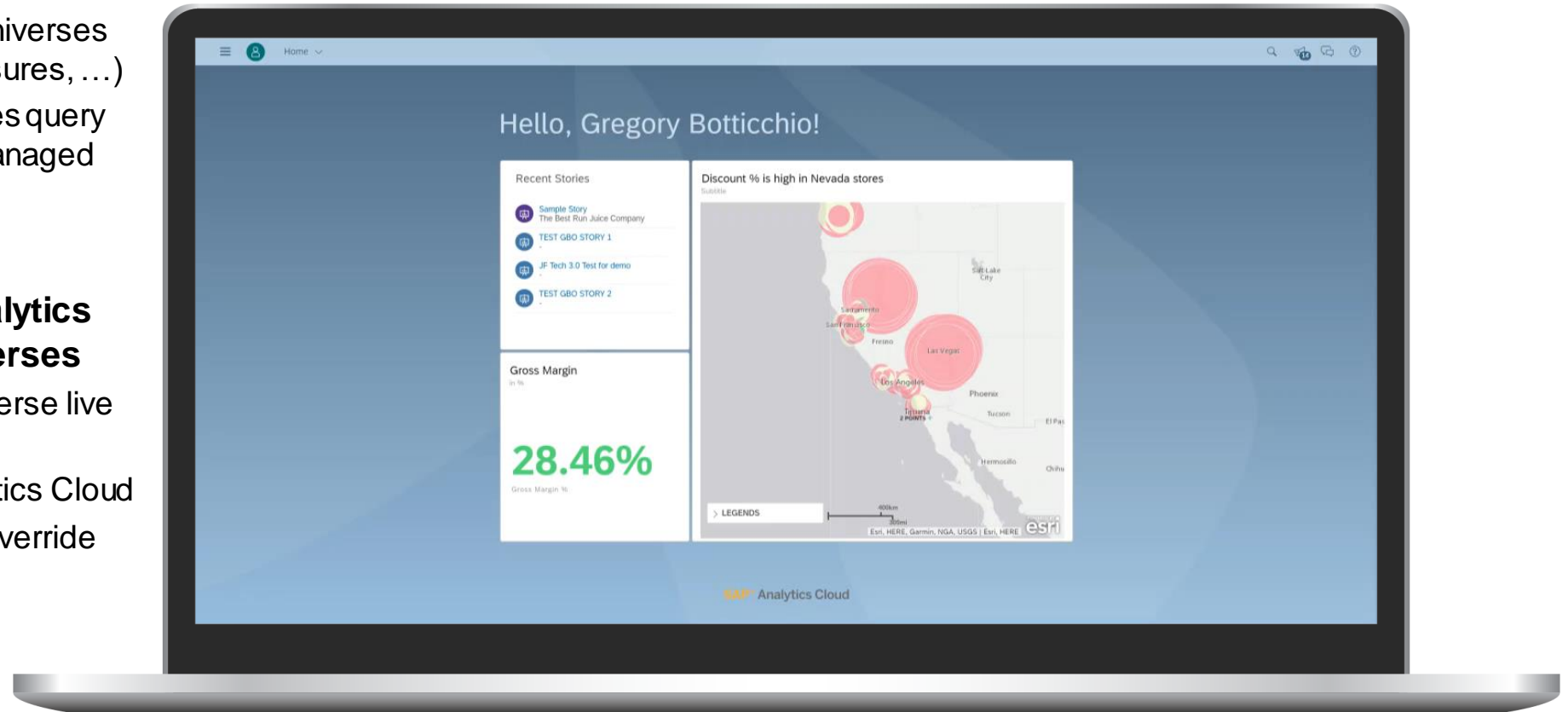
Enable hybrid

## Add live universe connectivity

- Catalog service exposes relational Universes available in the CMS
- Metadata service exposes universes metadata (dimensions, measures, ...)
- Ad hoc query service exposes query capabilities (create query, managed filters, sort, ranking and variables (aka prompts))

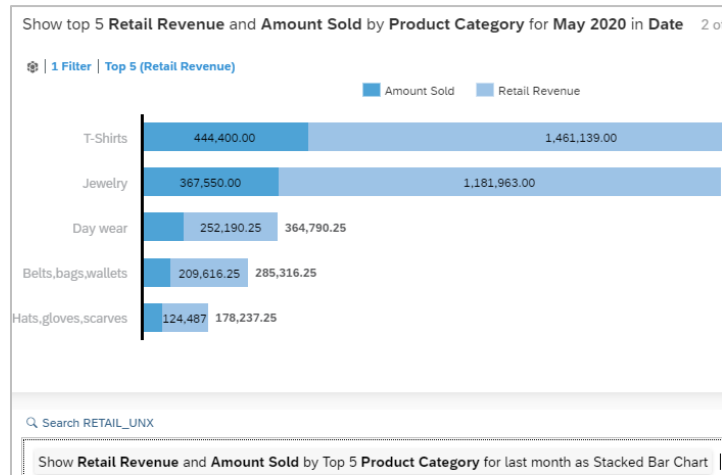
## Open stories for SAP Analytics Cloud based on live universes

- Expose a new relational universe live connectivity
- Create stories for SAP Analytics Cloud
- Leverage universe security override



# Seamless

Expand with **augmented analytics**



## Conversational

Ask questions with conversational analytics and get instant results, displayed in natural language and intuitive visualizations.

## Gross Revenue

How has this changed?

> The total for **Dec 2018** was 380 m, an increase of 6% (21 m) compared to **Nov 2018** (359 m).

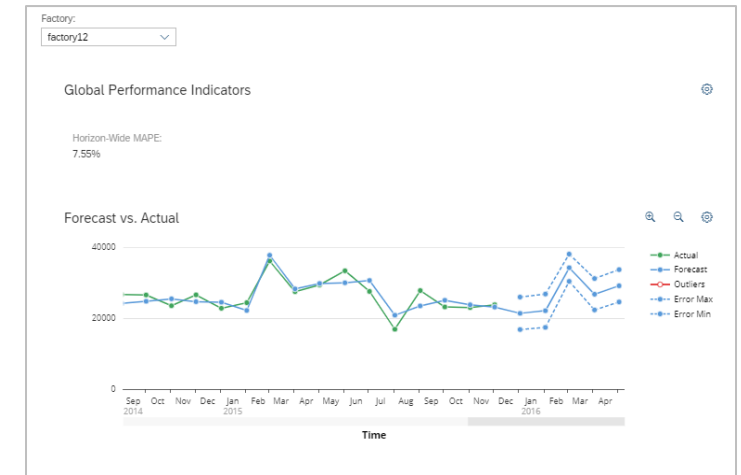
What are the top contributors?

✓ **Partner Event** is the top **Travel Reason** contributor. Assigned values contribute 1,974 m (48%) overall.

## Automated

Save hours of work with autogenerated dashboards.

Review four pages of AI-driven insights: top influencers, correlations, and interactive simulation.



## Predictive

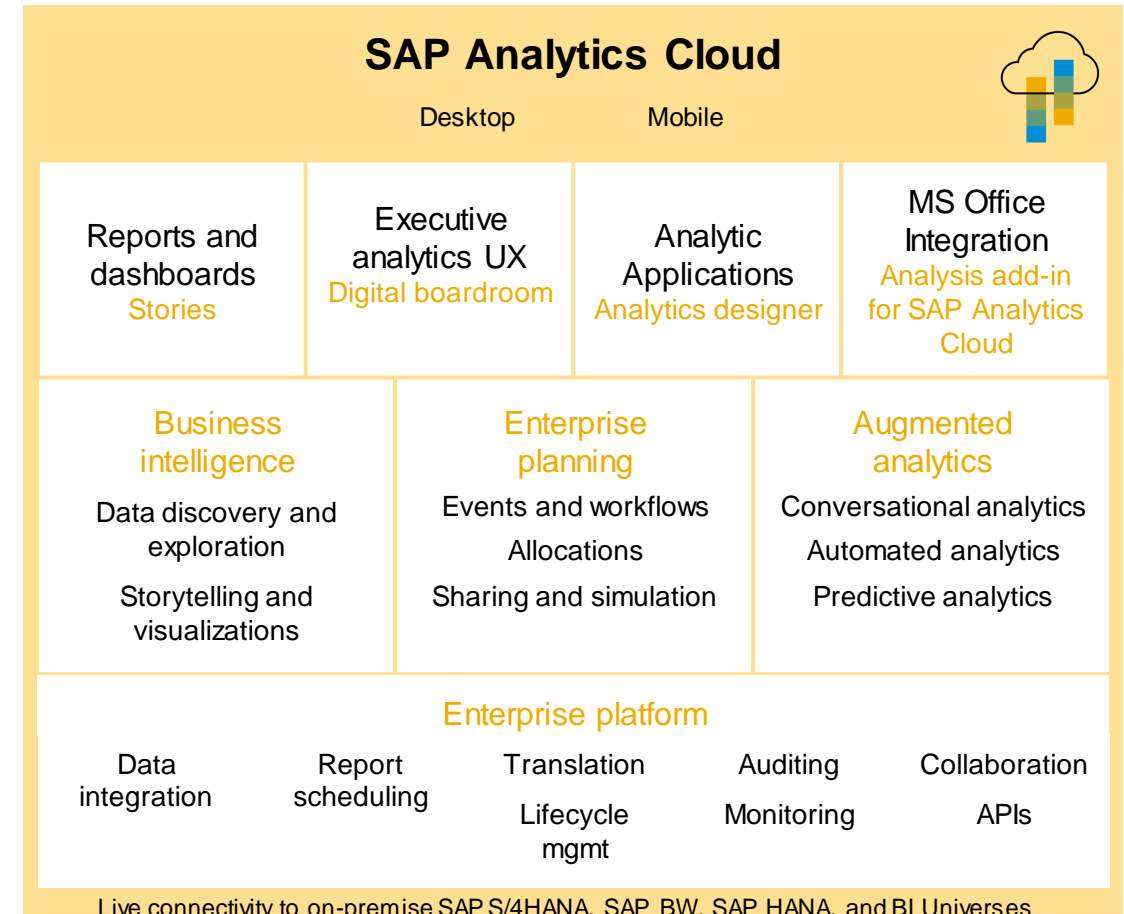
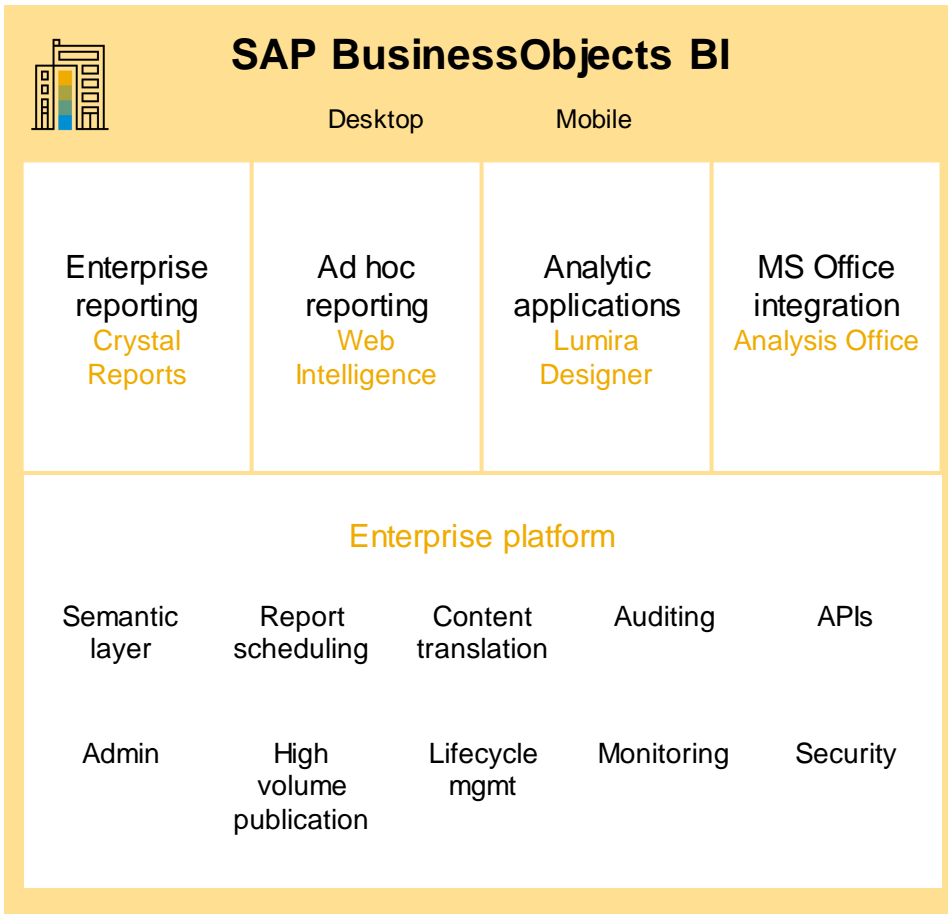
Recognize important correlations and predict potential outcomes and forecasts with the push of a button. No data scientist necessary.

*"We will deliver **powerful, unbiased insights automatically to users**, when they need them and in context" – Kate Wright, Head of Augmented BI*



# Integrated

Leverage the **best of BI** in both worlds



# Integrated

Leverage the best of BI in both worlds



## SAP Analytics Catalog

The bridge for on-premise and cloud analytics that centralizes access to all analytics across the enterprise



### SAP BusinessObjects BI

Desktop

Mobile

Enterprise reporting  
Crystal Reports

Ad hoc reporting  
Web Intelligence

Analytic applications  
Lumira Designer

MS Office integration  
Analysis Office

#### Enterprise platform

Semantic layer

Report scheduling

Content translation

Auditing

APIs

Admin

High volume publication

Lifecycle mgmt

Monitoring

Security

#### BI hybrid features:

- Live Universe Connection for SAP Analytics Cloud (4.2+)
- Web Intelligence as a data source for SAP Analytics Cloud (4.3)
- Hybrid User Mgmt (4.3)
- Analysis for Office connection to models of SAP Analytics Cloud
- Publish to Hub/Catalog (4.3)



#### Hybrid features of SAP Analytics Cloud:

- Live Data Connection to on-premise SAP BW, SAP HANA, SAP S/4HANA, and BI Universe
- Analysis for Office access to SAP BW and SAP HANA

### SAP Analytics Cloud

Desktop

Mobile



Reports and dashboards  
Stories

Executive analytics UX  
Digital boardroom

Analytic Applications  
Analytics designer

MS Office integration  
Analysis add-in for SAP Analytics Cloud

Business intelligence

Data discovery and exploration  
Storytelling and visualizations

Enterprise planning

Events and workflows  
Allocations  
Sharing and simulation

Augmented analytics

Conversational analytics  
Automated analytics  
Predictive analytics

#### Enterprise platform

Data integration

Report scheduling

Translation  
Lifecycle mgmt

Auditing  
Monitoring

Collaboration  
APIs

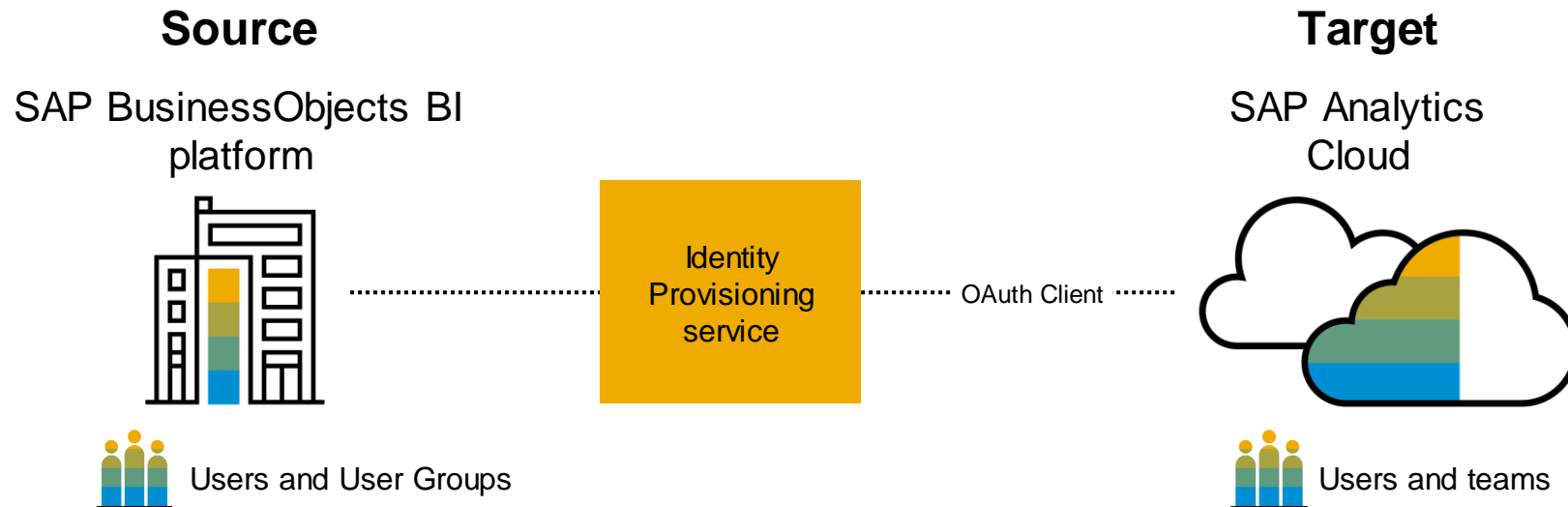
Live connectivity to on-premise SAP S/4HANA, SAP BW, SAP HANA, and BI Universes

# Integrated

## Simplify user administration for **hybrid landscape**



- BI platform users and user groups can be automatically provisioned and synchronized to SAP Analytics Cloud.
- SCIM APIs are used by the Identity Provisioning service to provision and synchronize BI platform users to SAP Analytics Cloud.

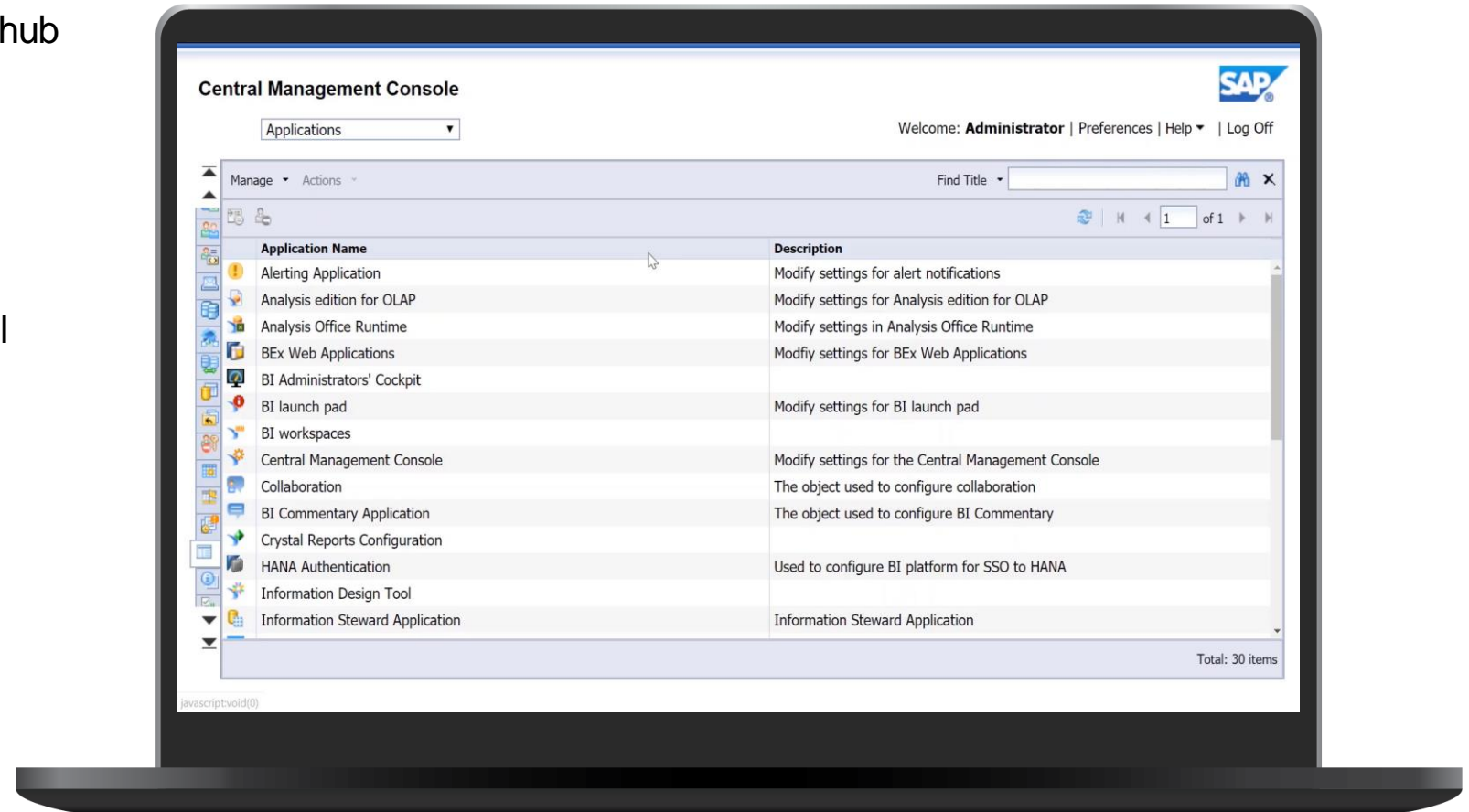


# Integrated

Simplify access to analytics for everyone with the **analytics hub integration**



- Publish BI assets directly to analytics hub with the new BI 4.3 Integration
- Publish multiple BI assets to SAP Analytics Hub in bulk or configure automatic asset creation
- Metadata of the selected BI content is published to analytics hub while actual content still resides in BI platform



BusinessObjects 4.3 Hub Demo

# Integrated

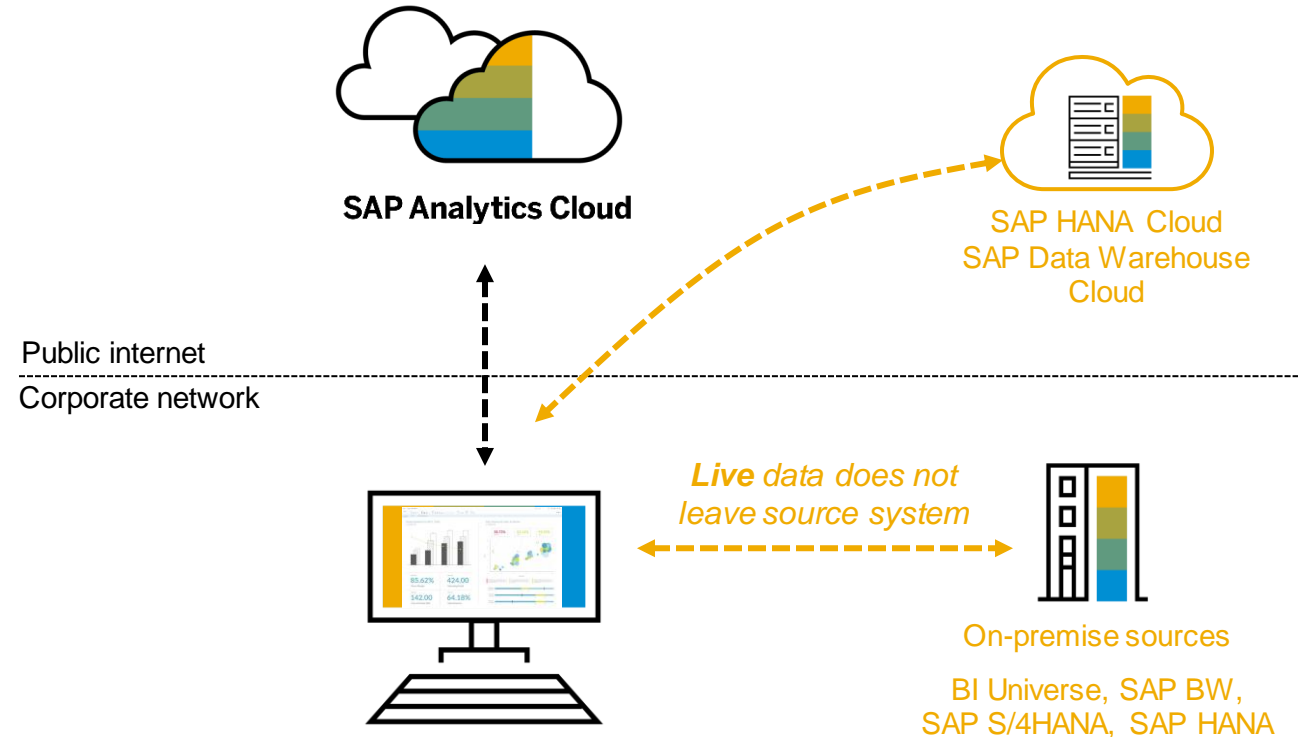
## Connect live to on-premise data sources

### Connect securely to live on-premise data

- SAP Analytics Cloud can connect live to on-premise systems such as SAP BW, SAP BW/4HANA, SAP HANA, SAP S/4HANA, and BI Universe
- Leverage data source's security and authentication

### Secure architecture keeps data safe

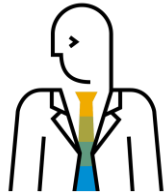
- cross-origin-resource-sharing (CORS) architecture allows data to stay safe behind the corporate firewall
- Data is streamed directly to client's machine – data is not moved to cloud or cached (unless explicitly configured by admin)



Architecture and data flow of CORS direct connection for intranet scenario

# Integrated

Leverage **existing report semantics** with Web intelligence as a data source



## Business and power users

- Create queries (data providers)
- Merge queries (heterogeneous data)
- Add custom variables (custom formulas)
- Validate and share the WebI data model

WEB Intelligence  
Data Model



Share and  
update

SYNCH

Access and  
consume



## End Users

- Select a WebI data model
- Design a report
- Share their analysis via a WebI document



WEB Intelligence



# SAP Analytics Cloud – Live data connect to universes

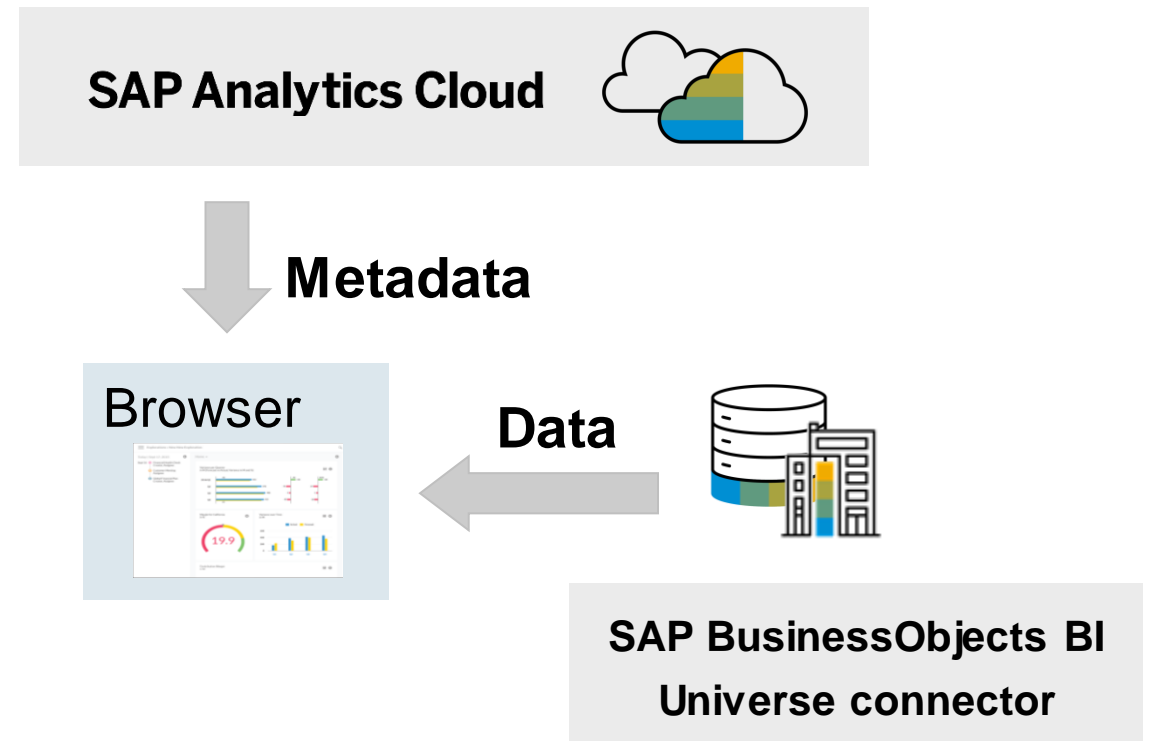
Available with SAP BusinessObjects BI 4.2 SP5+

## Live connectivity

- Support for universe from any relational Universe
- Enhance performance
- Superior support for universe metadata
  - For example, aggregation, hierarchies, prompts, list-of-values
  - Universe overrides, data security applied
- No data transferred to the cloud

## Planned enhancements

- Measure-based filters, calculated dimensions
- Support for universe delegated measures, subqueries and combined queries

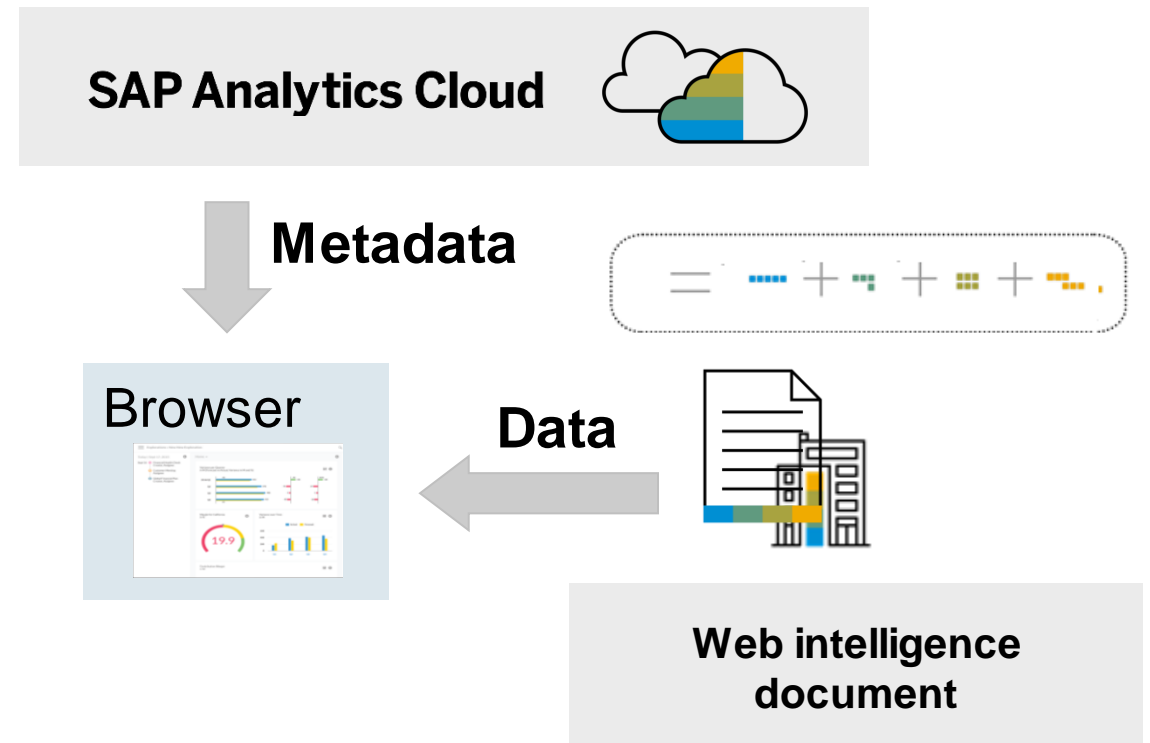


# SAP Analytics Cloud – Live data connect to Web intelligence documents

Planned Q3 2020 (SAP BusinessObjects BI 4.3)

## Leverage on premise Web intelligence document data from SAP Analytics Cloud

- Dimensions, measures
- Leverage complex queries
- Calculations
- Merged data providers



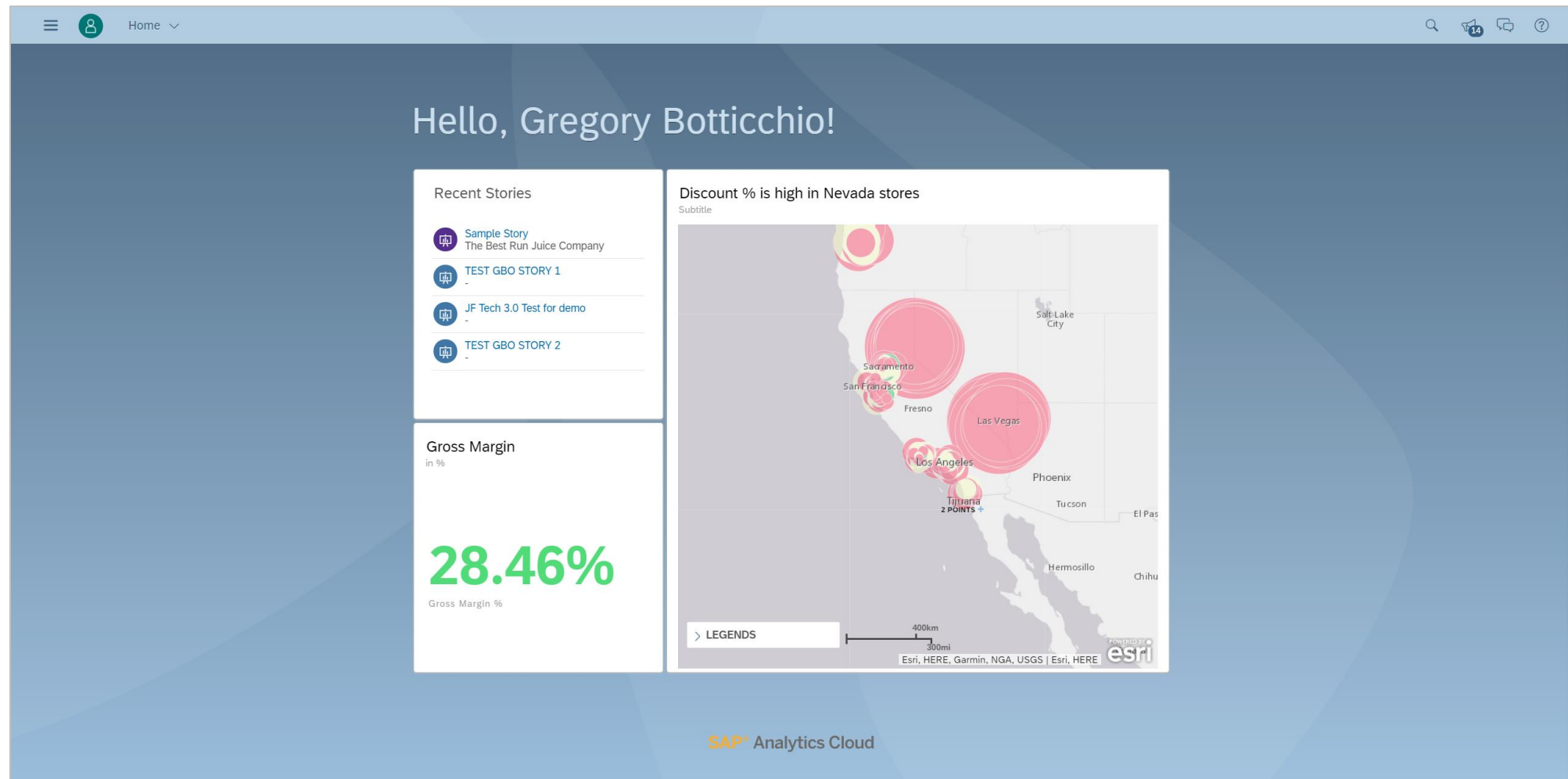


# SAP Analytics Cloud: Example workflow



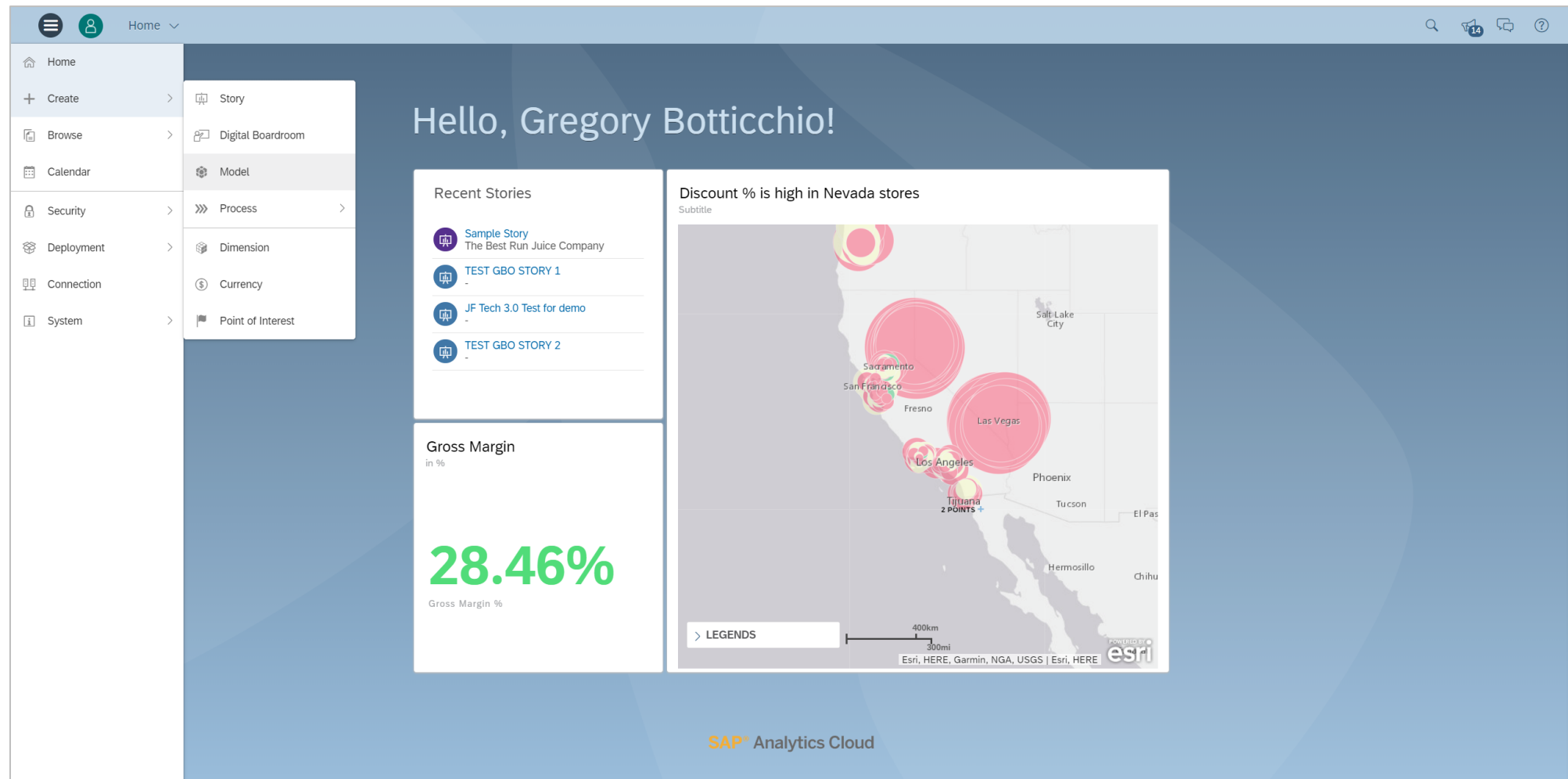
# SAP Analytics Cloud – Integration (1/20)

Workflow as of today



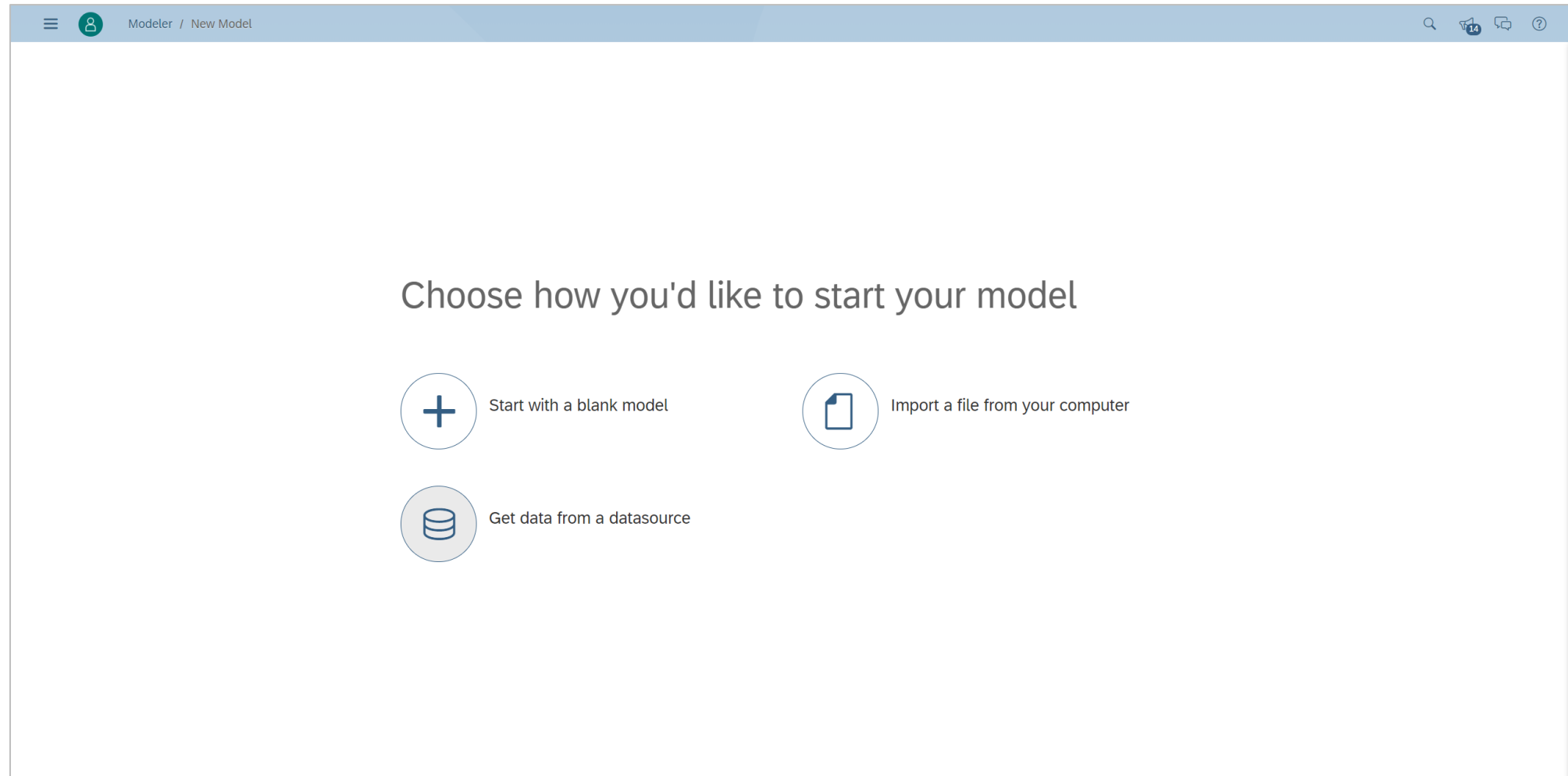
# SAP Analytics Cloud – Integration (2/20)

Workflow as of today



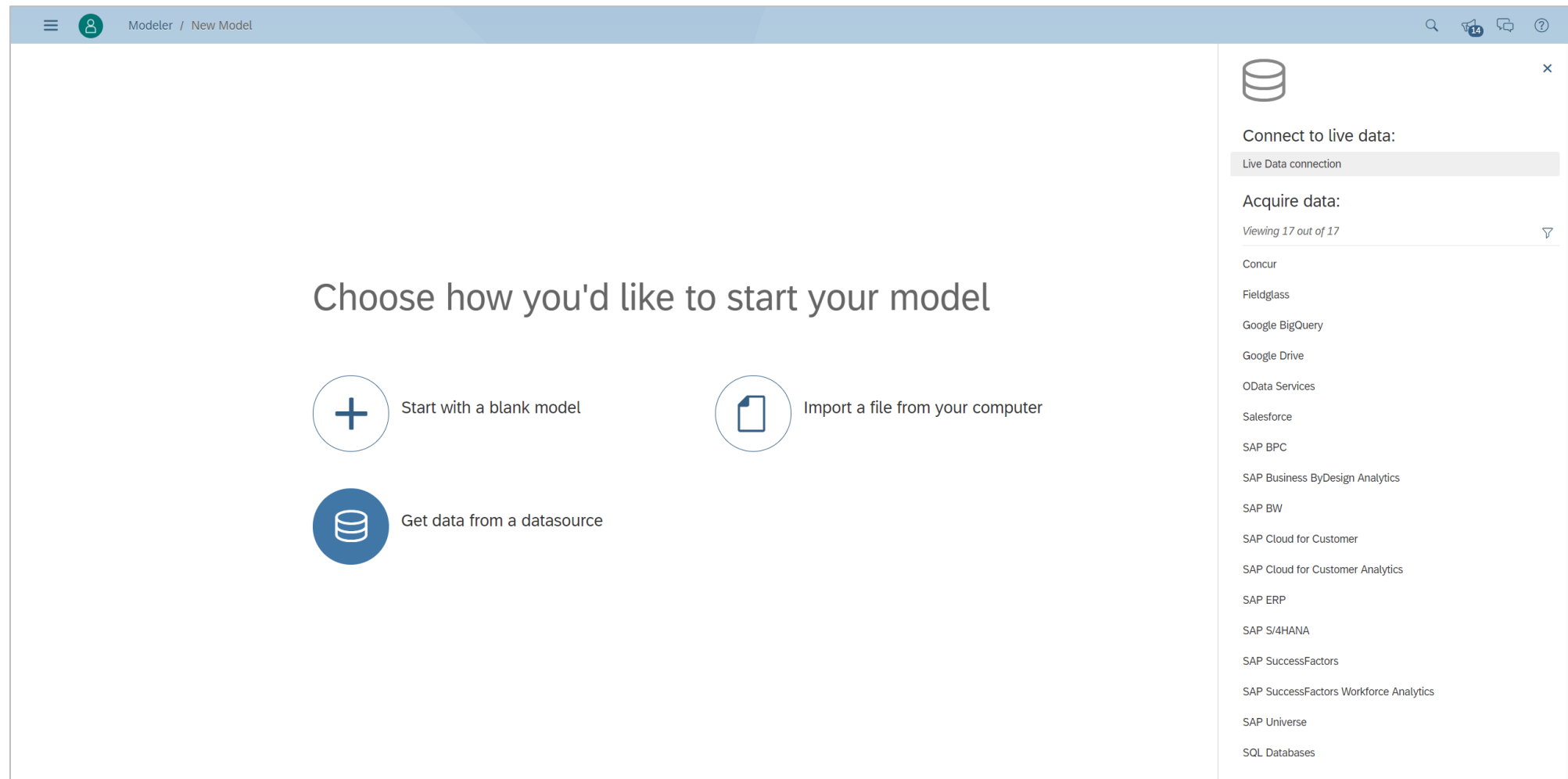
# SAP Analytics Cloud – Integration (3/20)

Workflow as of today



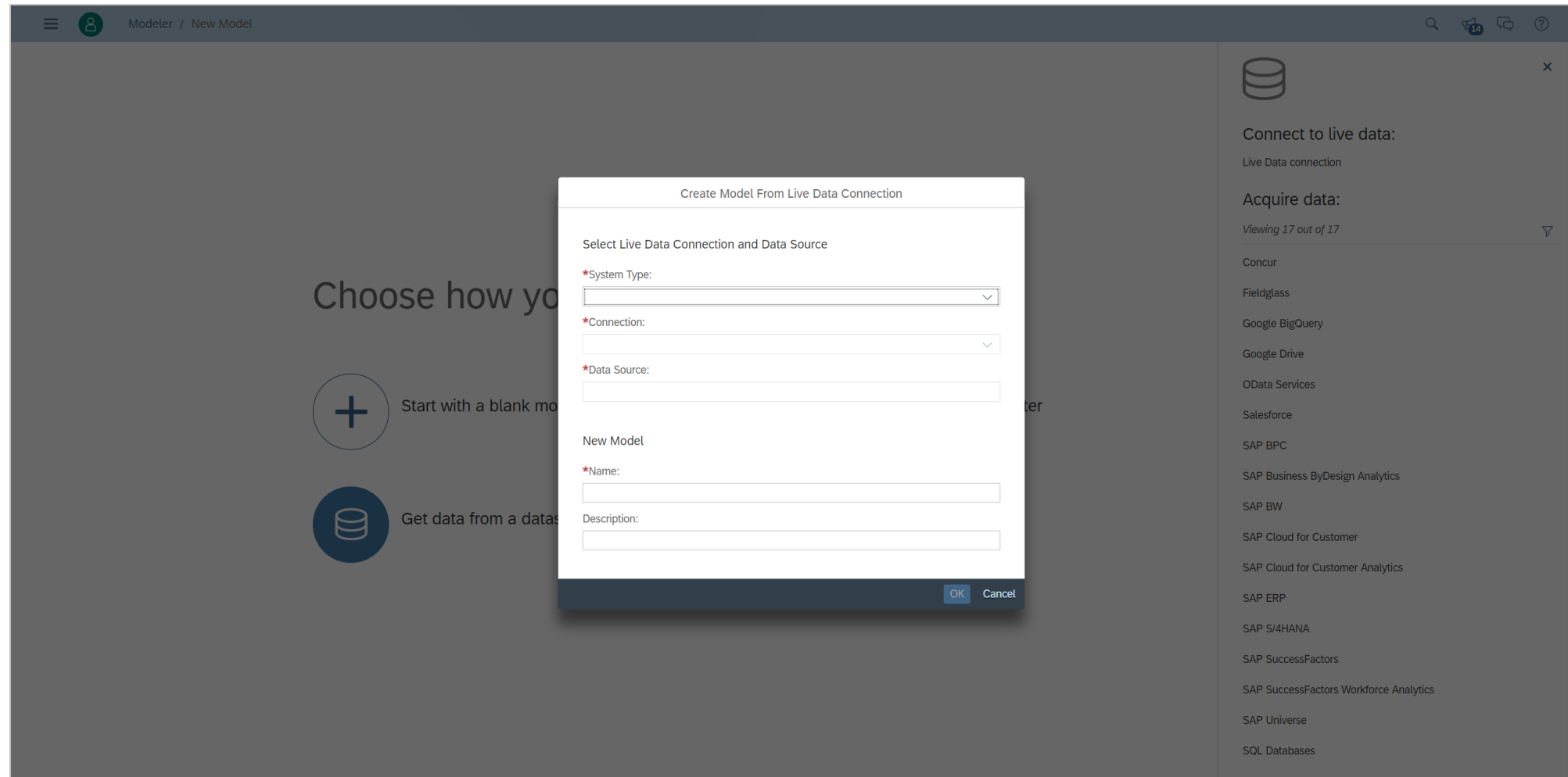
# SAP Analytics Cloud – Integration (4/20)

Workflow as of today



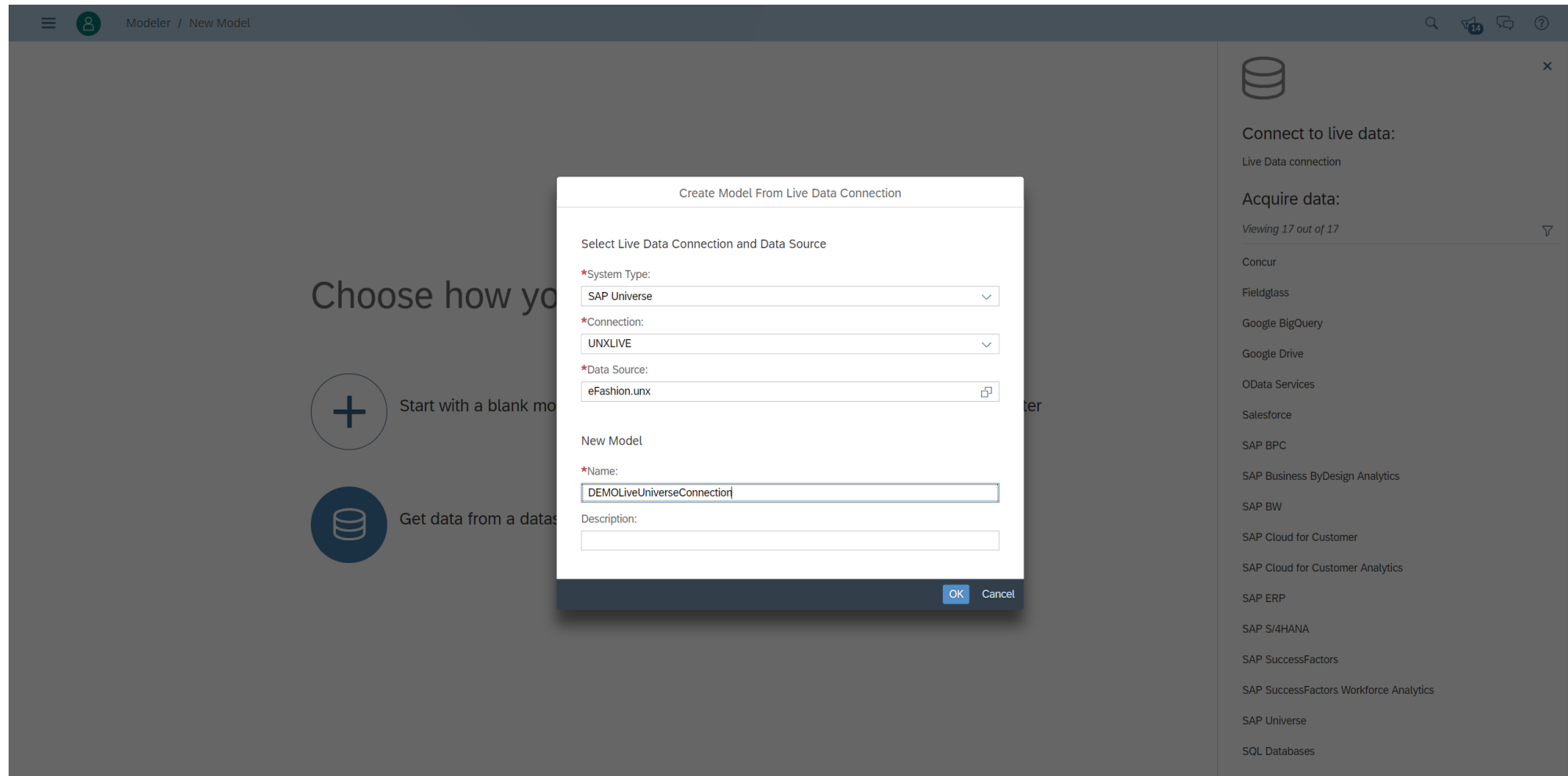
# SAP Analytics Cloud – Integration (5/20)

Workflow as of today



# SAP Analytics Cloud – Integration (6/20)

Workflow as of today



# SAP Analytics Cloud – Integration (7/20)

Workflow as of today

The screenshot displays the 'Build Live Universe Query' dialog in SAP Analytics Cloud. The interface is divided into three main sections:

- Available Data:** A list of data sources on the left, including 'Time period' (Year, Quarter, Month, Week, Holiday (y/n), Last year, This year, Christmas period, Holiday period) and 'Store' (State, City).
- Selected Data (13):** A list of selected data fields in the center, including Year, Quarter, Month, Week, State, City, Store name, Lines, Category, Sales revenue, Quantity sold, Margin, and Discount.
- Filters:** A section at the bottom for defining filters. It shows a filter for 'Which category?' and 'Year' set to 'Equal to' with values '2014;2015;2016'.

The background shows a 'Choose' dialog with a plus sign and a database icon, and a sidebar on the right with a list of data sources including Concur, Fieldglass, Google BigQuery, Google Drive, OData Services, Salesforce, SAP BPC, SAP Business ByDesign Analytics, SAP BW, SAP Cloud for Customer, SAP Cloud for Customer Analytics, SAP ERP, SAP S/4HANA, SAP SuccessFactors, SAP SuccessFactors Workforce Analytics, SAP Universe, and SQL Databases.



# SAP Analytics Cloud – Integration (8/20)

Workflow as of today

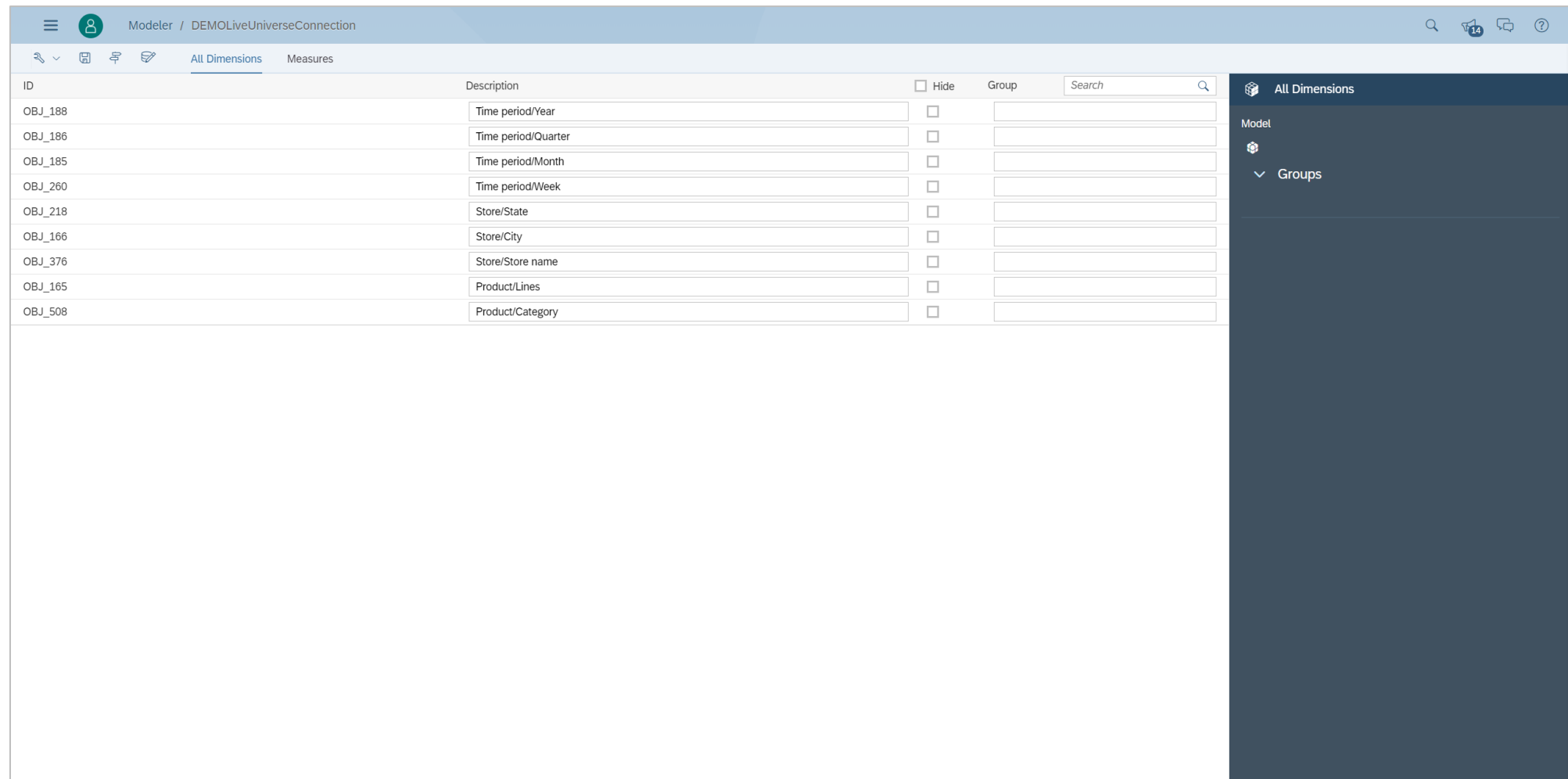
The screenshot displays the SAP Analytics Cloud interface. The top navigation bar shows the user 'Modeler' and the connection 'DEMOLiveUniverseConnection'. Below this, the 'Measures' tab is active, showing a table with the following data:

ID	Description	Aggregation T...	Decimal PL...
1 OBJ_146	Measures/Margin	SUM	2
2 OBJ_147	Measures/Sales revenue	SUM	2
3 OBJ_148	Measures/Quantity sold	SUM	2
4 OBJ_191	Measures/Discount	SUM	2

On the right side, the 'Selected Account' panel is visible, showing a 'Sample Value' of 272.32. The interface also includes a search bar and various icons for navigation and actions.

# SAP Analytics Cloud – Integration (9/20)

Workflow as of today



The screenshot displays the SAP Analytics Cloud interface. At the top, a header bar shows a menu icon, a user profile icon, and the text 'Modeler / DEMOLiveUniverseConnection'. To the right of the header are search, notification (14), and help icons. Below the header is a toolbar with icons for navigation and a tab bar with 'All Dimensions' (selected) and 'Measures'. The main area contains a table with the following data:

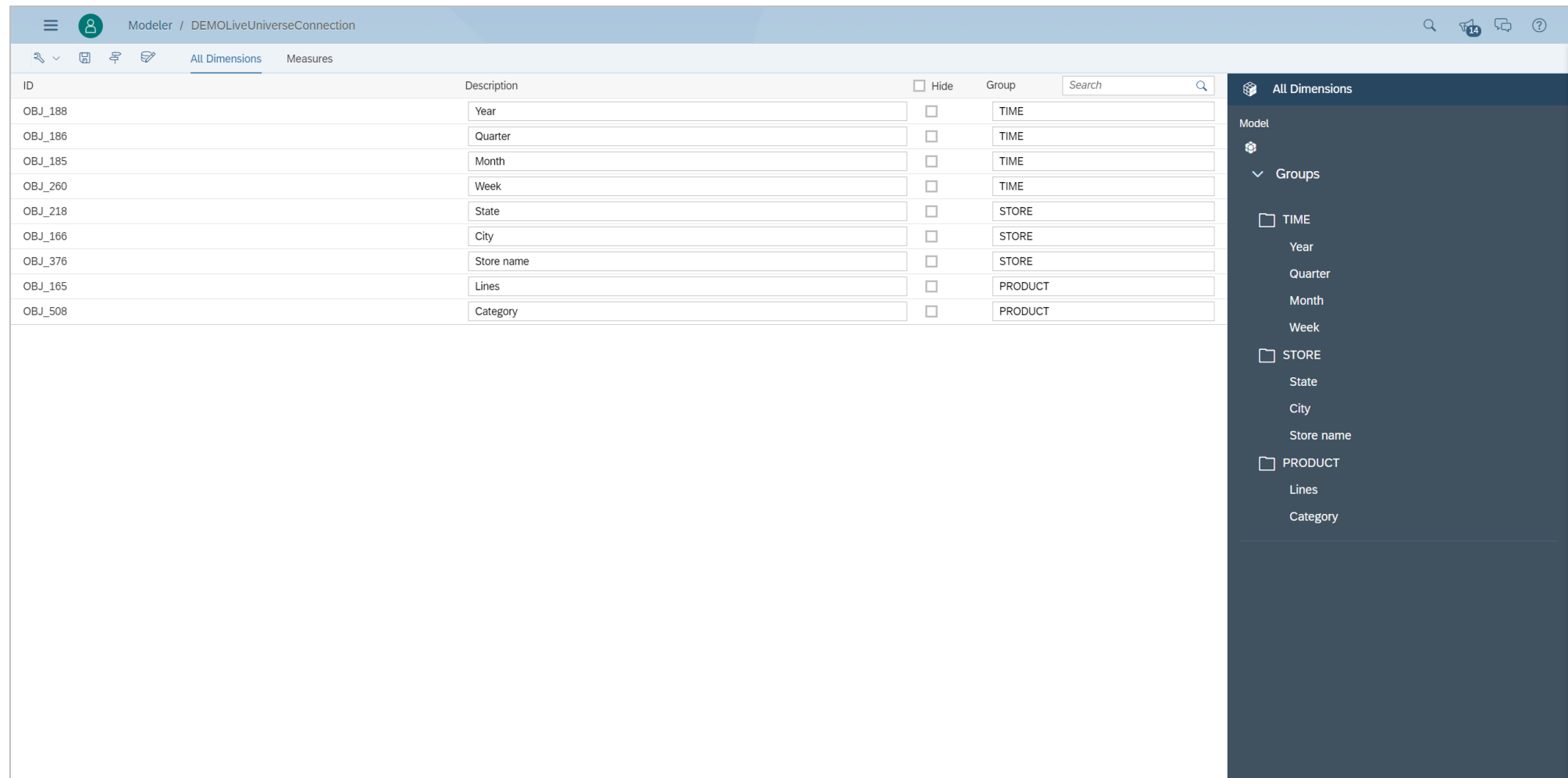
ID	Description	<input type="checkbox"/> Hide	Group	Search
OBJ_188	Time period/Year	<input type="checkbox"/>		
OBJ_186	Time period/Quarter	<input type="checkbox"/>		
OBJ_185	Time period/Month	<input type="checkbox"/>		
OBJ_260	Time period/Week	<input type="checkbox"/>		
OBJ_218	Store/State	<input type="checkbox"/>		
OBJ_166	Store/City	<input type="checkbox"/>		
OBJ_376	Store/Store name	<input type="checkbox"/>		
OBJ_165	Product/Lines	<input type="checkbox"/>		
OBJ_508	Product/Category	<input type="checkbox"/>		

On the right side, a dark sidebar contains the following elements:

- A cube icon followed by the text 'All Dimensions'.
- The word 'Model'.
- A gear icon.
- A dropdown arrow followed by the text 'Groups'.

# SAP Analytics Cloud – Integration (10/20)

Workflow as of today



The screenshot displays the SAP Analytics Cloud interface. The main area contains a table with dimensions, and the right sidebar shows a hierarchical tree view of the same dimensions.

ID	Description	<input type="checkbox"/> Hide	Group
OBJ_188	Year	<input type="checkbox"/>	TIME
OBJ_186	Quarter	<input type="checkbox"/>	TIME
OBJ_185	Month	<input type="checkbox"/>	TIME
OBJ_260	Week	<input type="checkbox"/>	TIME
OBJ_218	State	<input type="checkbox"/>	STORE
OBJ_166	City	<input type="checkbox"/>	STORE
OBJ_376	Store name	<input type="checkbox"/>	STORE
OBJ_165	Lines	<input type="checkbox"/>	PRODUCT
OBJ_508	Category	<input type="checkbox"/>	PRODUCT

The right sidebar, titled "All Dimensions", shows a hierarchical tree view of the dimensions:

- Model
  - Groups
    - TIME
      - Year
      - Quarter
      - Month
      - Week
    - STORE
      - State
      - City
      - Store name
    - PRODUCT
      - Lines
      - Category

# SAP Analytics Cloud – Integration (11/20)

Workflow as of today

The screenshot displays the SAP Analytics Cloud interface. The top navigation bar shows the user profile and the current project name 'DEMO Live Universe Connection'. The main workspace is divided into three sections: a left sidebar, a central table, and a right sidebar.

**Left Sidebar:** Contains a list of navigation options: Home, Create, Browse, Calendar, Security, Deployment, Connection, and System. The 'Create' option is expanded, showing a sub-menu with 'Story', 'Digital Boardroom', 'Model', 'Process', 'Dimension', 'Currency', and 'Point of Interest'.

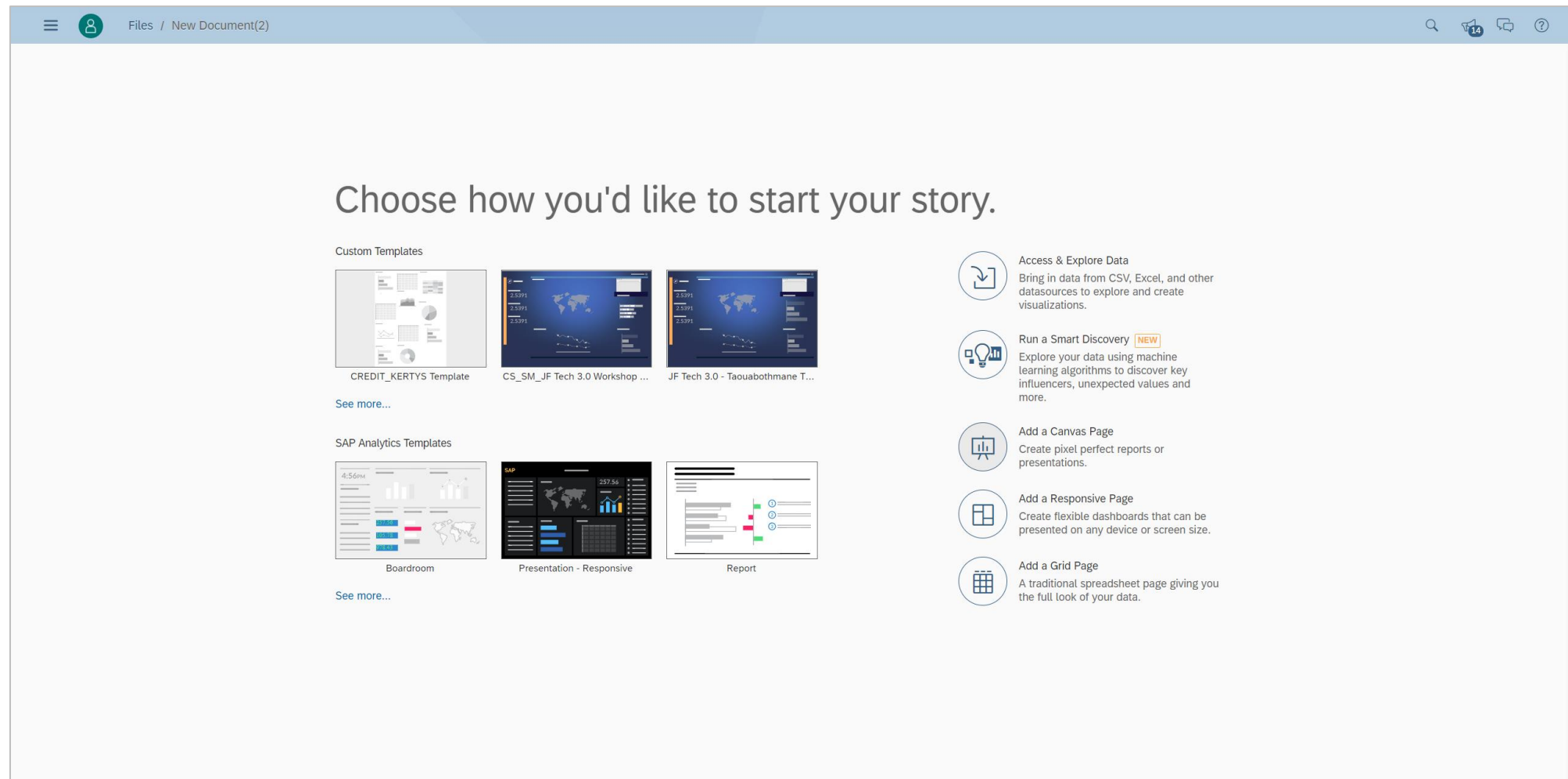
**Central Table:** Displays a list of dimensions under the 'All Dimensions' tab. The table has columns for 'Description', 'Hide', and 'Group'. The dimensions listed are:

Description	Hide	Group
Year	<input type="checkbox"/>	TIME
Quarter	<input type="checkbox"/>	TIME
Month	<input type="checkbox"/>	TIME
Week	<input type="checkbox"/>	TIME
State	<input type="checkbox"/>	STORE
City	<input type="checkbox"/>	STORE
Store name	<input type="checkbox"/>	STORE
Lines	<input type="checkbox"/>	PRODUCT
Category	<input type="checkbox"/>	PRODUCT

**Right Sidebar:** Contains a 'Model' section with a 'Groups' dropdown. The groups listed are 'TIME', 'STORE', and 'PRODUCT'. The 'TIME' group is expanded, showing its members: Year, Quarter, Month, and Week. The 'STORE' group shows State, City, and Store name. The 'PRODUCT' group shows Lines and Category.

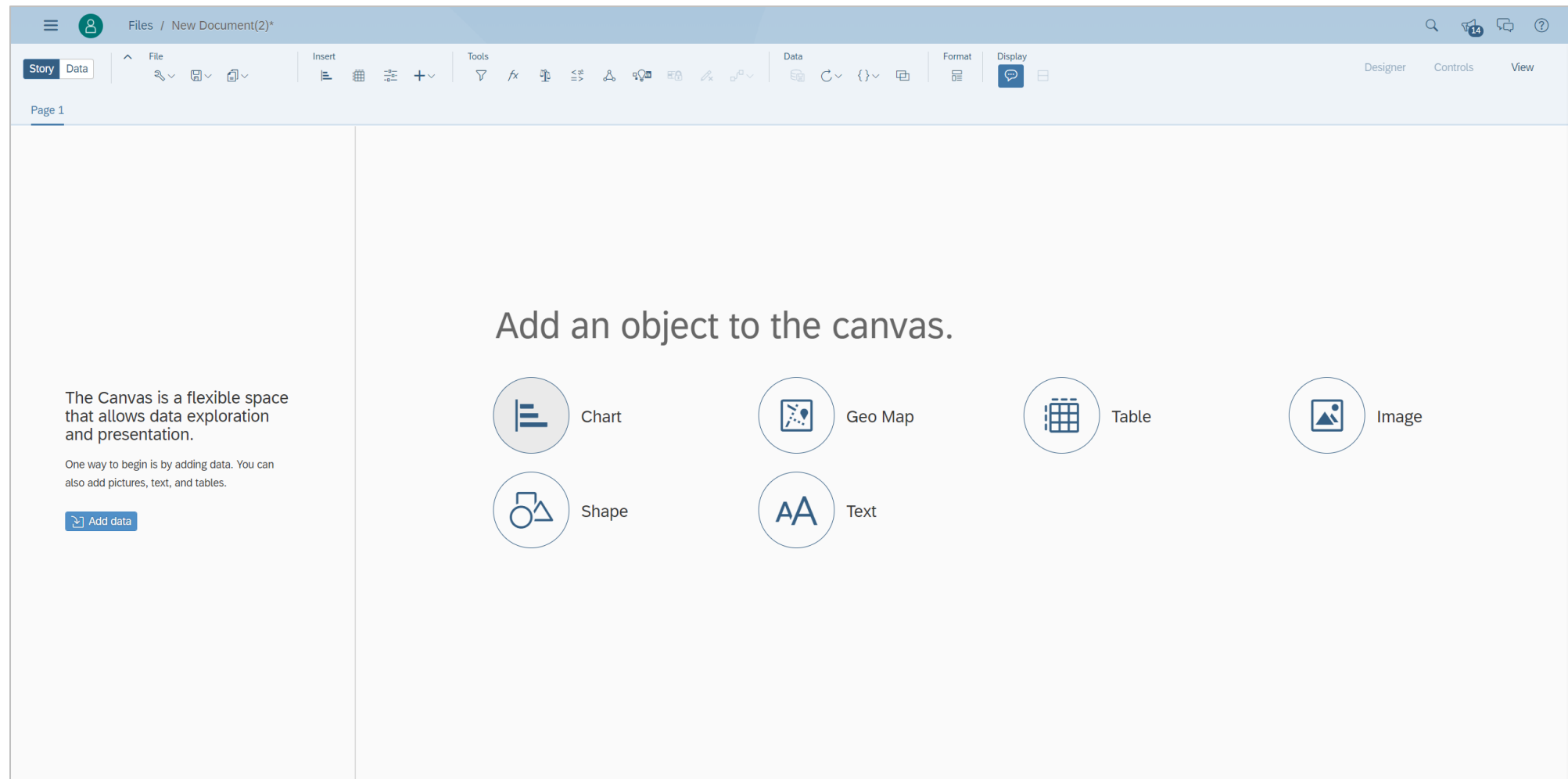
# SAP Analytics Cloud – Integration (12/20)

Workflow as of today



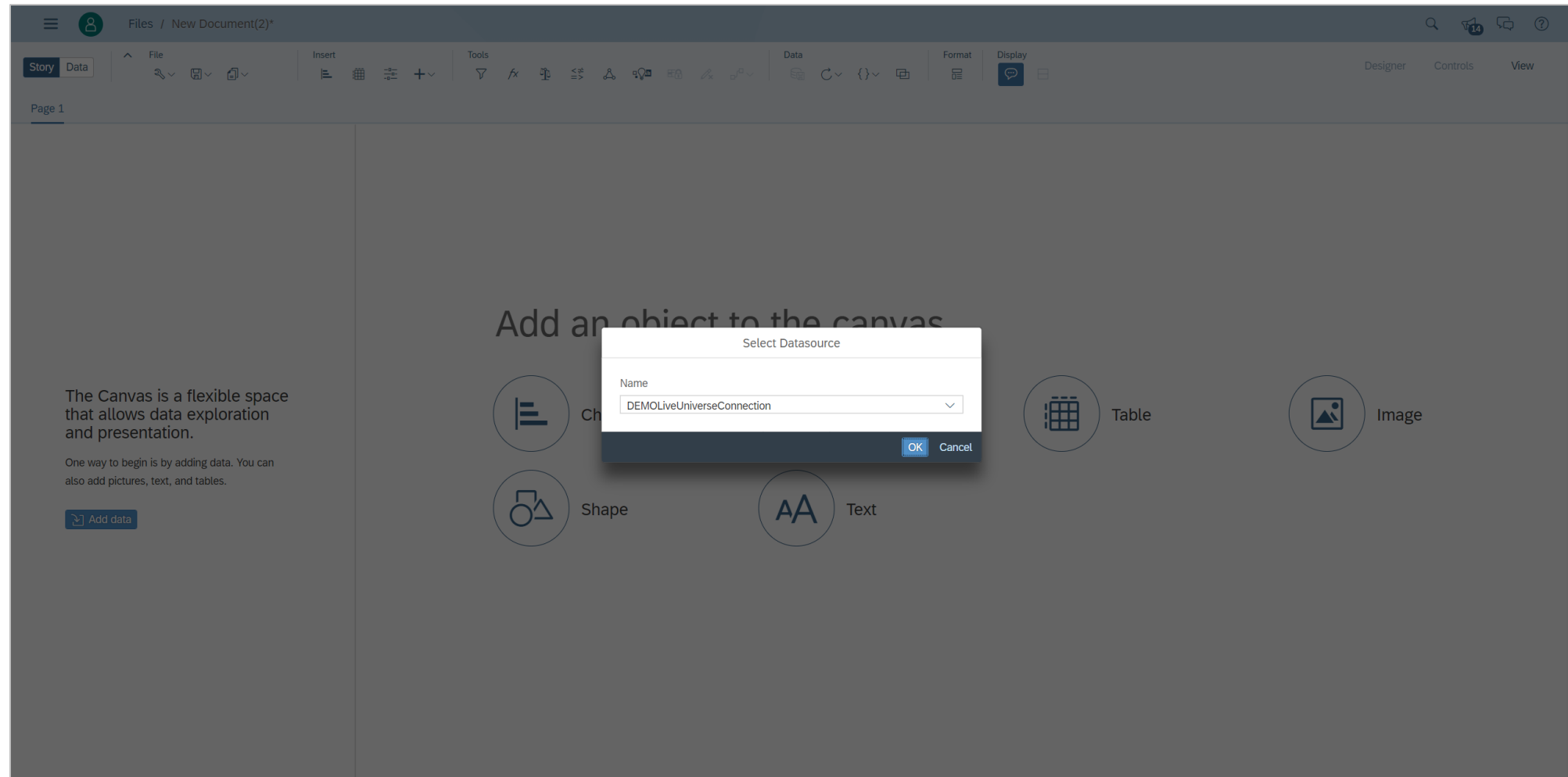
# SAP Analytics Cloud – Integration (13/20)

Workflow as of today



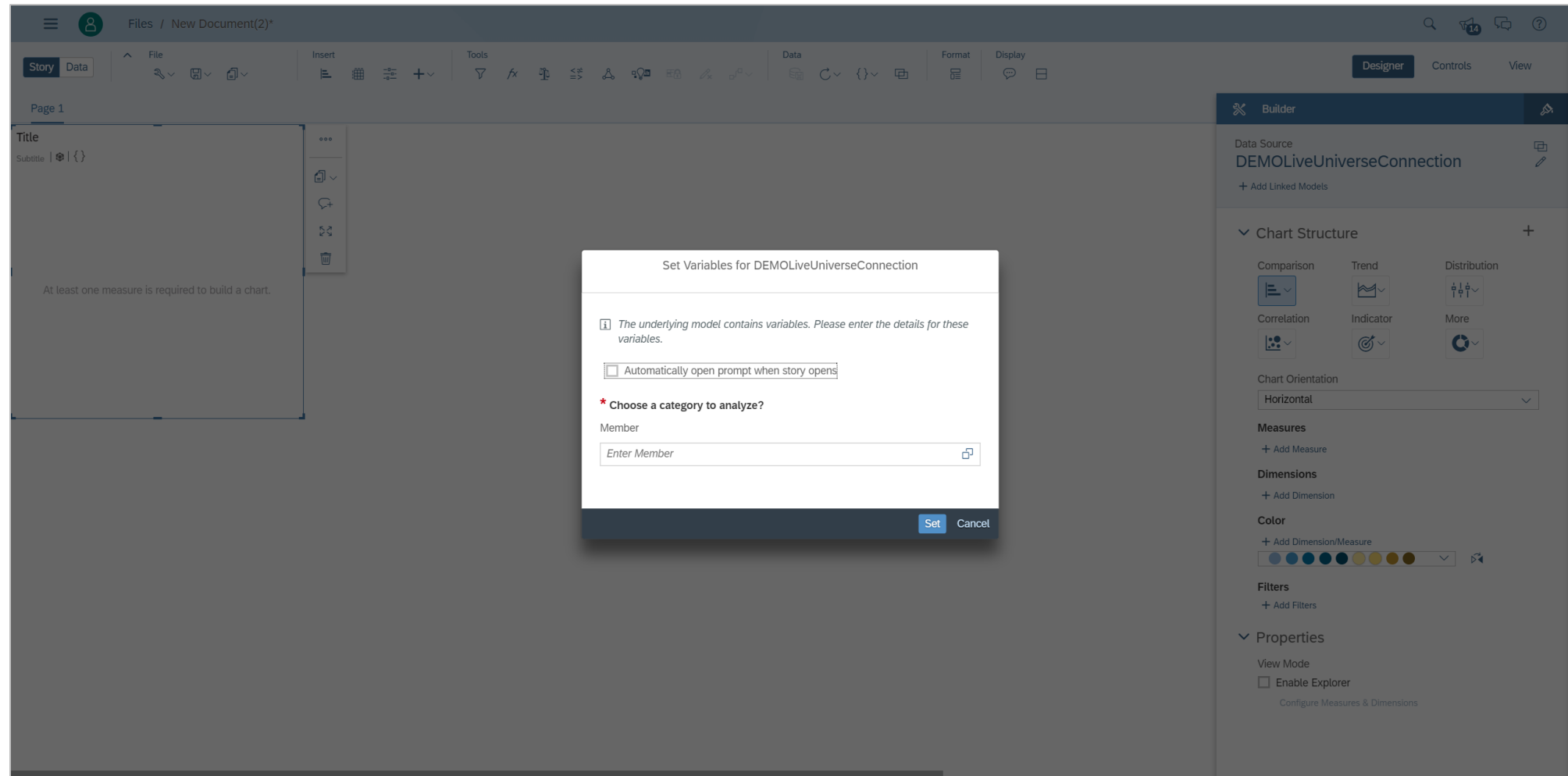
# SAP Analytics Cloud – Integration (14/20)

Workflow as of today



# SAP Analytics Cloud – Integration (15/20)

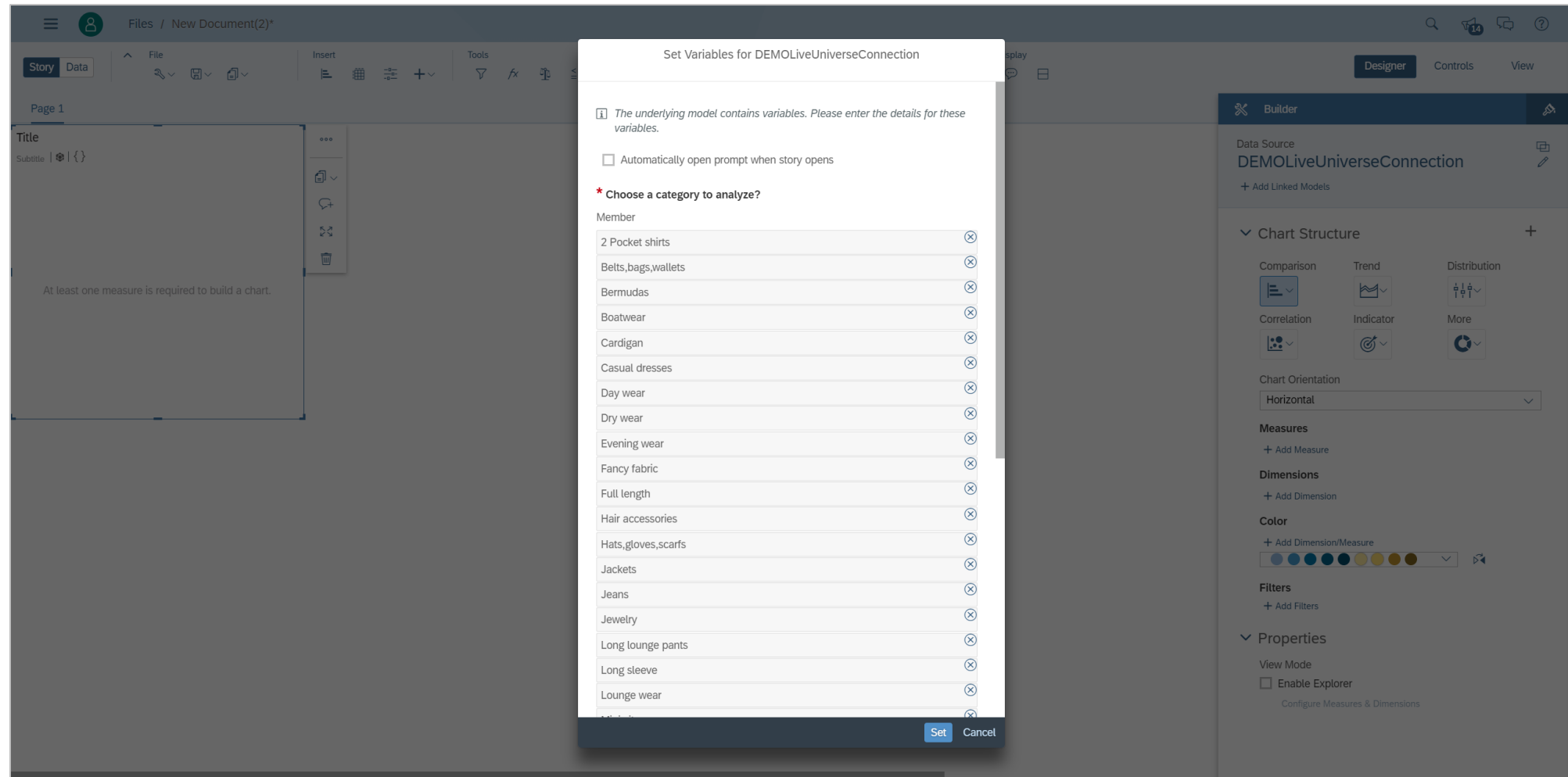
Workflow as of today





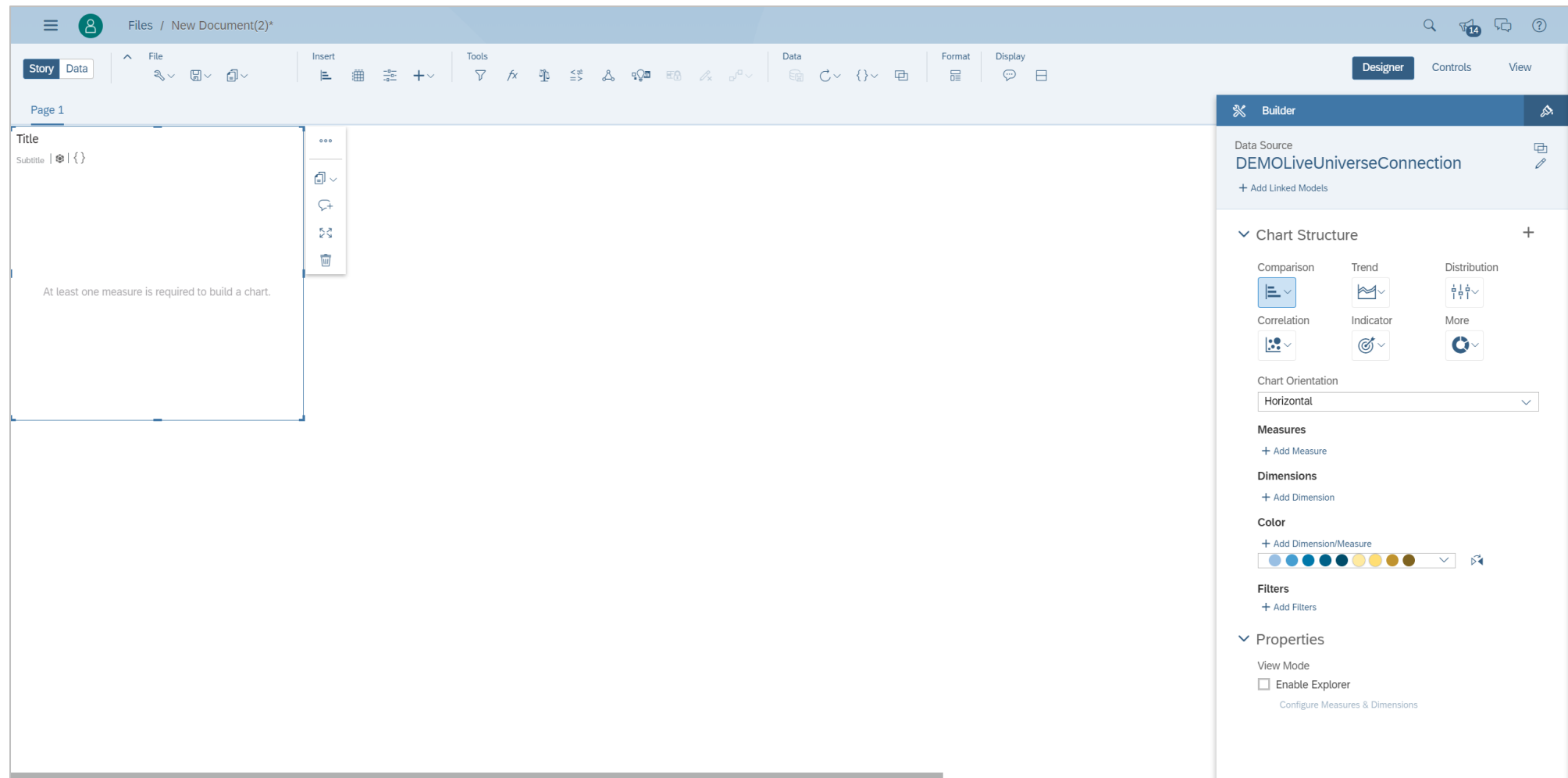
# SAP Analytics Cloud – Integration (16/20)

Workflow as of today



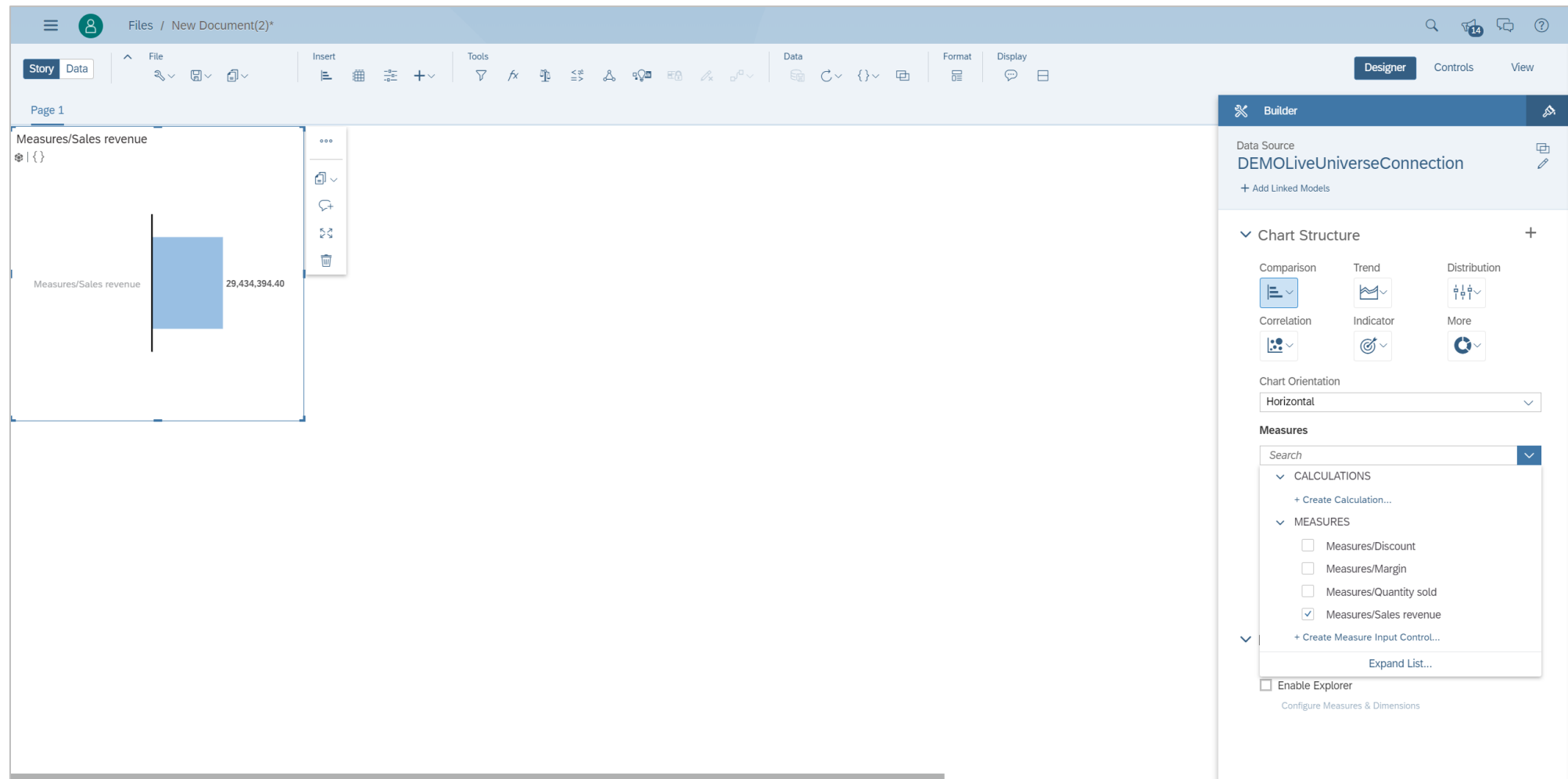
# SAP Analytics Cloud – Integration (17/20)

Workflow as of today



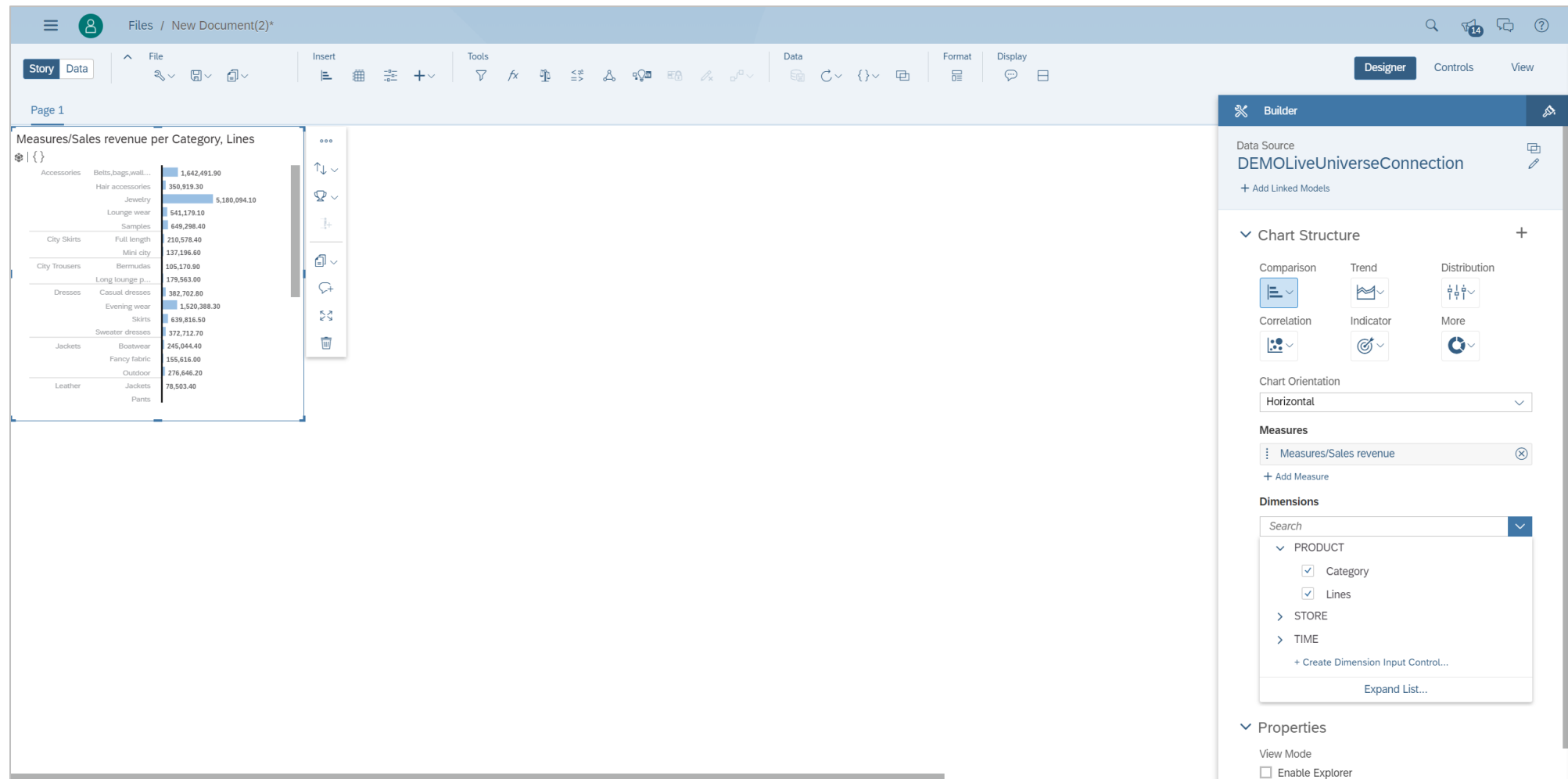
# SAP Analytics Cloud – Integration (18/20)

Workflow as of today



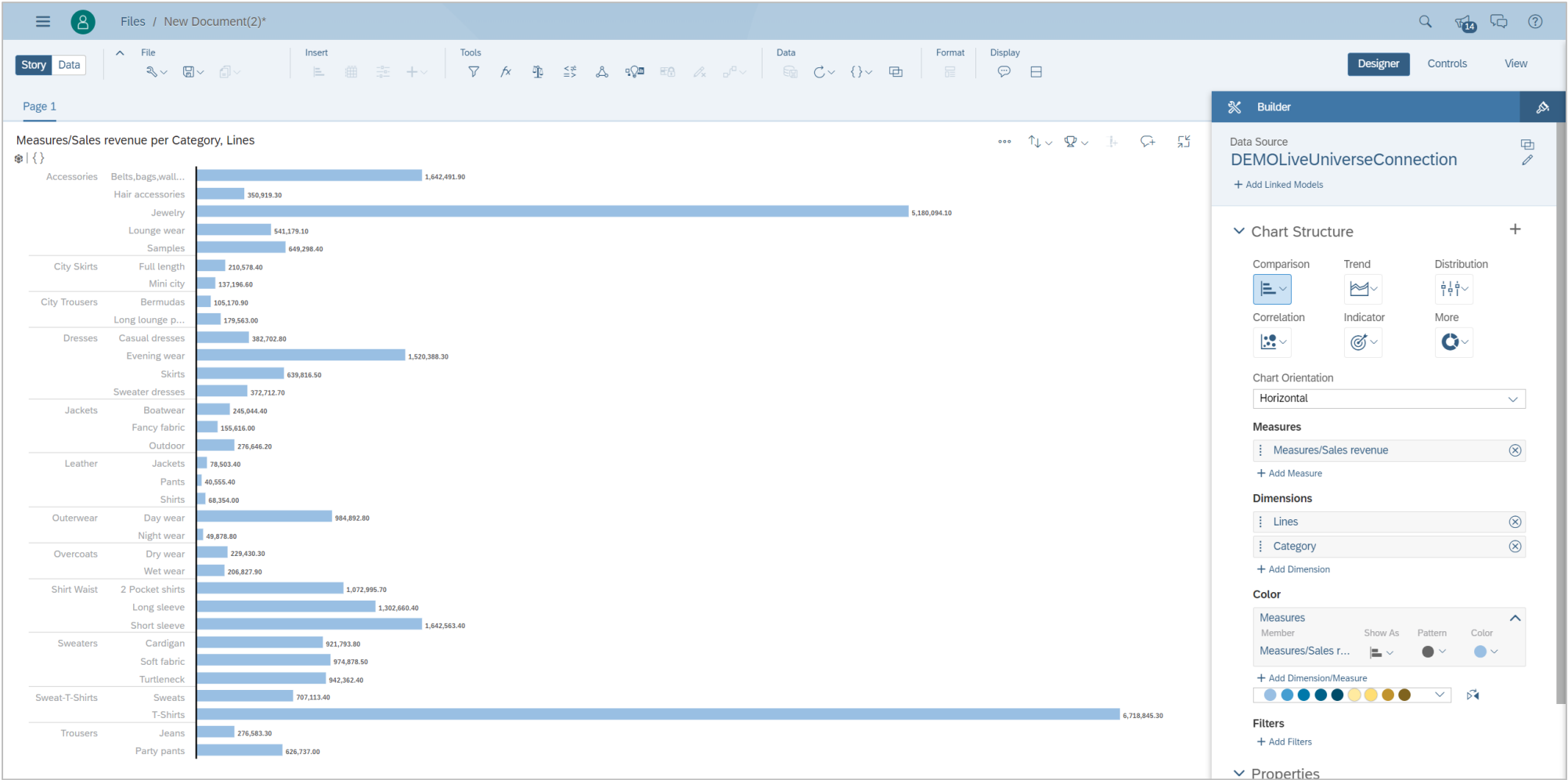
# SAP Analytics Cloud – Integration (19/20)

Workflow as of today



# SAP Analytics Cloud – Integration (20/20)

## Workflow as of today



# SAP Analytics Cloud – Live data connect for universes

## Limitations in version 3.0

### Models

- Model enrichment is not supported. Models are read-only, except for:
- Change data source
- Dimension setting, hide group
- Member reordering not supported
- Unbooked values and drill-level for measures not supported
- KPI definition not supported
- Planning features not supported

### Tables and charts

- Hierarchies and drill are not supported.
- Geomaps are not supported.
- Variance is not supported.
- Linked analysis is not supported.
- Asymmetric and cross calculations are not supported.
- Difference from is not supported.
- Calculated dimensions are not supported.
- Measure based filters are not supported.

### BOE universe features

- Delegated measures are not supported.
- The full list of BOE universe features supported can be found in the “SAP BusinessObjects Live Data Connect Installation and Security Guide.”

### Planning

- No planning features are supported (data entry, disaggregation, allocations, and so on).

### Predictive

- Smart insights not supported
- Smart discovery not supported
- Smart predict is not supported

### Other

- The default language cannot be set when you create a connection.

# SAP Analytics Cloud and live universe connection

## Important information

[Official documentation for LUC](#)

[Universe consumption best practices Wiki](#)

[Universe consumption process flow](#)

[Universe support matrix](#)

- [SAP Analytics Cloud – Wave and live universe connector support matrix](#)
- [General support for universes](#)
- [Query as a data source support features](#)
- [Relational universe features](#)

# More information



## Related SAP TechEd sessions

- ANA361 – Integrating SAP Analytics Cloud and SAP Data Warehouse Cloud (Workshop)
- ANA832 – Roadmap: Strategy of SAP Analytics Cloud
- ST111 – Realizing the Data Superpower (Strategy Talk)
- ANA108 – SAP Data Warehouse Cloud: Overview

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## Public SAP Web sites

- SAP Community: [www.sap.com/community](https://www.sap.com/community)
- SAP products: [www.sap.com/products](https://www.sap.com/products)



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# Thanks for attending this session.

## Contact for further topic inquiries

Ingo Hilgefort  
Global Product Evangelist  
[Ingo.Hilgefort@sap.com](mailto:Ingo.Hilgefort@sap.com)

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