

SAP BW/4HANA Content

Speed up Your DW implementation with SAP BW/4HANA Optimized Business Content

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BW/4HANA Content

Introduction

Learn the deployment options of standard content in SAP BW/4HANA

Understand the key design principles

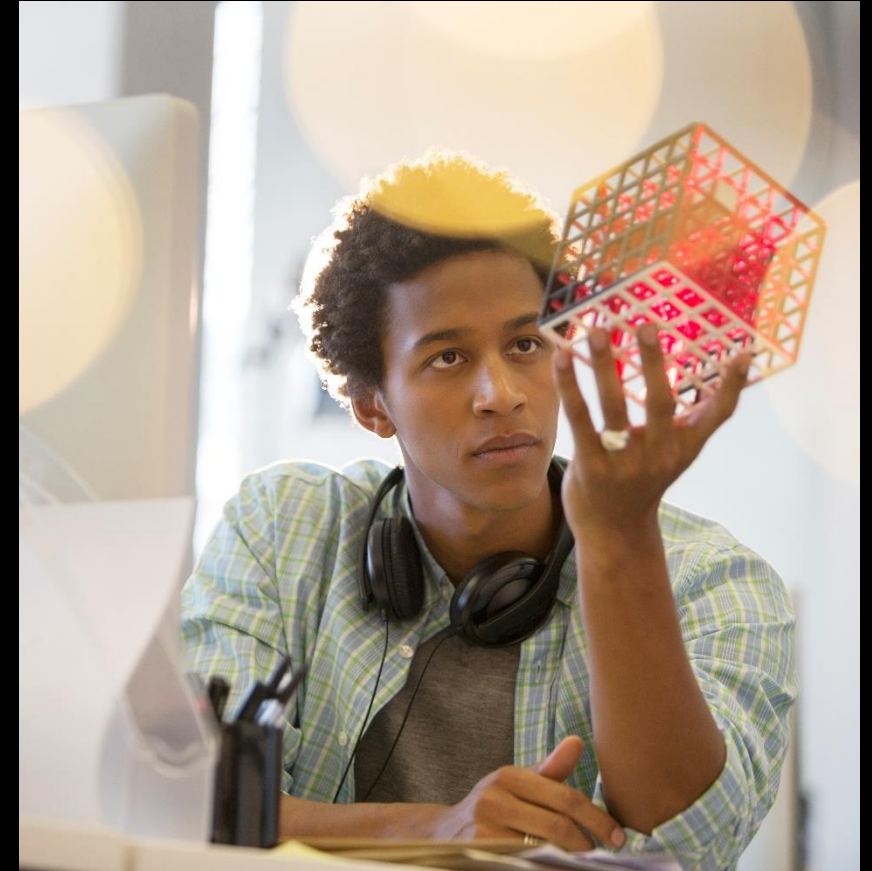
Discover the application components covered by SAP BW/4HANA content

BW/4HANA Content - Introduction

In a heterogenous system landscape a data warehouse enables customers to integrate and harmonize data from various sources. Providing Business Content as a part of our EDW solutions has been a differentiator for SAP since the early releases of SAP Business Warehouse (BW). **Business Content enables quick and cost-effective implementation as it provides a model that can be used as a guideline during implementation.**

The delivered standard data models are **intended as a foundation** for designing, modeling, and building your EDW, and while often adapted to customer needs, they **provide a jump start that facilitates faster and more consistent delivery of EDW projects.**

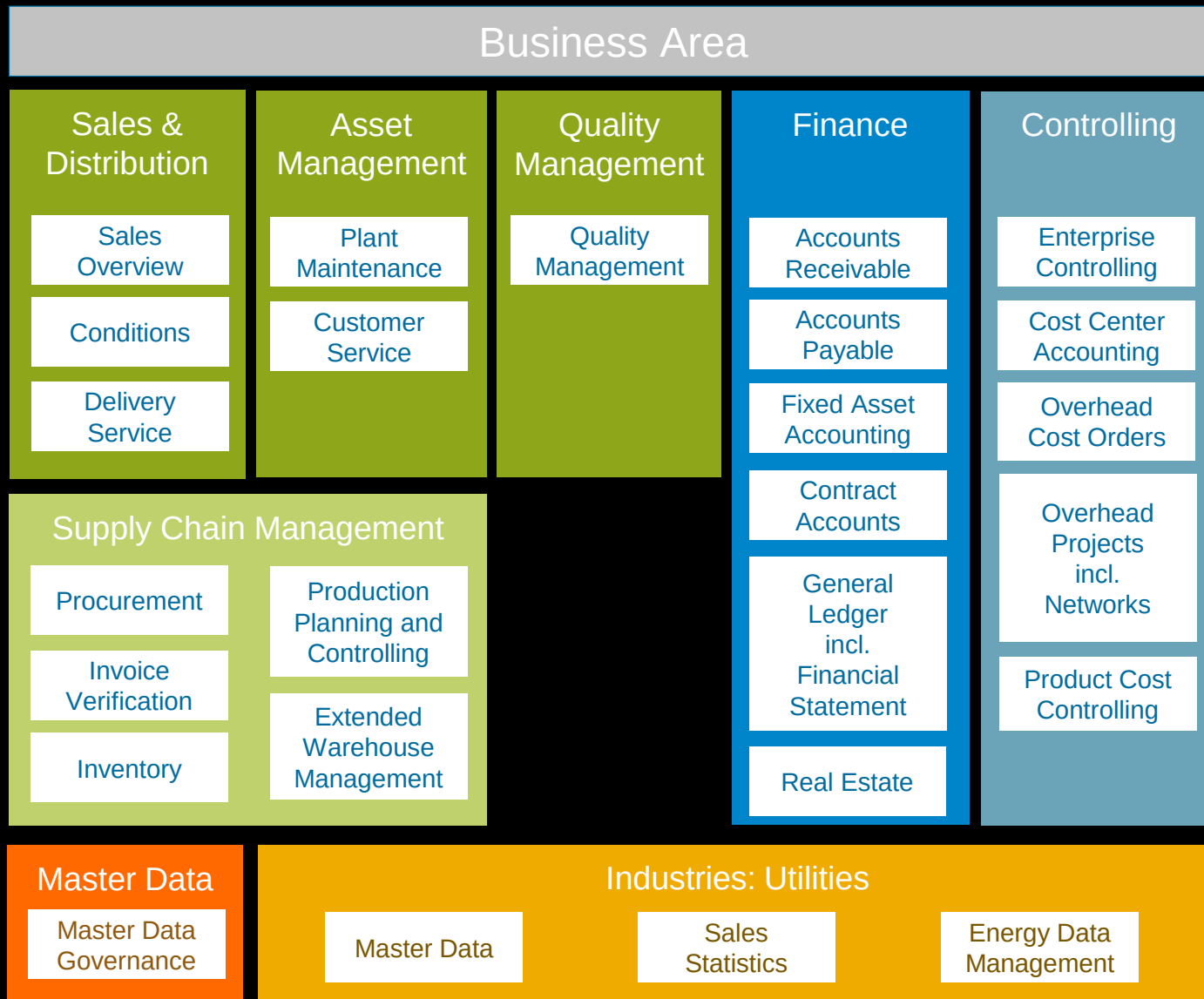
The SAP BW/4HANA Content was specifically designed to **leverage the SAP HANA capabilities in SAP BW/4HANA** following a consistent EDW reference architecture called LSA++ (Layered Scalable Architecture).



SAP BW/4HANA Content Overview



SAP BW/4HANA: Content Overview as of SP10



- Follows the LSA++ architecture
- Delivered Content offers more flexibility in data acquisition and reporting
- Provides higher level of detail (line items, ...)

Differences to SAP HANA optimized BI Content delivered with BI CONT 7.57

SAP BW/4HANA Content includes Business Content for additional business areas:

- Plant Maintenance (including CDS based extraction for S/4HANA OP)
- Customer Services
- Quality Management
- Production Planning and Controlling
- Extended Warehouse Management
- Product Cost Controlling
- Controlling - Overhead Projects

Further differences can be found in SAP Note [2397520](#).

SAP BW/4HANA Content Add-Ons



SAP BW/4HANA Content Add-Ons

SAP BW/4HANA Content consists of 2 Add-Ons:
quarterly delivery of SPs incl. new content

SAP BW/4HANA **Content** Add-On
(BW4CONT)

- SAP HANA-opt. BW Content
- InfoSources, Transformations for data provisioning for the InfoObjects

SAP BW/4HANA **Content BASIS** Add-On
(BW4CONTB)

- InfoObjects
- InfoAreasVariables
- Conversion exits, Master data read classes

SAP BW/4HANA

SAP BW/4HANA Content: Content Usage

	Customer usage of SAP delivered Business Content	Custom-built Content	Required
Scenario A	BW DataSources	InfoObjects, Open ODS Views, ADSOs, Transformations, CompositeProviders, Variables, Queries	Enable BW DataSources for ODP (SAP Note 2232584) S/4HANA Whitelisted BW DataSources (SAP Note 2500202)
Scenario B	BW DataSources, InfoObjects ,as is' or ,as template'	Open ODS Views, ADSOs, Transformations, CompositeProviders, Variables, Queries	In addition: SAP BW/4HANA Content BASIS Add-On (BW4CONTB)
Scenario C	BW DataSources, InfoObjects, ADSOs, Transformations, CompositeProviders, Variables, Queries ,as is' or ,as template'	As required	In addition: SAP BW/4HANA Content Add-On (BW4CONT)

SAP BW/4HANA Content

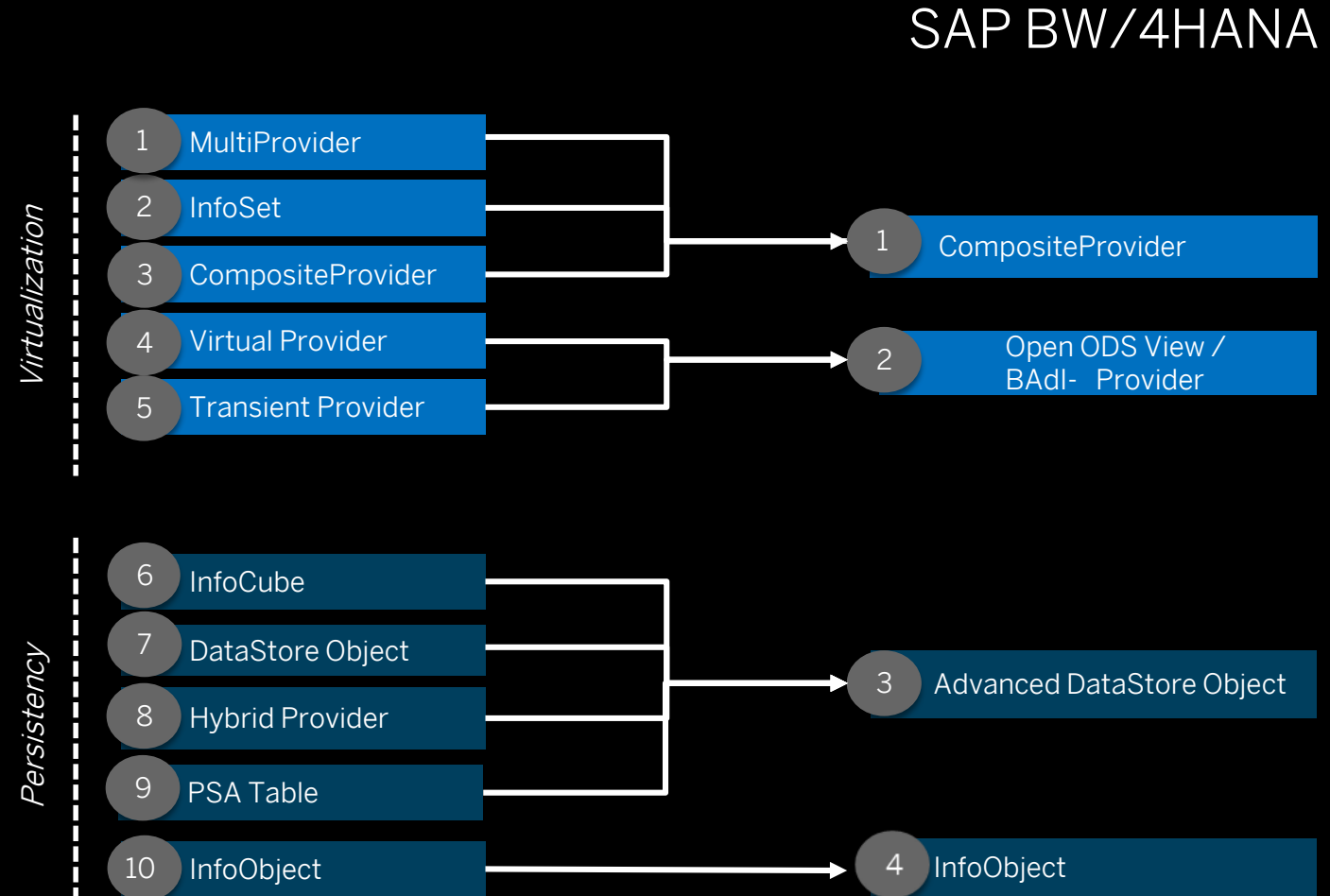
Content Features



SAP BW/4HANA Content Features – Modeling Entities

Content built with the modeling entities

- CompositeProvider
- BAdI Provider
- Advanced DataStore Object



SAP BW/4HANA Content Features - Variables

The Content Add-on offers a comprehensive set of variables (variables, SAP Exit variables, text variables) with consistent naming conventions (SAP Note [2395579](#)). Distributed among DW4CORE, BW4CONTB and BW4CONT.

A		B		C		D		E		F		G		H		I	
Technical Name		Variable Description		Type of Variable		Processing Type		Select Parameters		Entry Required		Underscore		Meaningful Name/Description			
Position (max 20)		1		2		3		4		5		6		7-20 (14 char)			
52	OCXPO_CQQ1CY	First Quart		0		C [Characteristic Value]		I [User Entry / Default Value]		P [Single Value (Parameters)]		M [Mandatory Variable Entry, Initial Value allowed]		-		dddddddddddddd	
53	OCURMEM_CALWEEK	CURRENT I															
54	OCWEEK	Current ca		N [Hierarchy Node]		R [Replacement Path]		S [Selection Option]		O [Optional Variable Entry]							
55	OCIIO_CALYEAR	Calendar Y		T [Text]		E [SAP exit - Input Ready]		I [Interval]		N [Mandatory, Initial Value not allowed]							
56	OCURMEM_CALYEAR	CURRENT I															
57	OCYEAR	Current ca		F [Formula]		X [SAP exit - No Input]		M [Several Single Values]									
58	OCXPM_CHRT_ACCTS	Chart of A		H [Hierarchy]		A [Authorization - No Input]											
						B [Authorization - Input Ready]											
Examples		OCISM_CALMONTH		0 C		I		S		M		-		CALMONTH			
		ONIPO_WBS_ELEMT		0 N		I		P		O		-		WBS_ELEMT			
		OTXPO_FIBUCKET0		0 T		X		P		O		-		FIBUCKET0			

SAP BW/4HANA Content Features – Time Characteristics

Streamlined persistence for time characteristics by making use of 0CALDAY navigational attributes. No need to decide which date characteristic is mapped into 0CALDAY/ -MONTH / -YEAR as each date characteristic in supported time granularities. For 0FISC* characteristics, this needs to be done on customer basis due to fiscal year variant.

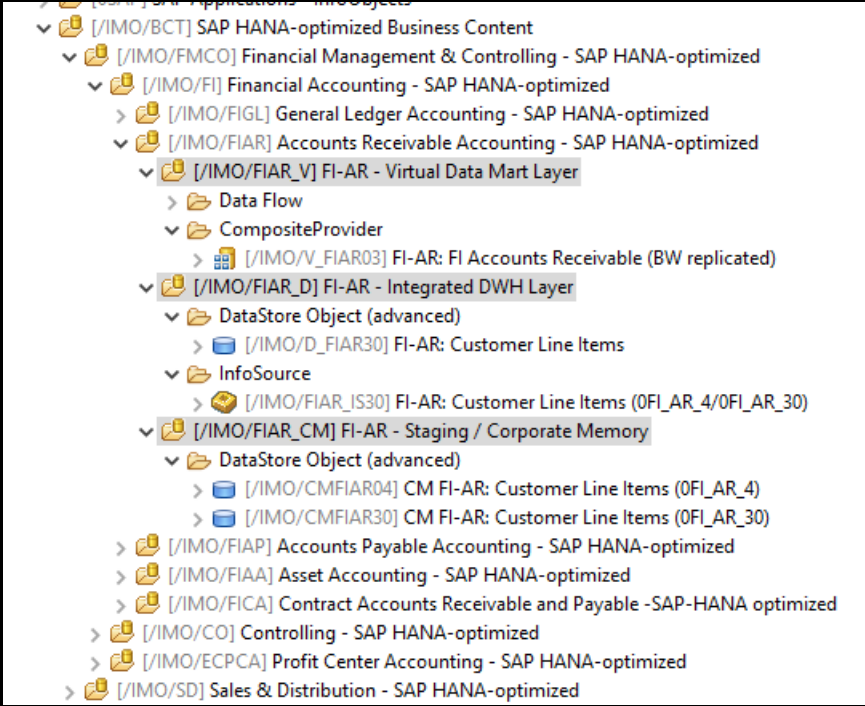
Attributes: Time Characteristic 0CALDAY		
Attributes		
Filter Pattern		
Display and Navigation Attributes (7)		
Navigation Attribute	Name	Time-Dependent
☒	[0CALMONTH] Calendar Year/M...	false
☒	[0CALMONTH2] Calendar month	false
☒	[0CALYEAR] Calendar Year	false
☒	[0CALWEEK] Calendar Year/Week	false
☒	[0HALFYEAR1] Halfyear	false
☒	[0CALQUARTER] Calendar Year/...	false
☒	[0CALQUART1] Quarter	false

Output: /IMO/V_EWM01	
Provider Fields	
Filter pattern	
View Field	Associated Object
▼ [TIM] Time Characteristics	
▼ [0WM_BBDSLED] Best Before Date / Shelf Li	[0WM_BBDSLED]
[0CALMONTH] Calendar Year/Month	
[0CALYEAR] Calendar Year	
[0CALWEEK] Calendar Year/Week	
▼ [0WM_COMPDAT] Completion Date	[0WM_COMPDAT]
[0CALMONTH] Calendar Year/Month	
[0CALYEAR] Calendar Year	
[0CALWEEK] Calendar Year/Week	
[0WM_COMPTIM] Completion Time	[0WM_COMPTIM]
▼ [0WM_GRDAT] Goods Receipt Date	[0WM_GRDAT]
[0CALMONTH] Calendar Year/Month	
[0CALYEAR] Calendar Year	
[0CALWEEK] Calendar Year/Week	
[0WM_GRTIM] Goods Receipt Time	[0WM_GRTIM]
▼ [0WM_PLDELED] Planned Delivery Date	[0WM_PLDELED]

LSA++

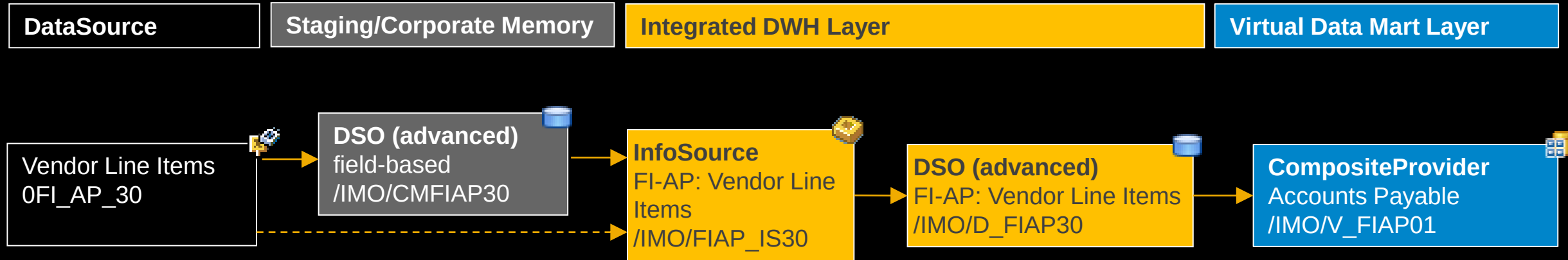


Age Group	Percentage
18-24	15%
25-34	20%
35-44	25%
45-54	20%
55-64	15%
65-74	10%
75-84	5%
85+	5%



LSA++ main aspects for the SAP BW/4 HANA Business Content

Example Dataflow FI - Accounts Payable



- Staging / Corporate Memory Layer modeled as field-based advanced DSOs
- Business transformation modeled in transformation between InfoSource and Integrated DWH Layer
- Reporting on CompositeProviders based on advanced DSOs

SAP BW/4HANA Naming Conventions

Naming conventions used throughout the content data models

Layer	Object	Technical Name	Example
Staging/Corporate Memory Layer	DataStore Object	/IMO/CM<InfoArea>nn	/IMO/CMPUR11 (if based on an ODP BW DataSource)
		/IMO/C_<InfoArea>nn	/IMO/C_PUR11 (if based on an ABAP CDS View DataSource)
Integrated DWH Layer	InfoSource	/IMO/<InfoArea>_ISnn	/IMO/PUR_IS11
	DataStore Object	/IMO/D_<InfoArea>nn	/IMO/D_PUR11
Virtual Data Mart Layer	CompositeProvider	/IMO/V_<InfoArea>nn	/IMO/V_PUR01
	Data Flow	/IMO/DF_<InfoArea>_nn	/IMO/DF_PUR01 (if based on an ODP BW DataSource)
		/IMO/DF_<InfoArea>_nn_C	/IMO/DF_PUR_01_C (if based on an ABAP CDS View DataSource)

i Note

The long description of the InfoSource contains the technical name of the corresponding DataSource.
For example: **MM-PUR: Purchase Data Item (2LIS_02_ITM)**

Objectives and measures of SAP BW/4HANA Content

Objective	Measure (examples only)
Less persistencies, less data	- Virtualize logic in Virtual Data Mart Layer (e.g. CompositeProvider) - Skip unnecessary persistencies / DataMart DSOs - Virtualize Time Characteristics based on 0CALDAY - Use of transitive attributes
Better data load performance	- Enable HANA-push down e.g. by using formulas instead of ABAP in Transformations
Better report performance	- Keeping performance in mind when implementing queries - Filter selection to reduce result set - High aggregation of first query result set
More flexibility in reporting	- Virtualize logic in Virtual Data Mart Layer - Document level information instead of aggregates - Use of Restricted and Calculated KeyFigures instead of persisted KeyFigures
More flexibility in data acquisition	- Add field-based Staging / Corporate Memory Layer - Define Business Logic only in Transformation between InfoSource and Integrated DWH Layer aDSOs
Simple and easy to understand	- Good documentation (SAP Online Help and ABAP Code in-place commentary) - Skip „nice-to-have“ features in straight forward content - More transparent transformations (no 3.x migrated update rules)

Example: FI - Asset Accounting

Comparison Classic BW Content with HANA-optimized BW Content

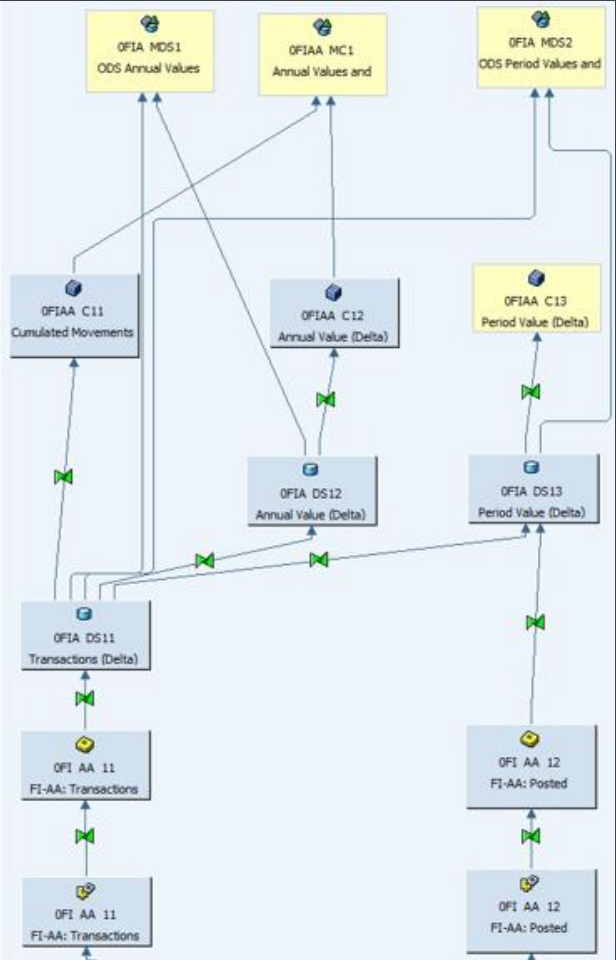
Classic BW Content FI-AA

- 8 Persistencies
- 9 Data Loads with dependencies
- 4 InfoProvider for reporting

Data Load cycle in SAP BW
5 million records OFI_AA_11
12 million records OFI_AA_12
~ 1:21 hours



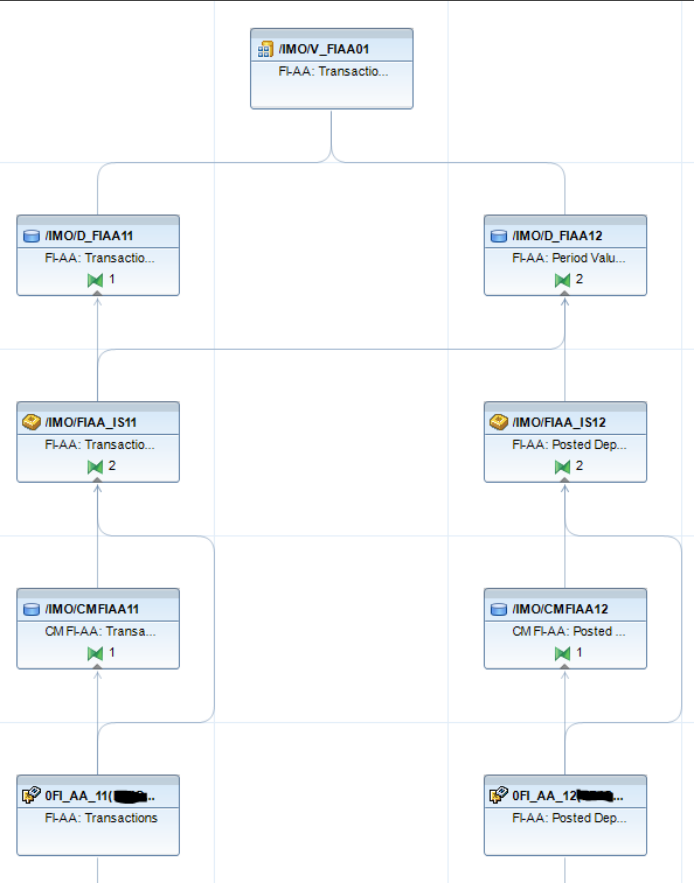
Data Load cycle in SAP BW on HANA
5 million records OFI_AA_11
12 million records OFI_AA_12
~ 57 minutes



HANA-optimized BW Content FI-AA

- 4 Persistencies
- 5 Data Loads, NO dependencies
- 1 InfoProvider for reporting

Data Load cycle in SAP BW/4HANA
5 million records OFI_AA_11
12 million records OFI_AA_12
~ 19 minutes



Example: FI - Asset Accounting Feedback by Customer

"The transactional and posted depreciation reports were previously pieced together from BW reports that had partial data for a subset of depreciation areas and ECC reports that had to be run in batches for very narrow criteria (company code, fiscal period, depreciation area, asset class). The entire process at month-end would take 8-10 hours.

With the new HANA optimized content the Fixed Assets team can now report across all company codes, all depreciation areas, all fiscal periods and all asset classes and view results within 10 seconds or less. The issue with reporting now has turned into one where the users have so much data at their fingertips, they are overwhelmed with the analytical possibilities.

This is a good problem to have and I look forward to seeing how they evolve in this area.

It was all made possible by SAP's HANA optimized content for Fixed Assets."

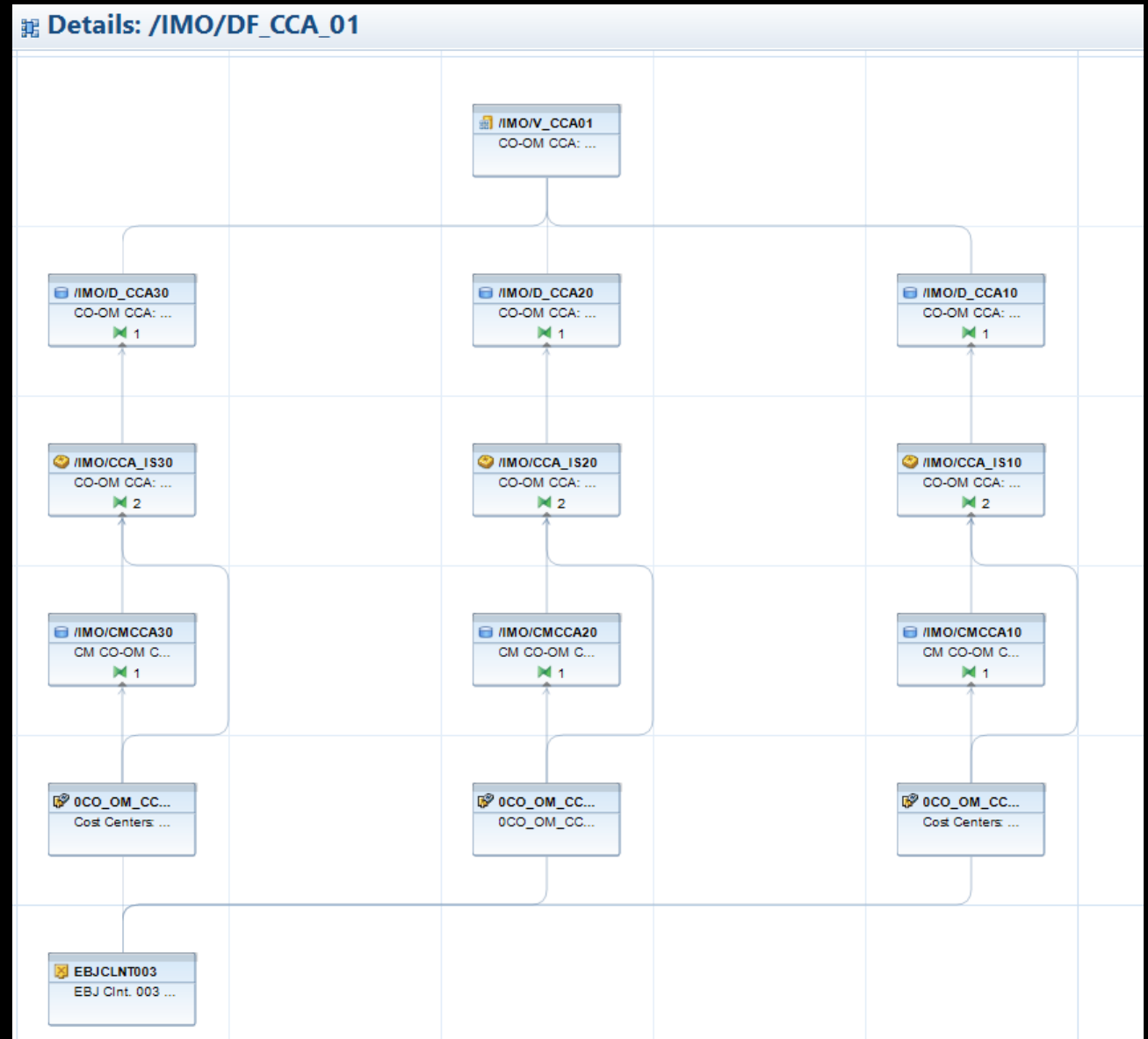
Source: <http://phoenixendeavors.com/hana-optimized-content-for-fixed-assets/>

Data Flows delivered as Content objects

Data Flows delivered for all Content areas with SP03

View Business Content before installation. Display in D-Version possible.

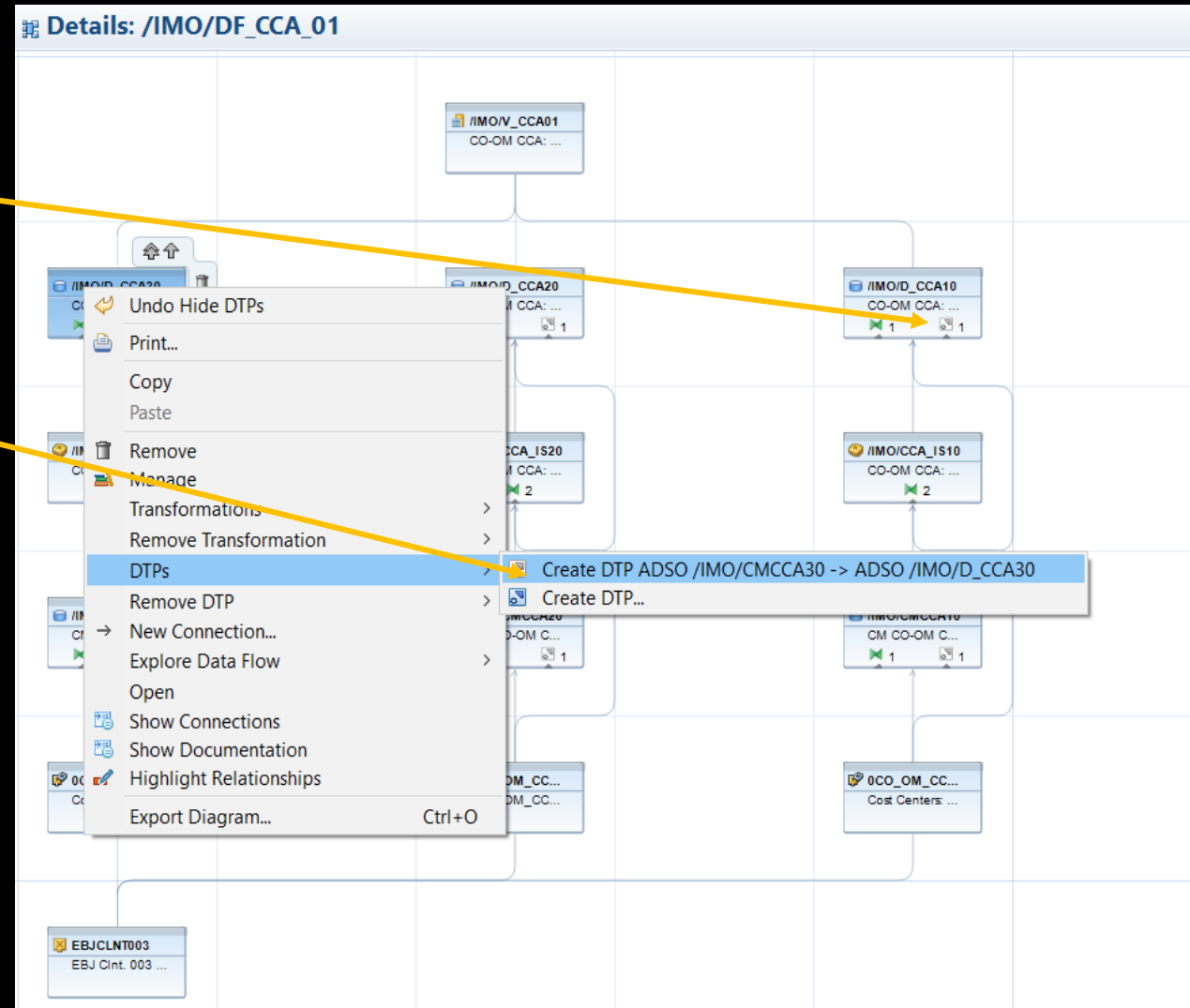
Faster Content installation in Transaction RSOR by directly selecting a Data Flow object. Only necessary objects for the Data Flow are collected for installation.



Data Flows

Non-persistent DTPs included as proposals

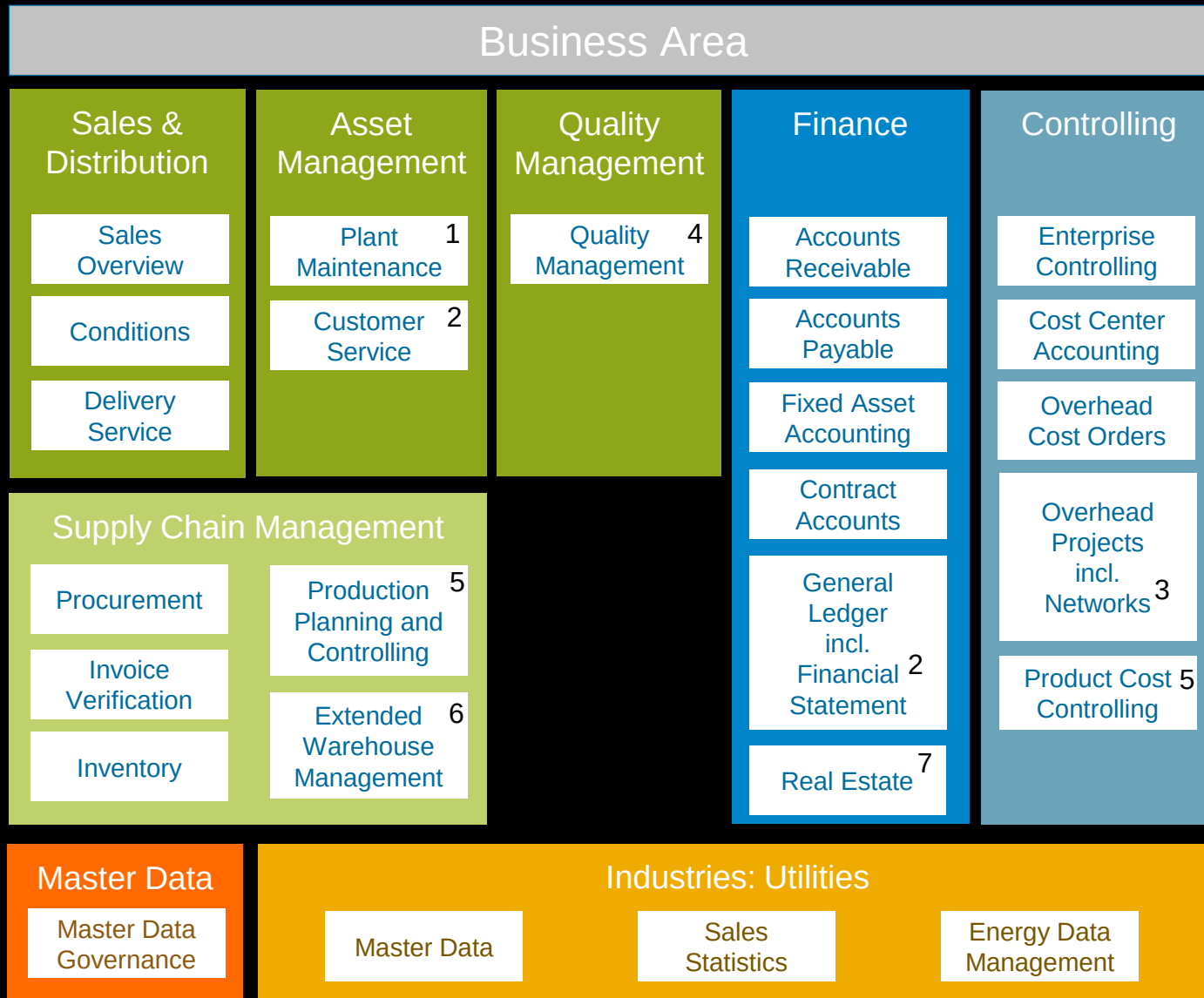
Create DTPs from this proposal per right mouse click



Content by Business Area



SAP BW/4HANA: Content Overview as of SP10



- 1 Delivered with BW4CONT SP02 + SP03 + SP07
- 2 Delivered with BW4CONT SP03, Financial Statement analysis delivered with BW4CONT SP03
- 3 Overhead Controlling for Networks delivered with BW4CONT SP04
- 4 Delivered with BW4CONT SP04 + SP05
- 5 Delivered with BW4CONT SP05
- 6 Delivered with BW4CONT SP05 + SP06
- 7 Delivered with BW4CONT SP07 + SP09

BW4CONT/B >= SP05 requires SAP BW/4 HANA 1.0 SP07

BW4CONT/B <= SP04 requires SAP BW/4 HANA 1.0 SP04

What is New in [SP09](#)

Real Estate (RE): Valuation Process and Valuation Cash Flow

Retraction (CO): Statistical Key Figures, Activity Input and Activities/Prices

What is New in [SP07](#)

Real Estate (RE)

Plant Maintenance (PM) – SAP S/4HANA Data Provisioning

Retraction (CO): Primary costs

What is New in [SP06](#)

Supply Chain

- Further content for Extended Warehouse Management (EWM)

What is New in [SP05](#)

Supply Chain

- Production Planning and Controlling (PP)
- Extended Warehouse Management (EWM)

Controlling

- Product Cost Controlling (CO-PC)

Quality Management

- Quality Management (QM)

Business Content Financials – General Ledger (FI-GL)

Finance:
General
Ledger

- General Ledger Overview:

- Accounting data on aggregated (balance) as well as accounting document item level
- Actuals Balance and Flow comparison
- Actuals/plan/budget comparison

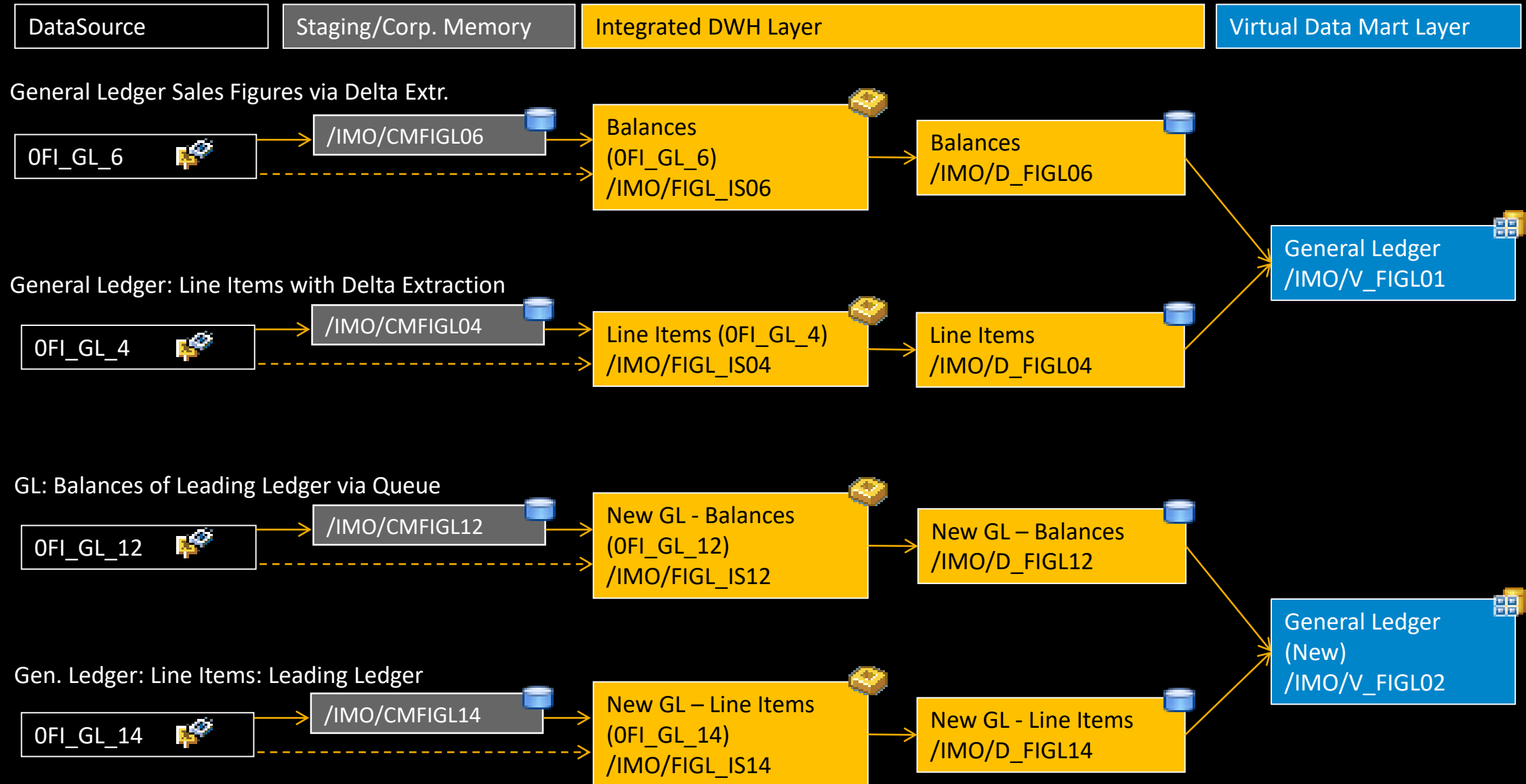
- New General Ledger Overview:

- Accounting data on aggregated (balance) as well as accounting document item level
- Actuals Balance and Flow comparison
- Actuals/plan/budget comparison
- Financial Statements *

-
- LSA++ Architecture incl. Staging/Corporate Memory
 - Usage of DSO (advanced), CompositeProvider
 - Virtual Data Mart Layer
 - Higher level of detail (down to line item level)

* Delivered with BW4CONT SP03

Dataflow: Financials – General Ledger (FI-GL)



Dataflow: Financials – General Ledger (FI-GL)

Integrated DWH Layer

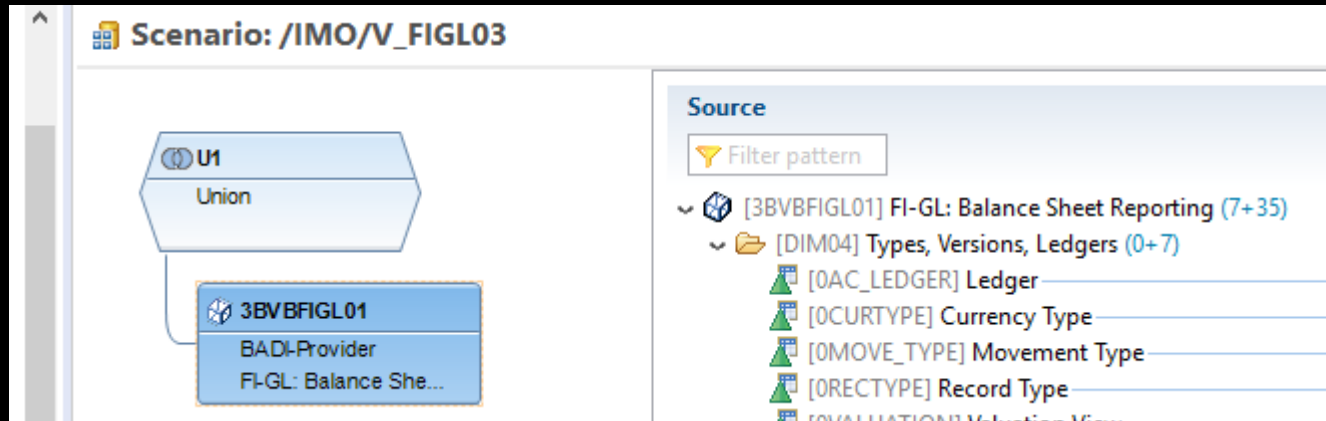
Virtual Data Mart Layer

BAdI Provider

New GL - Balances
/IMO/D_FIGL12

Balance Sheet Reporting
3BVBFIGL01

Financial Statements
/IMO/V_FIGL03



Delivered with BW4CONT SP03

Business Content Inventory Management (MM-IM)

Material
Management:
Inventory
Management

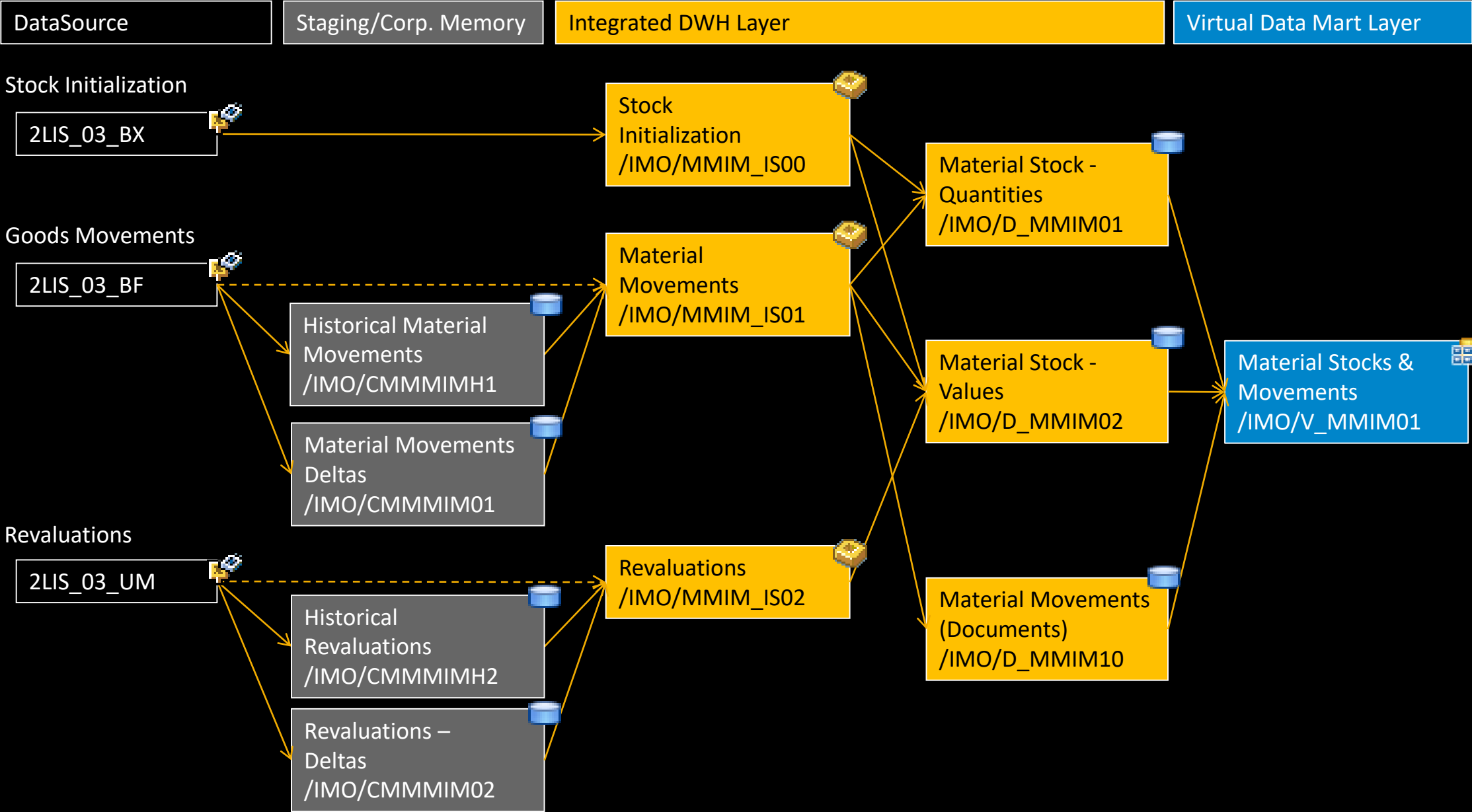
- Material Stock and Movements:
 - Stock values and quantities for different types of stocks, (total stock, valuated stock, special stocks and consignment stock)
 - Stock overview
 - Material range of coverage
 - Stock obsolescence and variance

SAP Note for SAP ERP / S/4HANA Inventory Management in SAP BW/4HANA: [2678507](#)

- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail for Movements



Dataflow: Inventory Management (MM-IM)



Showing Simplification: Transformation Logic in Inventory Management

Classic BW Content for Inventory Management (InfoCube 0IC_C03)

The screenshot displays the SAP BW Transformation Editor interface. The top section shows the transformation configuration: Source is '2LIS_03_BF_TR (2LIS_03_BF_TR)', Target is 'Material Stocks/Movements (as of 3.0B) (0IC_C03)', and Version is 'A Active'. Below this, a list of source fields (18-48) is shown on the left, and a list of target fields (1-28) is shown on the right. A 'Rule Group' dropdown menu is open, showing options 'Standard Group' and 'New Rule Group'. The 'Rule Group' dropdown is currently set to '05'. The target fields are mapped to the source fields via a series of lines. The target fields are listed in a table below.

Posi	Key	InfoObject	Icon	Descript.	Int
1	✓	0CALDAY	🕒	Calendar Day	
5	✓	0MATERIAL	📦	Material	
6	✓	0PLANT	🏭	Plant	
7	✓	0STOR_LOC	📦	Storage location	
8	✓	0BATCH	📦	Batch number	
9	✓	0STOCKTYPE	📦	Stock type	
10	✓	0STOCKCAT	📦	Stock Categories	
11	✓	0GN_VENDOR	📦	Vendor	
12	✗	0RECVS_VAL	📦	Value Received into Valuated Stock	
13	✗	0ISSVS_VAL	📦	Value issued from valuated stock	
14	✗	0ISSBLOSTCK	📦	Issue quantity: blocked stock	
15	✗	0ISSCNSSTCK	📦	Quantity Issued from Consignment Stock	
16	✗	0ISSQMSTCK	📦	Issue quantity: stock in quality inspection	
17	✗	0ISSTRANSST	📦	Issue Quantity: Stock in Transit	
18	✗	0RECBLOSTCK	📦	Receipt Quantity: Blocked Stock	
19	✗	0RECCNSSTCK	📦	Quantity Received into Consignment Stock	
20	✗	0RECCQMSTCK	📦	Receipt Quantity: Stock in Quality Inspection	
21	✗	0RECTRANSST	📦	Receipt Quantity: Stock in Transit	
22	✗	0ISSSCR	📦	Issue quantity: scrap	
23	✗	0ISSVALSCR	📦	Issue value: scrap	
24	✗	0RECTOTSTCK	📦	Receipt Quantity Total Stock	
25	✗	0ISSTOTSTCK	📦	Issue Quantity Total Stock	
26	✗	0ISSVALSTCK	📦	Quantity Issued from Valuated Stock	
27	✗	0RECVLSTCK	📦	Quantity Received into Valuated Stock	
28	✗	0VENCONCON	📦	Vendor Consignment Stock Consumption Value	

- Start Routine (ABAP)
- Up to six rule groups
- Field ABAP Routines
- Key Figures for special stocks

Showing Simplification: Transformation Logic in Inventory Management

BW/4HANA Content for Inventory Management

Runtime Properties

Transformations can generally be executed either in SAP HANA runtime or ABAP runtime depending on the feature set used.

Transformation is executed in **SAP HANA Runtime**. [Switch Runtime...](#)

Global Routines

Start Routine: [Create...](#)

End Routine: [Create SAP HANA Script...](#) [Create ABAP...](#)

Expert Routine: [Create...](#)

Project Explorer

Transformation

Rules: 0R4QN2QWJSLIZGGQQQT17GKNIG85MLEI

Source: /IMO/MMIM_IS01

Target: /IMO/D_MMIM01

Name	K..	Type	Aggregation
[OSTORNO] Reversal indicator		CHAR (1)	
[ORT_PROMO] Promotion		CHAR (10)	
[OORDER] Order Number		CHAR (12)	
[OCO_AUFPL] Routing number of		NUMC (10)	
[OVAL_CLASS] Valuation Class		CHAR (4)	
[ODOC_DATE] Document Date		DATS (8)	
[ODLV_COSTS] Delivery Costs		CURR (17, 2)	Summation
[OSTOCKTYPE] Stock type		CHAR (1)	
[OSTOCKCAT] Stock Categories		CHAR (1)	
[OPSTNG_DATE] Posting Date in ti		DATS (8)	
[OCOMP_CODE] Company Code		CHAR (4)	
[OCHRT_ACCTS] Chart of Account		CHAR (4)	
[OBWAPPLNM] Application Comp		CHAR (30)	
[OMOVETYPE] Movement Type (r		CHAR (3)	
[OSTOCKRELEV] BW: Relevance to		CHAR (1)	
[OBWCOUNTER] Additional Key Fi		NUMC (10)	
[OCPPVLC] BW: Purchase Value in		CURR (17, 2)	Summation
[OCPSVLC] BW: Sales Value in Loc		CURR (17, 2)	Summation
[OCPSVLC] BW: Sales Value with T		CURR (17, 2)	Summation
[OID_VALAREA] Valuation Area		CHAR (4)	
[IDCPOLJABLI] BW: Amount in basi		QUAN (17, 3)	Summation
[OVAL_TYPE] Valuation type		CHAR (10)	
[OPROCESSKEY] BW: Transaction I		NUMC (3)	
[OBATCH] Batch Number		CHAR (10)	
[OVALUE_LC] Amount in Local Cu		CURR (17, 2)	Summation
[OOI_EBELN] Purchasing docume		CHAR (10)	
[OOI_EBELP] Item number of purc		NUMC (5)	
[OUNIT] Unit of Measure		UNIT (3)	
[OOI_ERFMG] Quantity in unit of e		QUAN (17, 3)	Summation
[OMATMREA] Reason for Goods I		NUMC (4)	
[OBUS_AREA] Business Area		CHAR (4)	
[ODOC_NUMBER] Sales Document		CHAR (10)	
[OSCHED_LINE] Schedule line num		NUMC (4)	
[OS_ORD_ITEM] Sales document it		NUMC (6)	
[OCO_AREA] Controlling Area		CHAR (4)	
[OCOSTCENTER] Cost Center		CHAR (10)	
[OCOSTOBJ] Cost Object		CHAR (12)	
[OCUSTOMER] Cust. no.		CHAR (10)	
[ODF_MOVEFLAG] Movement Indic		CHAR (1)	

Rules (21)

- Direct Assignment (5)
- Time assignment of type Time (1)
- Formula (11)
- Constant (1)
- Initial (1)
- No Update (2)
- Consignment Stock (21)
- Technical Rules (2)

Target: /IMO/D_MMIM01

- [CHA] Characteristics
- [OMATERIAL] Material
- [OPRODUCT] Product
- [OPLANT] Plant
- [OGN_LOCATIO] Location
- [OBATCH] Batch Number
- [OSTOCKTYPE] Stock type
- [OSTOCKCAT] Stock Categories
- [OVENDOR] Vendor
- [OGN_VENDOR] Vendor
- [OCUSTOMER] Cust. no.
- [OGN_CUSTOM] Customer
- [TIM] Time Characteristics
- [OCALDAY] Calendar Day
- [OUPD_DATE] Update Date
- [UNI] Units/Currencies
- [OBASE_UOM] Base Unit of Measure
- [KVF] Key Figures
- [ORECTOTSTCK] Receipt Quantity Total Stock
- [OISSVALSTCK] Quantity Issued from Valuated St
- [ORECCNSSTCK] Quantity Received into Consig
- [OISSCNSSTCK] Quantity Issued from Consignm

- No Start Routine
- Only formulas used, no ABAP routines
- Less rule groups
- Less persisted key figures (Special stock key figures virtualized)

Transformations can be executed in SAP HANA

New data model for MM-Inventory Management

Benefits

Change	Benefit
Split „Stock Quantity“ vs „Stock Values“ vs „Movements“ in separate part provider	- More robust solution (SAP Note 586163) - Less Rule Groups in BW Transformations - Reduces complexity of transformation logic - Simplified custom implementation if only stock quantities are required - More flexibility in Virtual Data Mart Layer e.g. when defining pure consumption key figures based on „Movements“ - Better performance due to partitioning and pruning
Virtualization of business logic: Shift from key figure model to account based model for special stocks	- Less transformation rules (virtualized as BEx Query restricted / calculated key figures) - More flexibility when adjusting /creating restricted / calculated key figures in Virtual Data Mart Layer
Replacing start routine by transformation formula for key figure (to exclude consumptions)	- Transformation logic for key figure calculation at one place - Allows DTP execution in HANA
Adding characteristic Customer for consignment stock analysis	- Improved end user experience: reporting on customer stock by customer

Business Content Master Data – Master Data Governance (MDG)

Master Data:
Master Data
Governance

- Data flow to load key mapping and best record information from SAP MDG into consolidated InfoObjects
 - Customer 0GN_CUSTOM based on customer and business partner
 - Vendor 0GN_VENDOR based on vendor and business partner
 - Product 0PRODUCT based on material
- Allows consolidated reporting across multiple source systems

-
- LSA++ Architecture
 - Usage of DSO (advanced)

Consolidated InfoObjects

What the purchase manager wants to see...

But lack of standardized master data creates inaccurate and incomplete reporting, leading to poor business decisions

Group ID Partner	Vendor	Effective Net Invoice Volume in Document Currency
Thompson Electronics	Thompssen Inc.	189.000,00 EUR
	Thom. Germany	29.700,00 EUR
	Thompson Supplies	28.100,00 EUR
	Result	246.800,00 EUR
International Servic	Int. Services	177.400,00 EUR
	Int. Services	119.200,00 EUR
	Result	296.600,00 EUR
Supply & More	Supplies & More	149.300,00 EUR
	Supply & More Int.	41.300,00 EUR
	Result	190.600,00 EUR
Overall Result		734.000,00 EUR

... no transparency into the vendors I do business with

Possible difficulties:

- Typos
- Parent-subsubsidiary
- Unharmonized Master Data

Marvestlé, Marvetlé

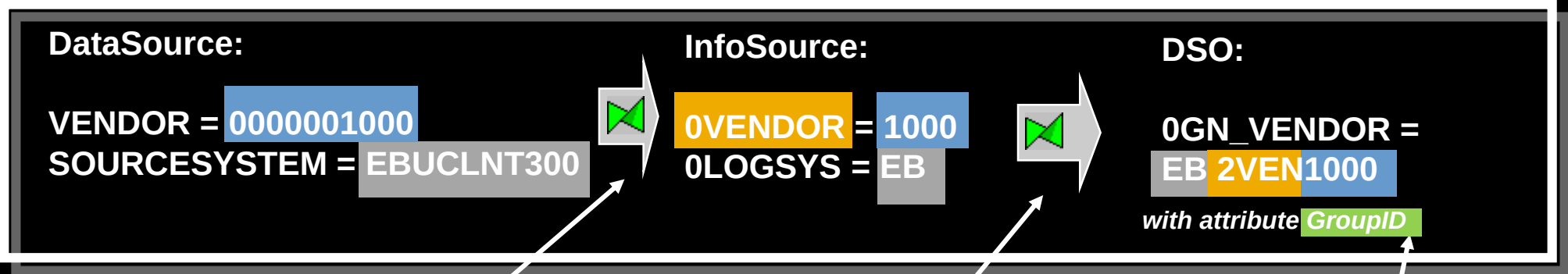
Company Holding, Company Regional Group

System A: 2000 HuloAir SE

System B: 1000 HuloAir SE

System B: 2000 AirFantasia SE

Consolidated InfoObjects – Example Generic Vendor (0GN_VENDOR)



2 digit System ID

EBUCLNT300	EB
EBUCLNT330	ES
QWACLNT100	QW
QWACLNT100	QA

Maintained in BW Table
(RSA1 -> Source System Assignment)

InfoObject-Type

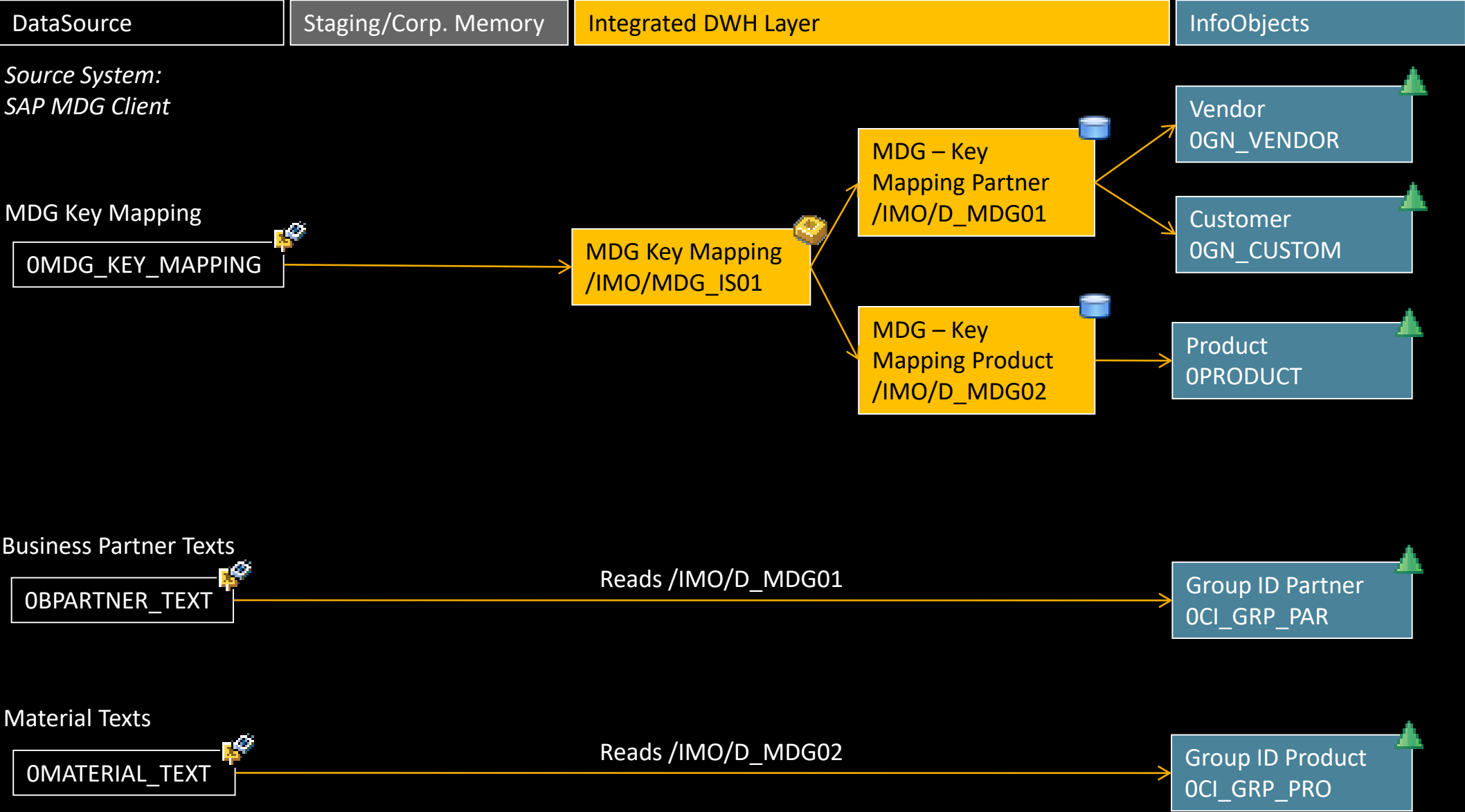
InfoObject	Type
0VENDOR	2VEN
0CUSTOMER	2CUS
0BPARTNER	2BPA
0MATERIAL	3MAT

Logic in Transformation / Function

SAP MDG

Vendor	GroupID
1000 HuloAir SE	1
2000 HuloAir SE	1
3000 AirFanta SE	2

Dataflow: Master Data – Master Data Governance(MDG)



Transactional Data

- Conditions
- Cash Flow
 - Valuation Cash Flow *
 - Partner Cash Flow
 - Object Cash Flow
- Renewals
- Object Assignments

Master Data

- Contracts
- Master Data Valuation
 - Contract Object
 - Valuation Rules per Contract
 - Valuation Specific Condition Parameters

Delivered with BW4CONT SP07

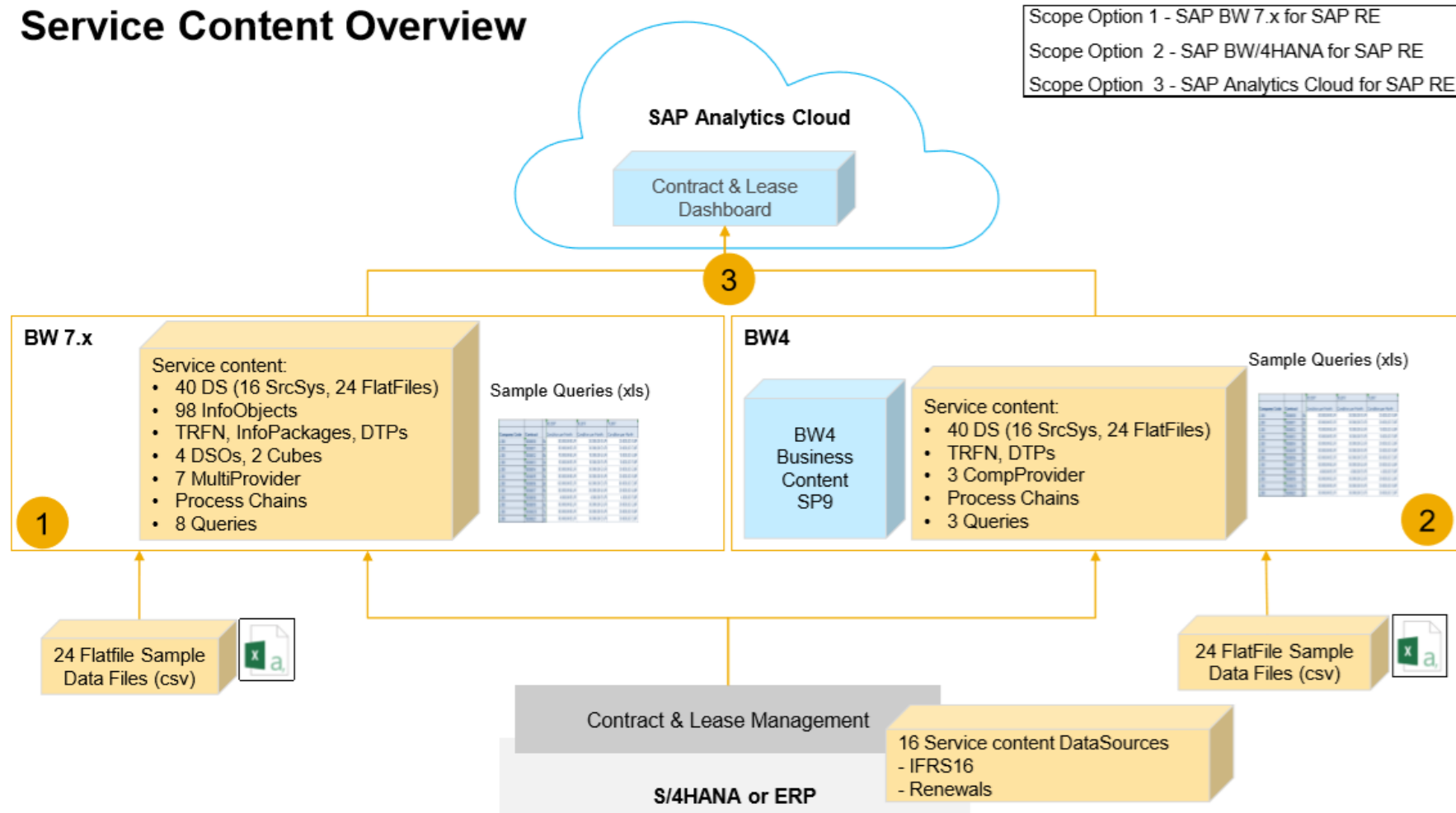
*Delivered with BW4CONT SP09

-
- LSA++ Architecture incl. Staging/Corporate Memory
 - Usage of DSO (advanced), CompositeProvider
 - Virtual Data Mart Layer



Analytics with SAP Real Estate Management (Service No 50147664)

Service Content Overview



- This service provides customers a confident start into deploying SAP analytics products on top of their SAP Real Estate Management system. The service comes with pre-defined business content options for SAP BW 7.x, SAP BW/4HANA and SAP Analytics Cloud that enable the creation of reports for lease contracts and property assets according to the new lease accounting rules IFRS 16 effective from January 1st 2019.

Planned Shipment of of S/4HANA SD Content



The business content for SAP S/4 SD reflects the latest changes for SD Billing and offers detailed analyses possibilities

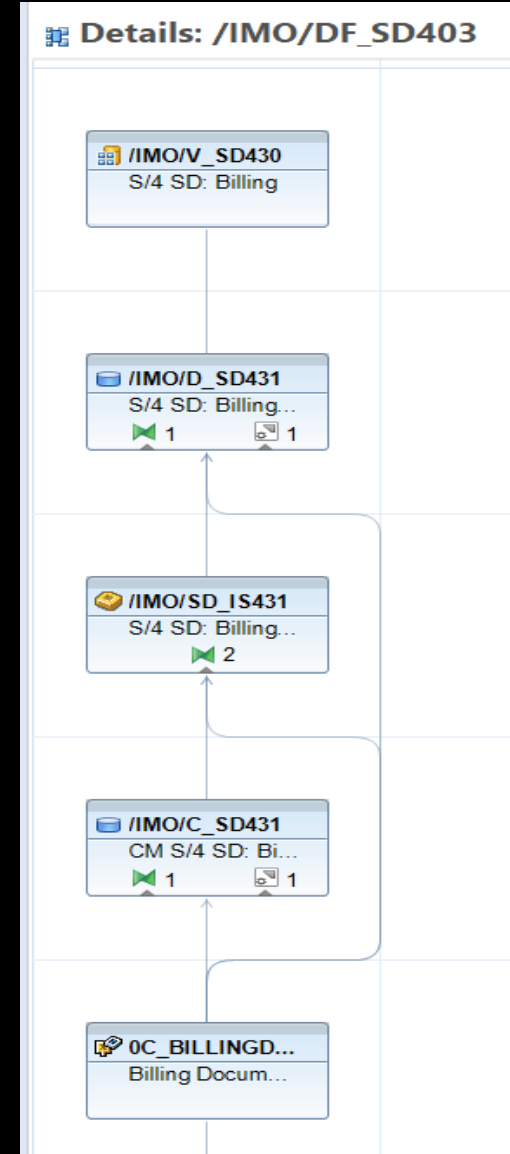
BW/4 HANA Content for S/4HANA	Planned* Support Package (Planned* Release Date)
S/4HANA SD Billing Content	BW/4HANA 1.0 SP11 (June 2019) BW/4HANA 2.0 SP01 (August 2019)

**Planned: subject to change*

Planned Shipment of S/4HANA SD Billing Content

Streamlined data model for S/4HANA SD Billing

- Based on CDS view extraction
- Comprehensive DataSource allows for more detailed analyses
- Enhanced delta mechanism
- No Filling of Initial Setup tables -> no system block required



S/4HANA

Further Shipment based on CDS View extraction planned



- CDS view based extraction out of S/4HANA OP and S/4HANA Cloud systems
- CDS views provided by SAP or custom CDS views (OP)
- Two delta mechanisms available: based on time-stamps or on data base triggers (CDC)
- DataSources with broad structure enable enhanced modeling in BW/4

Planned Shipment of Success Factors Content

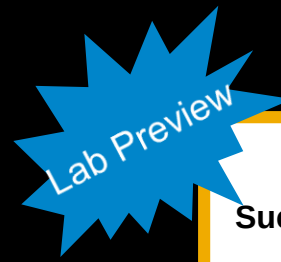


The business content for SuccessFactors is intended as a foundation for designing, modeling, and building your EDW in SAP BW/4HANA, and while often adapted to customer needs, it provides a jump start that facilitates faster and more consistent delivery of EDW projects.

BW/4 HANA Content for Success Factors	Planned* Support Package (Planned* Release Date)
Workforce Management (Employee Central) – Staging Layer & InfoObjects	BW/4HANA 2.0 SP00 (May 2019)
- Workforce Management (Employee Central) – Headcount & Event Reporting - Performance Management	BW/4HANA 2.0 SP01 (August 2019)

**Planned: subject to change*

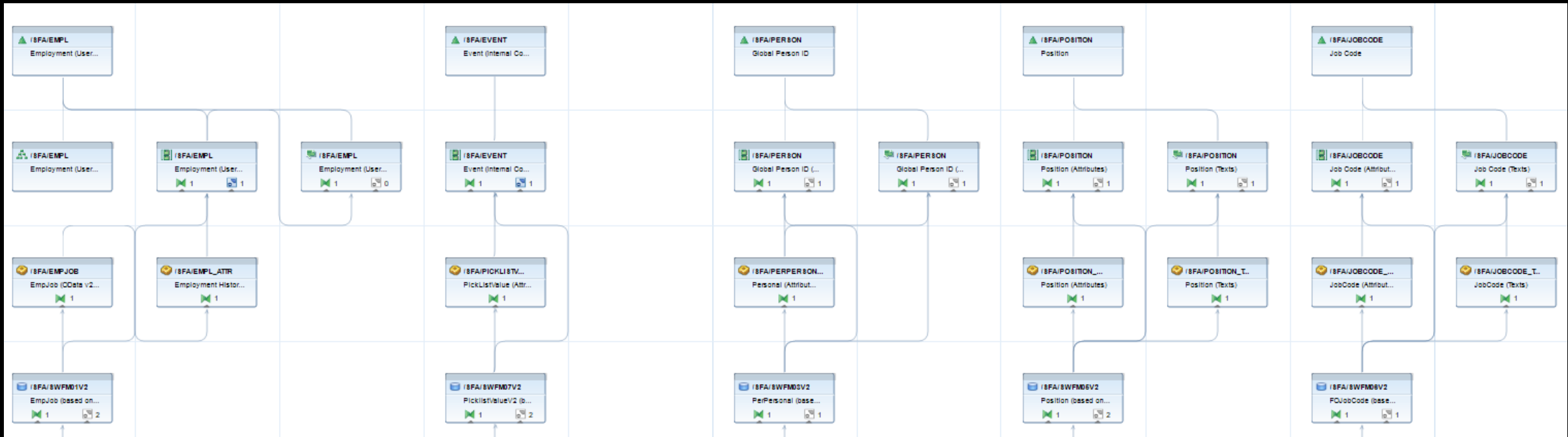
Planned Shipment of Success Factors Content



SuccessFactors

Core InfoObjects in Workforce Management

- Employment
- Global Person
- Position
- Job Code



SAP Help Online Documentation



SAP Help Portal

SAP BW/4HANA Content Add-On

SAP BW/4HANA Content Add-On

SAP BW/4HANA Content Add-On 1.0 SPS10 (Last Update: March 25, 2019)

Version: 1.0 SP10

Language: English

This product



What's New

[What's New in the SAP BW/4HANA Content Add-On 1.0](#)

Information about what's new and what's changed since the last release



Feature Scope Description

[Feature Scope Description - SAP BW/4HANA Basis Content Add-On](#) (PDF)

[Feature Scope Description - SAP BW/4HANA Content Add-On](#) (PDF)



Installation and Upgrade

[SAP Note 2393067 - Installation Note](#)

Information on how to install SAP BW/4HANA Basis Content Add-On and SAP BW/4HANA Content Add-On



Application Help

[SAP BW/4HANA Content Add-On](#)

This documentation describes the data models and objects delivered with SAP BW/4HANA Content Add-On for specific business areas.



Additional Information

[SAP Note 2397520 - Information on delivered Business Content](#)

[SAP Note 2395613 - Information on delivered InfoObjects](#)

[SAP Note 2395579 - Information on delivered variables](#)



SAP BW/4HANA Product Documentation

[SAP BW/4HANA Documentation](#)

SAP BW/4HANA 1.0 SPS12 (Last Update: March 12, 2019)

Documentation: <http://help.sap.com/bw4content>

Further information

Documentation: <http://help.sap.com/bw4content>

SAP Note [2395579](#) – “SAP BW/4HANA Content - Additional information on delivered variables”

SAP Note [2395613](#) – “SAP BW/4HANA Content - Additional information on delivered InfoObjects”

SAP Note [2397520](#) – “SAP BW/4HANA Content - Differences to SAP HANA optimized BI Content delivered with BI CONT 7.57”

SAP Note [2232584](#) – “Release of SAP extractors for operational data provisioning (ODP)”

SAP Note [2400585](#) – “Collective Note & FAQ: SAP BW4/HANA Content (BW4CONT & BW4CONTB)”

SAP Note [2400685](#) – “SAP BW/4HANA Content - Recommended SAP BW/4HANA support package and SAP Notes”

SAP Note [2500202](#) – “S4TWL - BW Extractors in SAP S/4HANA”

SAP Note [2289424](#) – “S4TWL - SAP S/4HANA and SAP Business Warehouse Content - BI_CONT / BW4CONT”

SAP Note [2548065](#) – “SAP HANA-optimized BI Content and SAP S/4HANA”

For suggestions for next development areas please contact: Natascha.Marienfeld@sap.com



Thank you

Contact information:

Andreas.Tenholte@sap.com

Simon.Kranig@sap.com

Appendix

Consolidated InfoObjects



Consolidated InfoObjects used by SAP HANA - optimized BI Content

Customer 0GN_CUSTOM

Vendor 0GN_VENDOR

Product 0PRODUCT

Sales Category 0GN_CAT_SAL

Purchase Category 0GN_CAT_PUR

Location 0GN_LOCATIO

Source System for R/3 Entity 0GN_R3_SSY

Business Content Sales and Distribution (SD)

Sales &
Distribution

- Sales Overview:
 - Sales , delivery and billing document data on header and item level
 - Incoming , open orders, sales revenues, ...
 - Credit memos
 - Expected incoming orders based on open quotations
- Conditions:
 - Order and billing conditions on item level
 - Condition value per customer
 - Variances of condition rates
- Delivery Service:
 - Sales document, sales document order delivery on header and item level, sales doc. header status
 - Delivery Performance
 - Perfect Order Fulfillment

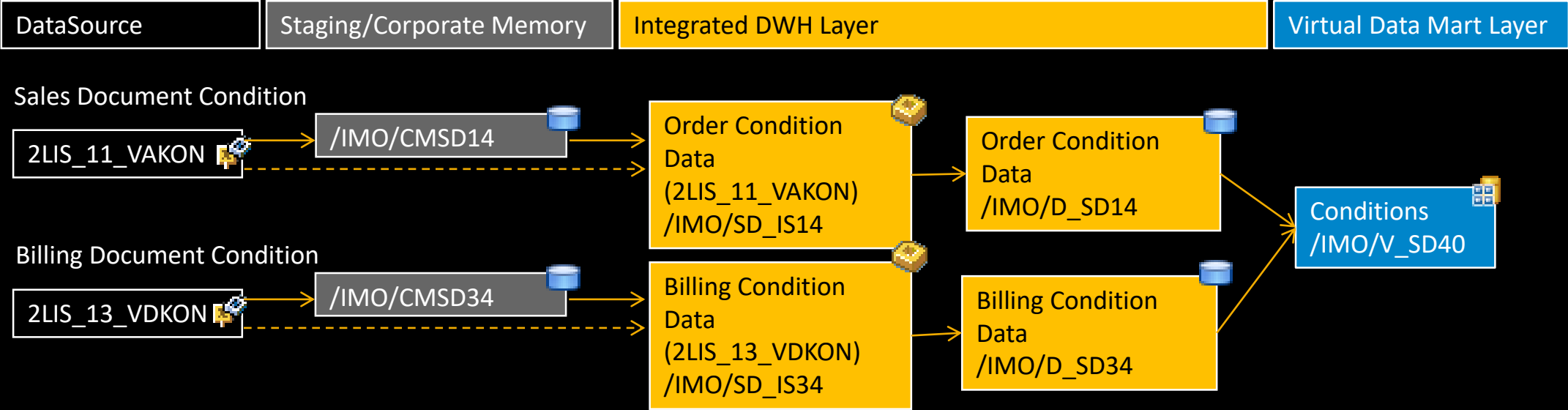
-
- LSA++ Architecture incl. Staging/Corporate Memory
 - Usage of DSO (advanced), CompositeProvider
 - Virtual Data Mart Layer
 - Higher level of detail (down to line item/schedule line level)



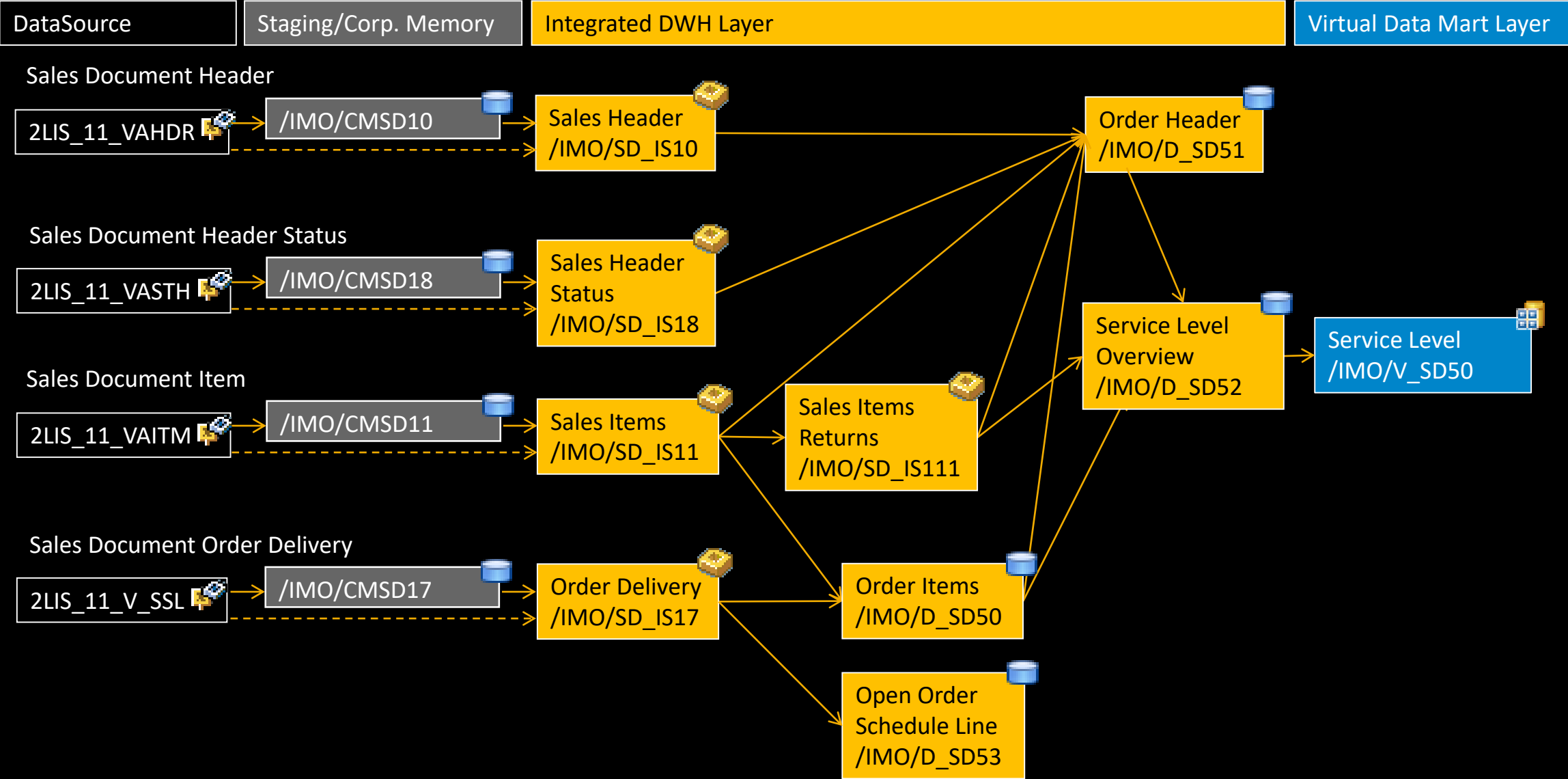
Dataflow: Sales Overview



Dataflow: Conditions



Dataflow: Delivery Service



Business Content Plant Maintenance (PM)

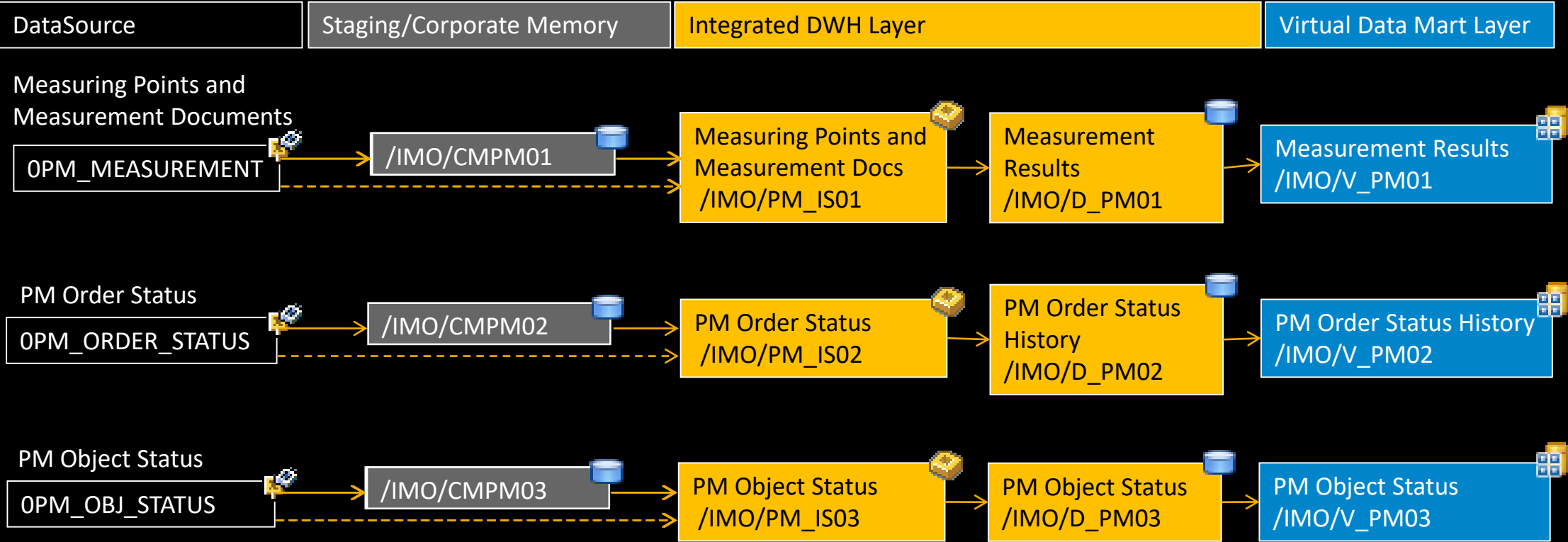
Plant
Maintenance

- Measurement results for measuring counters / points
- Work center capacity and availability
- Scheduling Overview and Planned Order
- Equipment Dismantling
- Vehicle Fuel Consumption
- Status of maintenance order and technical objects
- Notifications including items, causes, activities, tasks *
- Maintenance orders and operations *
- SAP S/4HANA Data Provisioning
DataSources and Transformations for SAP S/4HANA
on Premise ABAP CDS Views **

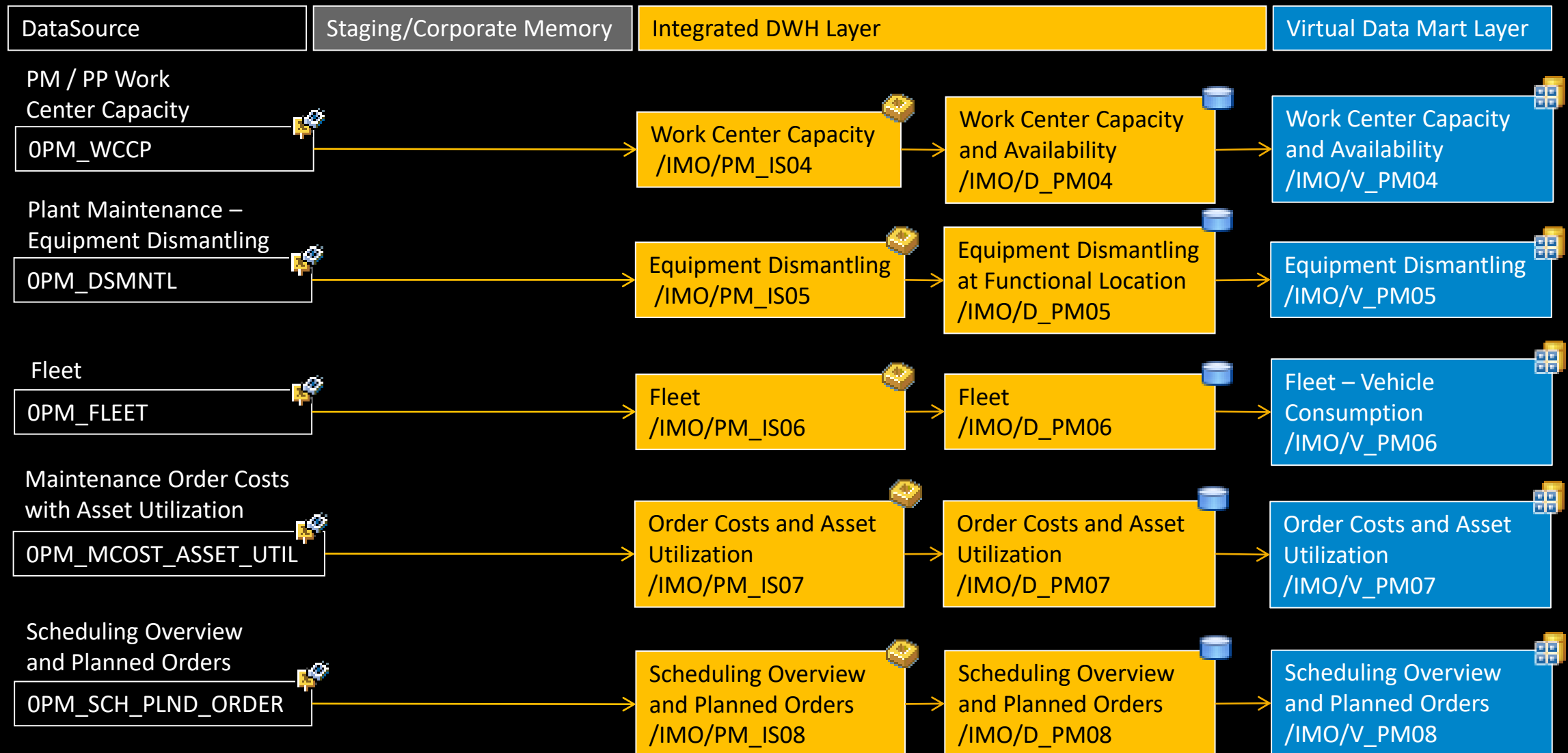
Delivered with BW4CONT SP02, * SP03, ** SP07

- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail (down to line item level)

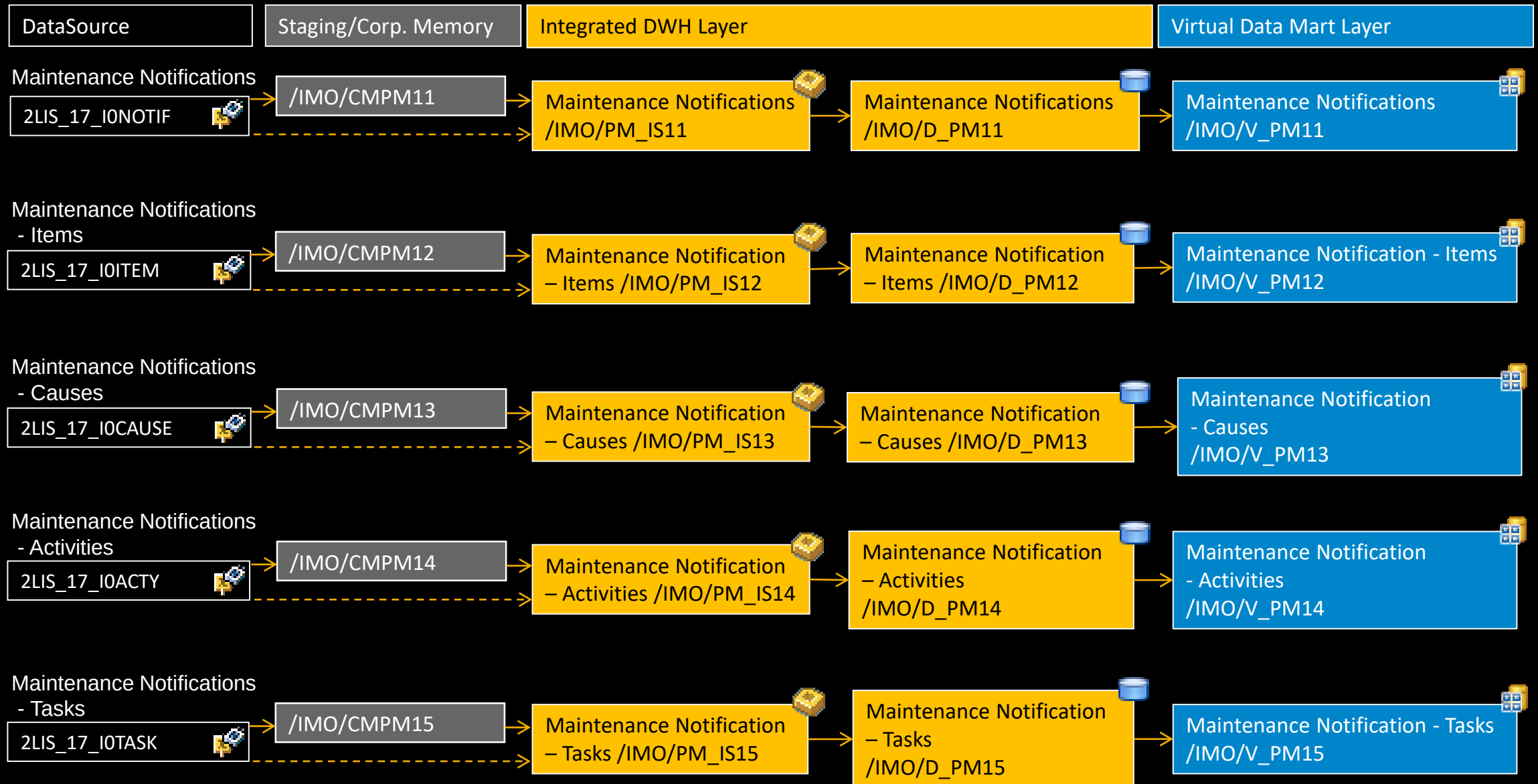
Dataflow: Plant Maintenance (ERP PM)



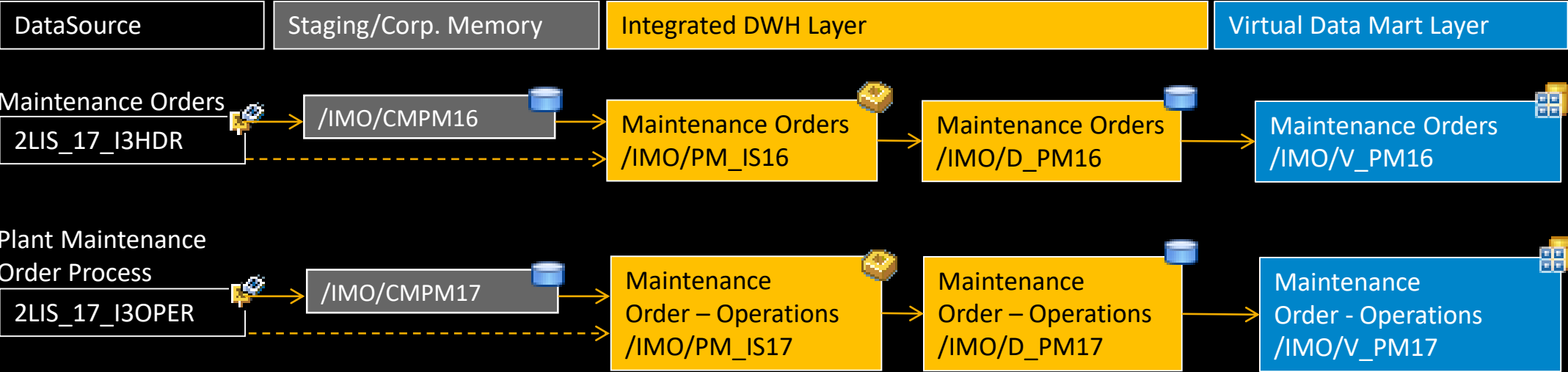
Dataflow: Plant Maintenance (ERP PM)



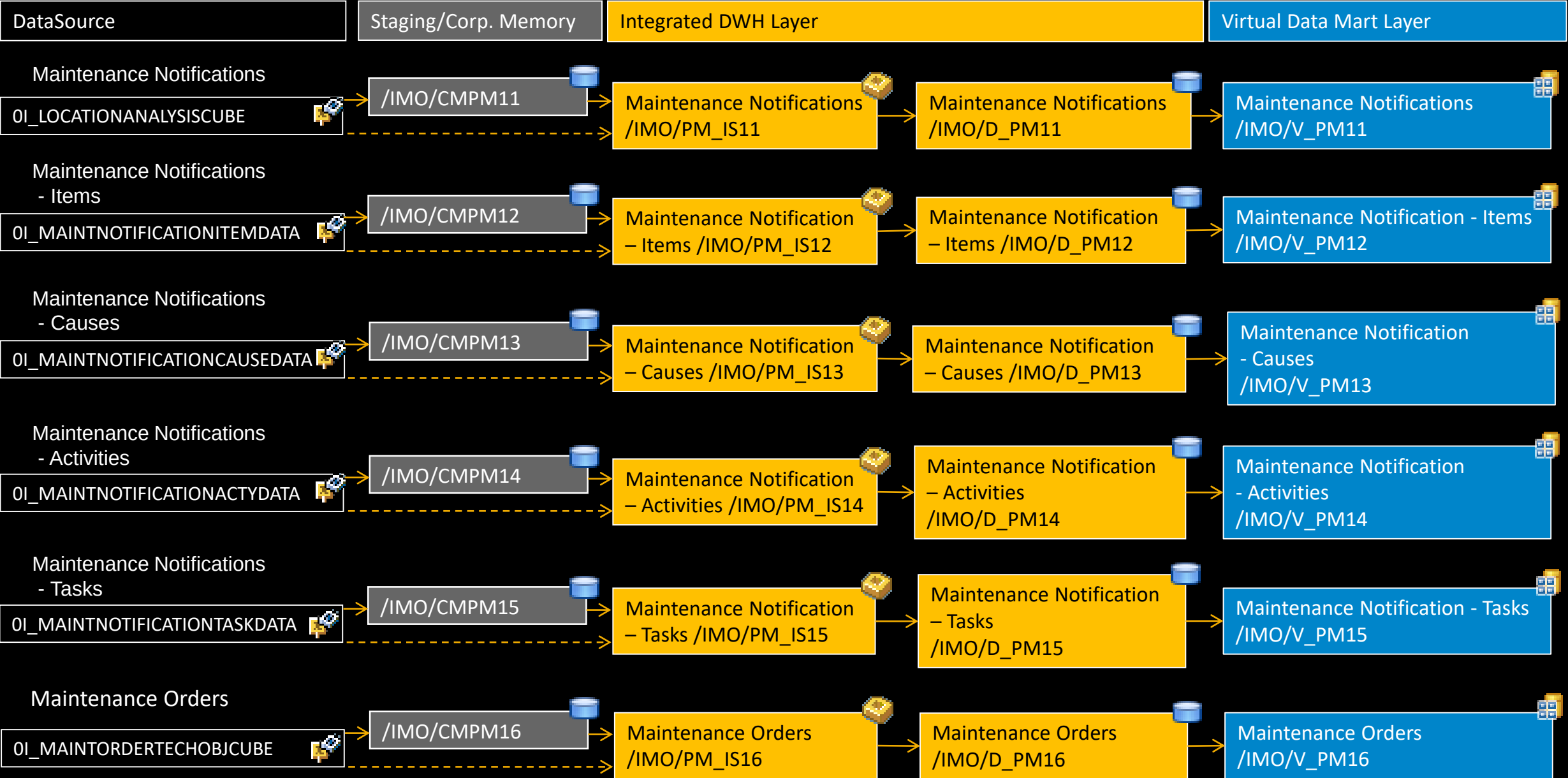
Dataflow: Plant Maintenance (ERP PM)



Dataflow: Plant Maintenance (ERP PM)



Dataflow: Plant Maintenance (SAP S/4HANA on Premise PM)



Business Content Customer Service (CS)

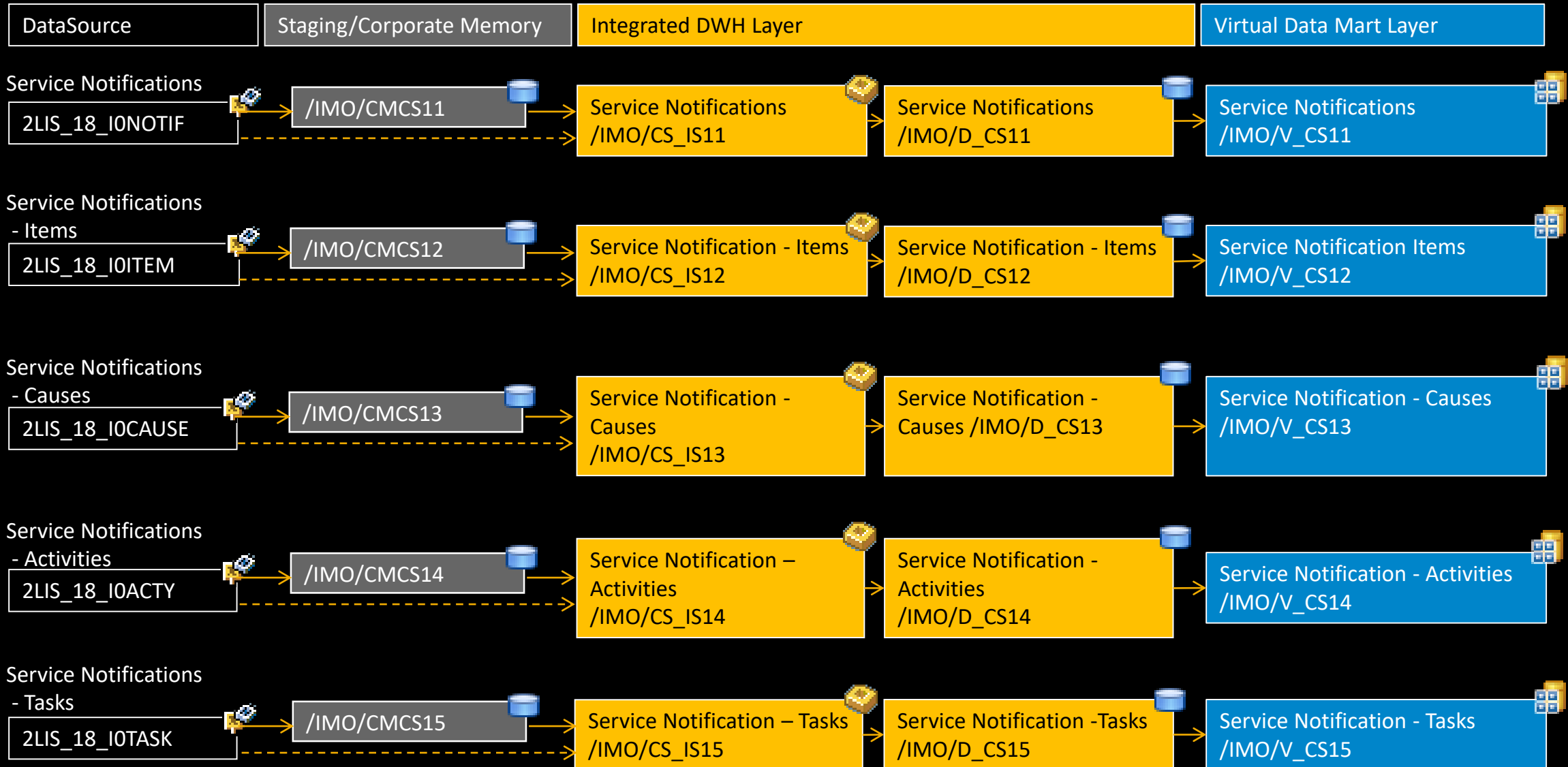
Customer
Service

- Notifications including items, causes, activities, tasks
- Service orders and operations

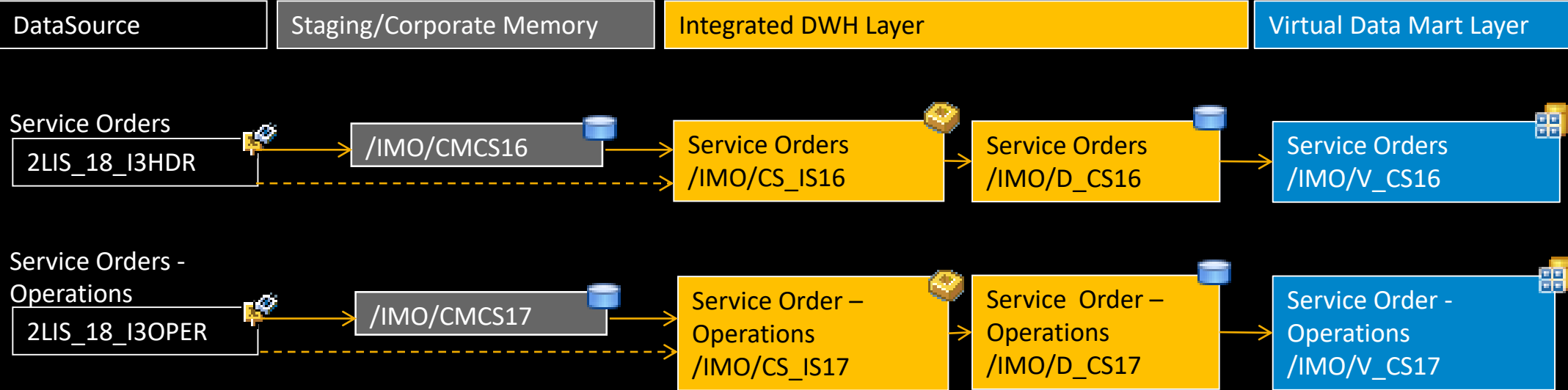
Delivered with BW4CONT SP03

-
- LSA++ Architecture incl. Staging/Corporate Memory
 - Usage of DSO (advanced), CompositeProvider
 - Virtual Data Mart Layer
 - Higher level of detail (down to line item level)

Dataflow: Customer Service (CS)



Dataflow: Customer Service (CS)



Delivered with BW4CONT SP03

Business Content Quality Management (QM)

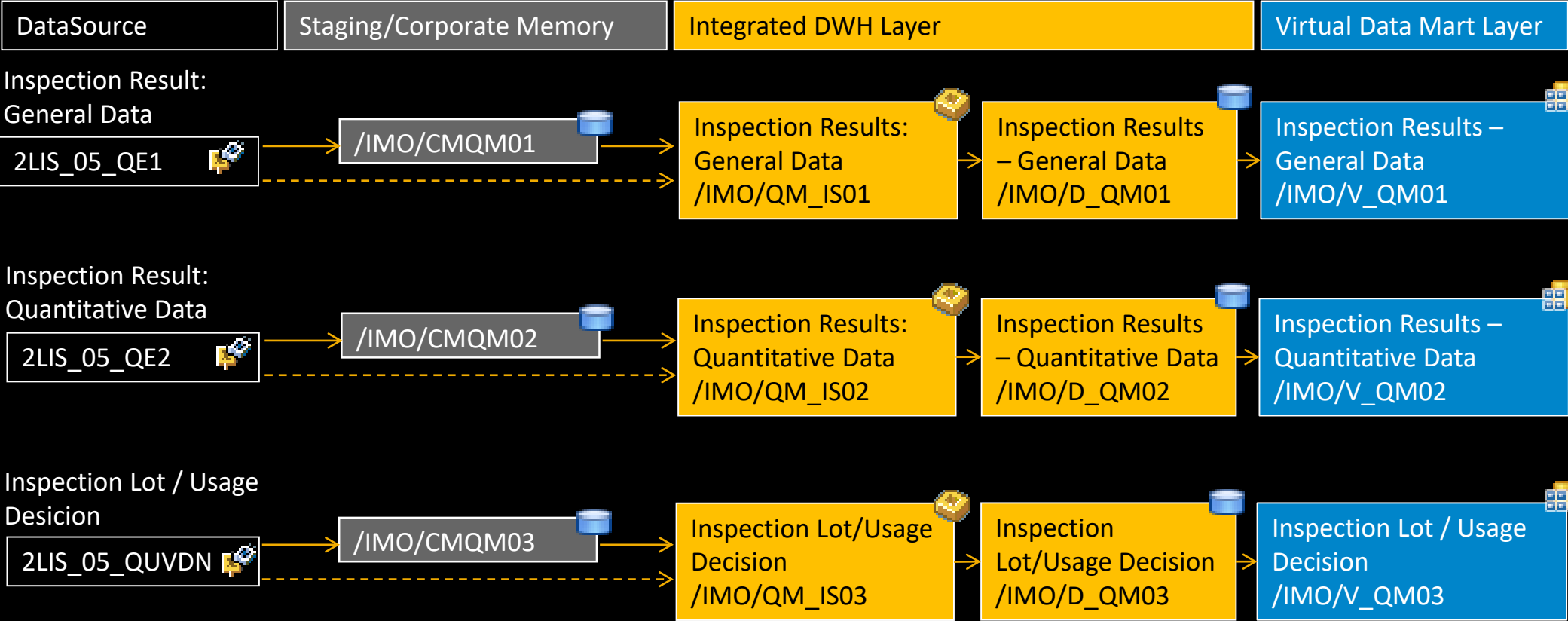
Quality
Management

- Quality Notifications
including items, causes, activities, tasks
- Inspection Results*
including general data, quantitative data, lot and usage decision

Delivered with BW4CONT SP04, * SP05

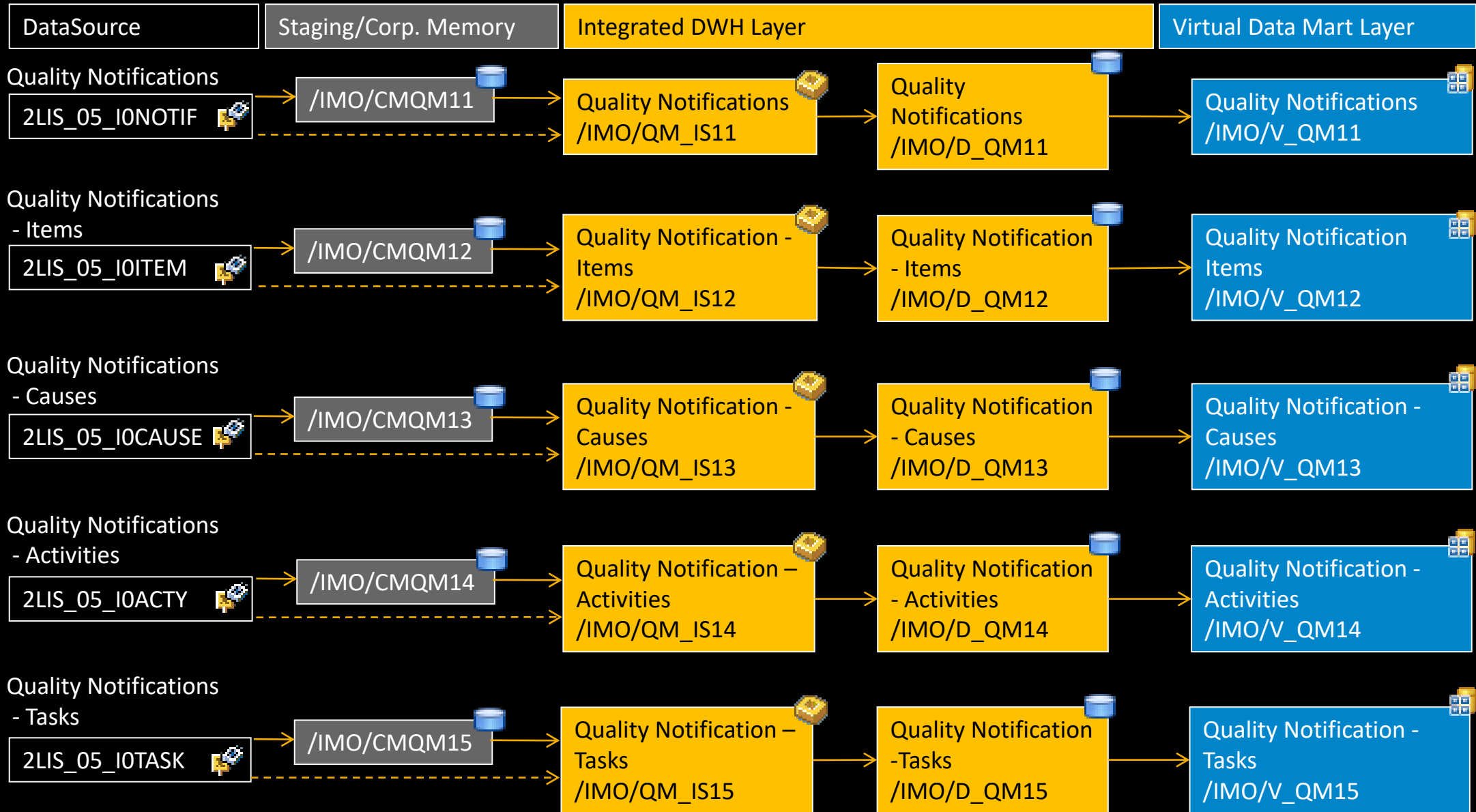
-
- LSA++ Architecture incl. Staging/Corporate Memory
 - Usage of DSO (advanced), CompositeProvider
 - Virtual Data Mart Layer
 - Higher level of detail (down to line item level)

Dataflow: Quality Management (QM)



Delivered with BW4CONT SP05

Dataflow: Quality Management (QM)



Business Content Material Management (MM)

Purchasing (ERP MM-PUR)

- Purchasing Overview:
 - Purchase document, purchasing history on header, item and schedule line level
- Contract Management:
 - Purchasing contracts, scheduling agreements
 - Contract utilization
- Purchasing Accounting:
 - Accounting information for purchase orders
 - Cost center budget analysis
- Delivery Service:
 - Delivery KPIs on purchase item level

Invoice Verification (ERP MM-IV)

- Invoice receipts for purchase documents
- Comparison of different invoice amounts and variances
- Analysis of blocking reasons for payments

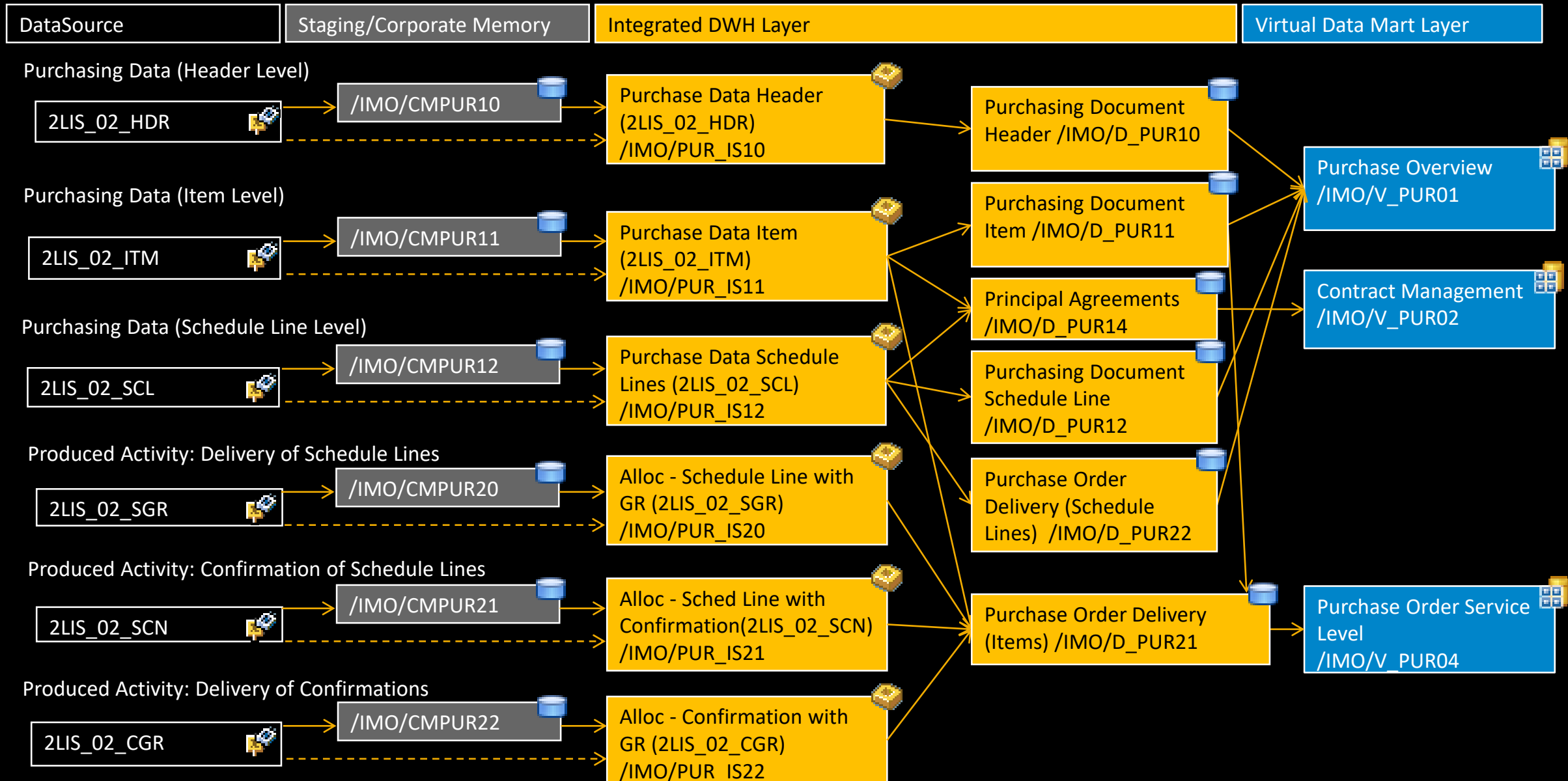
Material
Management:
Purchase
Overview

Material
Management:
Invoice
Verification

- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail (down to line item/schedule line level) for Data Acquisition

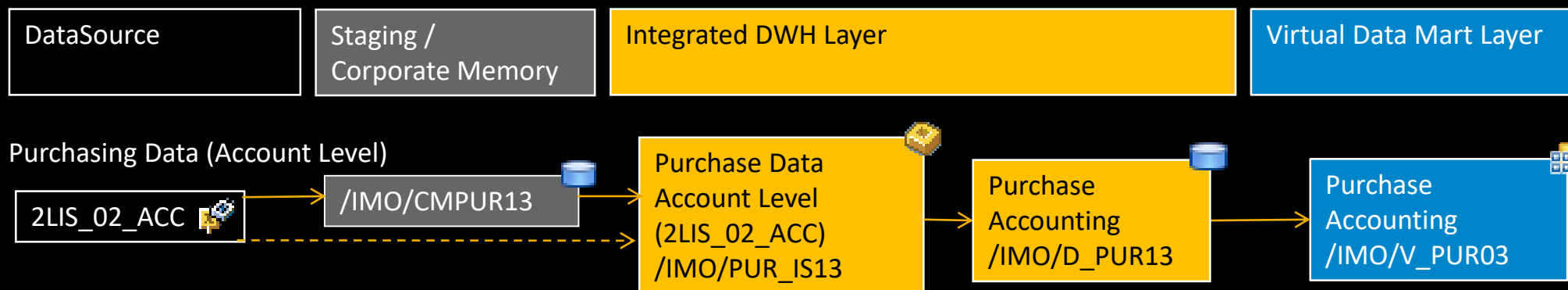


Dataflow: Purchasing (MM-PUR)

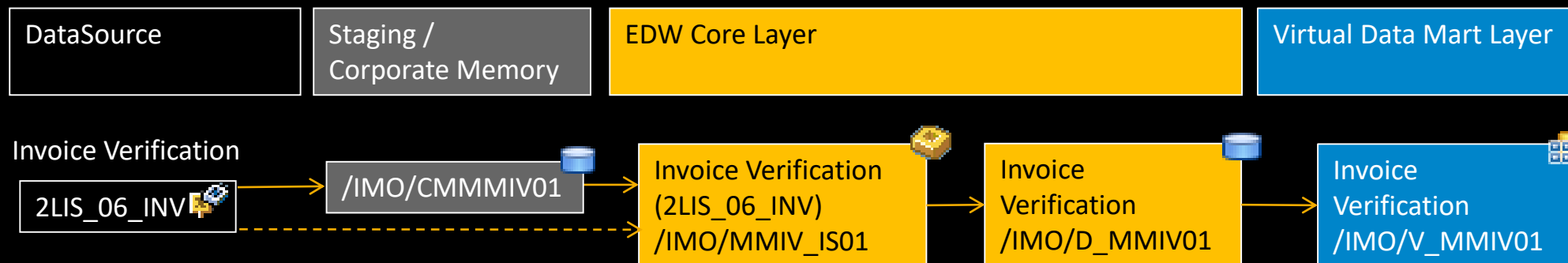


Dataflow:

Purchasing Accounting (ERP MM-PUR)



Invoice Verification (ERP MM-IV)



Business Content Extended Warehouse Management (EWM)

Extended
Warehouse
Management

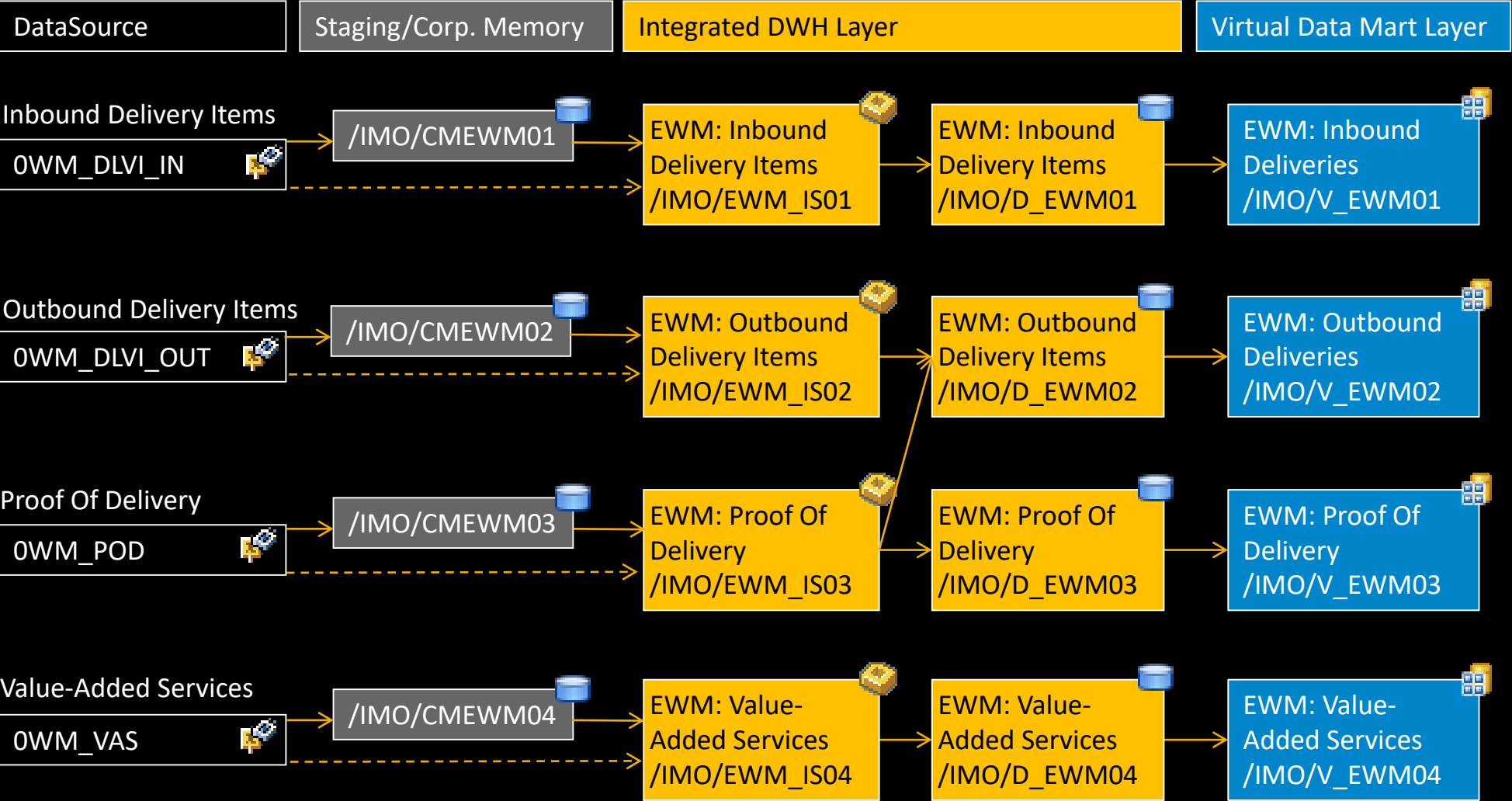
- In- and Outbound Deliveries
- Delivery item related execution data *
- Proof of Delivery
- Value-Added Services
- Warehouse Orders and Tasks
- Exceptions
- Stocks
- Storage Bins
- Transportation Units
- Measurement Service Results
- Executed Workload

Delivered with BW4CONT SP05, * SP06

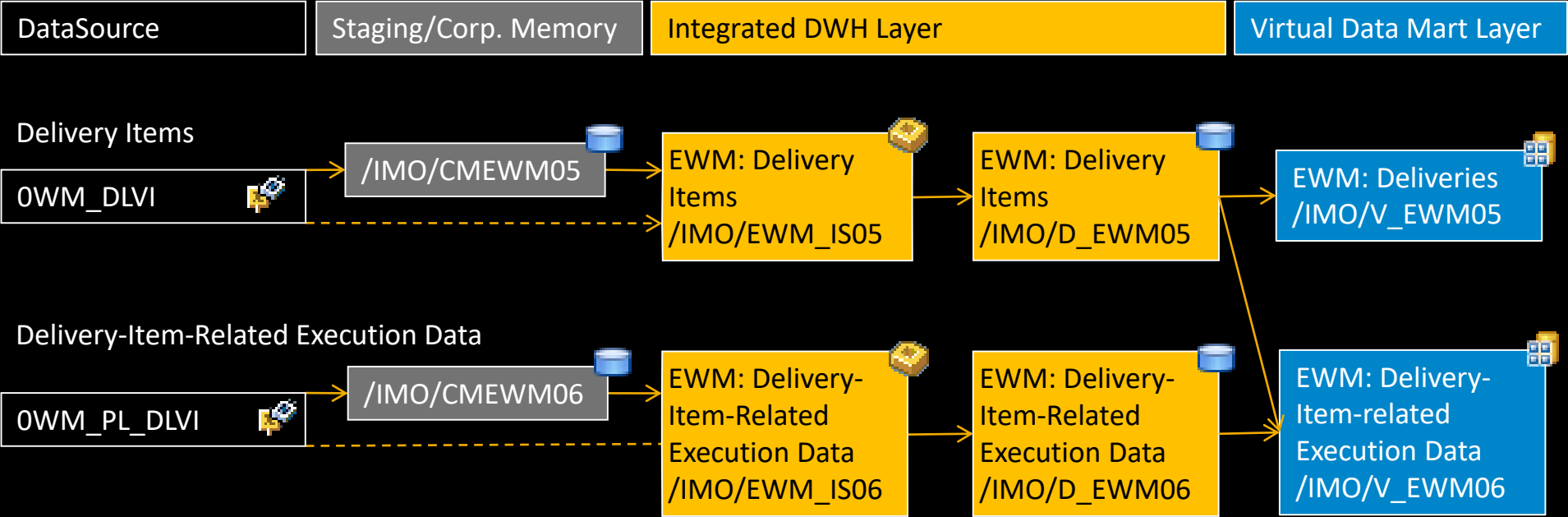
- LSA++ Architecture incl. Staging/Corporate Memory
- Usage of DSO (advanced), CompositeProvider
- Virtual Data Mart Layer
- Higher level of detail (down to line item level)



Dataflow: Extended Warehouse Management (EWM)

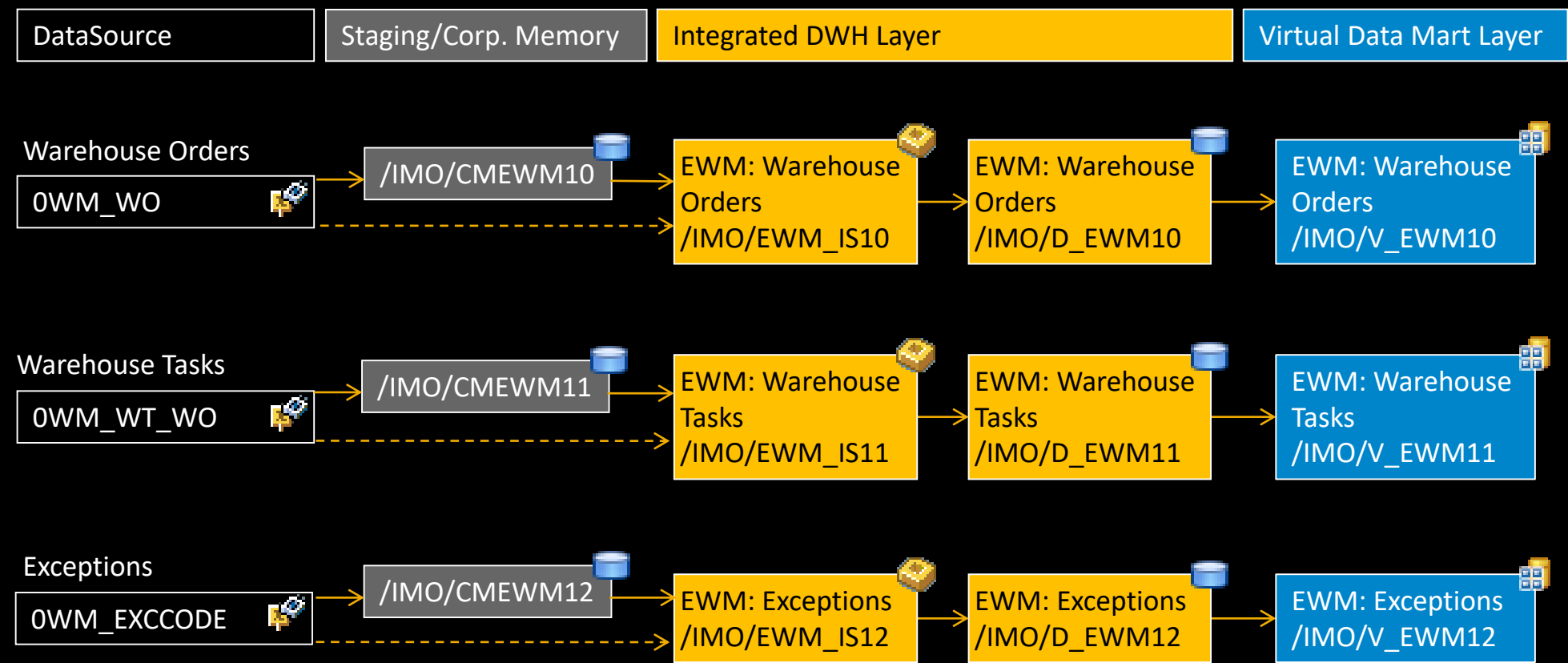


Dataflow: Extended Warehouse Management (EWM)



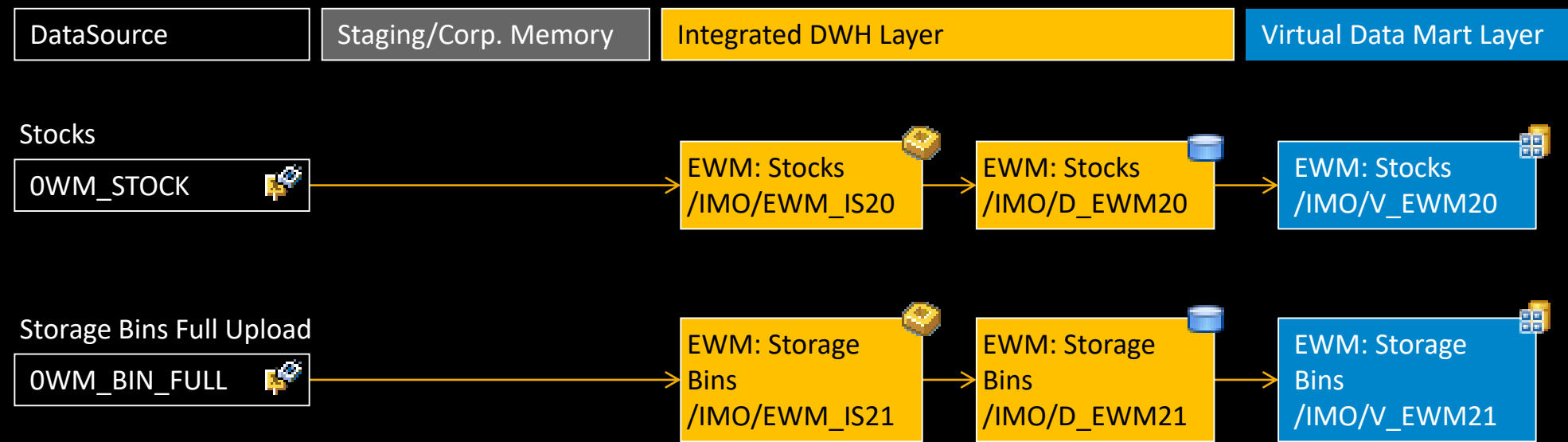
Delivered with BW4CONT SP06

Dataflow: Extended Warehouse Management (EWM)



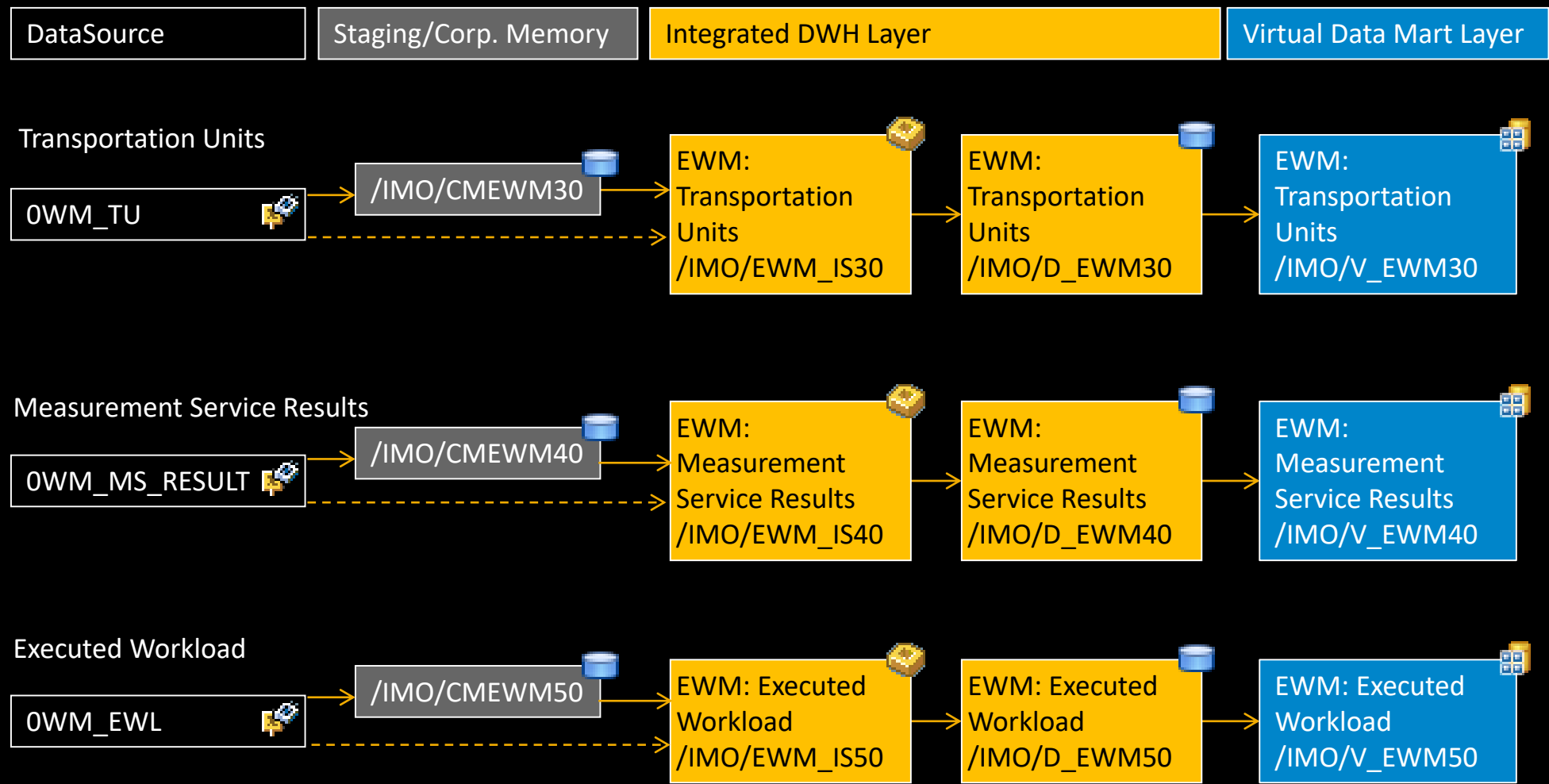
Delivered with BW4CONT SP05

Dataflow: Extended Warehouse Management (EWM)



Delivered with BW4CONT SP05

Dataflow: Extended Warehouse Management (EWM)



Delivered with BW4CONT SP05

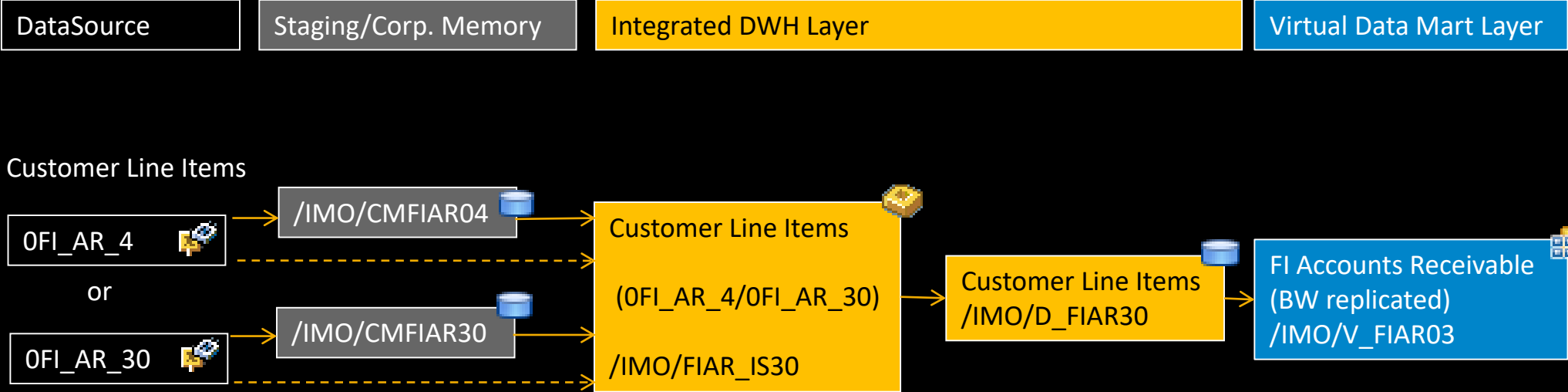
Business Content Financials – Accounts Receivable (FI-AR)

Finance:
Accounts
Receivable

- Accounts Receivable Overview:
 - Accounts receivable line items
 - Current outstanding and overdue customer accounts
 - Invoice and payment history and trend

-
- LSA++ Architecture incl. Staging/Corporate Memory
 - Usage of DSO (advanced), CompositeProvider
 - Virtual Data Mart Layer
 - Higher level of detail (down to line item level)

Dataflow: Financials – Accounts Receivable (FI-AR)

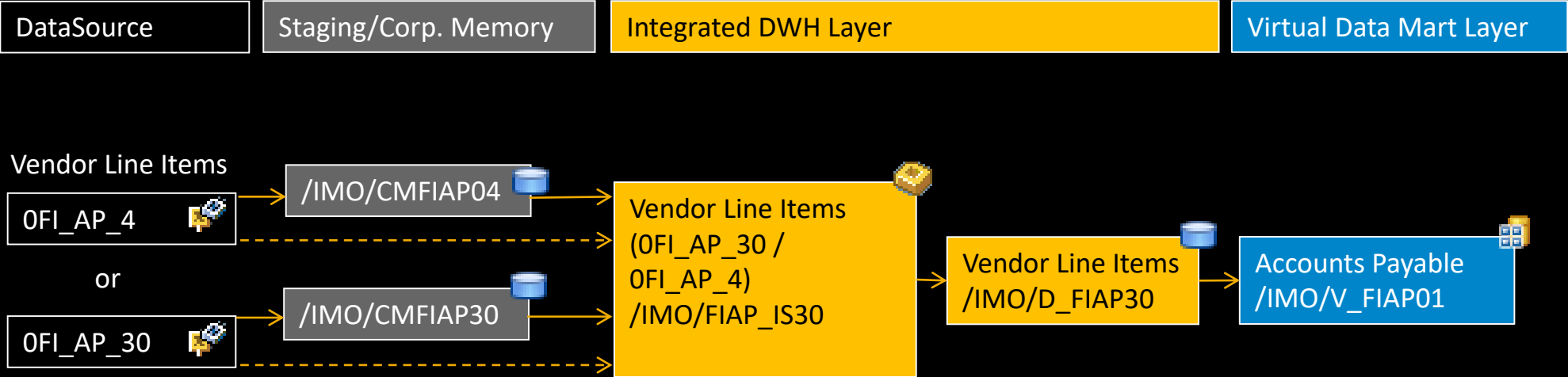


Business Content Financials – Accounts Payable (FI-AP)

Finance:
Accounts
Payable

- Accounts Payable Overview:
 - Accounts payable line items
 - Vendor line item overdue analysis
 - Vendor line item due date analysis
-
- LSA++ Architecture incl. Staging/Corporate Memory
 - Usage of DSO (advanced), CompositeProvider
 - Virtual Data Mart Layer
 - Higher level of detail (down to line item level)

Dataflow: Financials – Accounts Payable (FI-AP)



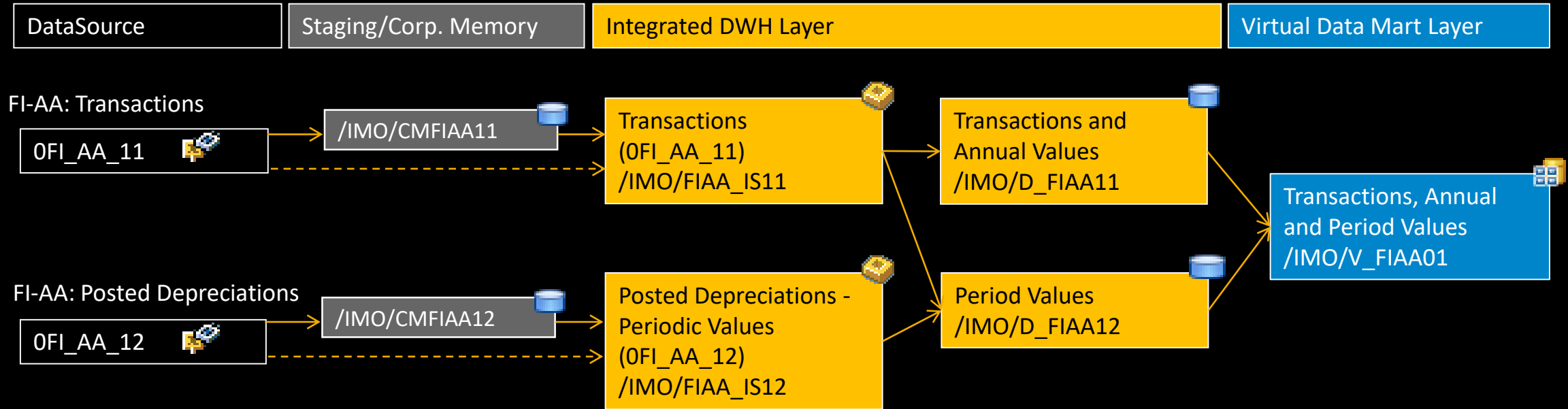
Business Content Financials – Asset Accounting (FI-AA)

Finance:
Asset
Accounting

- Asset Accounting Overview:
 - Asset Accounting line items on main asset number and asset sub-number level
 - Asset History Sheet
 - Transaction Data Report
 - Depreciations Posted Analysis

-
- LSA++ Architecture incl. Staging/Corporate Memory
 - Usage of DSO (advanced), CompositeProvider
 - Virtual Data Mart Layer
 - Higher level of detail (down to line item level)

Dataflow: Financials – Asset Accounting (FI-AA)



Business Content Controlling – Overhead Cost Controlling (CO-OM)

Controlling:
Overhead
Cost
Controlling

- Cost Center Accounting (CO-OM-CCA)
- Overhead Cost Orders (CO-OM-OPA)
- Overhead Projects (CO-OM-NTW*, -WBS, -NWA*, - NAE*)
- Delta-enabled actual, planned costs and commitments
- Statistical key figures
- Actual and commitment data on line item level
- Planning function type for retraction of primary costs (ERP CO)**
- Extended planning function type for retraction of statistical key figures, Activities/Prices and Activity Input***

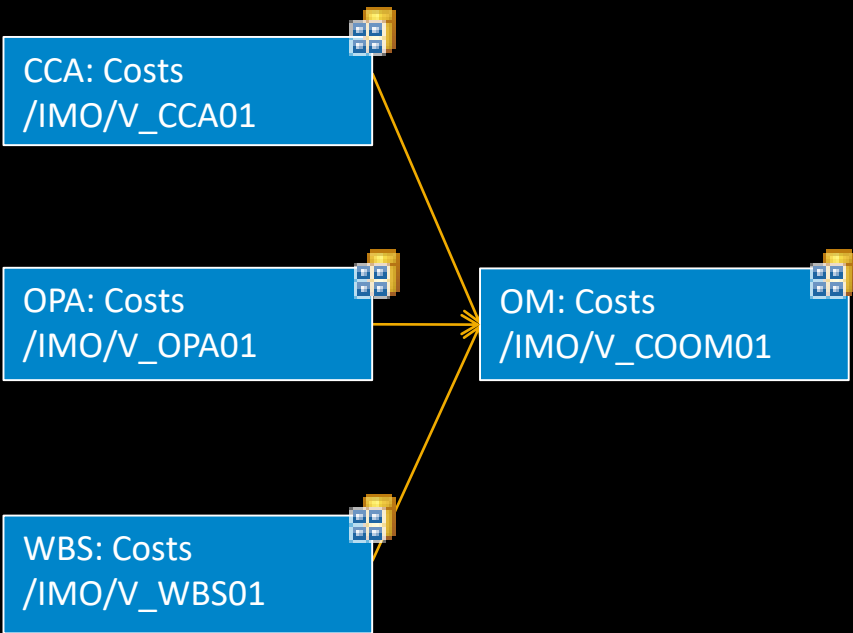
-
- LSA++ Architecture incl. Staging/Corporate Memory
 - Usage of DSO (advanced), CompositeProvider
 - Virtual Data Mart Layer
 - Higher level of detail (down to line item level)

* Delivered with BW4CONT SP04

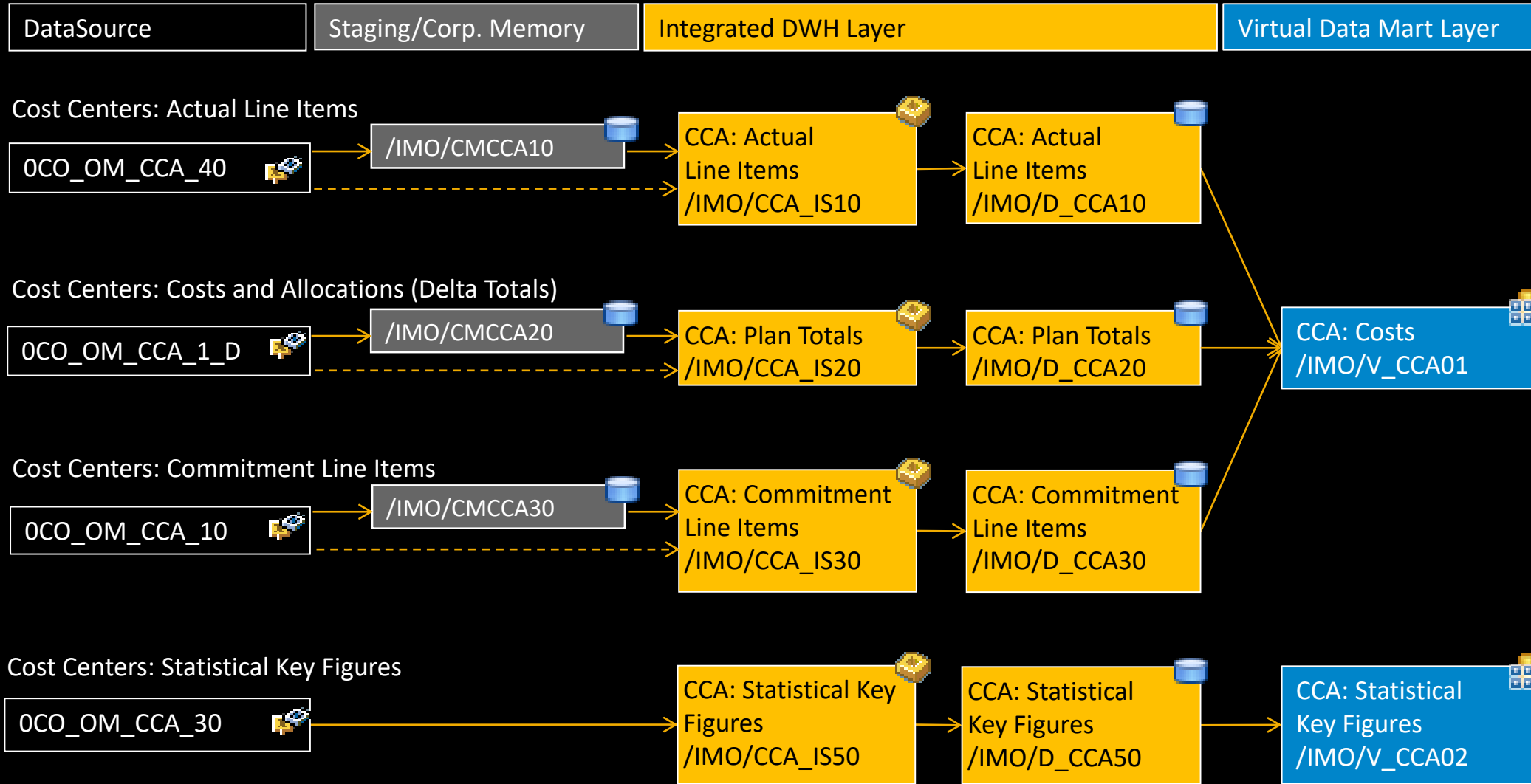
** Delivered with BW4CONT SP07

*** Delivered with BW4CONT SP09

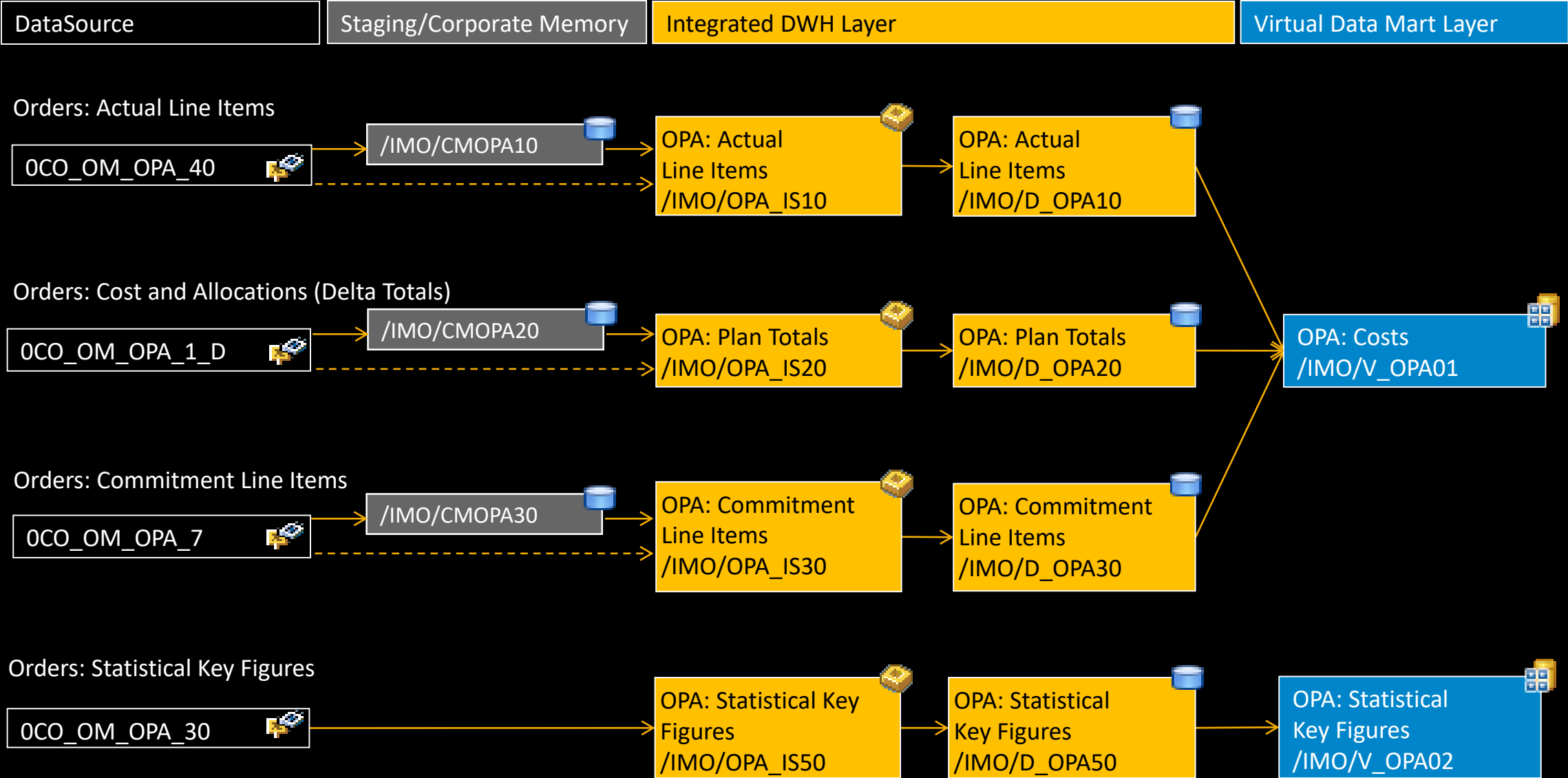
Dataflow: Controlling – Overhead Cost Controlling (CO-OM)



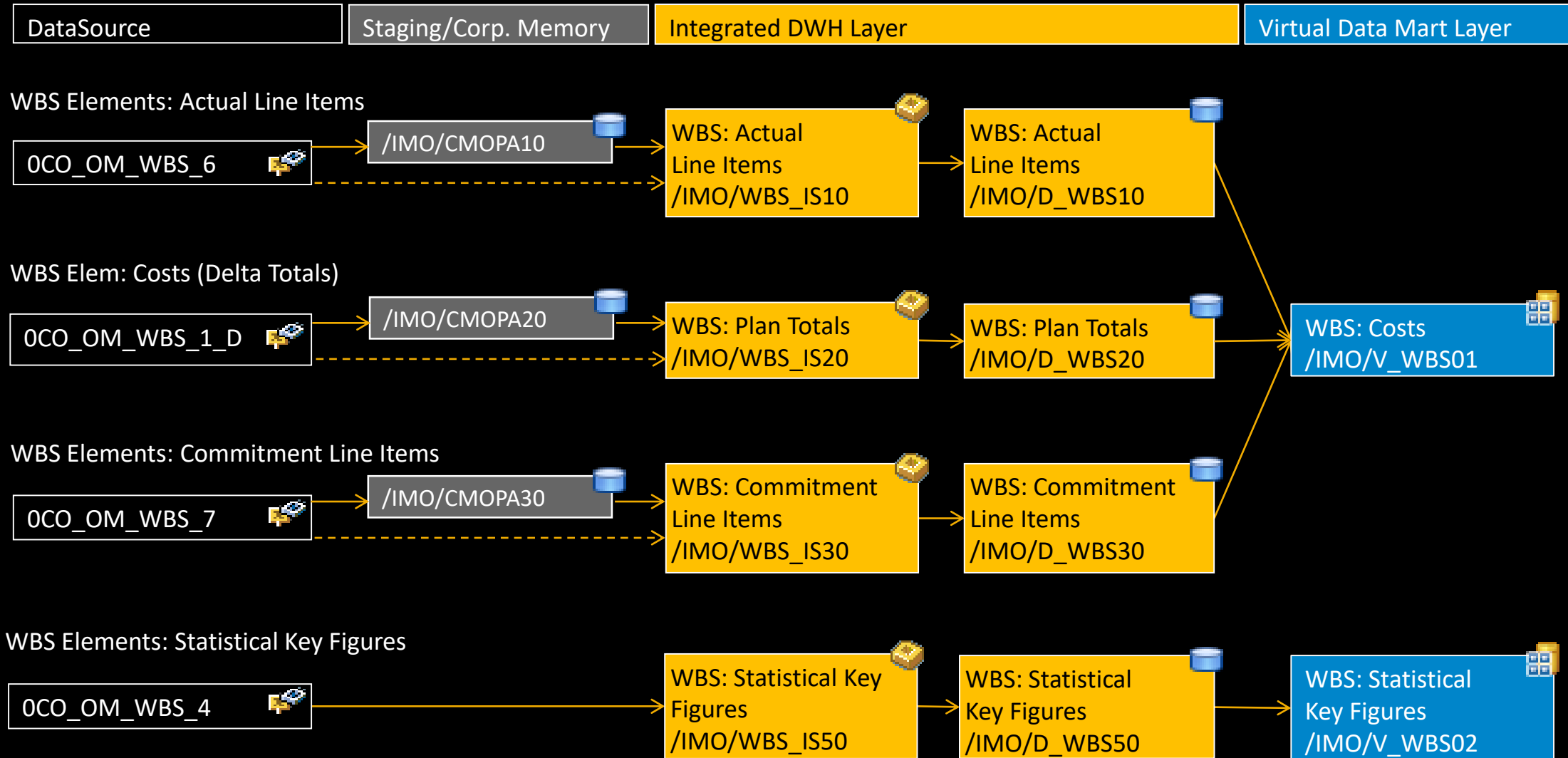
Dataflow: Controlling – Cost Centers Accounting (CO-OM-CCA)



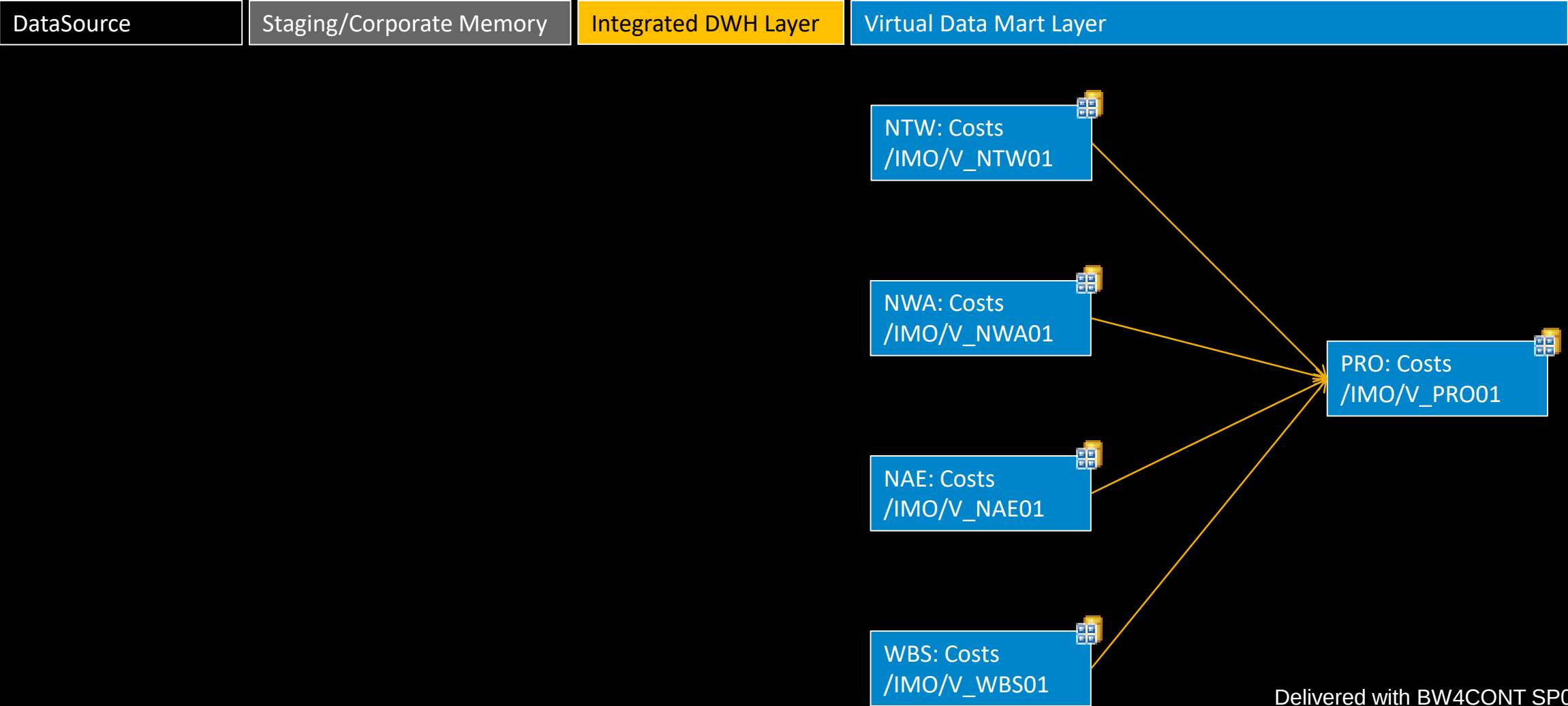
Dataflow: Controlling – Overhead Cost Orders (CO-OM-OPA)



Dataflow: Controlling – Overhead Projects (CO-OM-WBS)



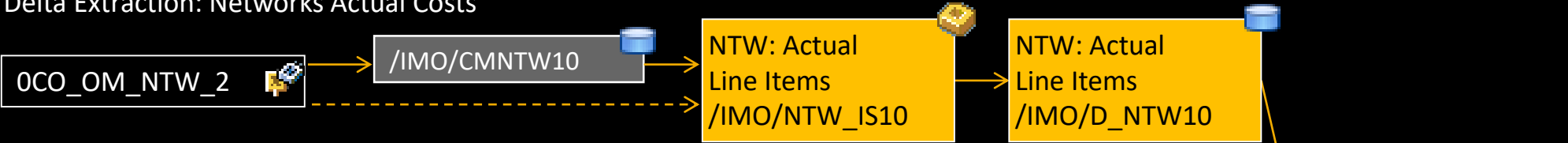
Dataflow: Controlling – Project Costs (CO-OM)



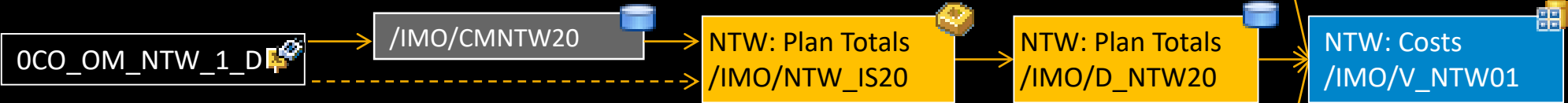
Dataflow: Controlling – Overhead Projects Network (CO-OM-NTW)



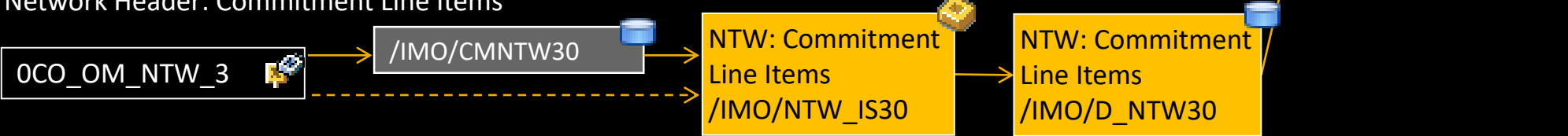
Delta Extraction: Networks Actual Costs



Network: Costs (Delta Totals)



Network Header: Commitment Line Items

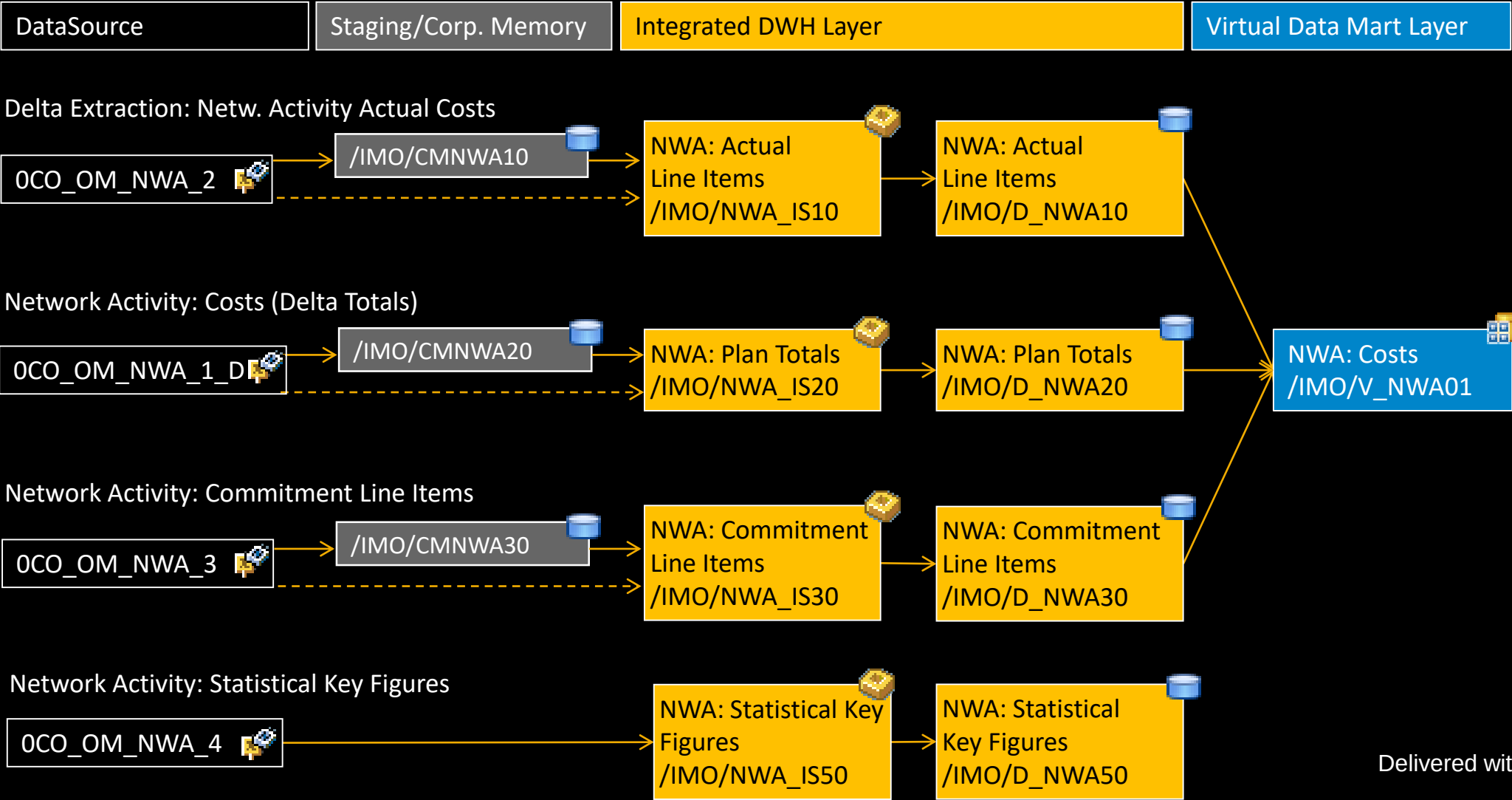


Network Header: Statistical Key Figures



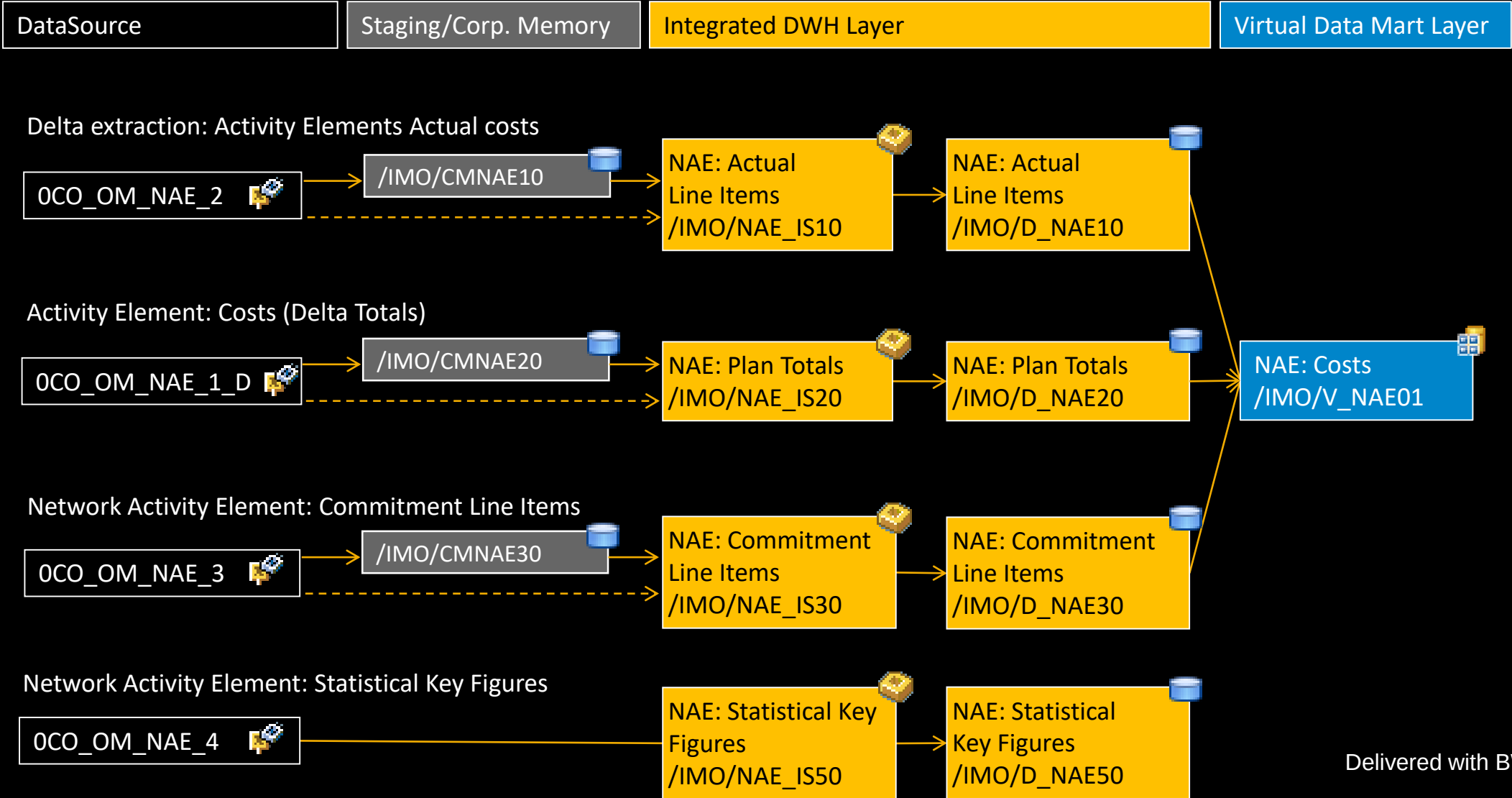
Delivered with BW4CONT SP04

Dataflow: Controlling – Overhead Projects Network Activity (CO-OM-NWA)



Delivered with BW4CONT SP04

Dataflow: Controlling – Overhead Projects Network Activity Element (CO-OM-NAE)



Delivered with BW4CONT SP04

Business Content Controlling – Product Cost Controlling (CO-PC)

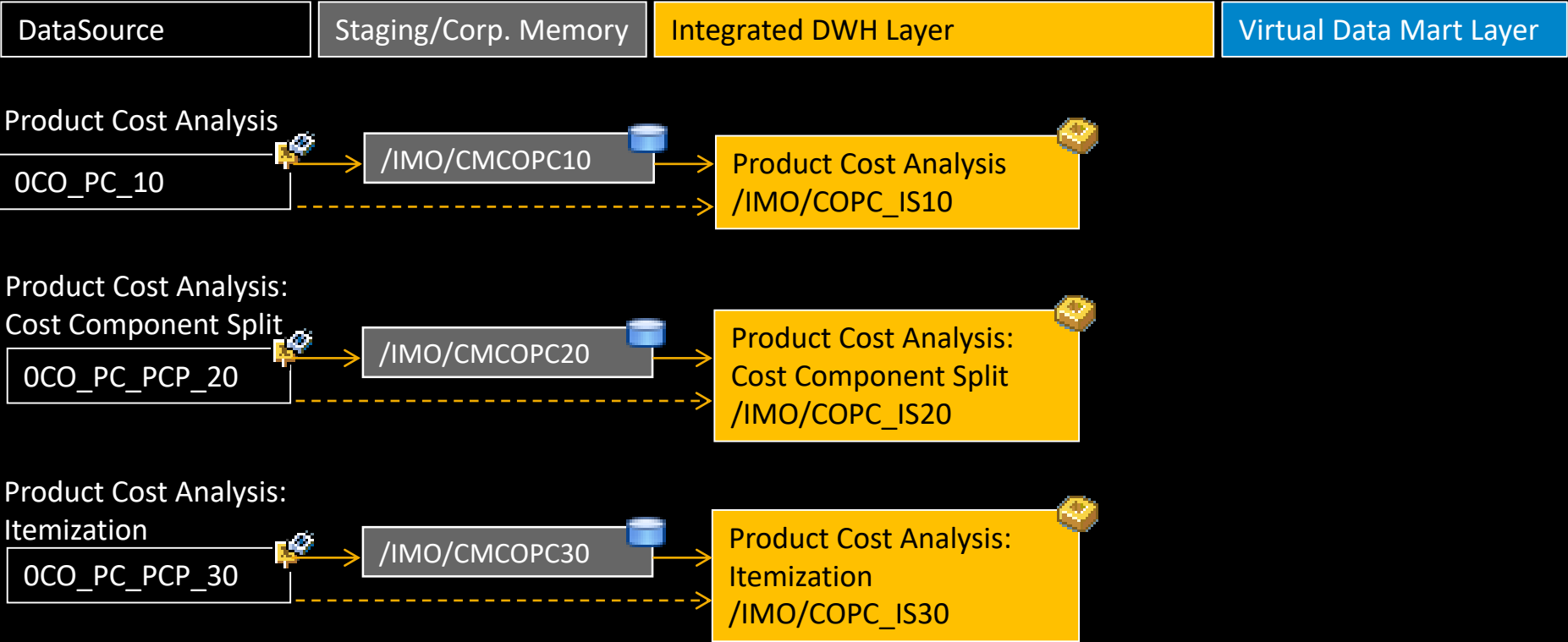
Product Cost
Controlling

- Product cost analysis including
 - Cost component split
 - Itemization

Delivered with BW4CONT SP05

-
- LSA++ Architecture incl. Staging/Corporate Memory

Dataflow: Controlling – Product Cost Controlling (CO-PC)



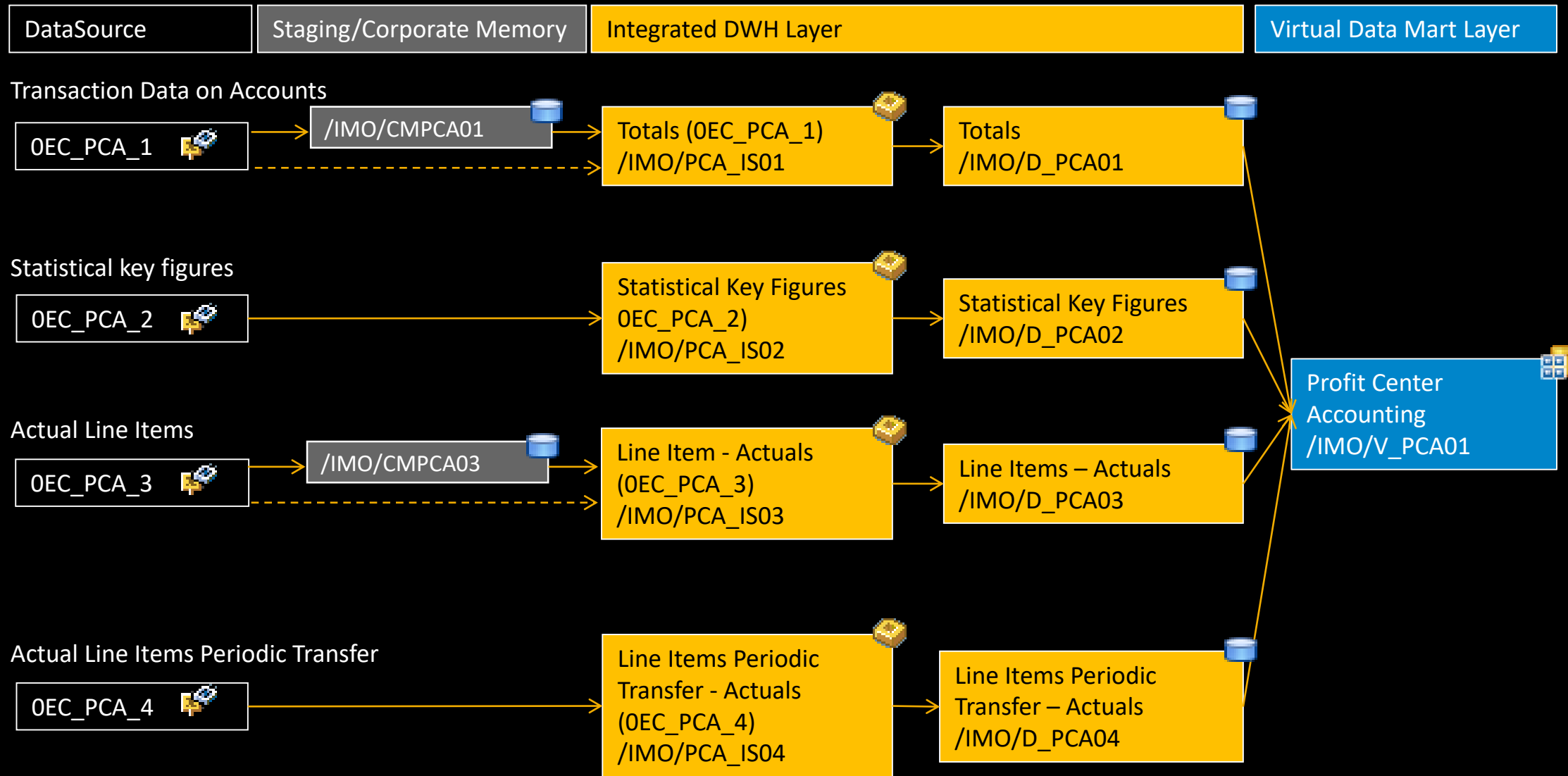
Business Content Enterprise Controlling – Profit Center Accounting (EC-PCA)

Enterprise
Controlling:
Profit Center
Accounting

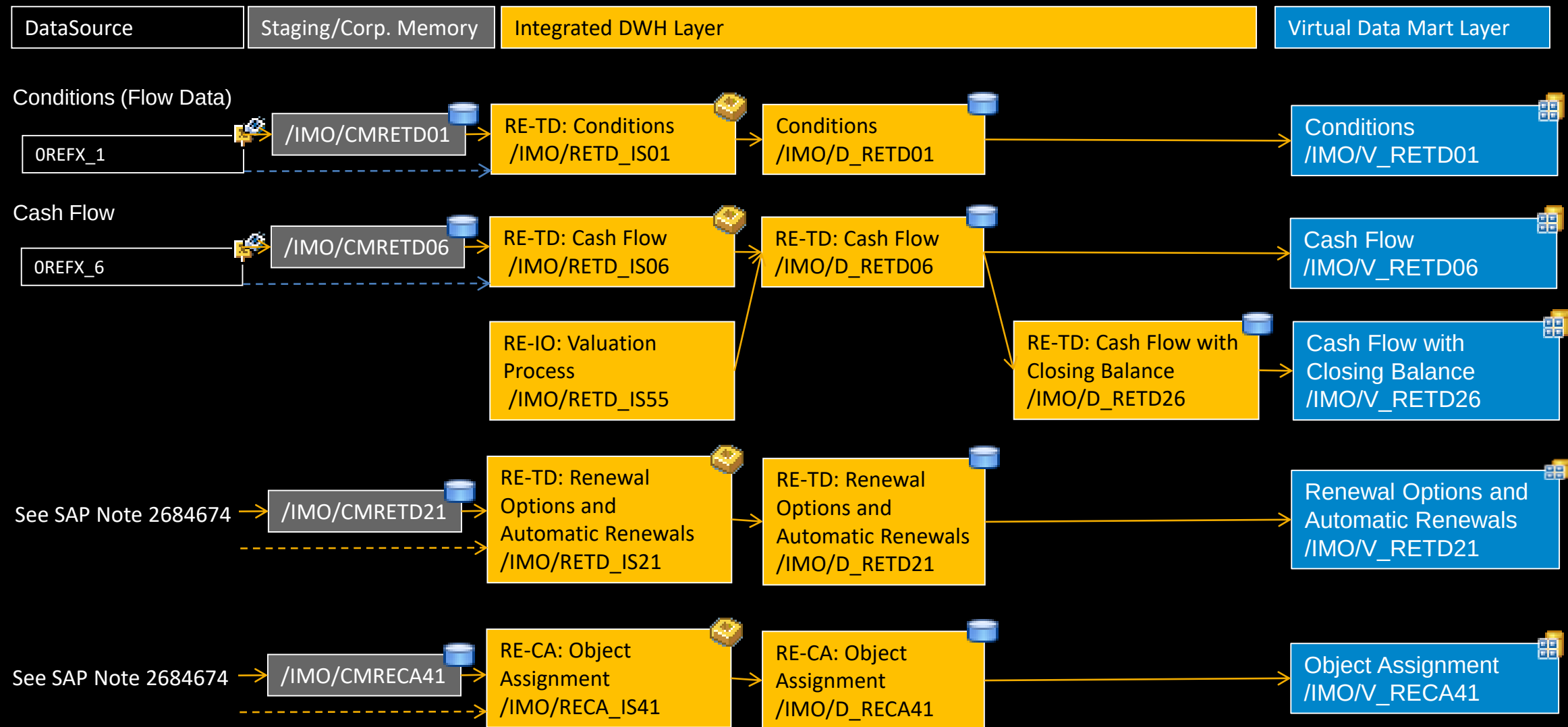
- Profit Center Accounting Overview:
 - Analysis for profit and loss accounts and balance sheet accounts from Profit Center Accounting (PCA),
 - Actual data on aggregated as well as accounting document item level
 - Plan and budget data on aggregated level
 - Statistical key figure data with fix and total quantities
 - Actuals Balance and Flow comparison
 - Actuals/plan/budget: Balance and Flow comparison

-
- LSA++ Architecture incl. Staging/Corporate Memory
 - Usage of DSO (advanced), CompositeProvider
 - Virtual Data Mart Layer
 - Higher level of detail (down to line item level)

Dataflow: Enterprise Controlling – Profit Center Accounting (EC-PCA)

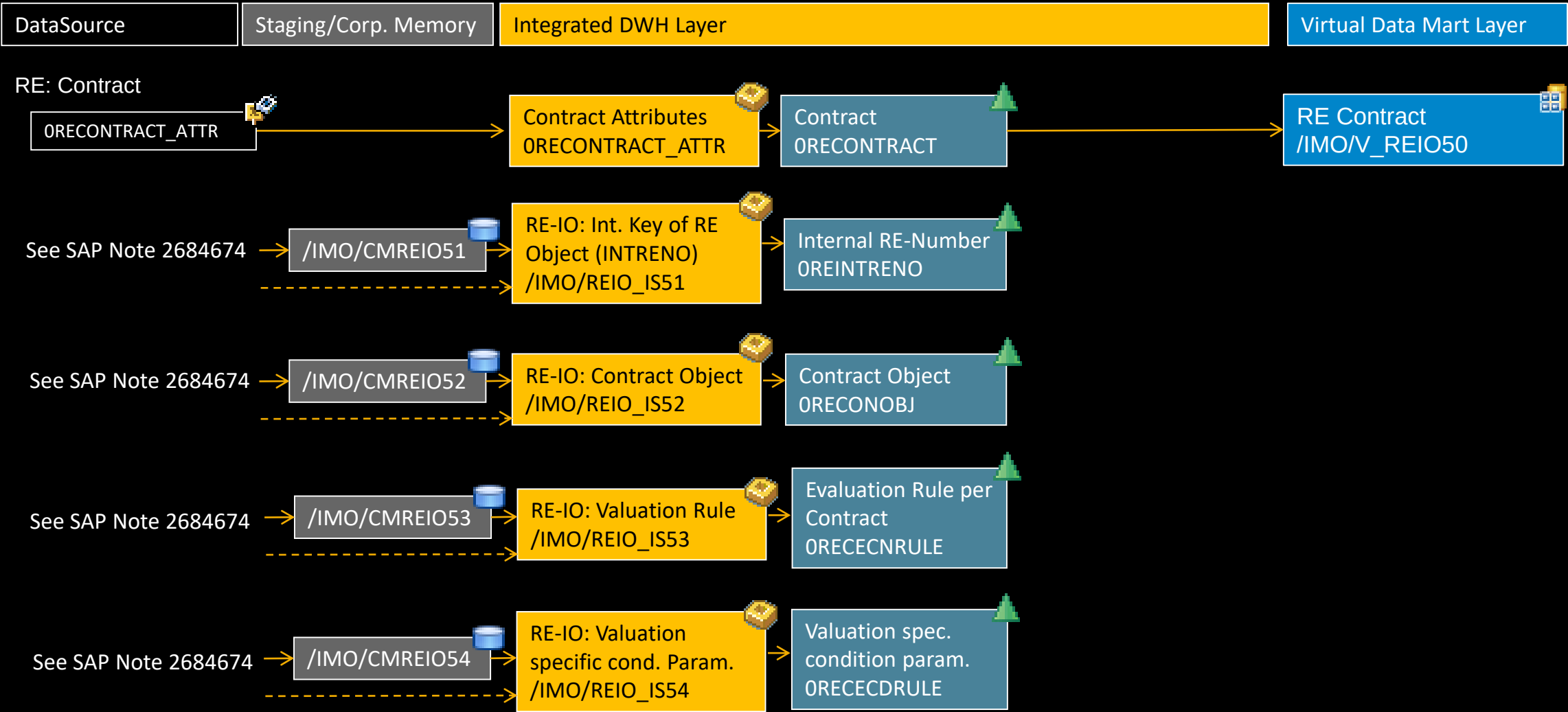


Dataflow: Real Estate Management (RE)

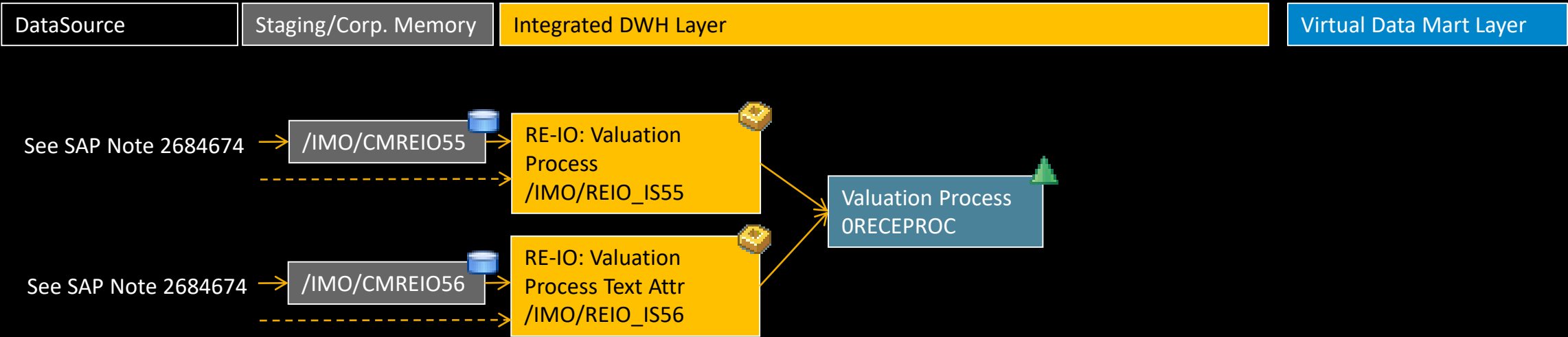


Delivered with BW4CONT SP07

Dataflow: Real Estate Management (RE)



Dataflow: Real Estate Management (RE)



Business Content Production Planning and Controlling (PP, PP-PI)

Production
Planning and
Controlling

- Production Order Analysis:
 - Material view
 - Work center view
 - Components view
 - Capacity requirements and usage
- Data from PP (Production Planning) and PP-PI (Production Planning - Process Industries) is extracted

Delivered with BW4CONT SP05

- LSA++ Architecture incl. Staging/Corporate Memory



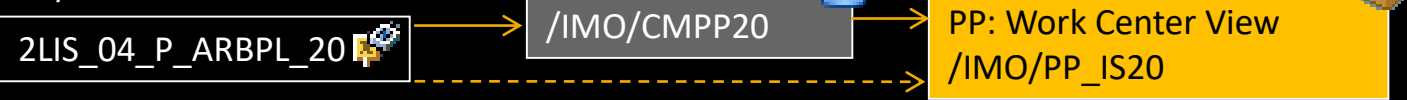
Dataflow: Production Planning and Controlling (PP/PP-PI)



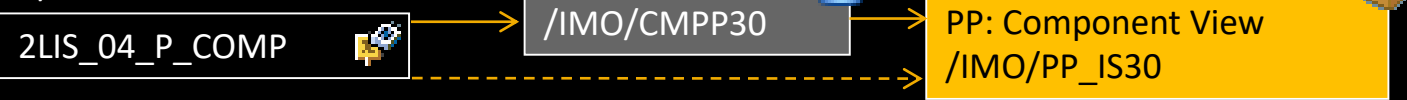
Material View from PP/PP-PI



Work Center View from PP/PP-PI



Component View from PP/PP-PI



PP(PI) Work Center Capacity



- Contract Accounts:
 - Contract Account
 - Invoice Data
 - Business Partner Items
 - Returns, Payments
 - Cash Management, Revenue Distribution
- Master Data:
 - Contracts, Business Partner,
 - Device, Point of Delivery, Register,
 - ...
- Sales Statistics:
 - Sales Statistics, simulated billings
- Energy Data Management
 - Meter reading document
 - Settlement document
 - Usage factors
 - Load profile

-
- LSA++ Architecture incl. Staging/Corporate Memory
 - Usage of DSO (advanced), CompositeProvider
 - Virtual Data Mart Layer



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