



# SCB BI Upgrade Workshop

November 2017

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# Agenda

1. Introductions
2. SAP BusinessObjects Maintenance Strategy
3. Overview of the New SAP BI Portfolio
4. Introducing BI 4.2
5. Roadmap & Future Direction
6. Intro to Lumira 2.0
7. Q&A

# Legal disclaimer

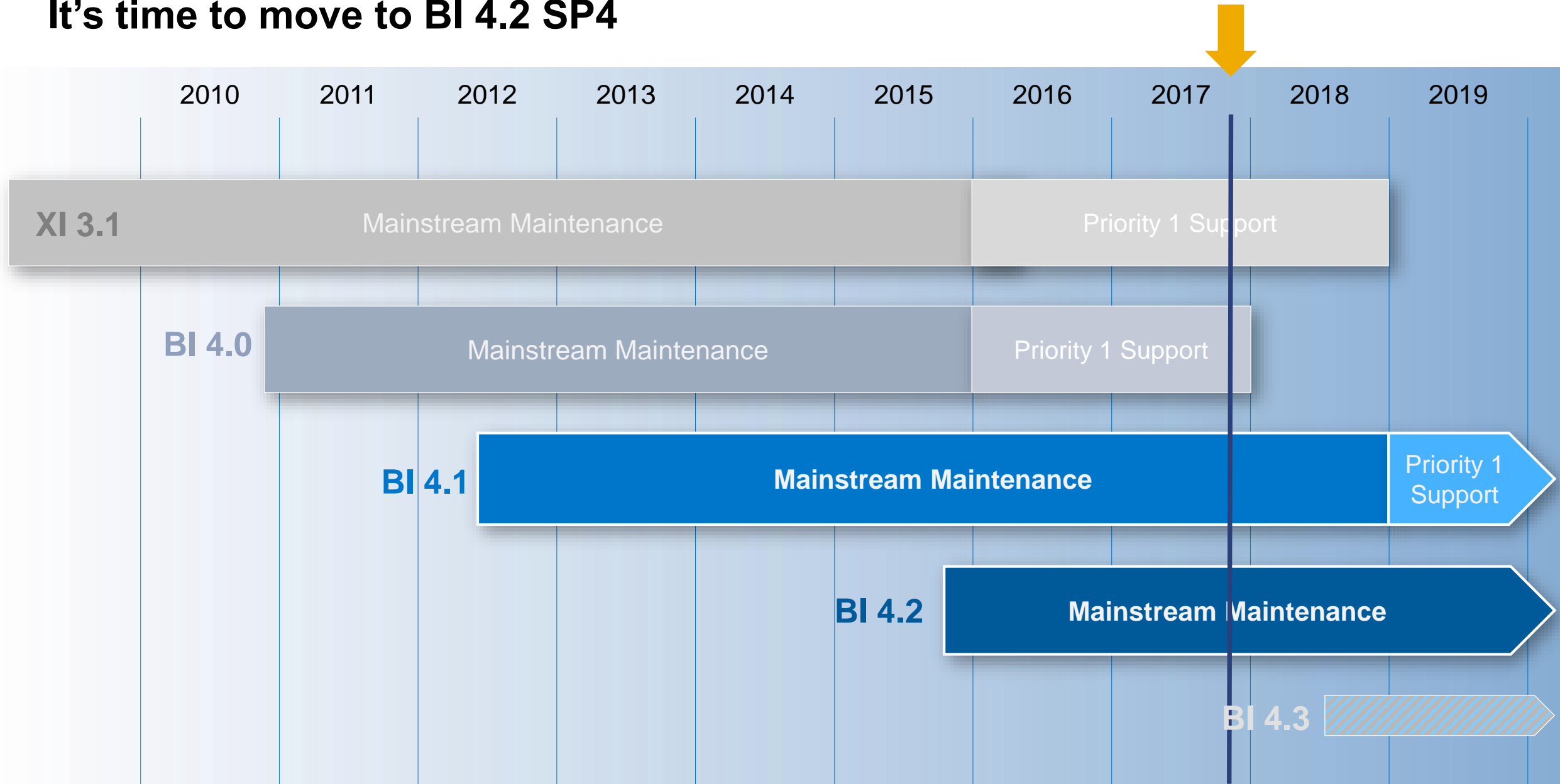
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# SAP BusinessObjects Maintenance Strategy

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# It's time to move to BI 4.2 SP4



# Overview of the New SAP BI Portfolio

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# BI Platform

## Professional Grade



Mobile Devices



Browsers



On Demand  
Services



Embedded  
Content



MS Office



Enterprise  
Portals

Self-Service & Visualization

Advanced Dashboarding

Reporting

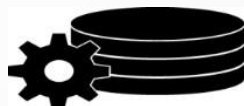
Business Intelligence Platform

Universe Semantic Layer



ERP

SAP Business Suite  
Oracle E-Business Suite  
PeopleSoft, JD Edwards



EDW

SAP NetWeaver BW  
TeraData  
Other data warehouses



Oracle, IBM DB2, Microsoft  
SQL Server and other  
relational data sources



SAP HANA platform



MS Excel

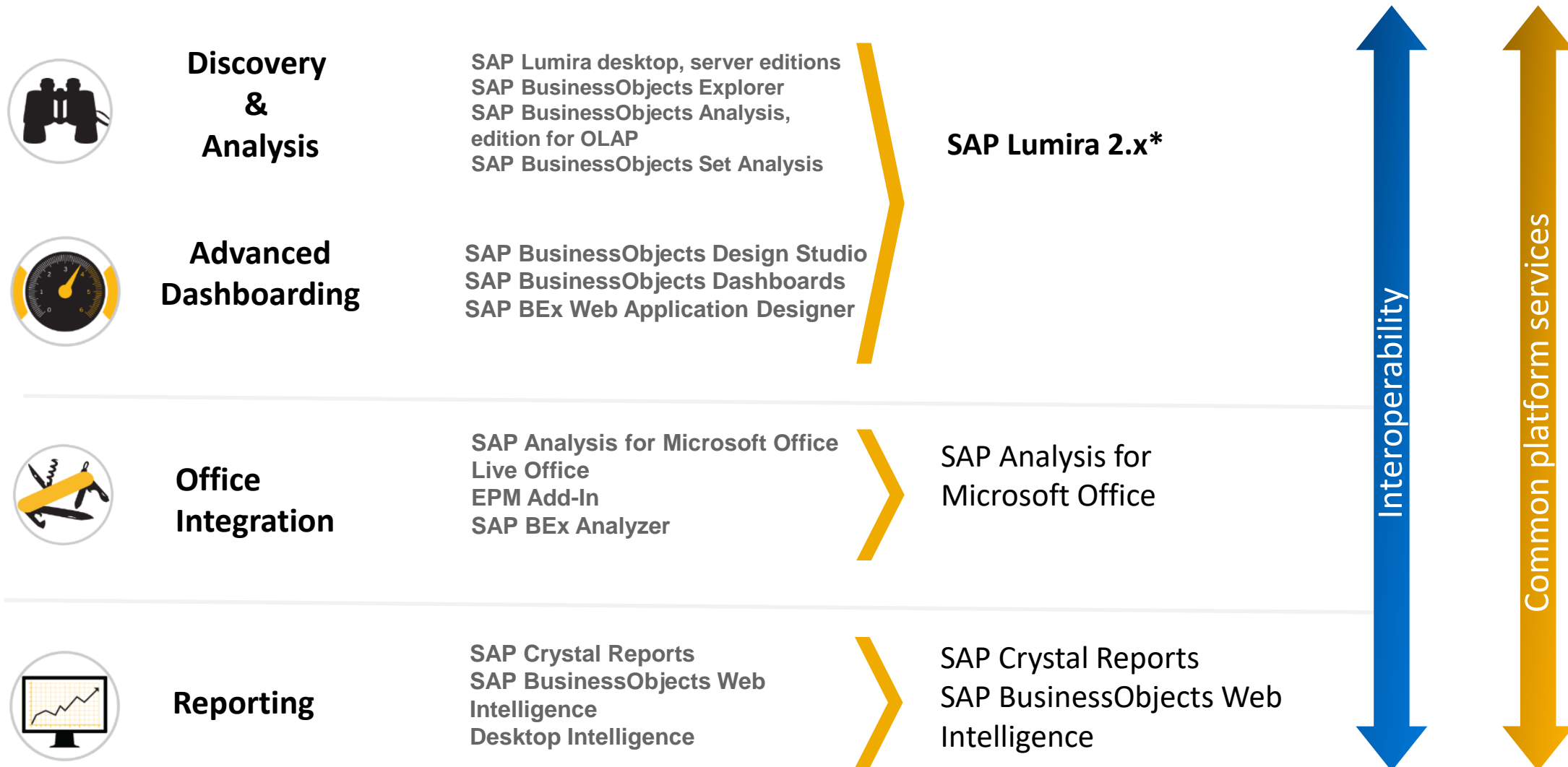


Unstructured data  
in Social Media and  
Hadoop



Essbase  
Microsoft AS  
Oracle OLAP

# Planned Simplification of the SAP BI Client Portfolio



\* One Server Add-On for SAP Lumira



# Convergence Progress

Planned as of H2 2017

SAP BusinessObjects Lumira  
SAP BusinessObjects Explorer  
SAP BusinessObjects Analysis for OLAP  
SAP BusinessObjects Design Studio  
SAP BEx Web Application Designer  
SAP BusinessObjects Dashboards

## Lumira 2.x



**Data Discovery  
& Applications**

SAP BusinessObjects Analysis Office  
Live Office  
EPM Add-In  
SAP BEx Analyzer

## Analysis Office



**Office Integration**

SAP Crystal Reports  
SAP BusinessObjects Web Intelligence  
SAP BusinessObjects Set Analysis  
Desktop Intelligence

## Crystal Reports Web Intelligence



**Reporting**

Interoperability

- ✓ Retain simple, business user focused desktop tool & IT focused enterprise dashboard tool
- ✓ Promote business user visualizations to enterprise dashboards
- ✓ Changing requirements doesn't need a tool switch
- ✓ Support for offline applications in designer

- ✓ Combined server side add-on reduces IT administration cost
- ✓ Improved ease of use & adoption with single canvas for both visualization and storyboard authoring.
- ✓ Align with S/4 UI standard

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

# BI Client Portfolio

## Planned for 2017

### Office Integration

#### SAP Analysis for Microsoft Office

- For Financial Analysts and other business users
- Microsoft Office add-in enables financial professionals and other business users to rapidly access, visualize, and analyze hierarchical data within Excel and PowerPoint.

### Data Discovery & Applications

Discover, Analyze and Share

#### SAP Lumira 2.0

- For Business Analysts, power users, and IT professionals
- Mashup relational data, rapidly create visualizations and build simple storyboards
- Add scripting and dynamic actions to simple storyboards
- Create sophisticated, dynamic analytic applications like planning front ends.
- Use the included templates to rapidly deploy self service analytics

### Reporting

Distribute Formatted Information

#### SAP BusinessObjects Web Intelligence

#### SAP Crystal Reports

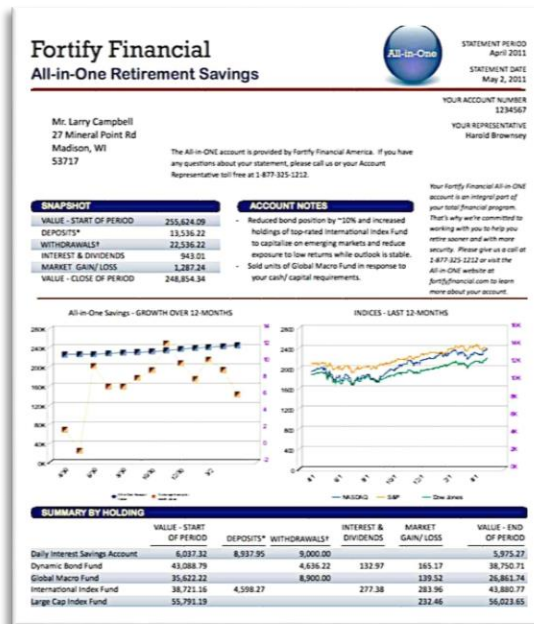
- Securely distribute information across your organization
- Answer new questions with predefined interactive reports
- Publish high volumes of personalized reports via email

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

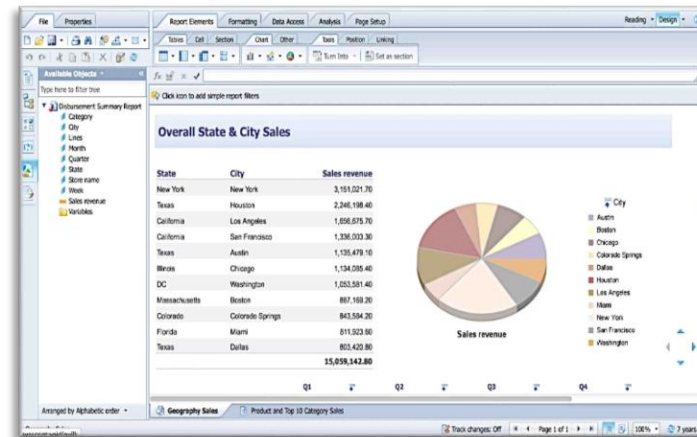
# Operational Reporting

Power Users designing pixel-perfect reports for mass consumption

## Crystal Reports

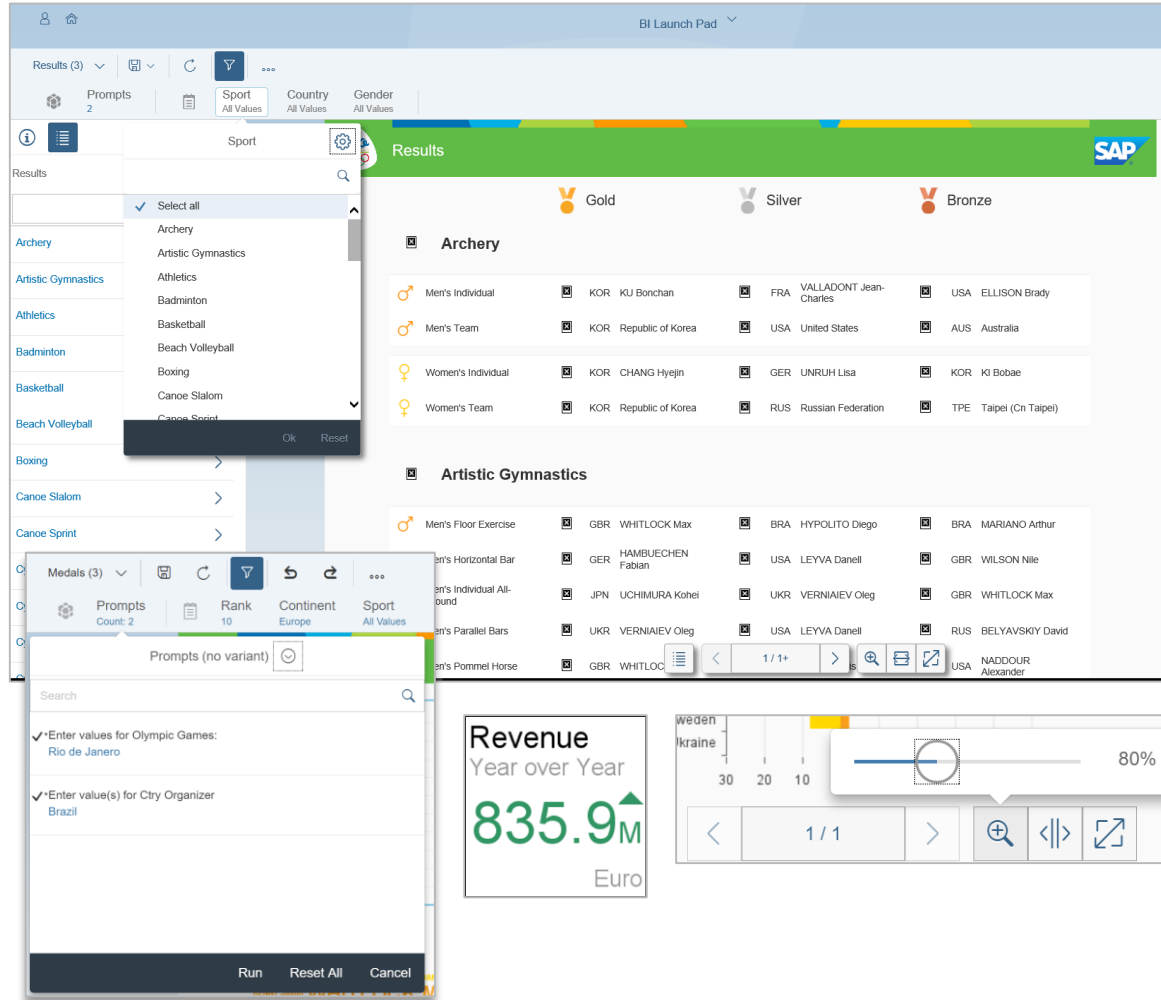


## Web Intelligence



- Operational or regulatory reporting
- Build Reporting Books with a few clicks
- Drill down, slice & dice, sort, and filter
- Massive report bursting & distribution
- Embed dynamic text within written summaries
- Ideal for statements, invoices, purchase orders, and printable documents

# Why Web Intelligence?



- Live connectivity to SAP sources: SAP HANA, SAP BW, SAP Universes
- Save charts and tables as shared elements for re-use
- Create prompts before report execution to speed query time
- Run parallel queries to improve report performance
- Commentary panel for collaboration
- Freehand SQL scripts
- Pixel-perfect reports with highly formatted tables & crosstabs
- Enhanced charting library with gauges, KPI tiles, waterfall charts, and geomaps
- New interactive viewer for a great consumption experience

## Web1 in Action:

[illegible]

### Cluster Variance Summary Full Year Projections

**DAGJ** - The projected overpend (excluding Cluster Grants) of \$14.6M is due to Corrective Services \$11.0M and Attorney General's \$5.3M. This is offset by an underpend in Juvenile Justice of \$1.4M. Including Cluster Grants the projected Net Cost of Service is \$1.3M over budget.

**Attorney General** - \$5.1M overpend is mainly due to an under collection of revenue \$4.1M, consisting of Sale of Goods & Services \$4.4M under budget. Total Expenditure is an budget but over expenditure of \$15M including Contractors \$4.6M are largely offset by Crown Accepted Liability underpend.

**Corrective Services** - Employee related forecast \$10.5M over budget due to increase in inmate numbers, associated operating costs increase include \$3M for inmate catering. Savings in Other Operating Expenditure largely offset these increases, including vehicle leasing, domestic travel and \$1M in reduced management fees for Parklea Correctional Facility.

**Juvenile Justice** - Projected underpend of \$1.4M (excluding the \$1.4M Treasury error). Main underpend is \$1.8M for Child Support expenditure. Treasury have made a verbal agreement to replenish \$1.4M in 2013/14 and have adjusted the allocation letter for forward estimate in September.

**Ministry of Police & Emergency Services** - The \$13.1M projection is due to Treasury approving the agency to utilize revenue from the Commonwealth that was not used in 2012/13 and not carried forward therefore reducing the amount of recurrent grant from the Principal Department in 2013/14. This is detailed in the Allocation July letter.

**Rural Fire Service** - Projected underpend of \$20M. Total Expenditure projected at \$60M over budget offset by \$30M grants for Natural Disaster relief. The underpend is related to Fire Fighting Equipment capital grant \$16.4M and Mitigation works \$2.4M.

Overpend in Employee related expenditure of \$4M has been approved by a Treasury adjustment to the labour expenditure cap in 2013/14 and 2014/15.

NCS and Expenditure / Revenue Overview (downloaded at 13:29:26 14/01/2014)

Government Agency

### Group NCOS Summary at December 2013

### Net Cost of Services (NCOS)

FY Projection Variance (Over) Spend \$000

**\$939**

FY Projection Variance to Budget %: 0.02%

YTD Actual Variance to Budget %: 1.06%

Under Budget

YTD Actual Variance (Over) Spend \$000: **\$29,623** Under Budget

Employee Related (ERE) v Labour Cap	Other Operating Expenses (excl. ERE)	Revenue
FY Projection Variance (Over) Spend \$000	FY Projection Variance (Over) Spend \$000	FY Projection Variance (Under) Budget
 <b>\$7,134</b> Over Budget	 <b>\$21,915</b> Over Budget	<b>\$31,122</b> Over Budget
YTD Actual Variance (Over) Spend \$000: (\$802)	YTD Actual Variance (Over) Spend \$000: \$25,661	YTD Actual Variance (Under) Budget: (\$5,133)

### NCOS Variance Breakdown by Agency

Agency		FY Var \$000	FY Var %	YTD Var \$000	YTD Var %
Agency A		\$0	0.00%	(\$50)	5.40%
Agency B		\$0	0.00%	\$81	(83.45)%
Agency C	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	\$1,754	0.08%
Agency D	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	\$718	1.24%
Agency E	<div><div></div></div>	\$7	0.13%	\$28	1.03%
Agency F	<div><div></div></div>	\$0	0.08%	\$1,625	(30.02)%
Agency G		\$0	0.00%	\$27,334	38.40%
Agency H	<div><div></div></div>	\$502	293.65%	\$1,067	(82.38)%
Agency I	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	(\$4,679)	(287.96)%
Agency J		\$0	0.00%	(\$305)	0.72%
Agency K	<div><div></div></div>	\$7,143	16.65%	(\$3,708)	(1,480.28)%
Agency L		\$0	0.00%	\$1,307	21.61%

## Cluster Variance Summary Full Year Projection

The projected overspend of \$4.7M in Agency I is mainly due to Division 123 forecast being \$3.5M over budget due to increased operating costs, and Division 456 \$0.8M over budget due to increase in number of XYZ, unfunded AAA costs and additional costs in Division 500 and Division 465.

## Cluster Variance Summary Year to Date

Agency G is reporting YTD position against the phased budget of \$23M under budget. This is largely made up of \$12M for Program 123 which is yet to be expended. Other variances of XYZ \$1.7M under budget and Revenue \$3.4M over budget.

Agency K is reporting YTD NCS over budget by \$3.7, this is largely due to the timing of insurance industry revenue which is behind the phased budget.

Source : Source System

Run By: Administrator

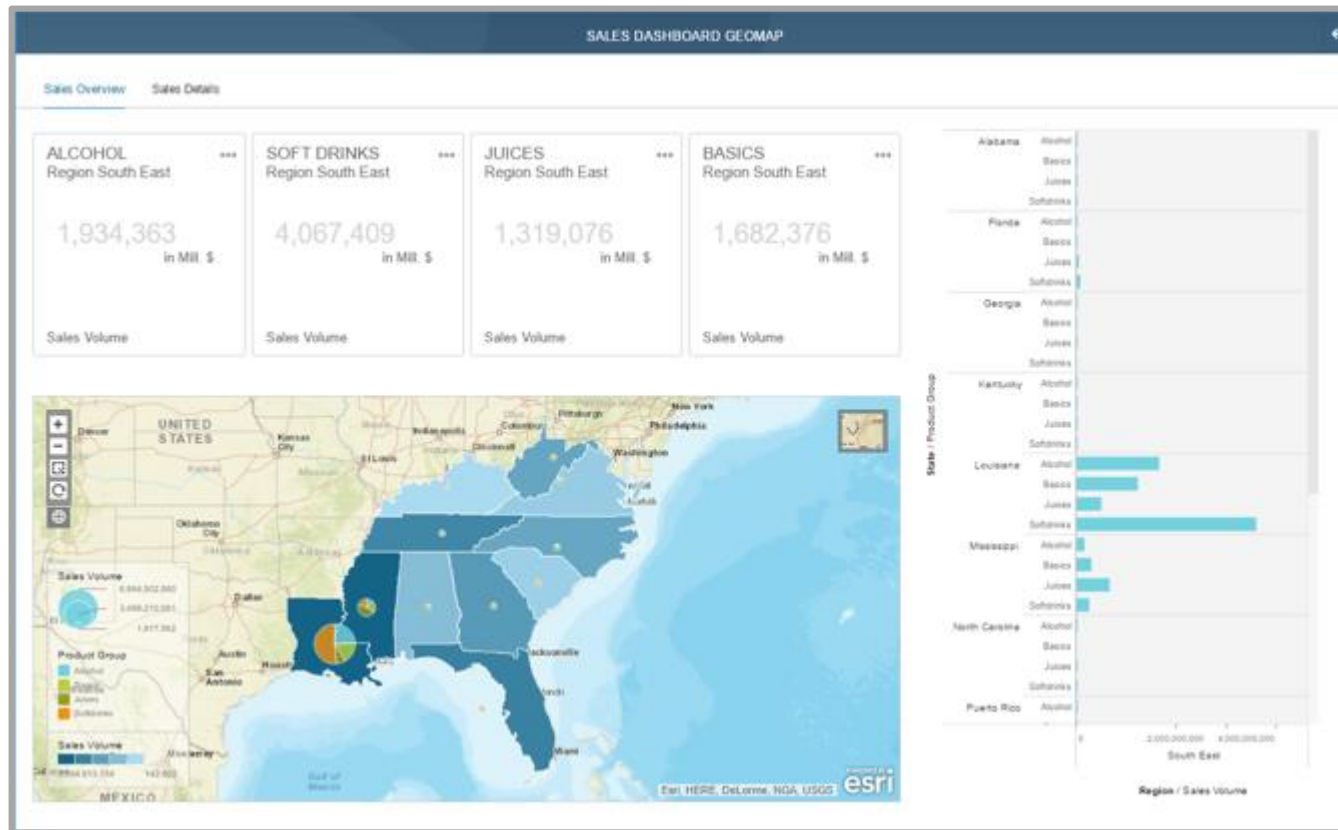
Classification: Confidential

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# Advanced Dashboarding:

Power Users designing dynamic dashboards with guided workflows for all to consume

## SAP Lumira 2.x, Designer



- Freedom to design beautiful analytical applications with low-level JavaScript
- Customize with CSS
- Highly performant on SAP BW & SAP HANA. Also use UNX universes as a data source
- Templates ready out-of-the-box for rapid deployment
- Granular features such as microcharts and conditional formatting within crosstabs
- Save report elements as composites for reusability
- Create bookmarks for multiple pre-filtered views within one application

# Self-Service

*“90% of Analytics is getting the data. At best, #dataviz is icing on the cake”*

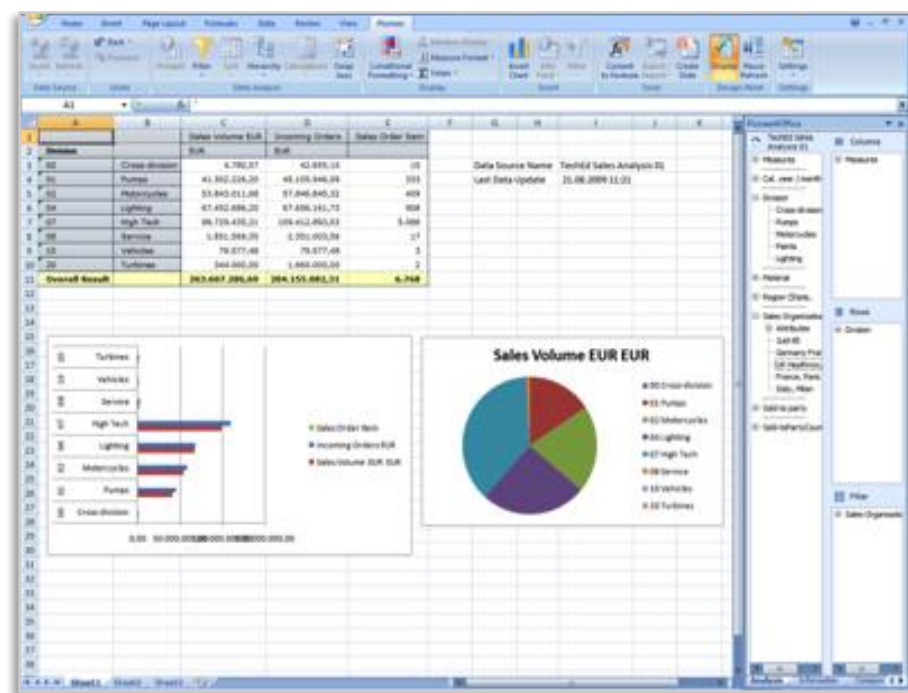
*- Timo Elliot*



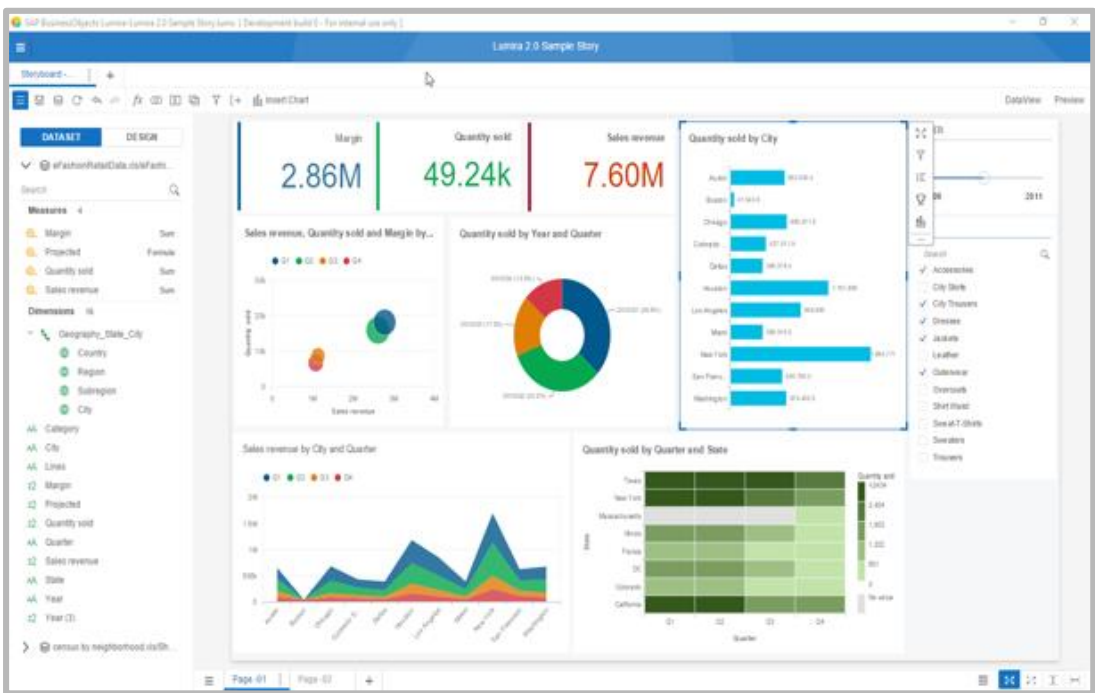
# Self-Service

Users connect to data sources directly to create their own visualizations and analysis

## Analysis for Office

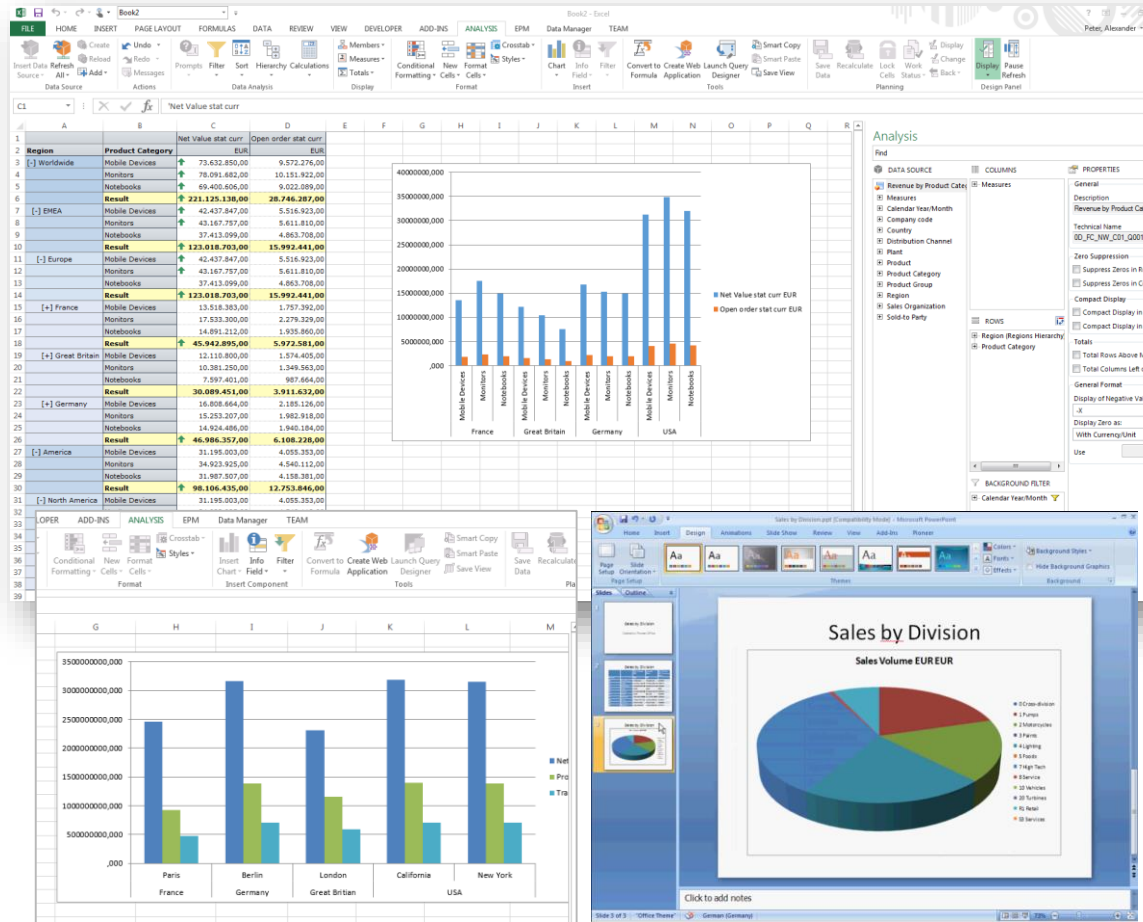


## SAP Lumira 2.x, Discovery



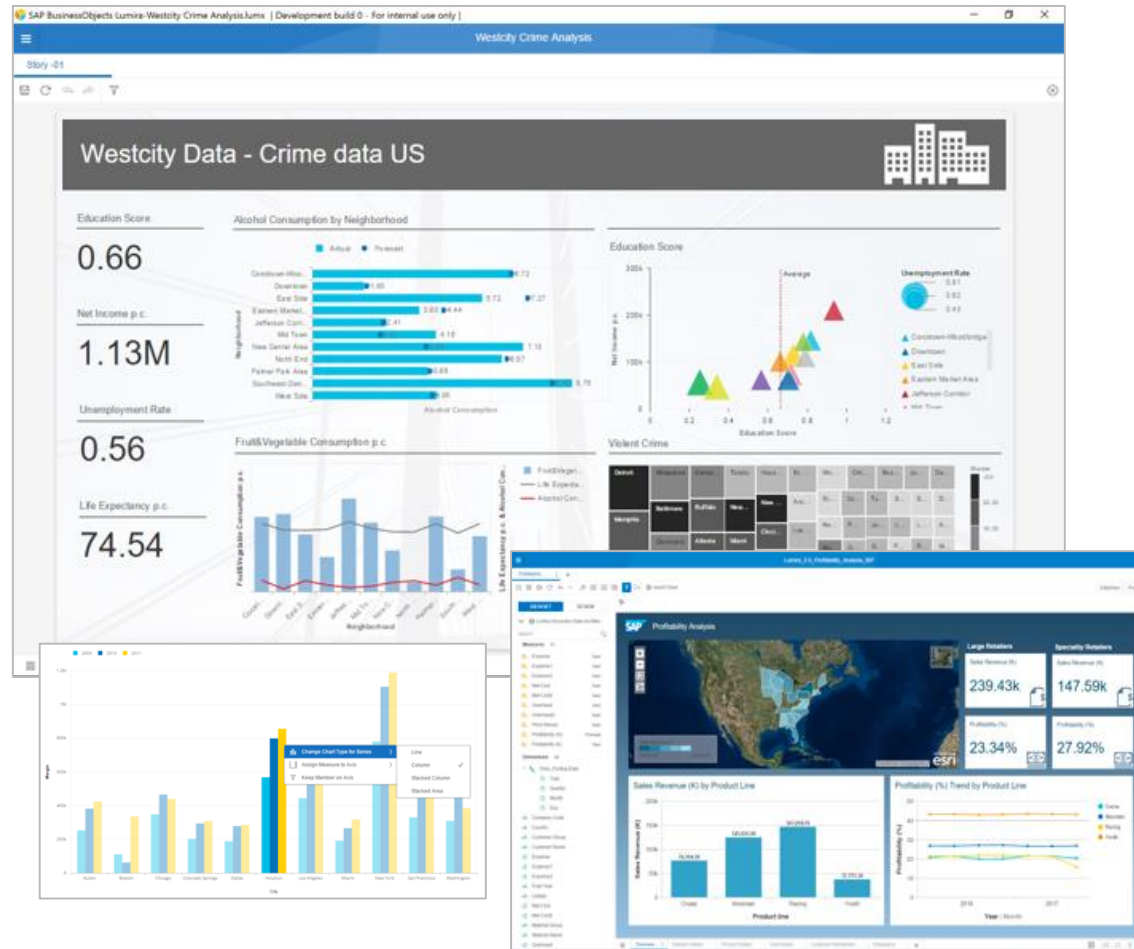


# Self-Service: Analysis for Office



- Multi-dimensional analysis in Microsoft Excel, connected to a trusted and governed data source
- Connect to SAP BW, SAP HANA, SAP BPC and other MDX-based sources (Essbase, SSAS)
- Format and use custom formulas on refreshable data
- Embed analysis and insights into Microsoft PowerPoint and Microsoft Word for consumption by business users

# Self-Service: Lumira 2.x, Discovery



- Analysts can connect to almost any data source directly from their desktop
- Live data connectivity (online) to SAP sources: SAP HANA, SAP BW, and SAP Universes
- Mashup relational data, rapidly create visualizations and build simple storyboards
- Drag and drop for quick prototyping, with input controls, custom color palates, and many chart types
- Improved user experience and interface to reduce time to value

# Choosing the Right Tool For the Right Use Case

## Considerations:

1. Who are the end consumers and how do they want to see the data? (Offline/online, mobile, in MS Excel)
2. Who are the authors/creators and what is their skill level?
3. Does this report/dashboard need to be shared enterprise wide, within a department/team, or is it for a sole user's consumption?
4. What are the data sources, data structures, and who controls access to them?

## Recommendations:

1. Start with Lumira, Discovery and consider other clients for use cases where the functionality is not robust enough
2. Lumira, Designer is highly performant on BW data, whereas Web Intelligence is strong against Universe data. Both are excellent on top of SAP HANA
3. Lumira, Designer is the recommended go forward for any advanced capabilities including: custom scripting, writeback to BW, front-end application design, & custom planning/spreadsheet applications

# Choosing the Right Tool For the Right Use Case

	Crystal Reports	Web Intelligence	Lumira 2.x, Discovery	Lumira 2.x, Designer	Analysis for Office
Data Transformation	★	★	★★	★	★
Blending Multiple Sources	★	★	★★	★★	★
Agile Visualization	★	★	★★	★	★
Linked Chart Analysis	★	★	★	★★	
Dynamic & Unstructured Text	★★	★★	★	★	
Tables & Crosstabs	★★	★★	★	★★	★★
Drill Up & Down Through Hierarchies	★	★★	★	★★	★★
Writeback & Jump to Transactions	★	★★		★★	★
What-If Simulation				★★	★★
Data Governance	★★	★★	★★	★★	★★

# Choosing the Right Tool For the Right Use Case

	Crystal Reports	Web Intelligence	Lumira 2.x, Discovery	Lumira 2.x, Designer	Analysis for Office
Flat Files	✓		✓		✓
BW/Bex Queries	✓	✓	✓	✓	✓
HANA	✓	✓	✓	✓	✓
UNV Universes	✓	✓	✓	✓	
UNIX Universes	✓	✓	✓	✓	
Hierarchical Data	✓	✓	✓	✓	✓
MDX Data Sources					✓
SQL Query	✓	✓	✓		
Big Data Sources	✓		✓	✓	

# Introducing BI 4.2

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# SAP Roadmap & Future Direction

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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 and explain how our innovations may add value to your business.

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

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



# Convergence Principles



**We are converging  
use cases, not  
features and  
functions**



**All existing  
content is safe  
and will work**



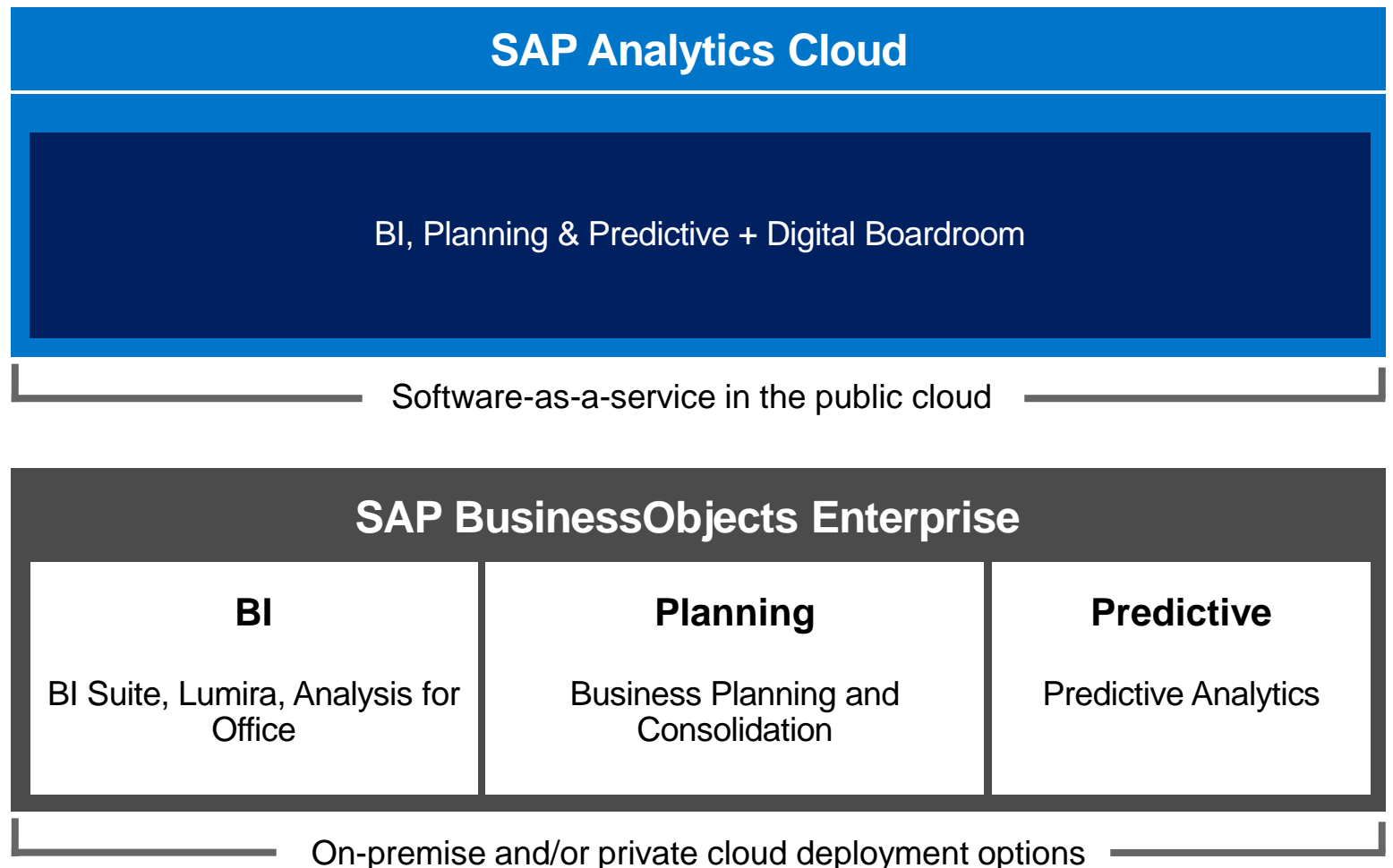
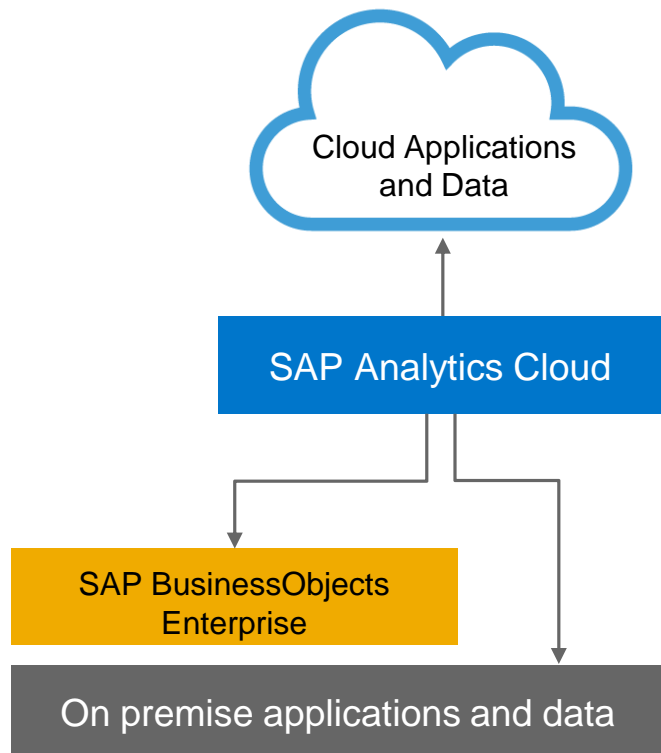
**All BI 4.2 clients  
will be maintained  
and supported**



**No forced  
migrations**

# To bring Analytics to your Data, not the other way around

## On-Premise, Cloud and Hybrid



# Building Bridges



## LEAD THE CLOUD

Software as a service in the public cloud

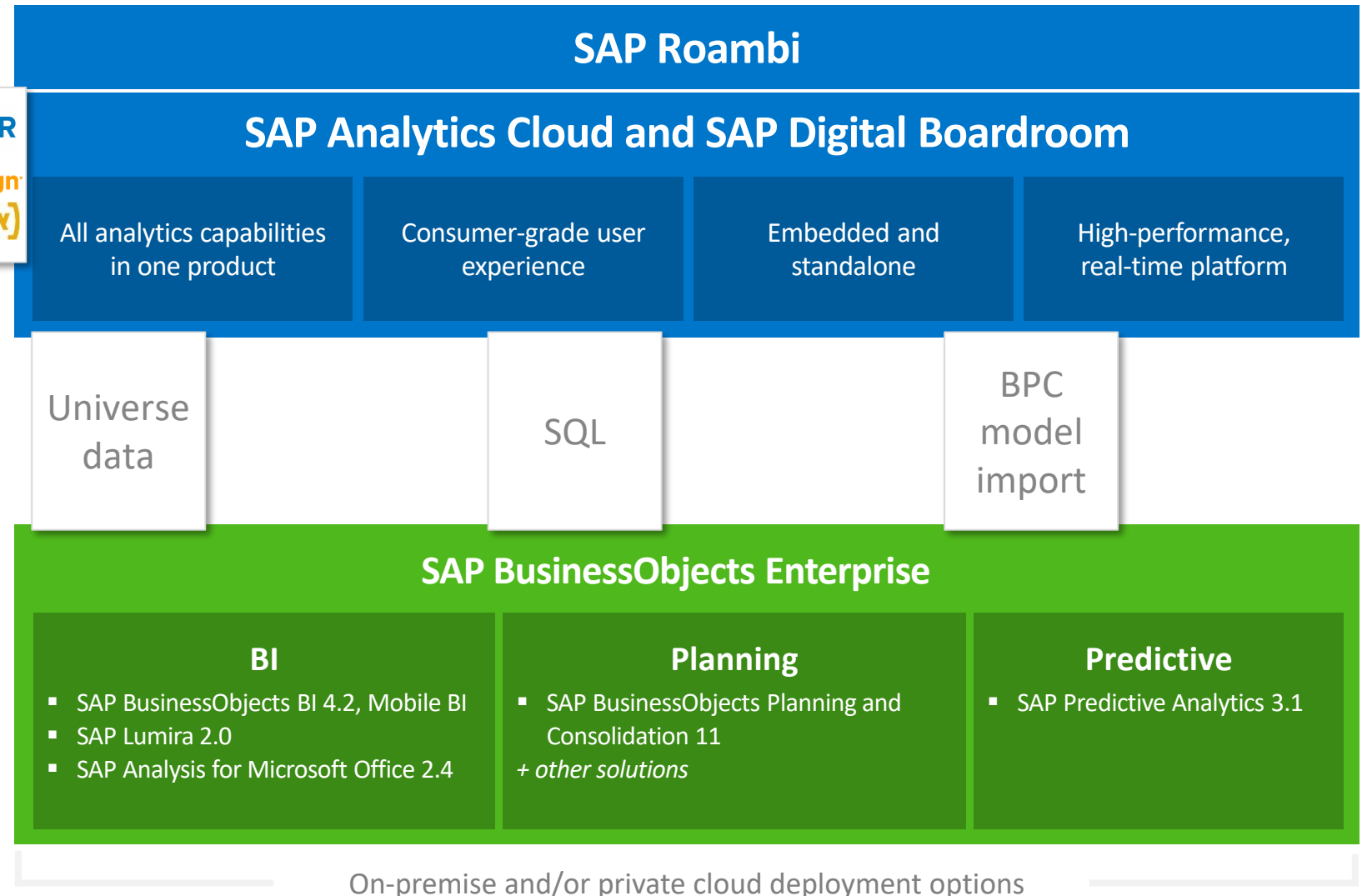


Interoperability and Support for  
Hybrid Scenarios



## INNOVATE THE CORE

On-premise and/or private cloud



# SAP BusinessObjects BI platform - Overview

## Product description

SAP BusinessObjects Business Intelligence platform empowers organizations to share and discover information and to make better decisions

### BI content management

- Secured storage of BI content

### Scalable and robust service

- Ability to scale up and scale out to suit the demand
- Fault tolerance and load balancing

### Platform administration

- Central web based administration tool
- Management of BI content life cycle

### Auditing

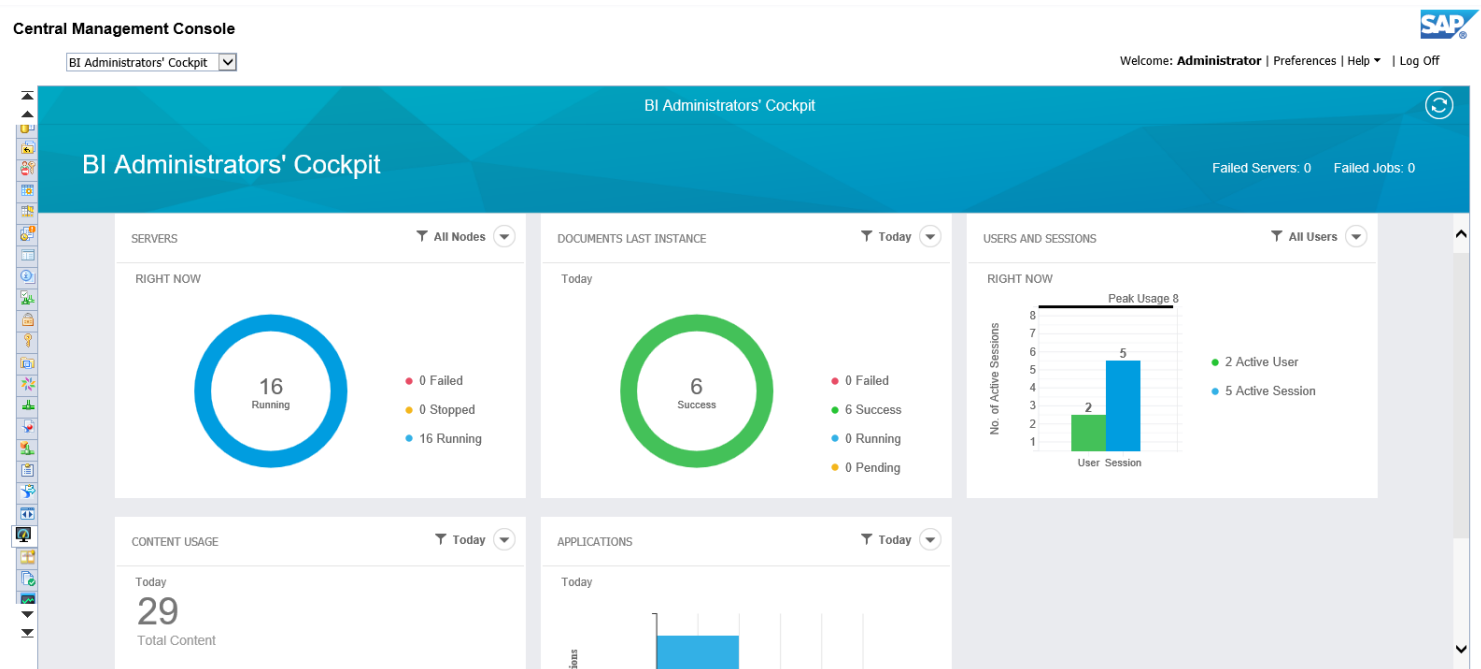
- Audit trail for compliance or capacity planning

### Information delivery

- Distribution of personalized BI content to mass audience in an automated manner

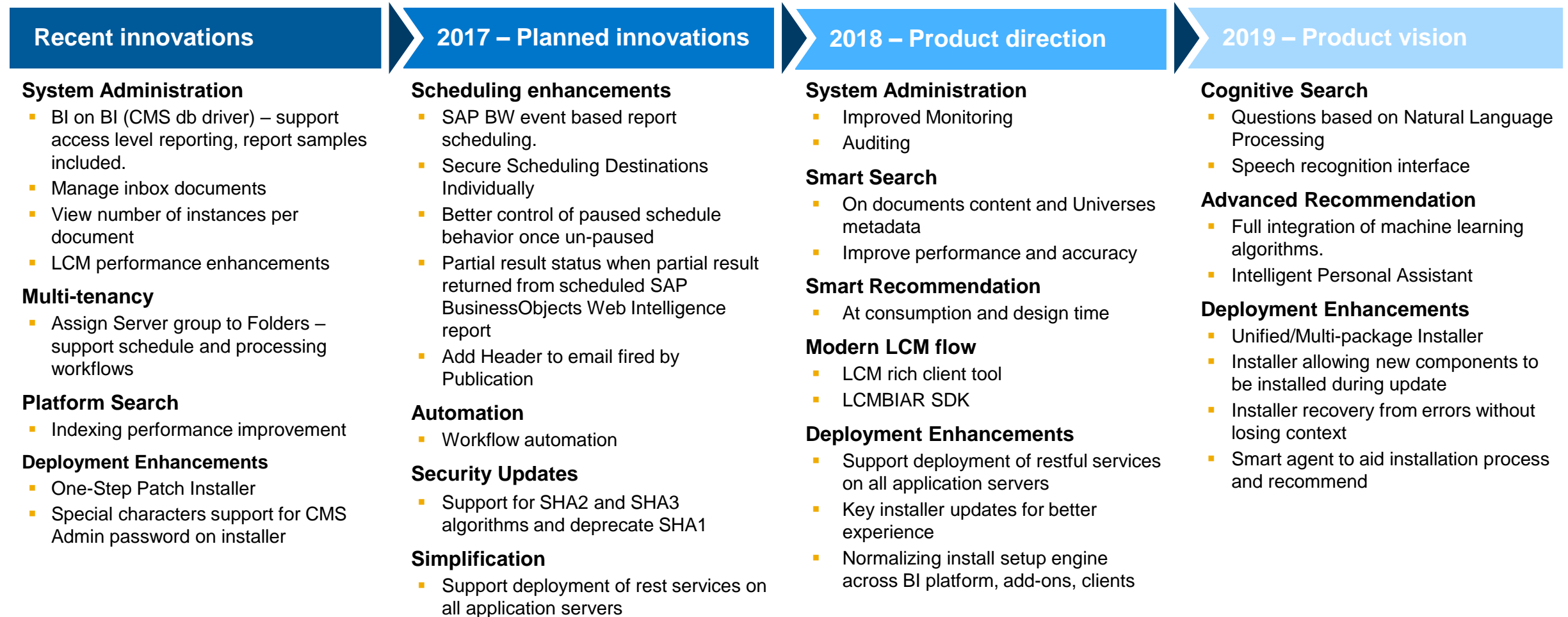
### Software development kit

- API for extending the solution or for process automation



# SAP BusinessObjects BI platform

## Product road map overview - key themes and capabilities

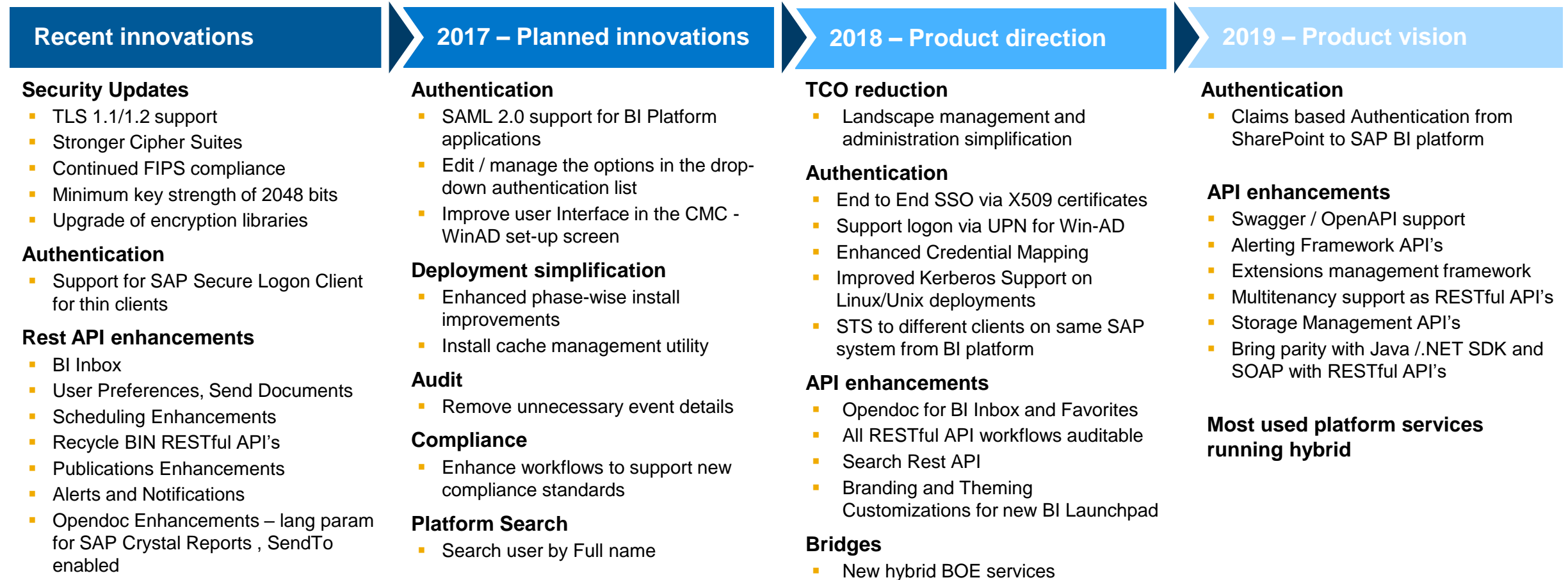


BI 4.2 SP4

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

# SAP BusinessObjects BI platform

## Product road map overview - key themes and capabilities



BI 4.2 SP4

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# SAP Lumira 2.0

## Major product updates

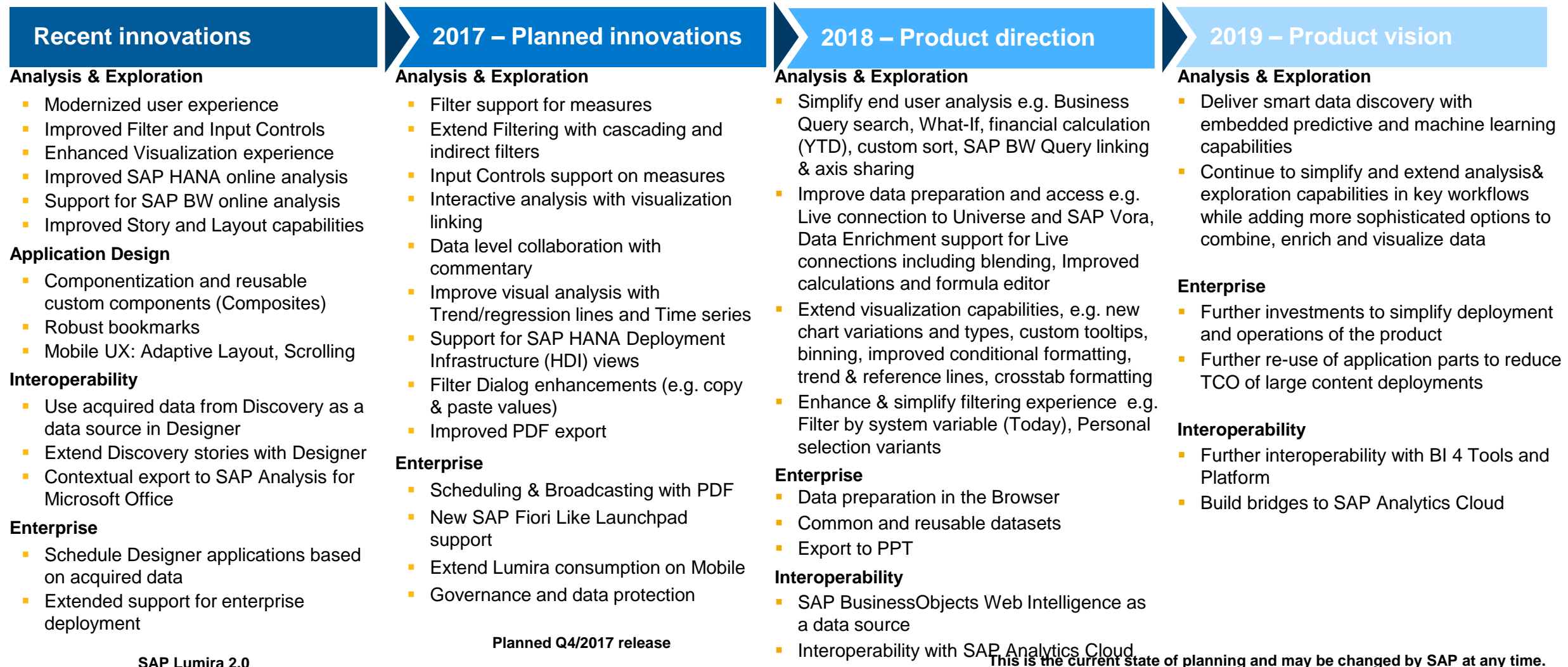
### **SAP Lumira 2.0 is the legal successor of both SAP BusinessObjects Design Studio 1.x and SAP Lumira 1.x**

- SAP recommends customers of 1.x versions of Design Studio and / or SAP Lumira to upgrade to SAP Lumira 2.0
- License entitlements do not change by the upgrade
- Conversion support for 1.x documents of both Design Studio and SAP Lumira is provided
- SAP Lumira 2.0 requires deployment on the BI Platform
- Some features of SAP Lumira 1.x are differently supported in 2.0, and some functional restrictions exist
- For details to consider for customers who need to upgrade from 1.x versions to SAP Lumira 2.0, please refer to the Appendix

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

# SAP Lumira

## Product road map overview - key themes and capabilities



SAP Lumira 2.0



# Client Convergence in Microsoft Office

## Unified Microsoft Office Client

Coexistence of Analysis and EPM sheets

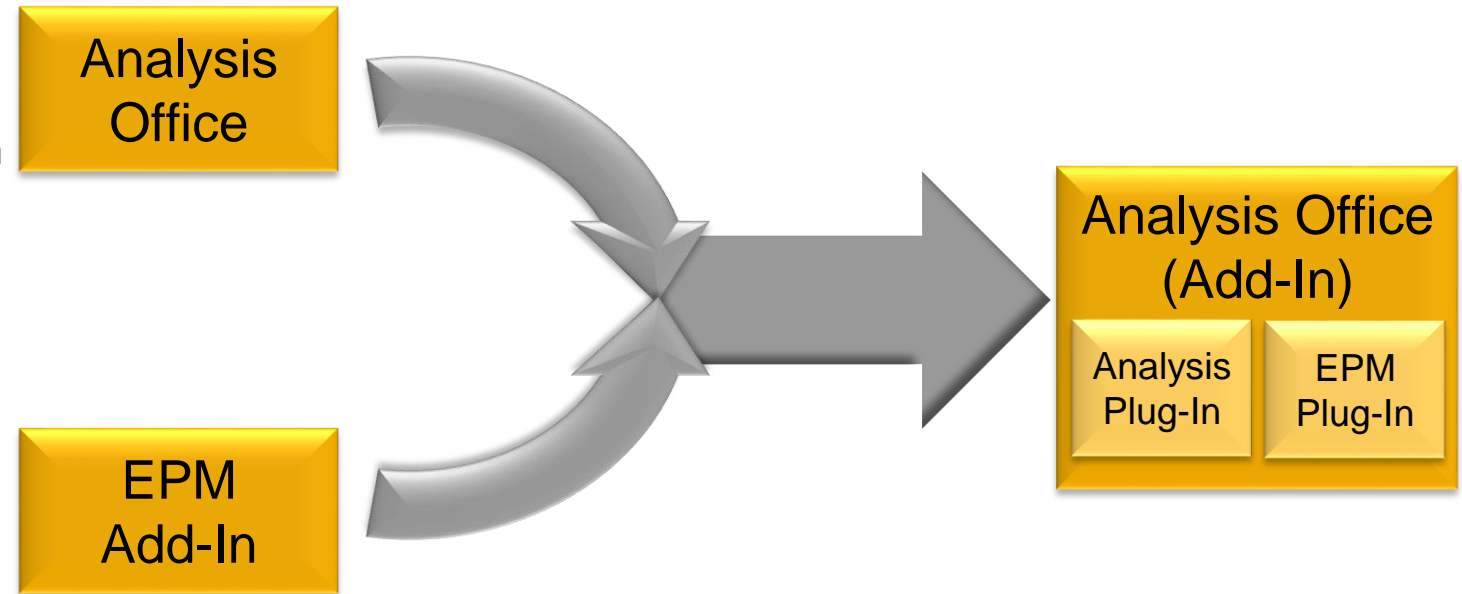
Superset of Analysis and EPM Add-In features (with some limitations)

Common Installer, single license

Protected investments: Re-use existing content

Separate ribbon tabs

Gradual convergence: e.g. common refresh

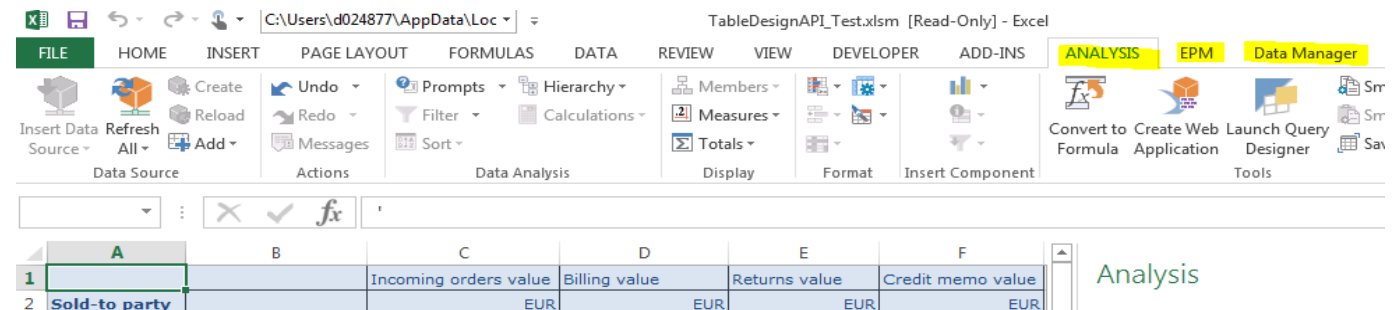


## Terminology

SAP Analysis for Microsoft Office (Add-In) → Product including the former products Analysis Office and EPM Add-In

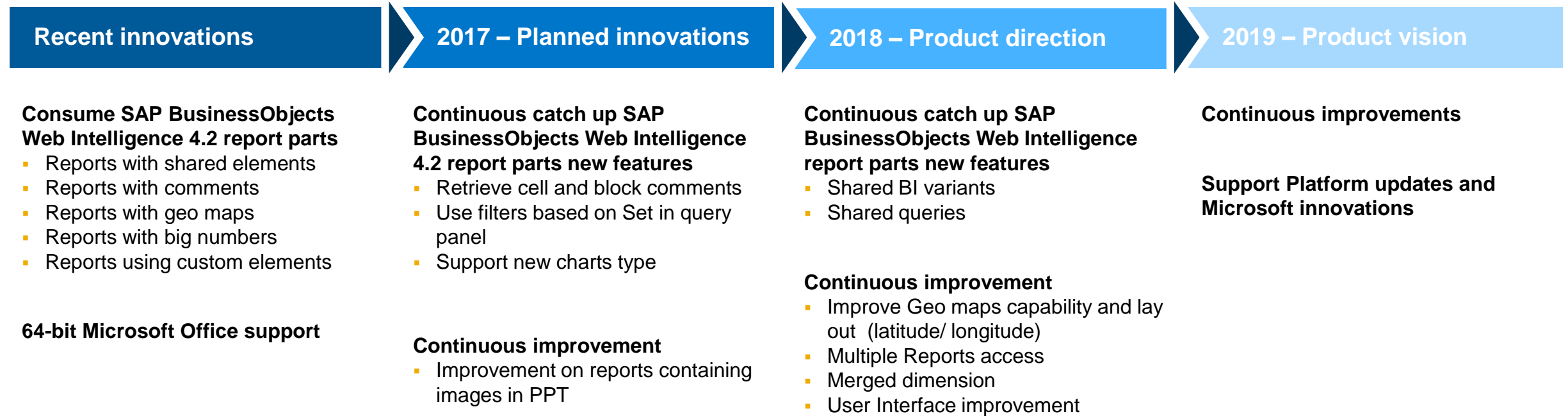
Analysis Plug-In → Analysis as part of Analysis Office

EPM Plug-In → EPM as part of Analysis Office



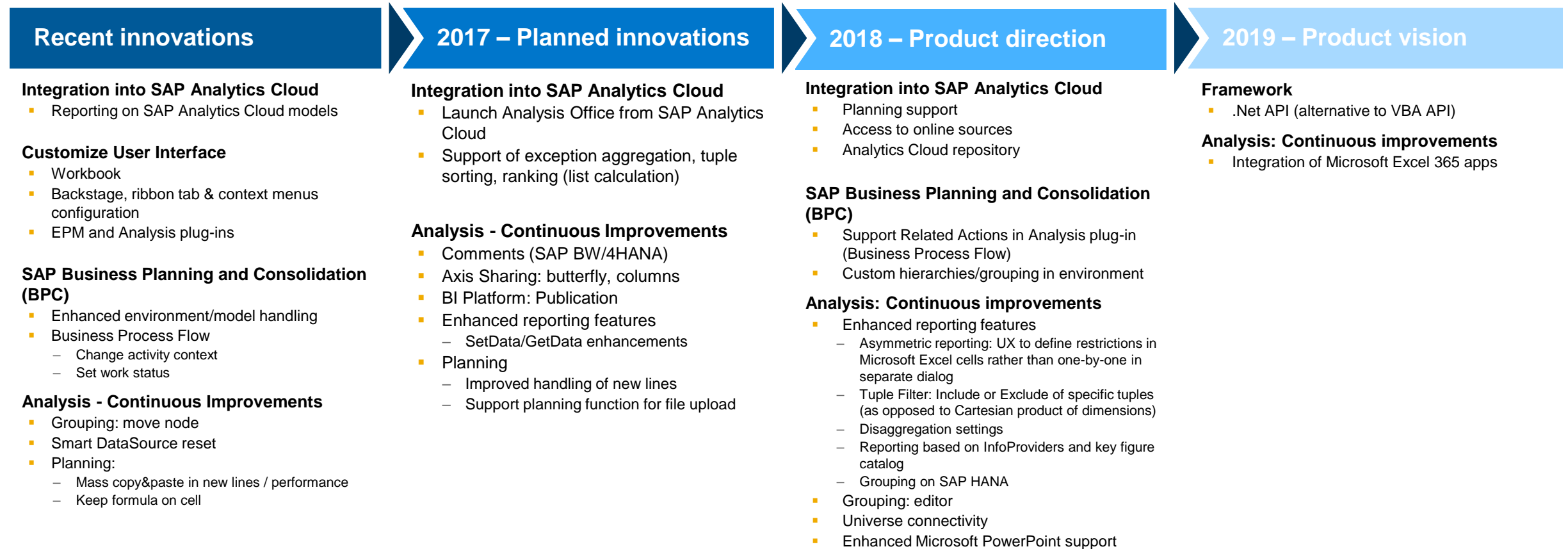
# SAP BusinessObjects Live Office

## Product road map overview - key themes and capabilities



# SAP Analysis for Microsoft Office – 1 –

## Product road map overview - key themes and capabilities

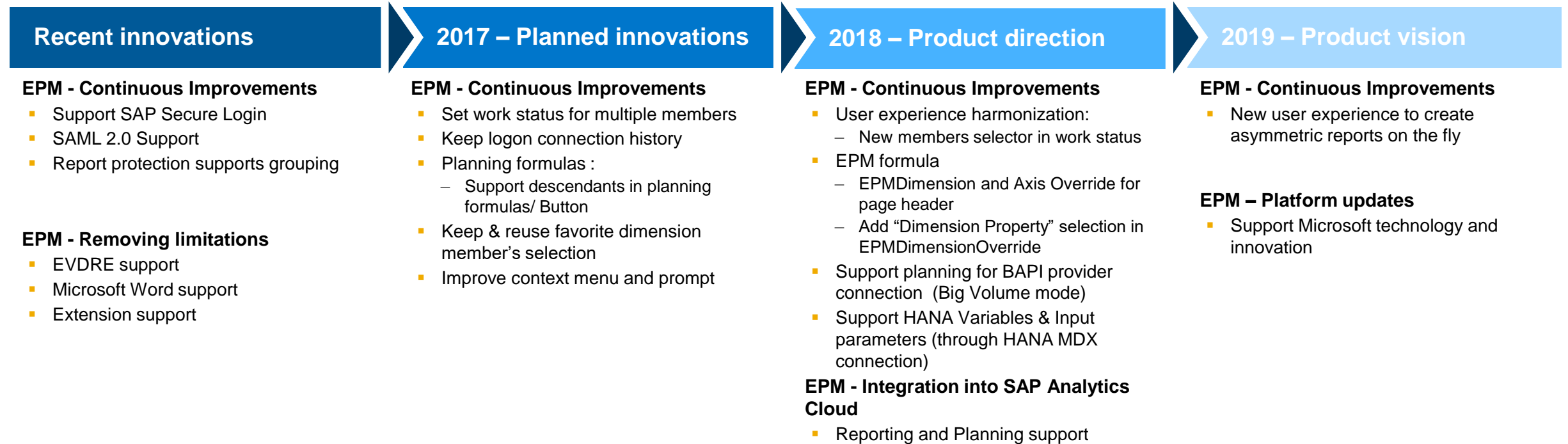


Release 2.5

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# SAP Analysis for Microsoft Office – 2 –

## Product road map overview - key themes and capabilities

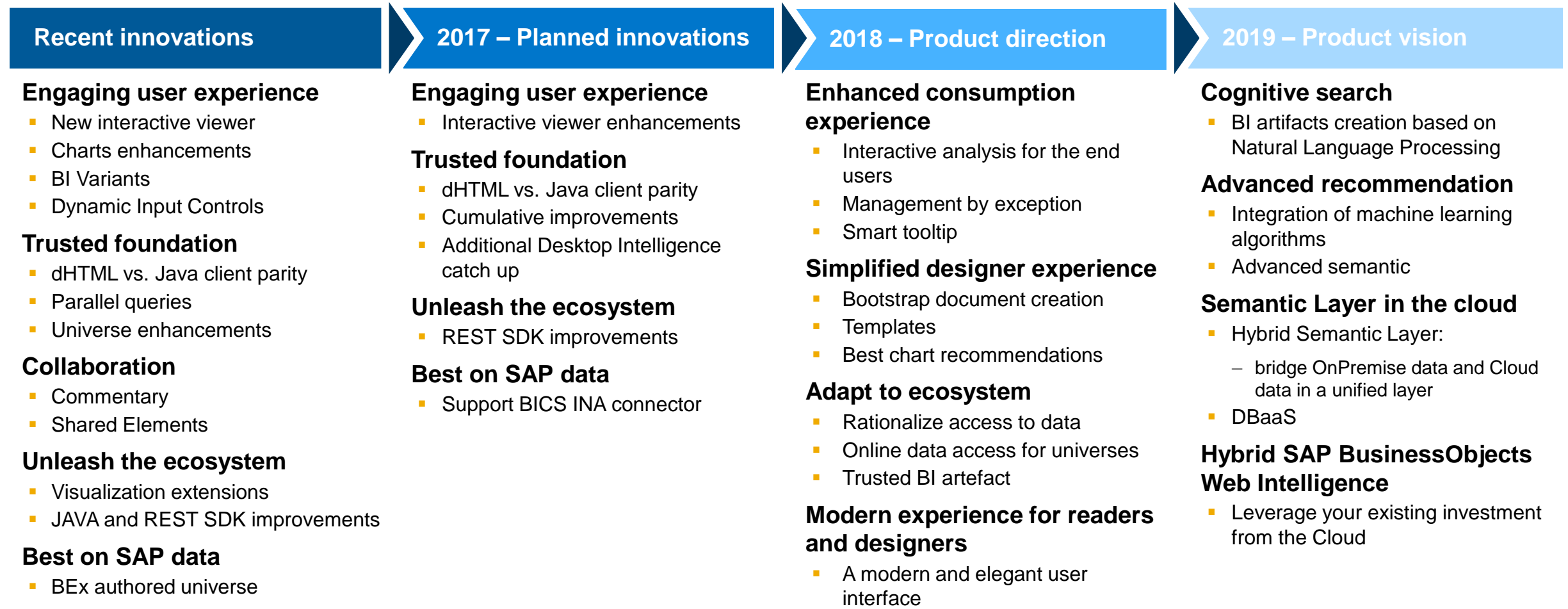


Release 2.4 / 2.5

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# SAP BusinessObjects Web Intelligence

## Product road map overview - key themes and capabilities



BI4.2 SP04

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# SAP Crystal Reports

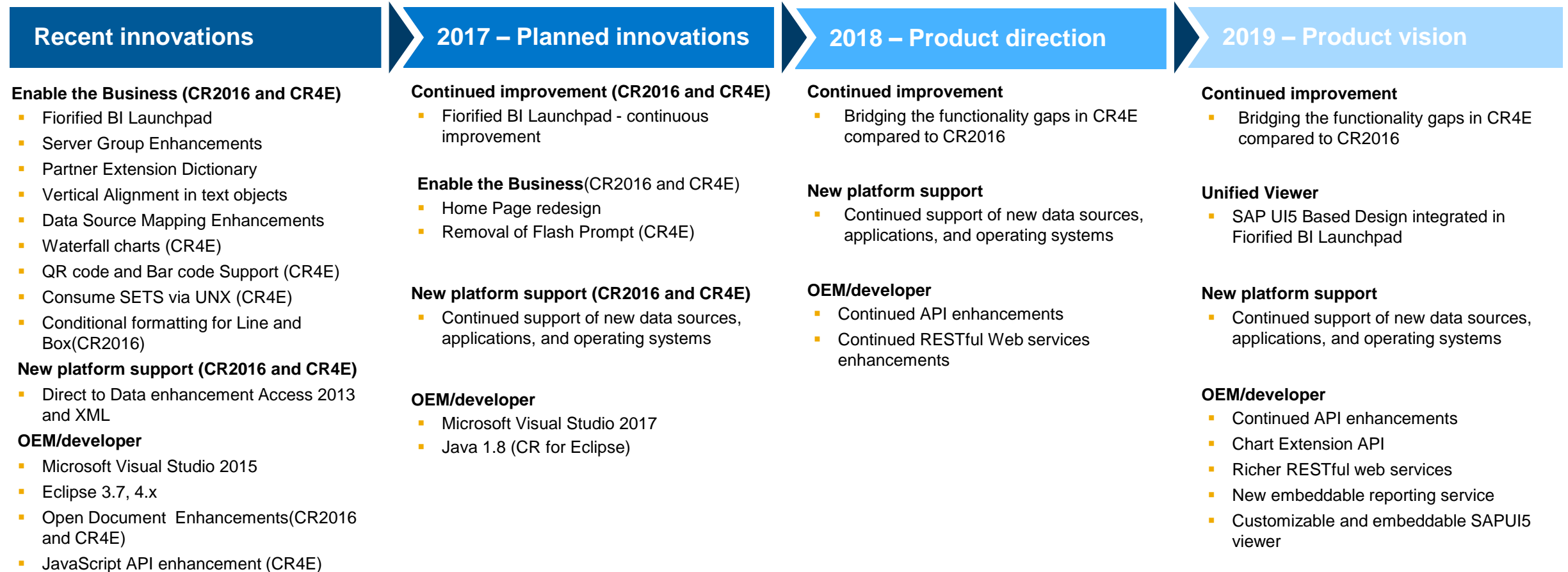
## Major product updates

- **SAP Crystal Reports for Enterprise is a major redesign of the SAP Crystal Reports designer and associated processing servers**
- **This new report designer will contain the new features and innovations going forward**
- **Customers should plan to transition from SAP Crystal Reports 2008, SAP Crystal Reports 2011, SAP Crystal Reports 2013, SAP Crystal Reports 2016 to SAP Crystal Reports for Enterprise to take advantage of new features and innovations**
- **SAP Crystal Reports 2016 is an incremental update to SAP Crystal Reports 2013, and can run side by side with SAP Crystal Reports for Enterprise**
- **We will continue to deliver our current IDE integrations with Microsoft Visual Studio and Eclipse for the SAP Crystal Reports 2016 product line**
- **SAP Crystal Reports, version for Microsoft Visual Studio will continue to support multiple versions of Microsoft Visual Studio**
- **We will continue to support the Software Development Kits (SDKs) that are available for SAP Crystal Reports 2016**
- **We will continue to support the SDKs that are available for SAP Crystal Reports 2016**
- **We will be investing in our new APIs and embeddable services for SAP Crystal Reports for Enterprise**
- **Investments in reports is preserved**
  - Reports created in the 2016 designer will open in the Enterprise designer (data connection can be migrated to the BI platform stack)

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

# SAP Crystal Reports

## Product road map overview - key themes and capabilities



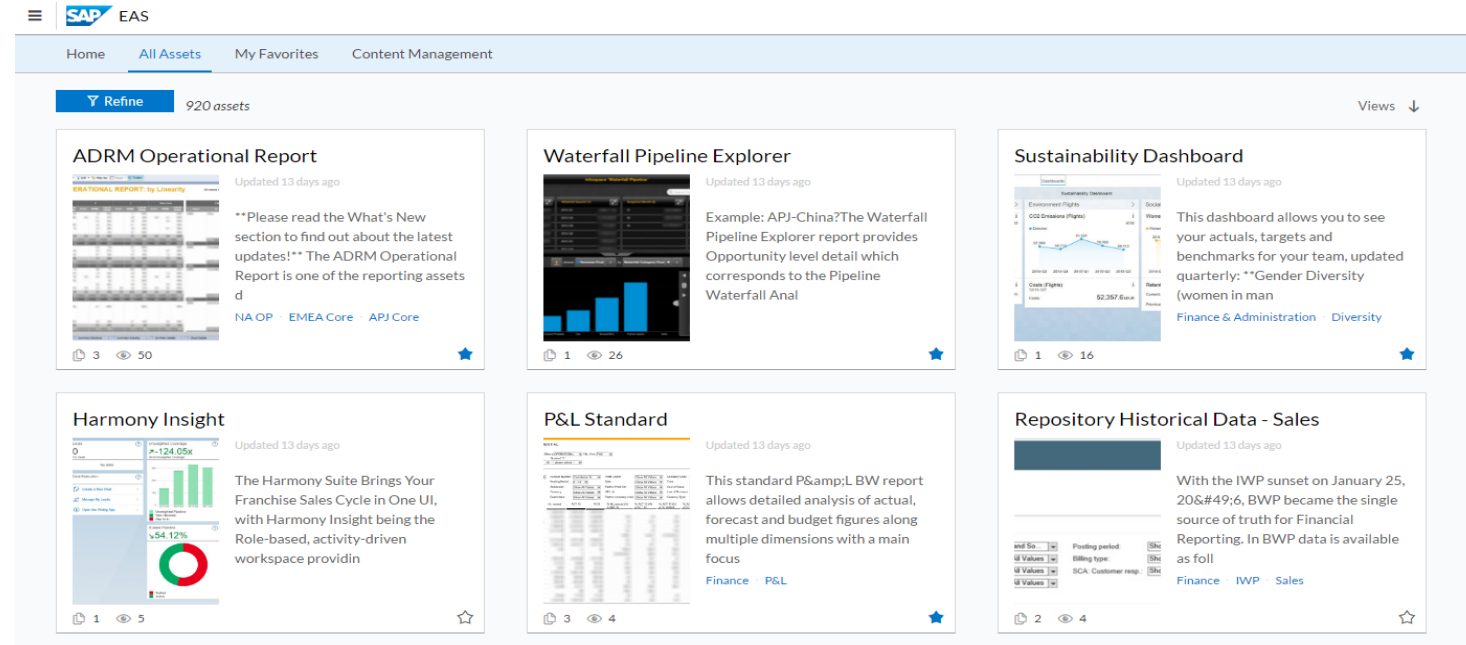
BI 4.2 SP4, CR VS SP20, CR Eclipse SP20

•(CR4E) = Only for CR for Enterprise version, (CR2016) = Only for CR 2016 Version

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

# SAP Analytics Hub

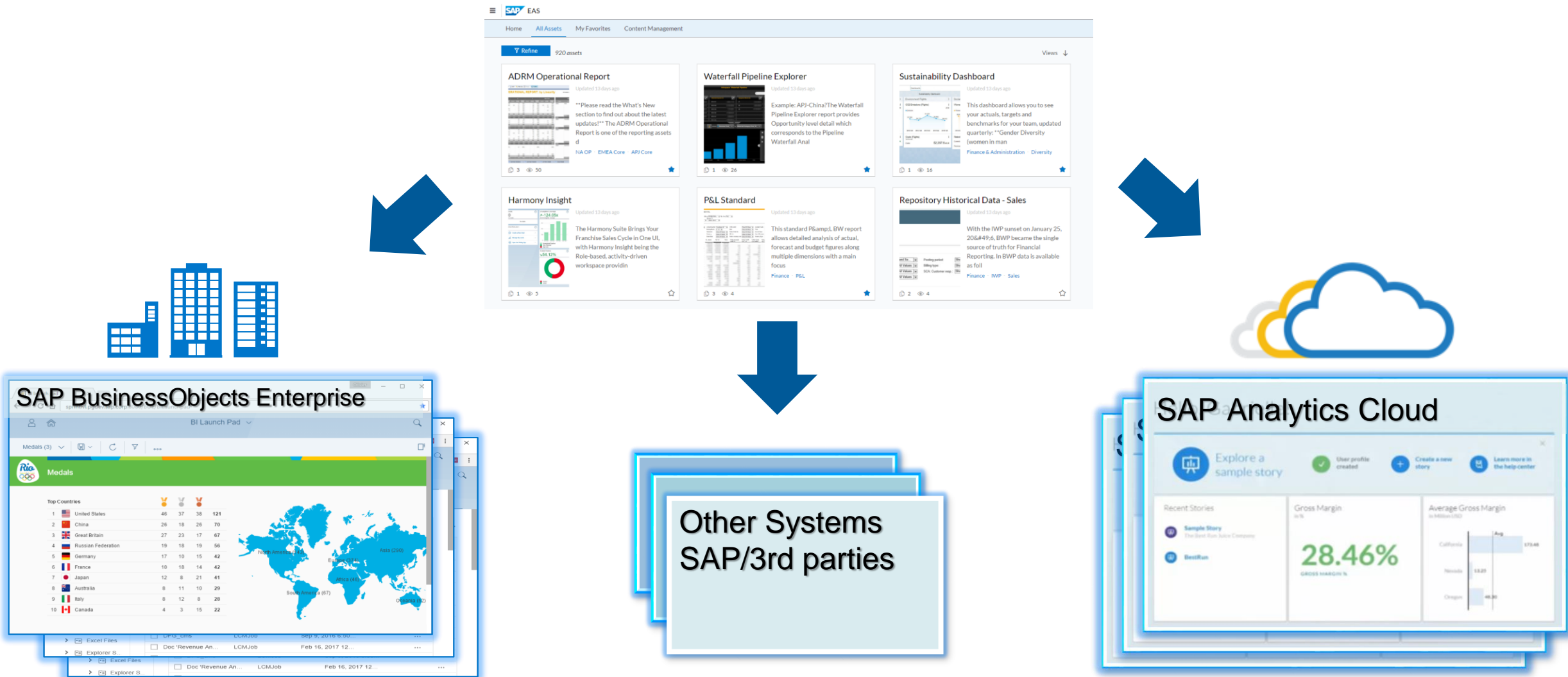
- Simplify access to all analytics
- Automate recommendation with machine-learning services
- Grant business users with more trust in analytics
- Get started on your journey to the cloud





# SAP Analytics Hub

## Seamless access to any hybrid deployment



# SAP Analytics Hub

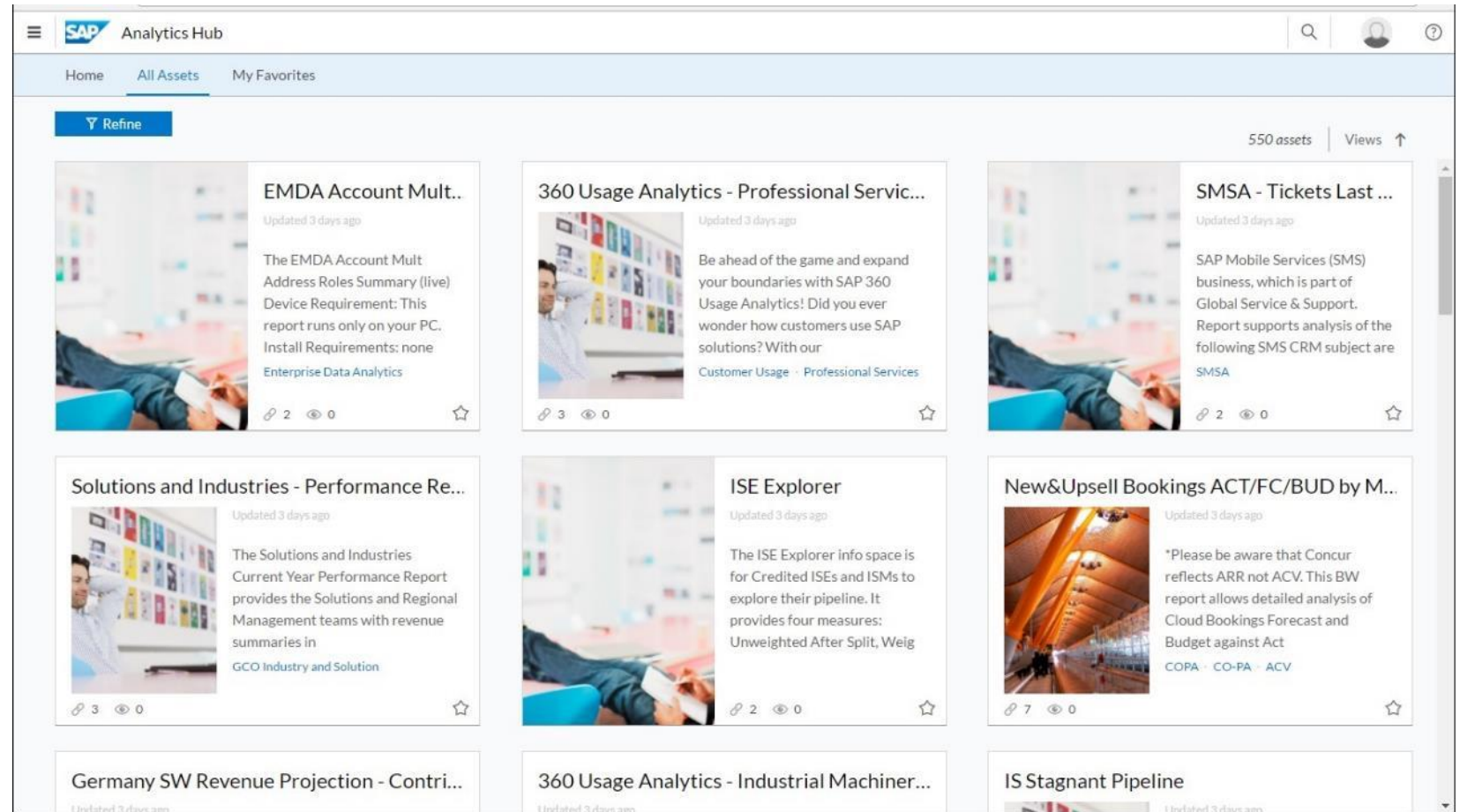
## Analytics access – all assets page

Recent  
innovations

Access, in one place, all  
trusted analytics assets in  
your company

Scroll, use search, or facets  
to find useful assets

Click on a tile to see  
analytics details and open  
the analytics



# SAP Analytics Hub

## Analytics access – search and filter

Recent  
innovations

Facets filtering

Free-text search

The screenshot displays the SAP Analytics Hub interface. At the top, there's a navigation bar with 'Home', 'All Assets', and 'My Favorites'. A search bar is prominently featured with the text 'Free-text search' overlaid. Below the search bar, a dropdown menu shows search results for 'sales', including 'salesorg', 'salesprogram', 'sales order', and 'stale'. On the left, a 'Refine' sidebar allows for faceted filtering by 'Functional Area' (Sales & Presales, Finance, Service & Support, Development, Information Technology) and 'Source System' (BWP, BOP, GCO Platform, IWA, NBP). The main content area displays three asset cards: 'New&Upsell Bookings by GPO ACT/BUD/...', 'JF Technologies', and 'Business Function Reports - SAP Business...'. Each card includes a thumbnail image, a title, a description, and a 'Did you mean...' suggestion. The 'New&Upsell Bookings' card shows a bar chart and a line graph. The 'JF Technologies' card shows a map and a bar chart. The 'Business Function Reports' card shows a line graph. The interface also includes a user profile icon and a help icon in the top right corner.

**Functional Area**

- Sales & Presales: 550
- Finance: 237
- Service & Support: 148
- Development: 116
- Information Technology: 85

**Analytics Team**

- Enterprise Analytics - Sales and Customer: 410
- Enterprise Analytics - PI&D: 243
- Global Controlling: 166
- Services - Enterprise Analytics: 63
- Enterprise Analytics - Marketing: 58

**Source System**

- BWP: 372
- BOP: 245
- GCO Platform: 208
- IWA: 84
- NBP: 80

**Free-text search**

sales

salesorg

salesprogram

sales order

Did you mean...

stale

**New&Upsell Bookings by GPO ACT/BUD/...**

Updated 3 days ago

This BW report shows the GPO Cloud Bookings Forecast and Budget against Actuals along Internal Sales Segment and GPO Indicator dimensions. I

ACV · New&Upsell · ARR

**JF Technologies**

Updated today

Overview, Travel, Profit Simulations

BOC · Customers

**Business Function Reports - SAP Business...**

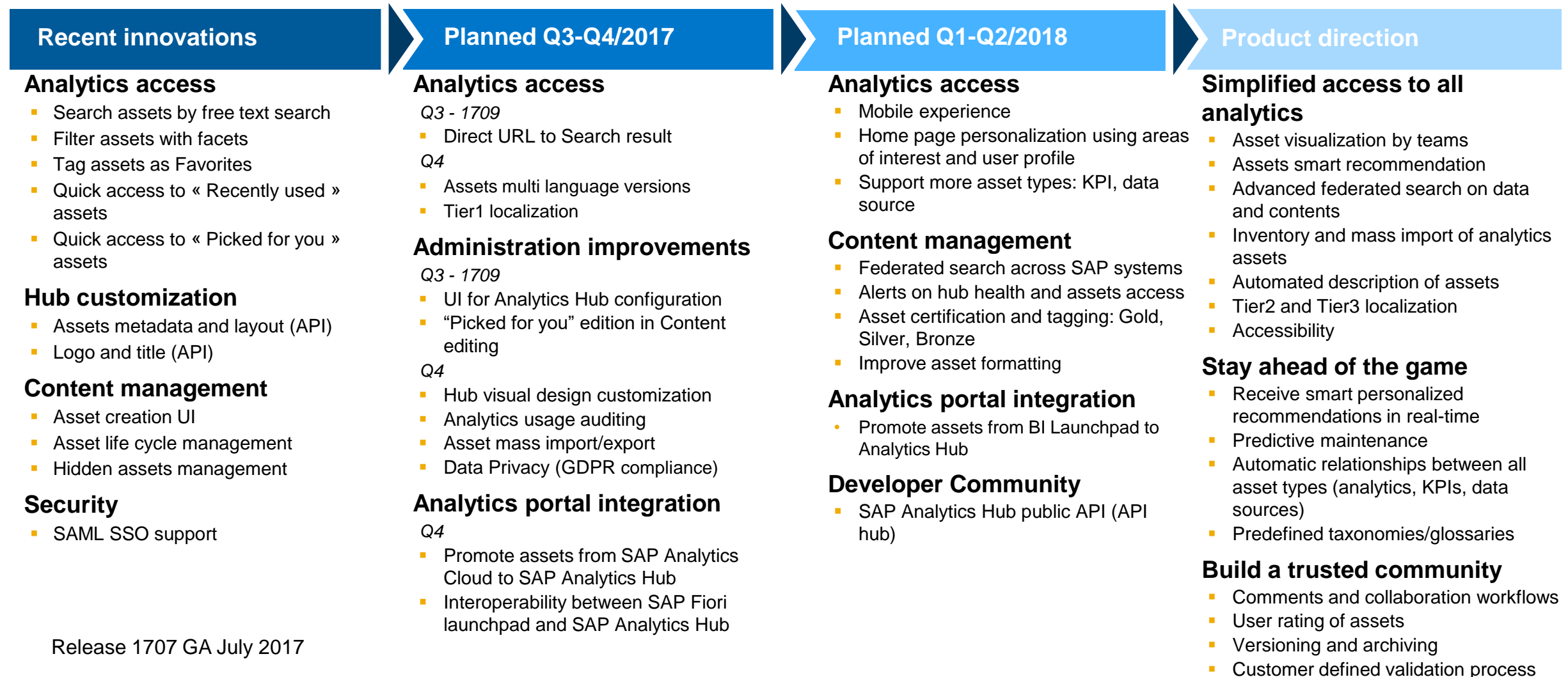
Updated 3 days ago

Reporting about activated and not activated Business functions 1. Business function reporting: This report shows the usage of Business Funct

Customer Usage Measurement

# SAP Analytics Hub

## Product road map overview - key themes and capabilities



Release 1707 GA July 2017

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

# Intro to Lumira 2.0

CUSTOMER

# Q&A

CUSTOMER

# Q&A

- Can the report field to be restricted based on user and group? Ie.. column X-Z will be visible by admin...
- Can the scheduled reports distribute to share point link? FTP?
- Can we have the single metadata with multiple data sources where the report generation will be based on the parameter?
- Can the report deployment from dev to prod to be performed outside the application? Ie. Login in to BO is not required when we deploy the reports
- Any API/Query builder we can perform for administration purposes? Do we have the direct access to BO data source?
- Any report such as login details and user activities reports we can schedule for audit purposes?
- Any monitoring tool such as instance manager for administrator to check on the success, failed or recurring reports?
- Can we restrict user access such as report viewer (view and download) and designer (schedule, view, download)?
- Can we create custom/folders and share with those authorized users?
- Support multi language in the report wise and application wise?

# Q&A

- Can we share BO Enterprise Named User & Concurrent user licenses between Development and Production or should we get separate license for Development and Production?
- Our current version of Business Objects is BOXI R4.1 SP4. We migrated from BOXIR2 to BOXIR4.1 SP4. This migration was very hectic and cumbersome due to huge volume. If we migrate to the latest stable version of BO, will it be similar to R2 to R4 migration or will be a simple upgrade?
- When we have webi reports with high volume of data (eg 100K records) , report generation takes more time (20 minutes) though the query execution in databases takes less than 3 minutes to extract complete data. Any suggested solution for this?
- Once in a while we face 'Invalid Logon Token' issue while logging into Info view especially when BO services are not restarted frequently (for instance once in 30 days)
- Deployment of reports from Development to Production through promotion job fails with temp memory issue especially when more than 50 reports are included in promotion job
- This version not compliance with Red Hat Security patch any solution to apply the latest security patch?  
<https://www.ca.com/us/services-support/ca-support/ca-support-online/knowledge-base-articles.tec1388328.html>
- How to upgrade tomcat version in build in SAP product? We required to do upgrade to address CVE below, current version is Apache Tomcat Version 7.0.32

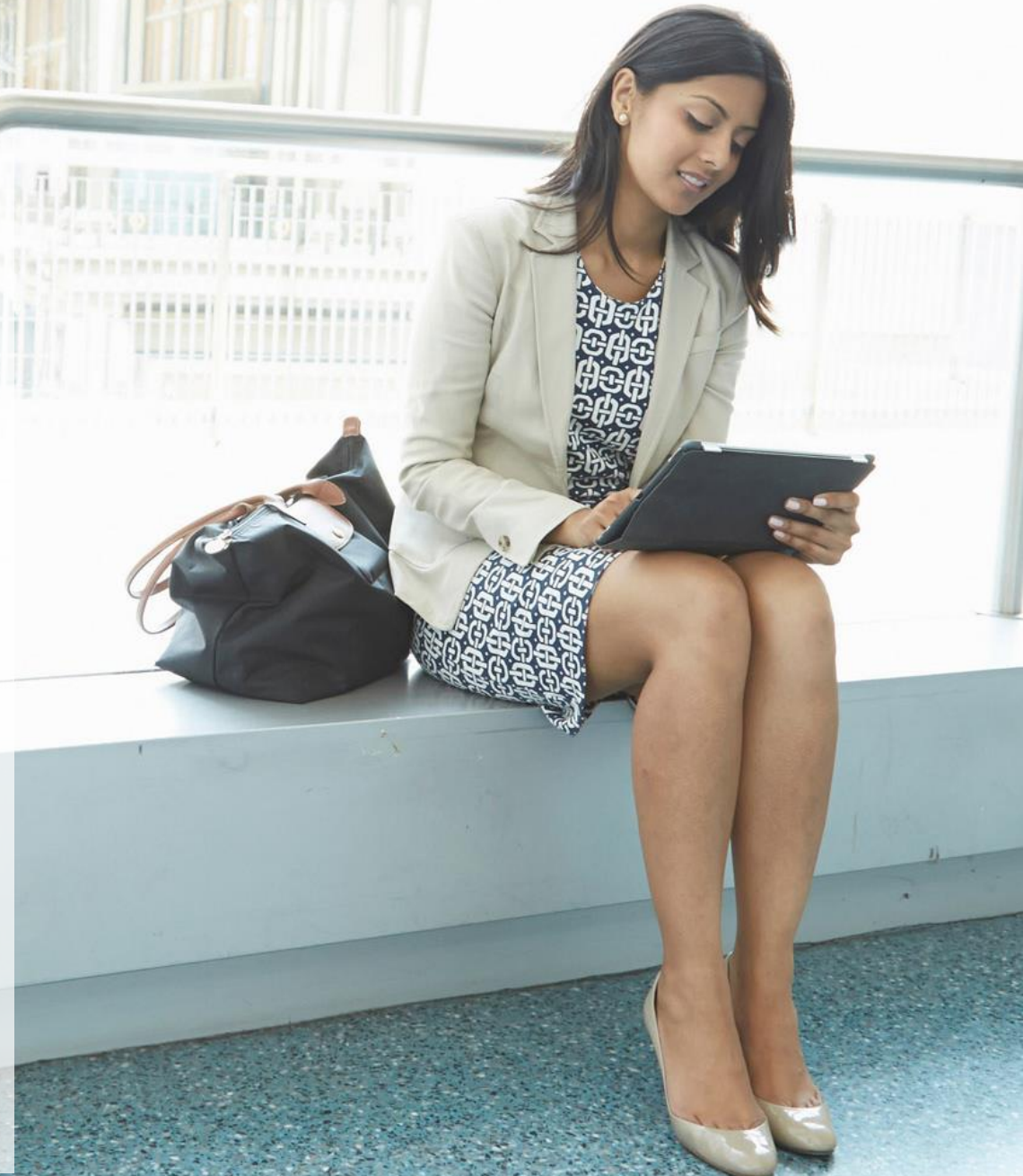


# Thank you.

# Learn more

## SAP customers and partners

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- [A Leader in Business Intelligence and Analytics](#)
- [What's New? On SCN](#)
- [SAP's release strategy on SAP Service Marketplace](#)
- [SAP BusinessObjects Business Intelligence Solutions on sap.com](#)
- [Getting Started with SAP BusinessObjects Business Intelligence Solutions](#)
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