

Leveraging SAP Enterprise data for Analytics Use Cases

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ASUG

Key Outcomes/Objectives

1. Learn how to leverage SAP data in modern data warehouses
2. Overcome common limitations and challenges when working with SAP data
3. How to land SAP workloads in the cloud and prepare the data in an analytics ready format
4. Envisioning real-world Analytics use cases with SAP & non-SAP data

Agenda

- Understanding the current use of SAP Data for Analytics in the broader analytics market
- SAP Data in real-world Analytics use cases
- Unique Data Integration challenges for SAP data in modern Analytics architectures
- Provisioning SAP data in an Analytics ready format
- Use Cases realized: Raw to ready insights in real-time

Where are SAP Customers Investing?

Real-time data and analytics pipelines are top priority

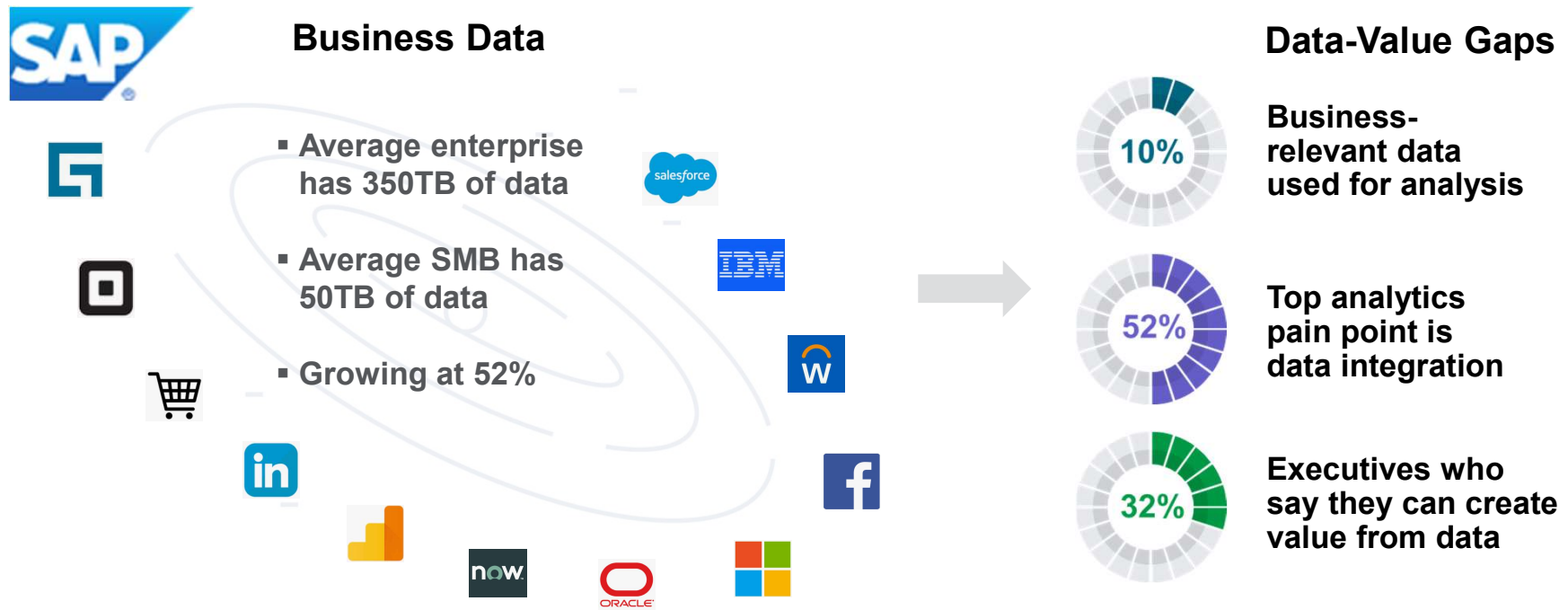
Which of the following business initiatives do you believe will drive the most technology spending in your organization over the next 12 months? (Percent of respondents, N=810, five responses accepted)



Source: Enterprise Strategy Group

Data Challenge

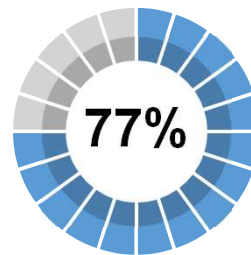
Businesses have lots of data but not enough value from it



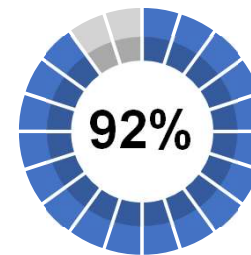
Sources: IDG [research](#); SAPinsider research from May 2020 [link](#); IDC Worldwide Global DataSphere Forecast 2019-2023 (2019); Accenture Closing The Data-Value Gap (2019), Qlik How to Drive Data Literacy Within the Enterprise (2018)

SAP

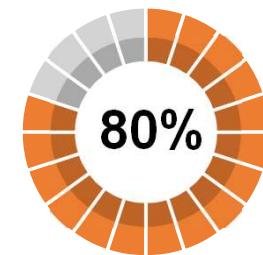
Holds valuable business data



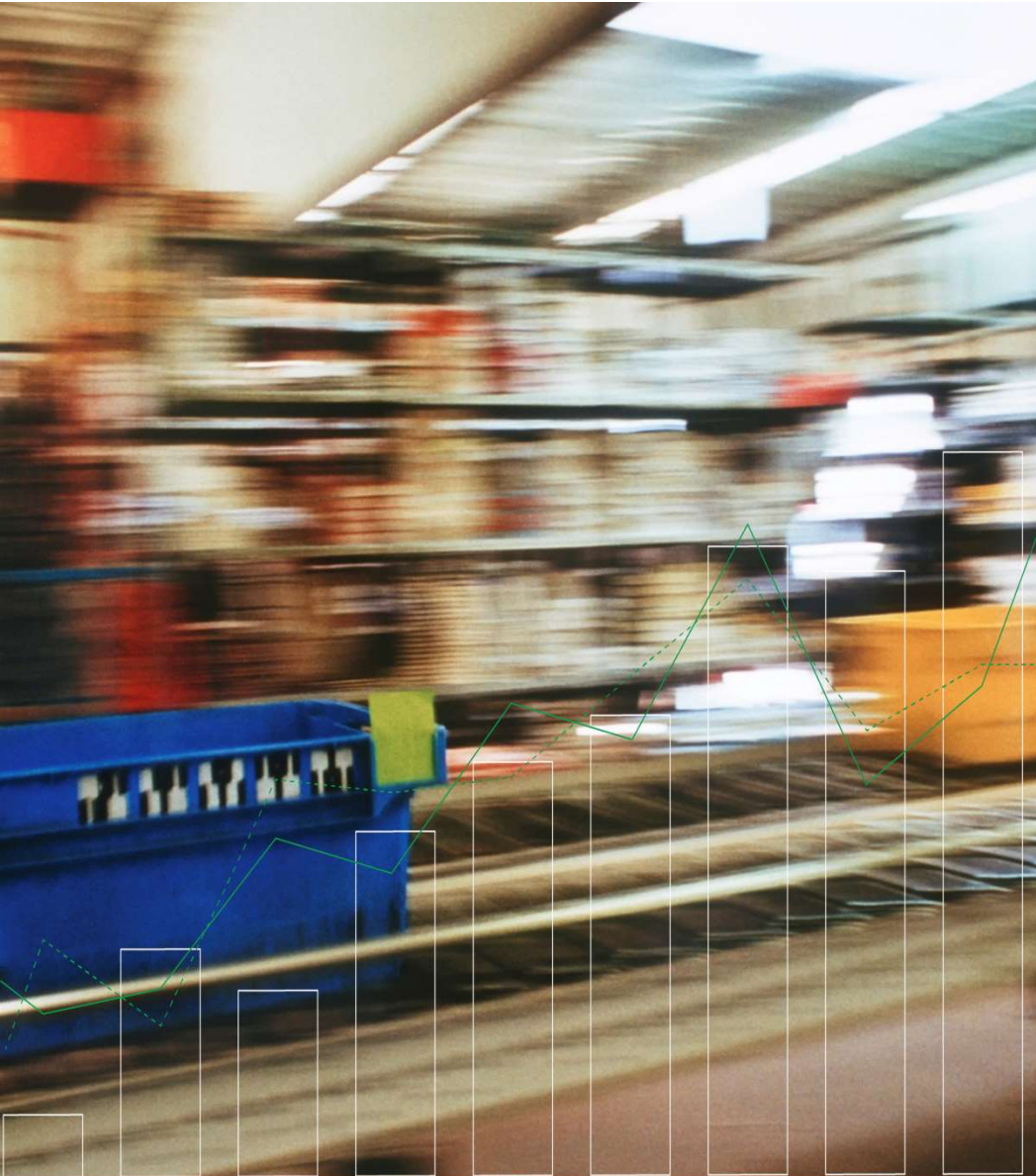
of world's transaction
revenue touches
SAP systems



of the Forbes Global
2000 companies are
SAP customers



of SAP
customers
are SME



What does your SAP data do for you?

Your Business Runs on SAP

- Processes Orders and Revenue
- Controls and Moves Inventory
- Pays Vendors and Employees
- Maintains Company Financials / GL



**Data is the lifeblood
of your business**



Your SAP data can do MORE

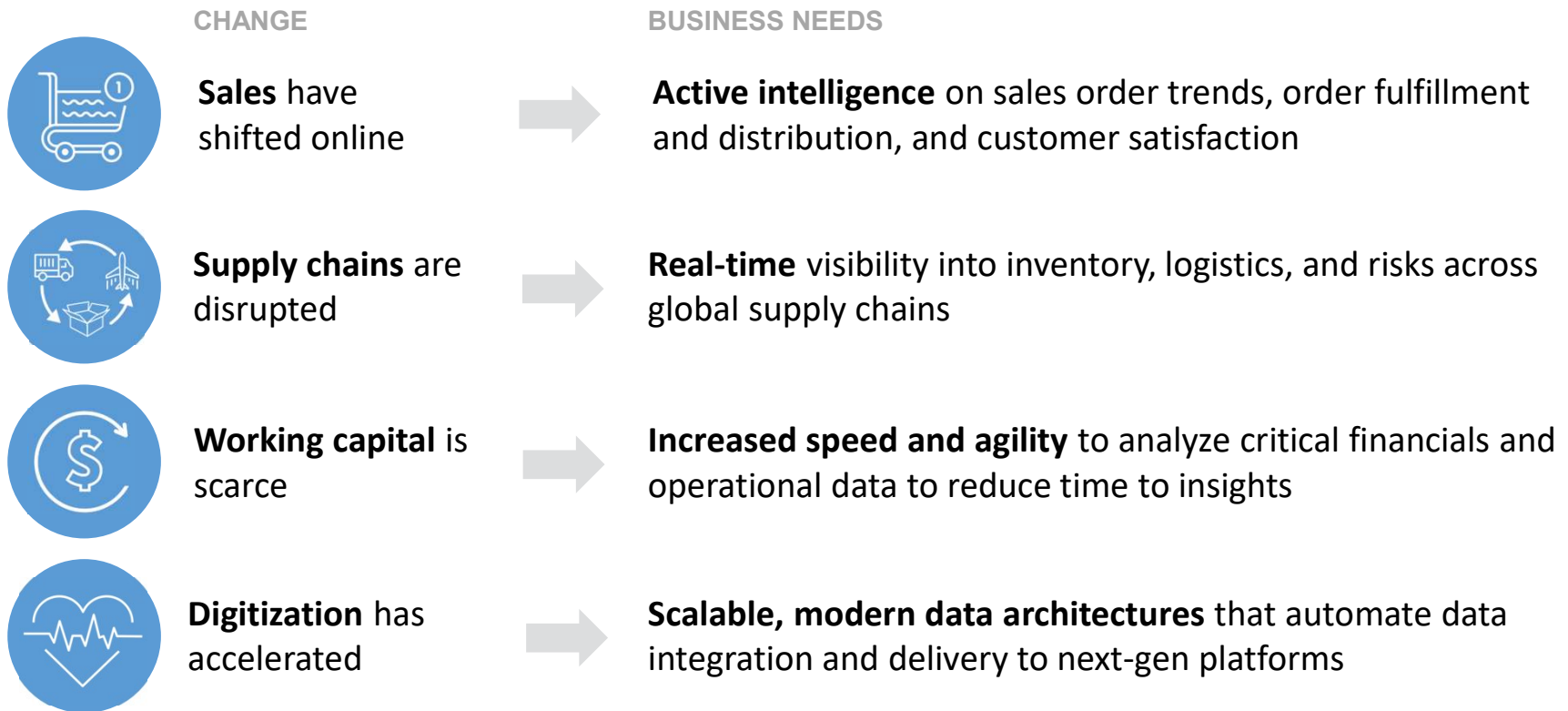
- Integrate SAP Data into modern data lakes or enterprise/cloud data warehouses
- Enable Machine Learning (ML) initiatives by combining data from SAP with data from other trusted sources
- Derive valuable, actionable insights by analyzing data in real-time



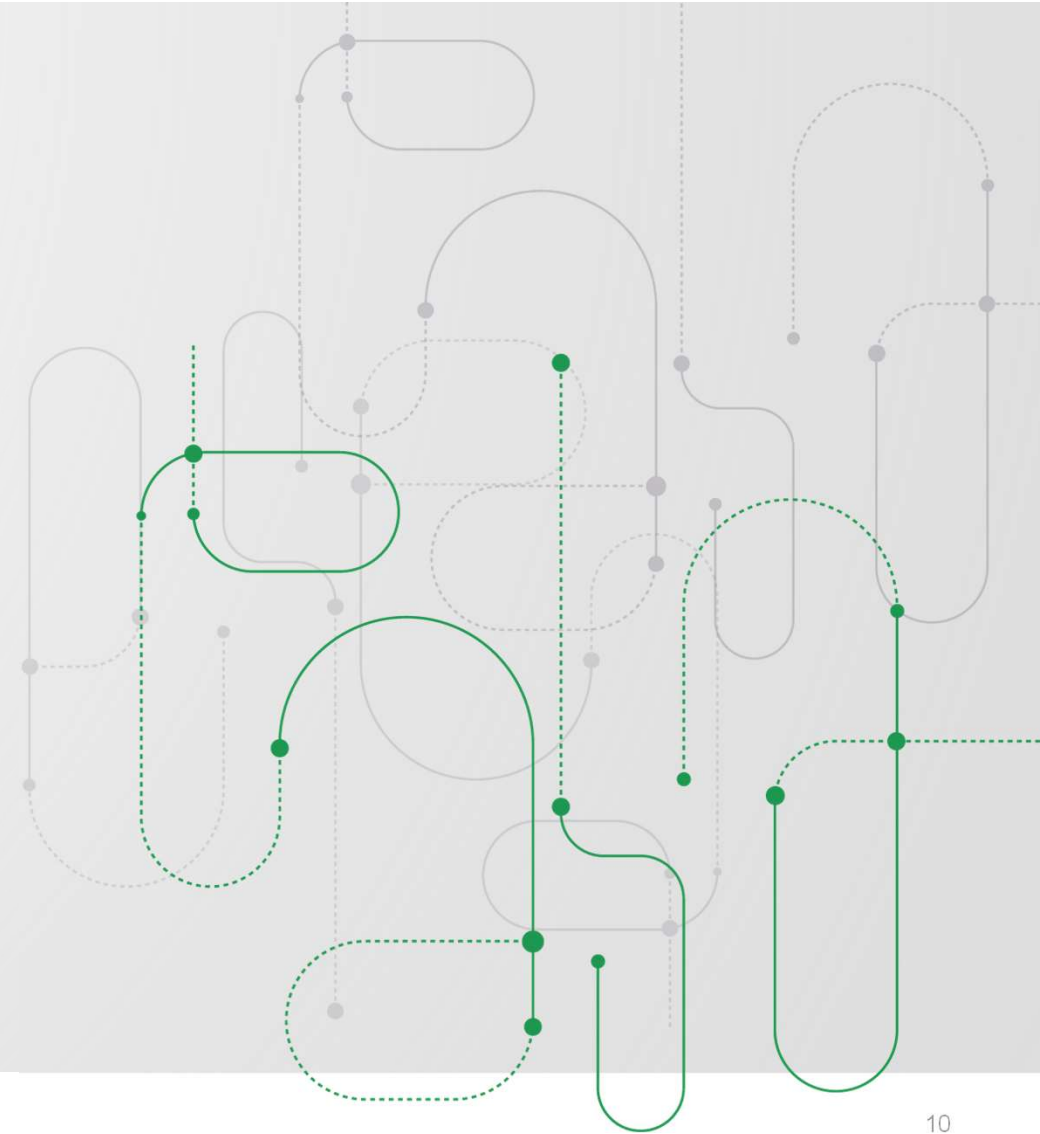
**Your Data has
a Story to Tell**

Use Cases

The Art of the Possible

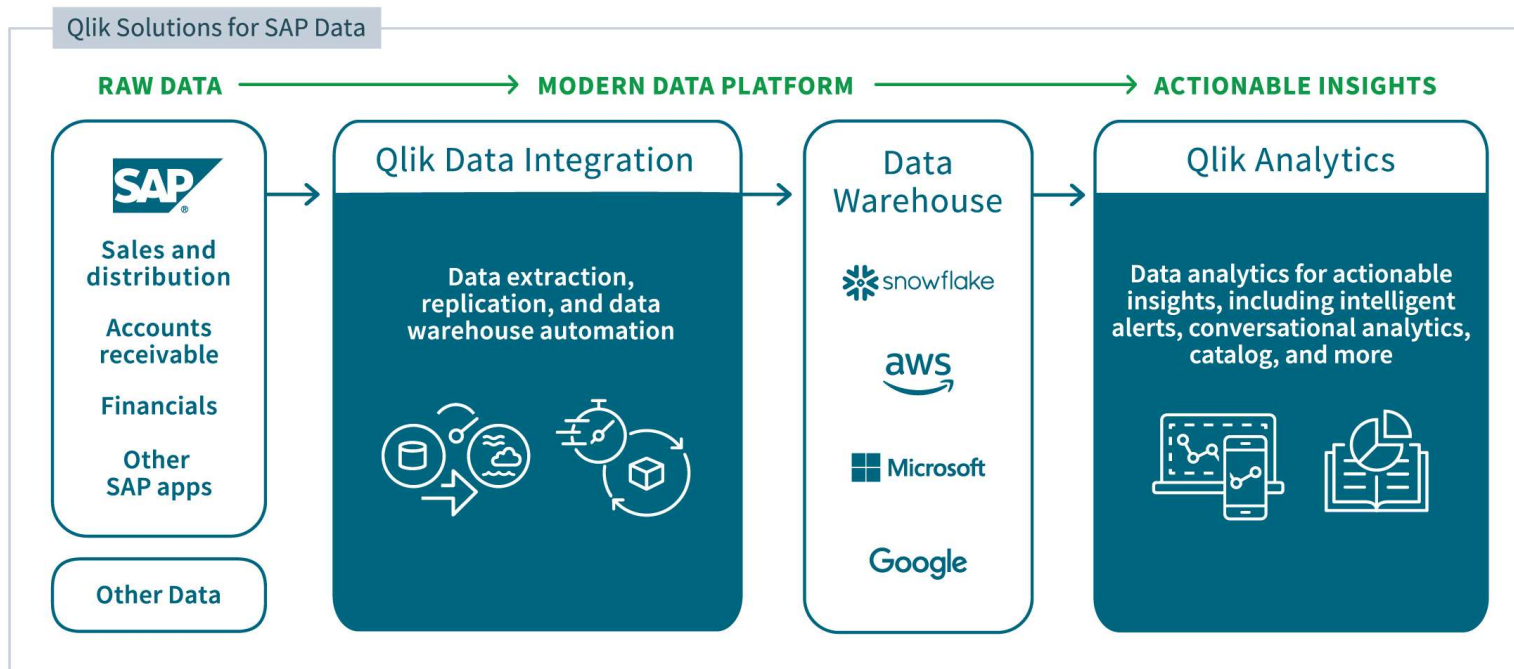


Turning SAP Application Data Into Valuable Insights



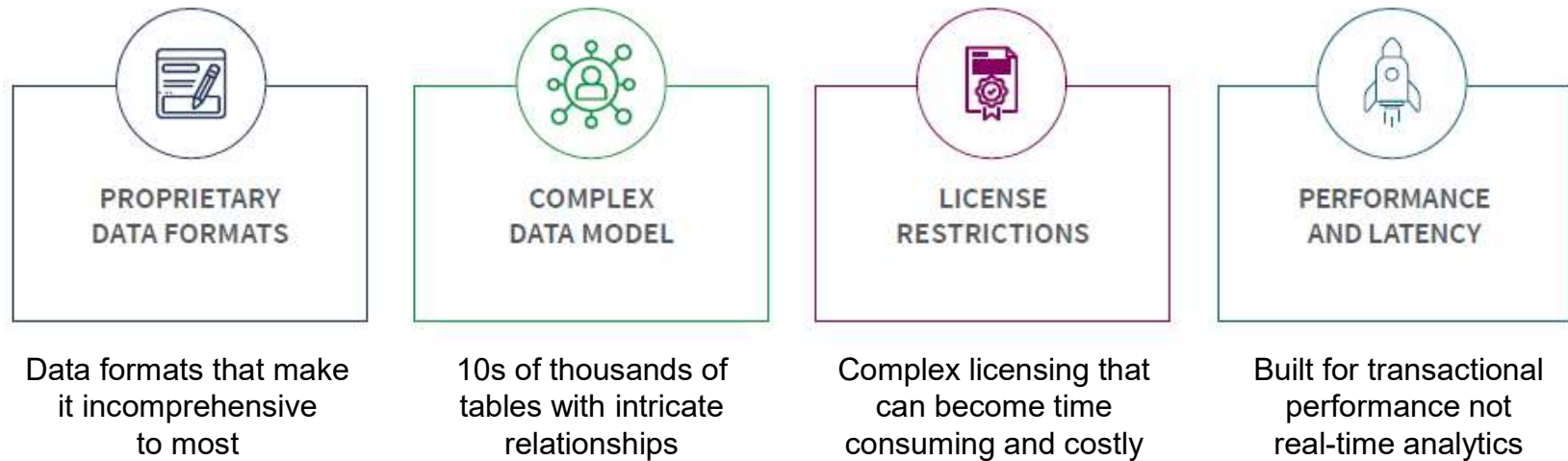
Turning Raw Data into Actionable Insights

A Modern End-to-End, Modular, and Extendable Solution



SAP Data Challenges

Leveraging and integrating SAP data is not easy



What Customers are Looking for...

Key Assumptions:

- Customers will want to combine SAP data with data from non-SAP sources
- The Consumer of the data may not be an SAP user

Data Replication of SAP Source Data (Master & Transactional)

Handle Pool/Cluster/INDX Tables

Replicate SAP meta-data

Field Names
(BUKRS = Company Code)

Values
(Company Code 1000 =
US-NorthAmerica-California)

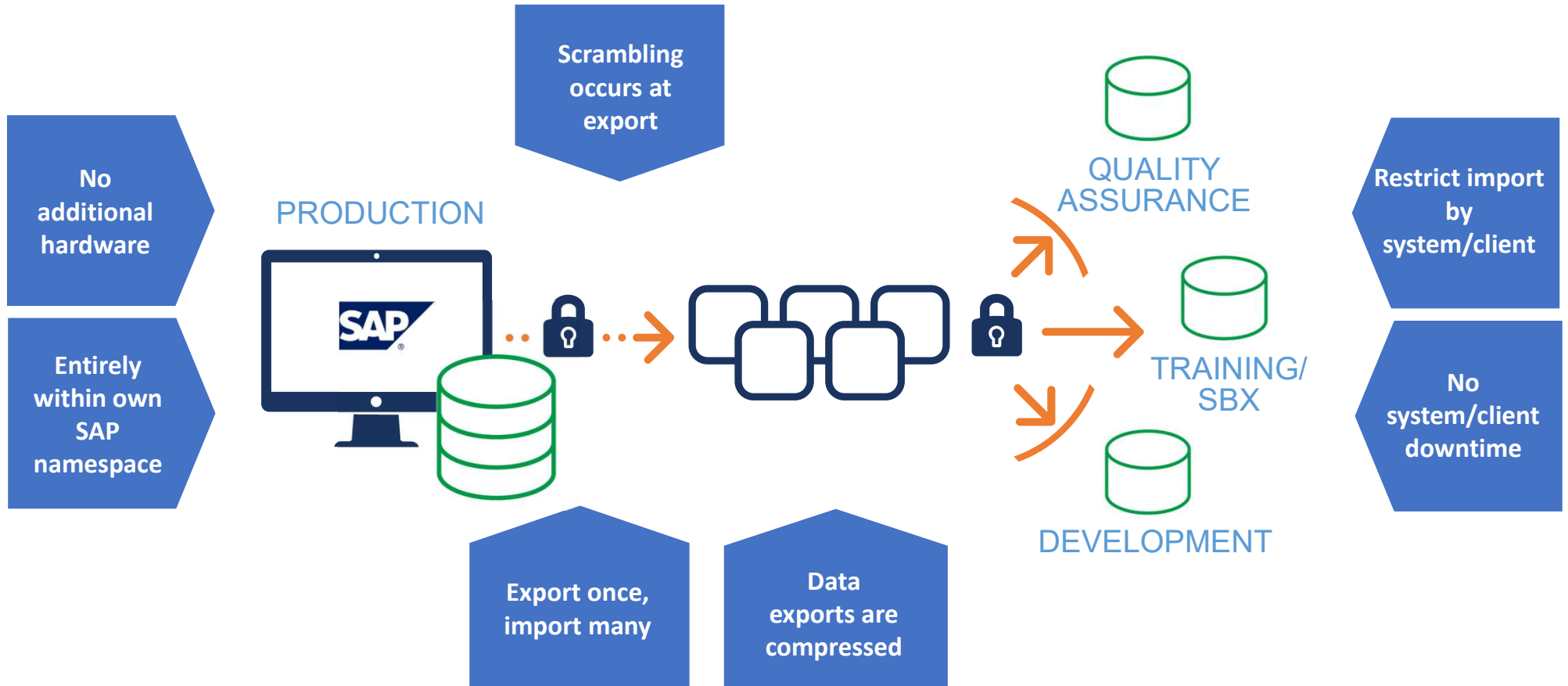
Combine highly
structured SAP data
with data from other
(often unstructured)
sources to enhance
the data

Data Type Promotions





































CHAR, NUMC, DATS, TIMS

Strings

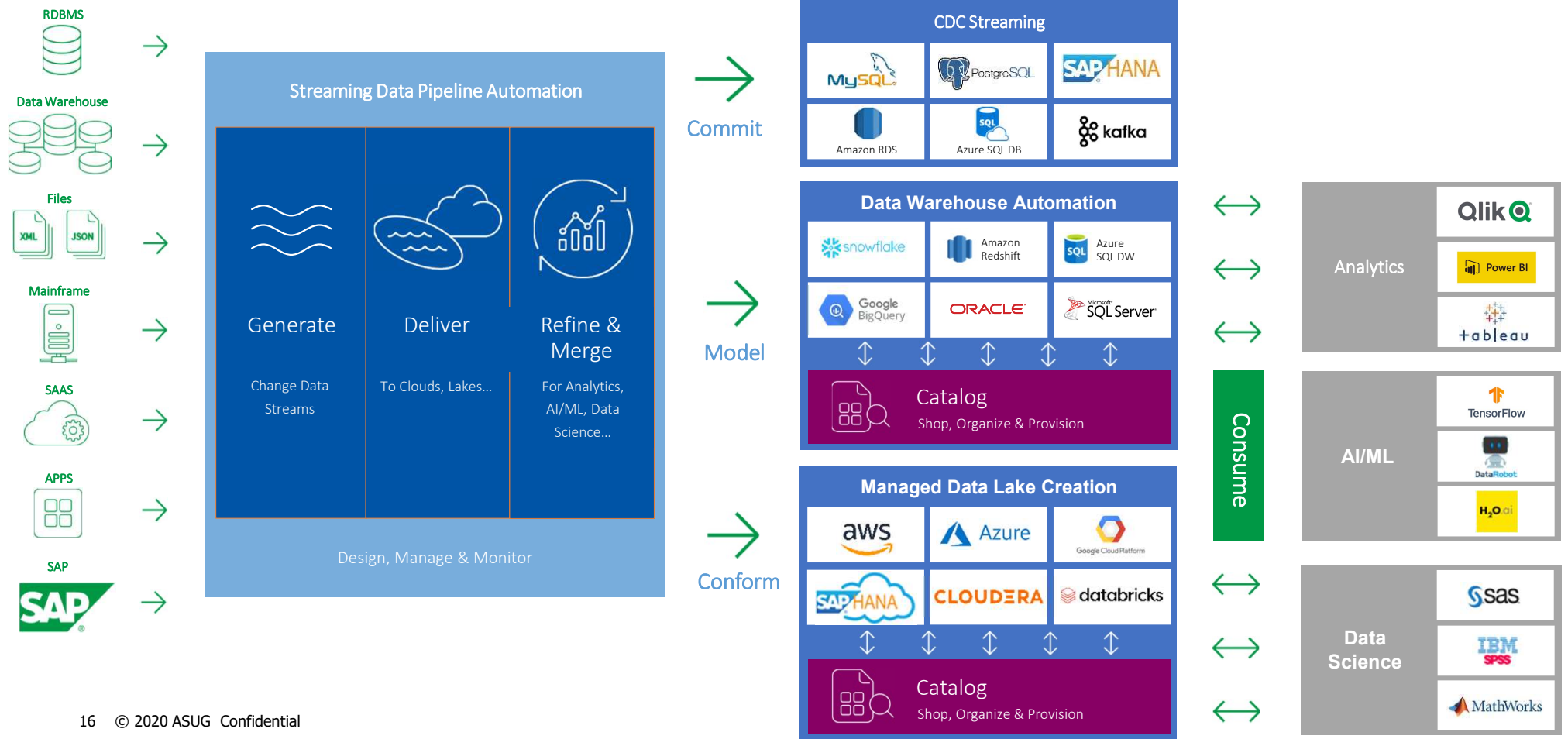
Gold Client Architecture



Cloud Data Integration Partner Alignment

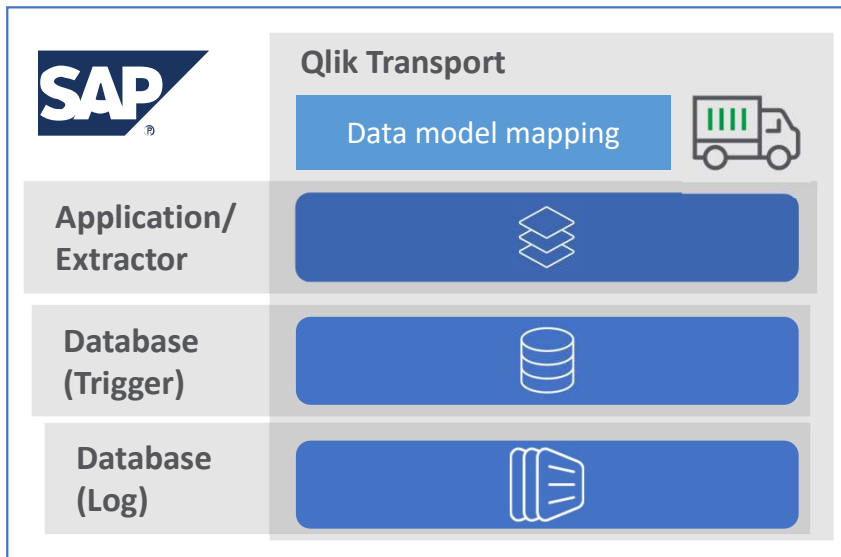
	aws	Azure	Google Cloud Platform
DBaaS	 RDS (All)	 All databases	 All databases
STORAGE	 S3	 ADLS, BLOB	 Cloud Storage (GCS)
HADOOP	 EMR 	 HDInsight 	 DataProc 
STREAMING	 Kinesis  CONFLUENT	 Event Hubs  CONFLUENT	 Kafka  CONFLUENT
DWaaS	 Redshift 	 Azure Synapse 	 BigQuery 
OTHER DWaaS	 Snowflake 	 Snowflake 	 Snowflake 
Data Lakes (House)	 Databricks 	 Databricks 	 Databricks 

Qlik Data Integration Platform – Core Use Cases

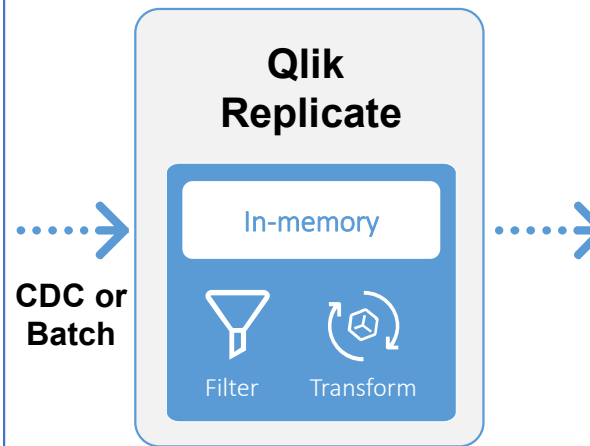


Real-time SAP Data Replication

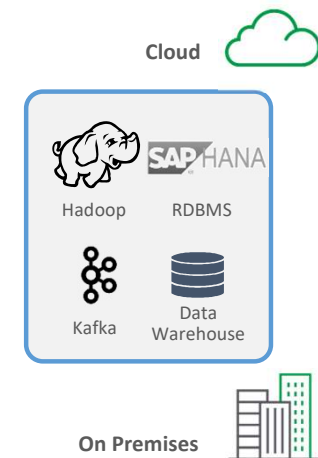
With Qlik Data Integration



- Native SAP ABAP solution
- Decodes proprietary SAP source structures
- Simplifies complex SAP data model mapping
- Propagates SAP metadata

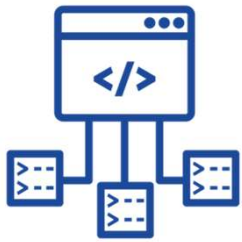


- Supports all core and industry-specific SAP modules
- Log-based, query or application-level SAP integration
- Delivers real-time data to AWS
- Reassembles critical relationships in target (with Qlik Compose)



Qlik and SAP

Why SAP ODP/ODQ?



Operational Data
Provisioning
/Queue framework
(from SAP)



Supports CDS/HANA Views
(various SAP BW objects)



Compression
and Improved Performance

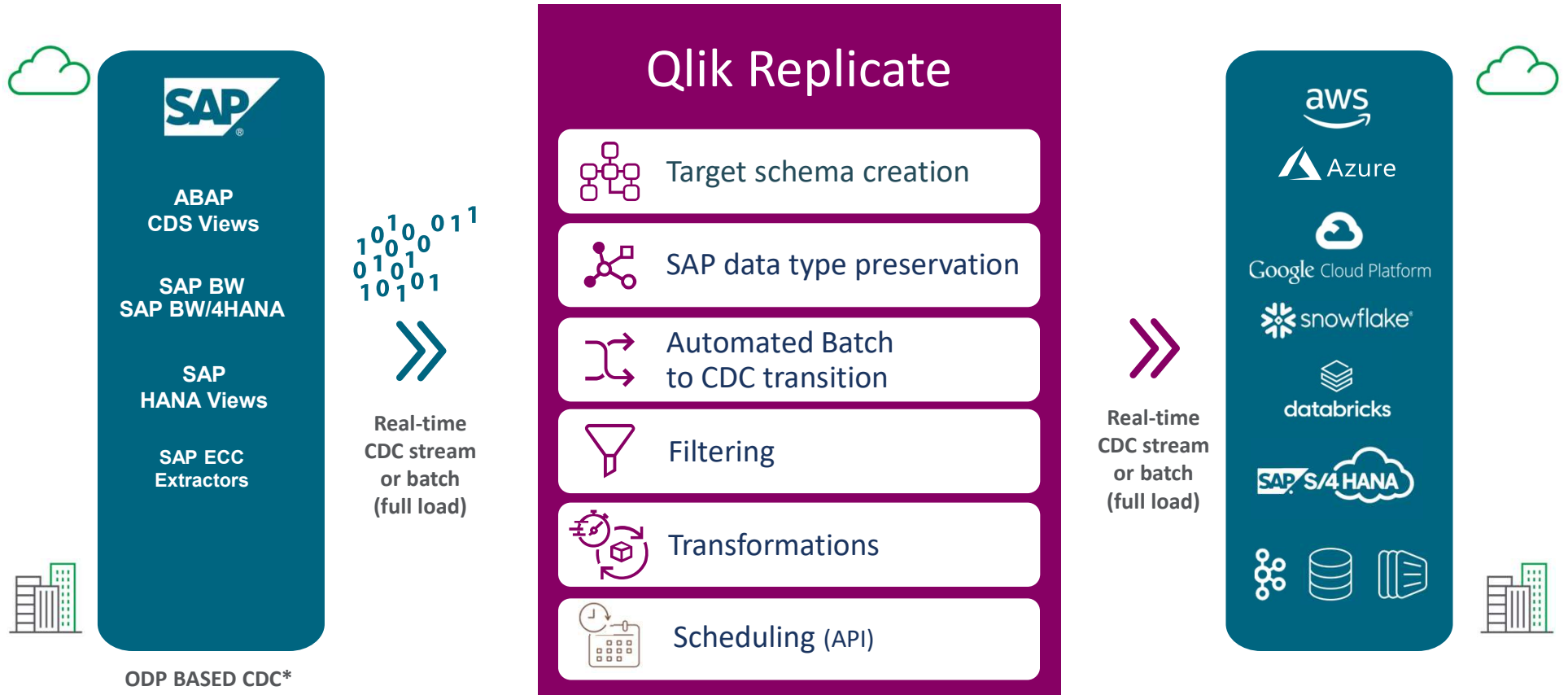


Greater visibility
(what's extracted and where)



Supports Runtime Scenarios

Moving SAP Data with ODP



Qlik and SAP



QLIK REPLICATE

Automated, universal
and real-time data
integration



QLIK COMPOSE

Data Warehouse and
Data Lake automation
for Analytics Ready
Data.

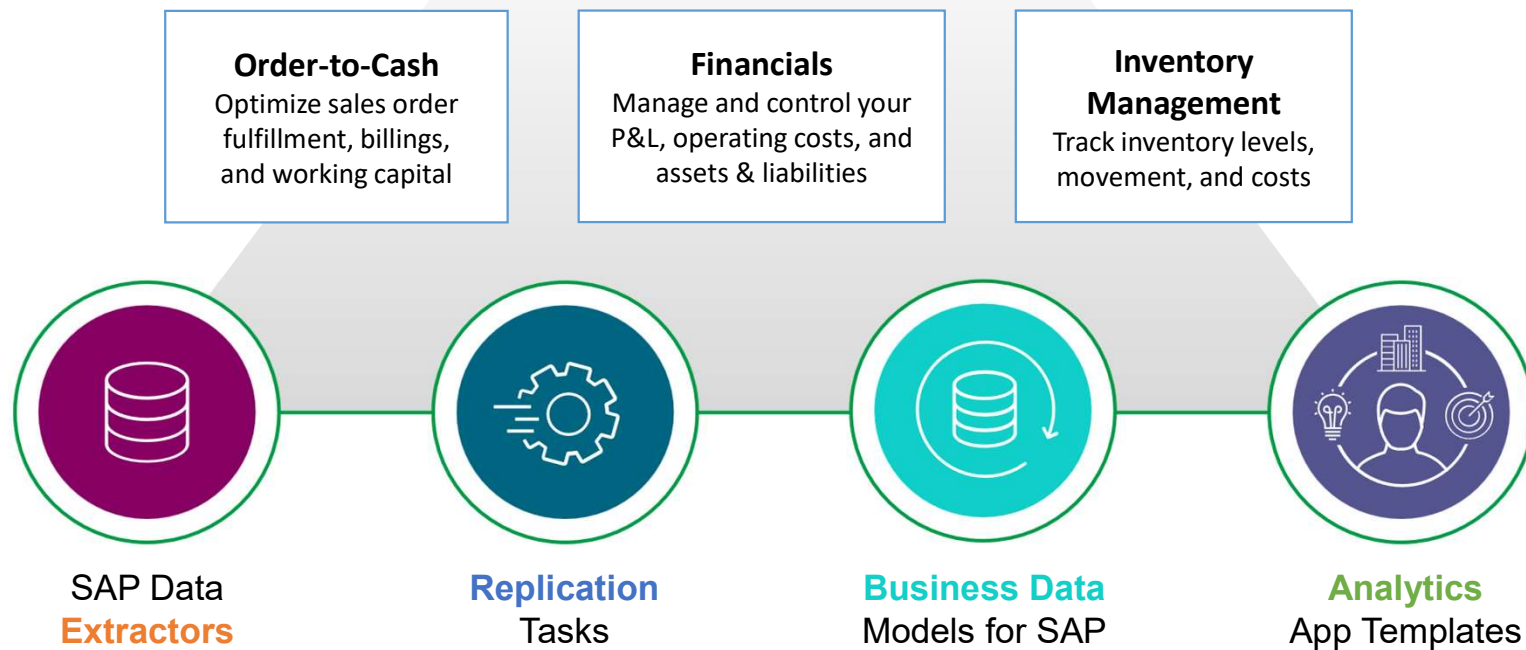


QLIK SAP ACCELERATORS

Pre templated PS
approach to
accelerate customer's
time to value

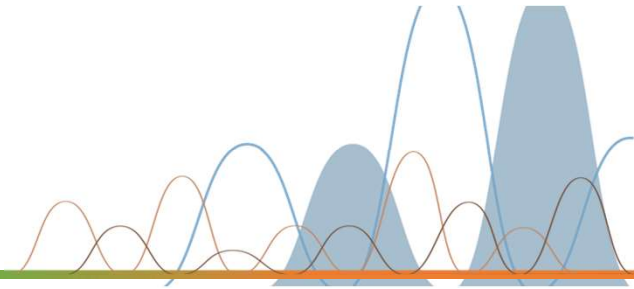
Solution Accelerators

Pre-configured content and templates



SAP – Order 2 Cash

Putting it all together



prebuilt **extractors**
ready to use



Extractor Queue

- 2LIS_11_VAITEM (Sales Item Extractor)
- 2LIS_11_VDITM (Billing Document)
- Sales Order Status (2LIS_11_VASTI)


prebuilt **replicate**
tasks



Qlik Transport

Replicate Tasks

prebuilt **compose**
models




Sales Order Management

Shipment & Distribution

Billing

Accounts Receivables


catalog ready
data-marts



Accessible SAP Data

Documented KPI catalog

prebuilt
template **apps**



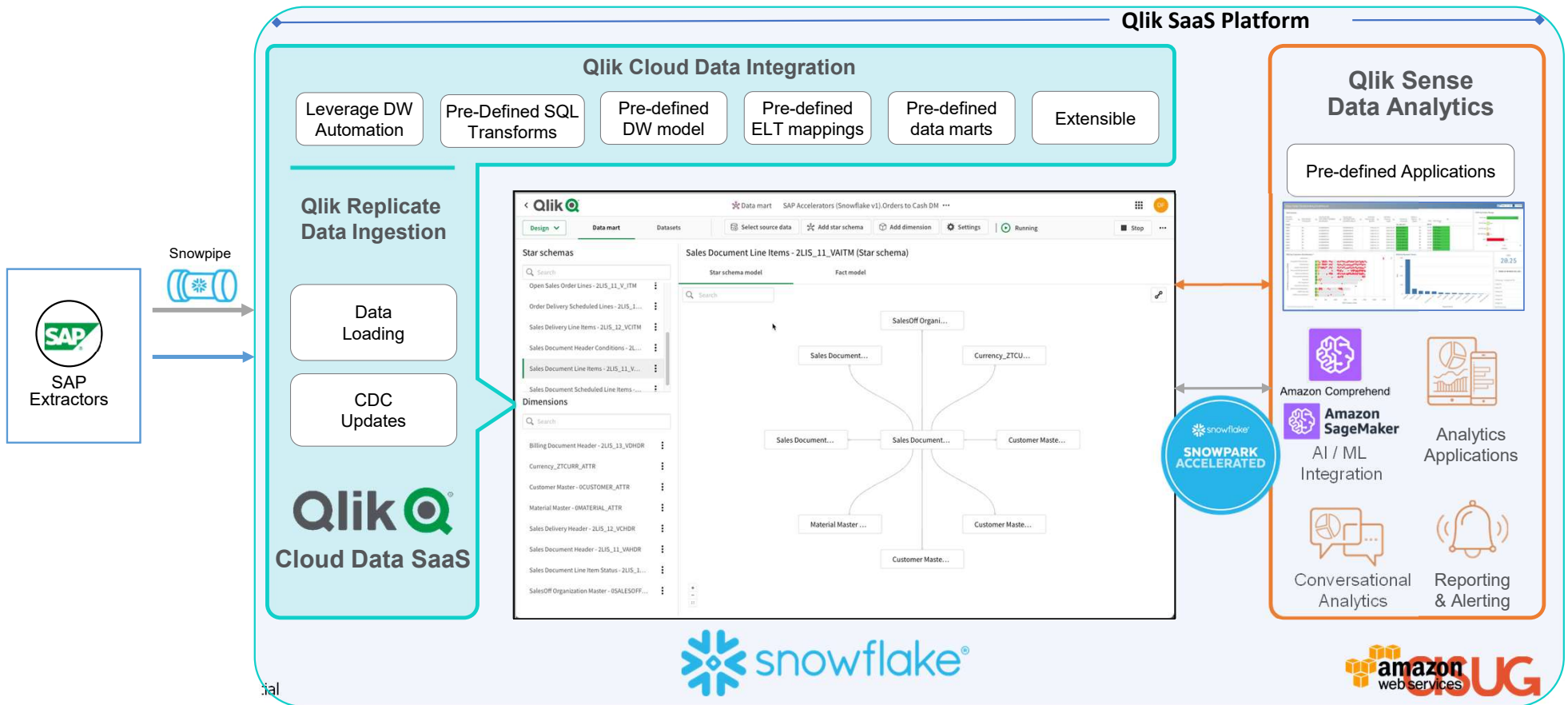
Prebuilt Qlik App

Prebuilt Power BI Apps

Ready for Alerting

Ready for AI/ML

Data Pipeline & Analytics Architecture



Data Pipeline & Analytics Architecture

The screenshot displays the Qlik Sense interface for a data mart named 'SAP Accelerators (Snowflake v1).Orders to Cash DM'. The main view is the 'Star schema model' for 'Sales Document Line Items - 2LIS_11_VAITEM'. The central fact table is 'Sales Document Line Items'. It is connected to several dimension tables: 'SalesOff Organization Master', 'Sales Document Header Conditions', 'Currency_ZTCURR_ATTR', 'Customer Master Data', 'Material Master Data', and 'Sales Document Header'. The interface includes a search bar, a list of star schemas on the left, and a 'Dimensions' section with a search bar and a list of dimension tables.



A preview of a Qlik Sense Analytics dashboard. It shows various data visualizations including bar charts, line graphs, and tables. The text 'Qlik Sense Analytics' is prominent at the top. Below it, there are icons and text for 'Analytics Applications', 'Reporting & Alerting', and 'Amazon Web Services'.



Optimize Working Capital and DSO*

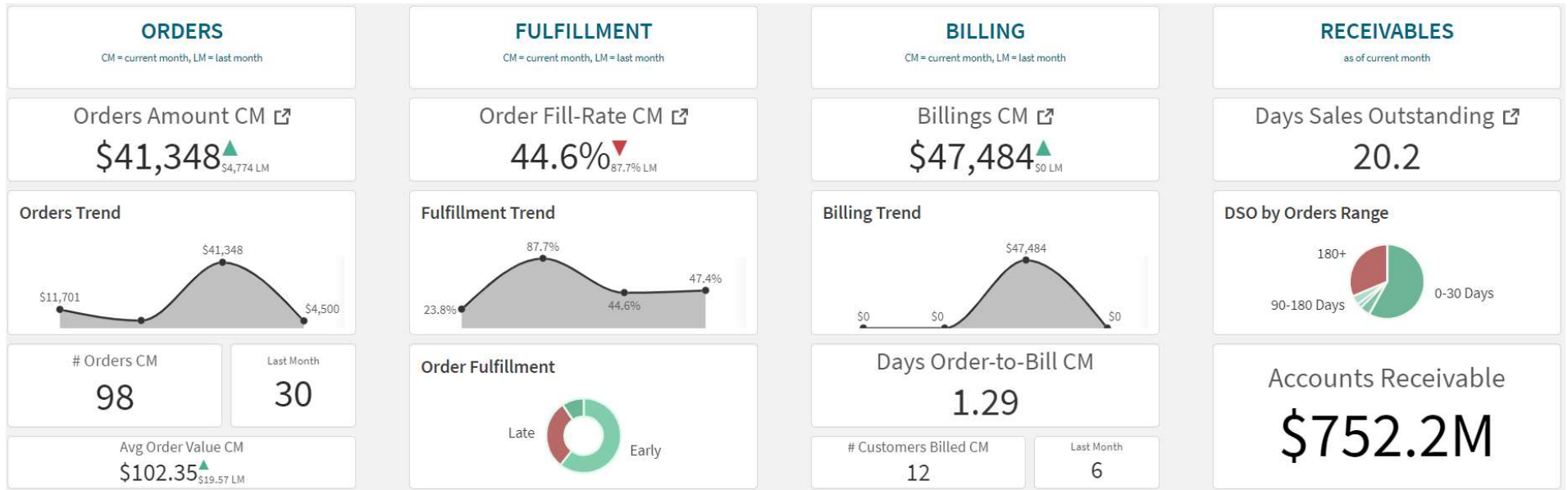
* days sales outstanding = cycle time between order booking and customer payment; lower DSO = more cash, better liquidity

Gain actionable insights into sales orders and trends

Take proactive decisions on order fulfillment and delays

Analyze billings, discounts, and taxes with visibility down to billing documents

Improve working capital & DSO by accelerating customer payments

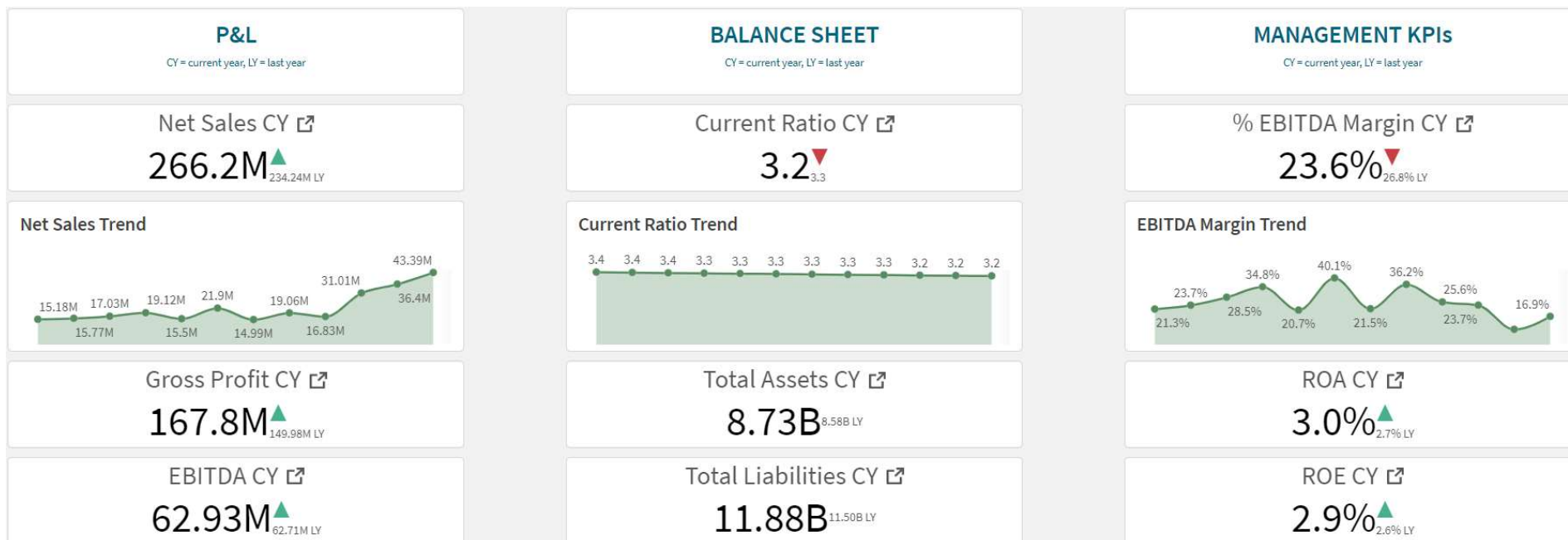


Improve Financial Profitability and Resilience

Drive growth & profitability with near real-time P&L and expenditure insights

Improve financial resilience with balance sheet analytics

Collaborate with business units on key management KPIs



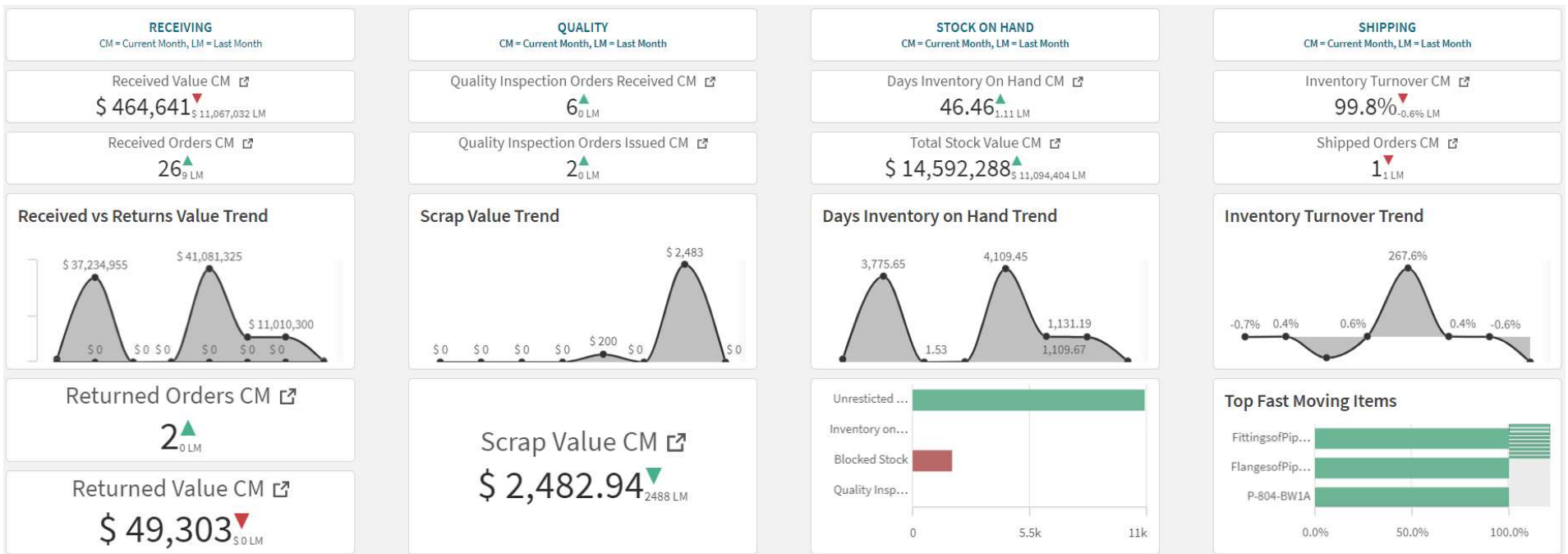
Decrease Inventory Inefficiencies and Costs

Gain actionable insights into materials receiving & returns

Manage stock quality, inspections, and scrap

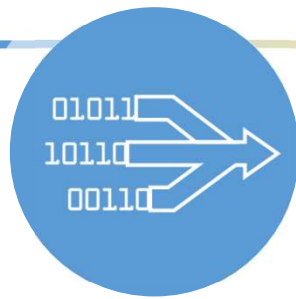
Identify inventory bottlenecks in locations and movements

Improve inventory turnover by identifying slow moving items



The Vision

Acceleration through business content



technological
advantage



prebuilt
business content



accelerated
success

Questions?

For questions after this session, contact us at matt.hayes@qlik.com.

Thank you.

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