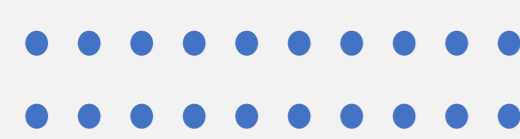# SCIKI**Q**

ALL-IN-ONE DATA PLATFORM

Data analytics without boundaries

Enabling businesses and enterprises to deliver data-driven decisions in a fraction of the time compared to other data platforms

SCIKI**Q**

ALL-IN-ONE DATA PLATFORM

Making Smarter and Confident Decisions using ScikIQ

INTRO TO SCIKIQ CONNECT

Bring Your Own Application

ScikIQ Connect is a NO Code Data Integration and Data Transformation Platform that let our client teams to effortlessly centralize all the data & build single version-of-truth thereby enabling them to make faster, smarter & confident decisions using data.

Using ScikIQ Connect, Client teams can build and deploy Data Integration and Data Transformation Pipelines without writing a single line of Code. The engine takes care of all the complexities in the background thereby save time and engineering effort - hence creating bandwidth for the client team to work on actual value-added activities and making sense from the data.

Having dealt with the pain of Integrating data across organizational silos and boundaries, we have architected the product so that it is easy to use and achieves reduction in the *DATA-TO-ACTION* timeframe from years and months to days. We help our clients save a tremendous amount of time by eliminating the need to build, integrate & maintain complex data pipelines.

ScikIQ Connect is designed to enable business team to drive value from the data and focus on business growth rather than worrying about how the data needs to be stitched together – **thereby providing you a complete Freedom to chose the best Application Technology to meet your business needs** **such as SAP, SFDC, Oracle, SQL Server, etc.**
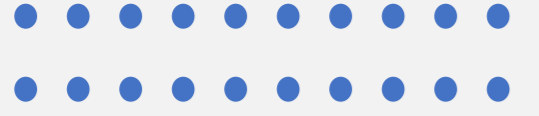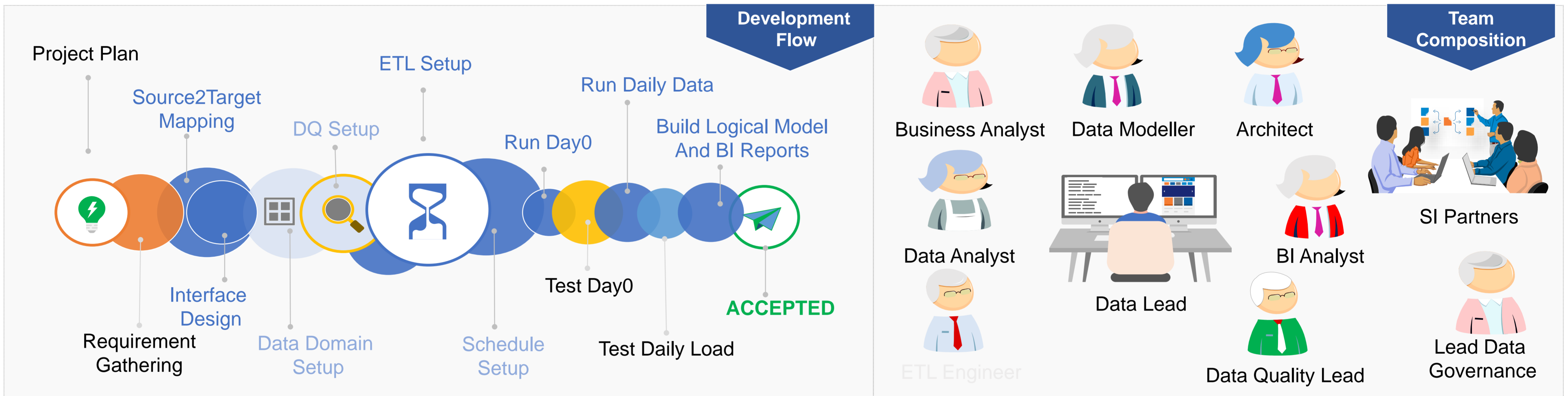
SciklQ Connect is built using proven open-source technologies and uses a modern container-based architecture which effortlessly connect to any data store hosted on a single cloud, multiple clouds, or on a hybrid environment (on-premises + cloud).

It hosts highly scalable, Cloud-agnostic, and interoperable data integration toolsets for designing and developing complex data workloads through NO Code easy-to-use, visual, drag-and-drop User Interface.
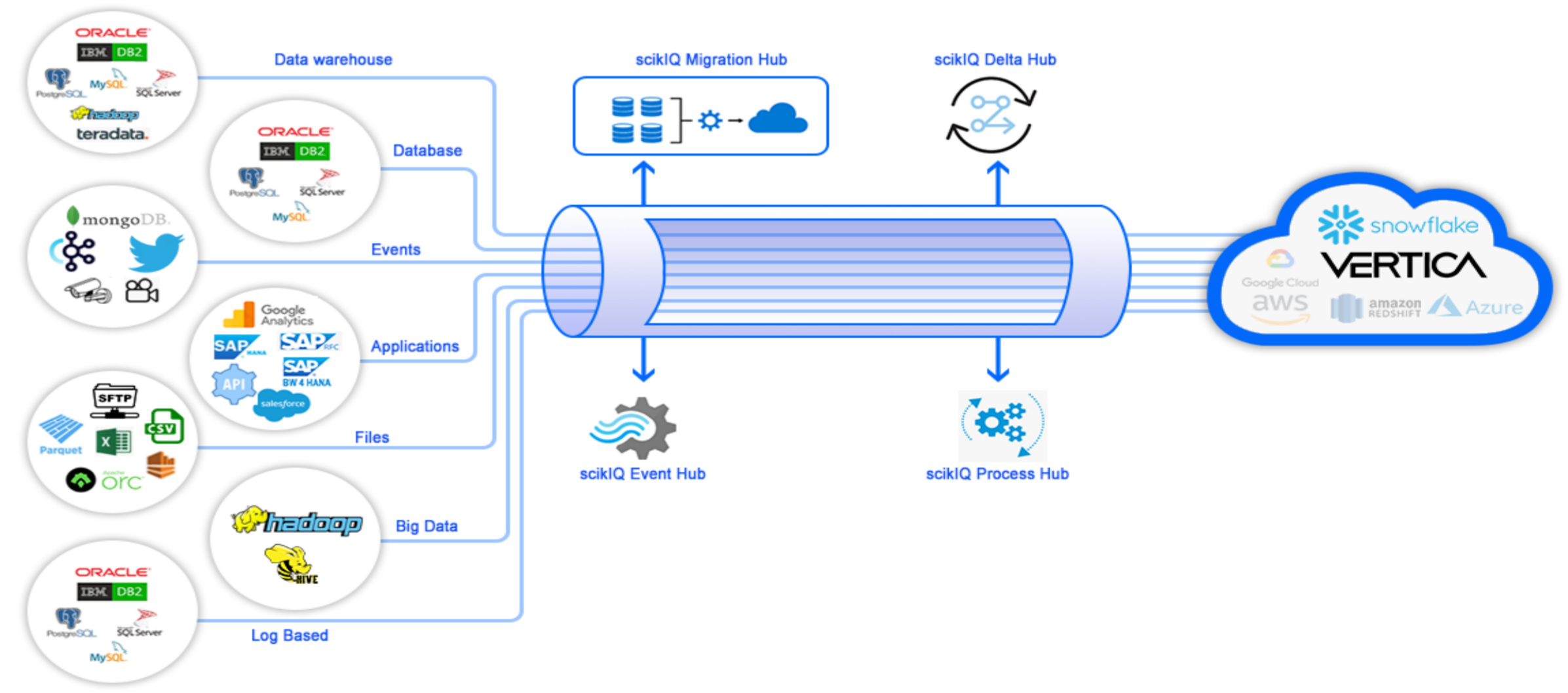
How the Data Strategy is Implemented Today?

Complex Technology Project Based Rollout with multiple Stakeholders and Implementation teams trying to collaborate for 1-2 years to build a data ecosystem which business teams struggle to control and own because of the huge learning curve and tech-centricity of the tool

Development Flow

- Project Plan
- Source2Target Mapping
- ETL Setup
- Run Daily Data
- DQ Setup
- Run Day0
- Build Logical Model And BI Reports
- Interface Design
- Test Day0
- Requirement Gathering
- Data Domain Setup
- Schedule Setup
- Test Daily Load
- **ACCEPTED**

Team Composition

- Business Analyst
- Data Modeller
- Architect
- Data Analyst
- Data Lead
- BI Analyst
- SI Partners
- ETL Engineer
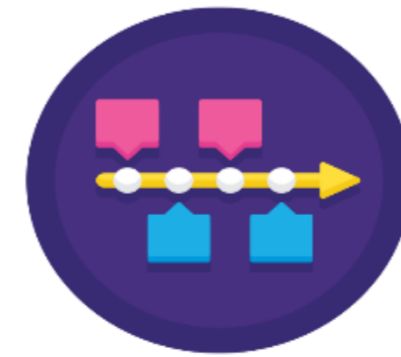- Data Quality Lead
- Lead Data Governance

Challenges with Current Approach

Complex Ecosystem

Non-Consumer Centric Value Chain

Long wait time before Data can be delivered as Insights

1. 80% development efforts goes into data integration and 20% into data analysis
2. Time to decision is measured in years and millions of dollars spend
3. Through 2022, over 80% of data lake projects will fail to deliver value as finding, inventorying and curating data will prove to be the biggest inhibitor to analytics and data science success - Augmented Data Catalogs: Gartner, Sept 2019
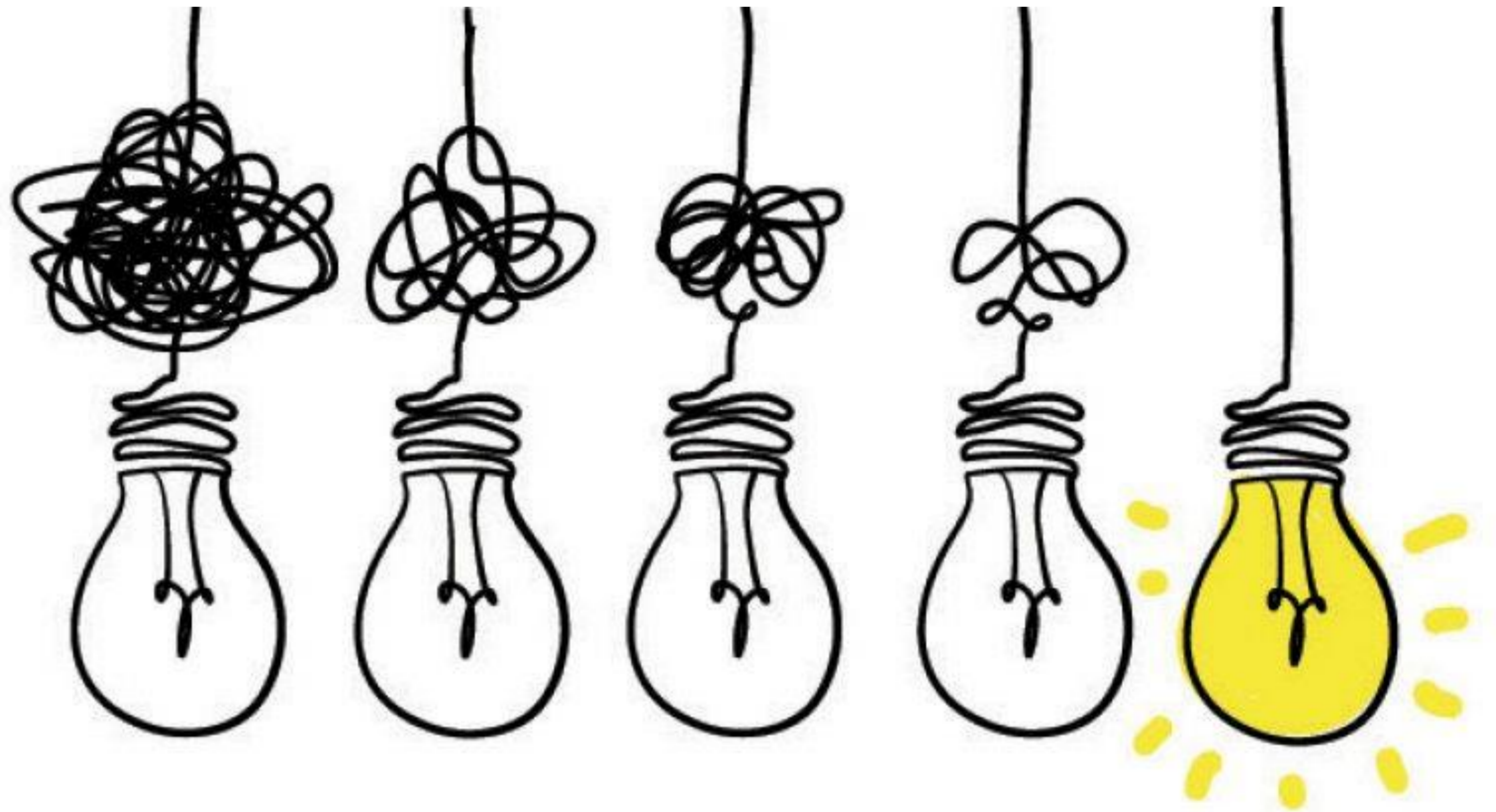
SciklQ Connect – Data Integration
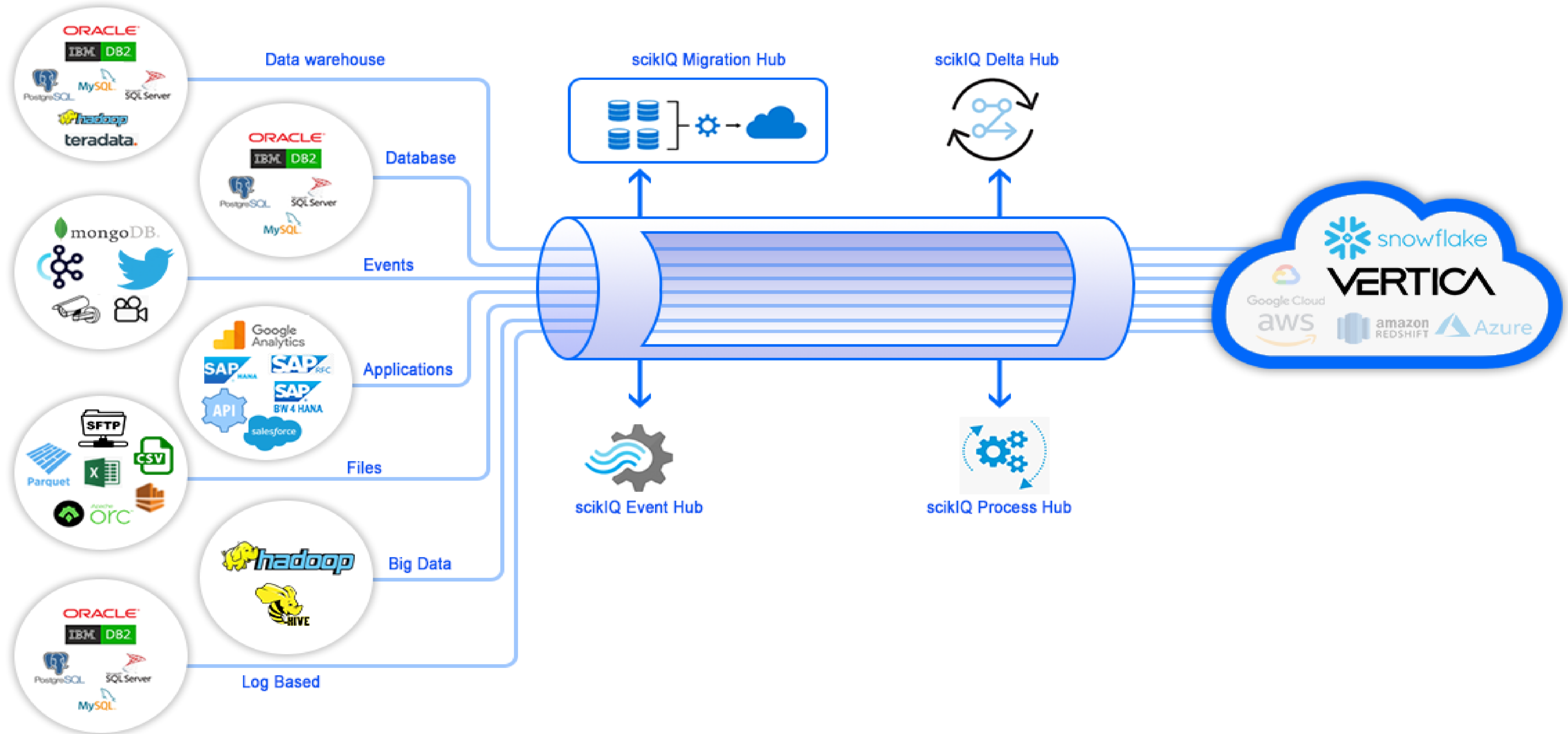
SciklQ Control – Data Governance
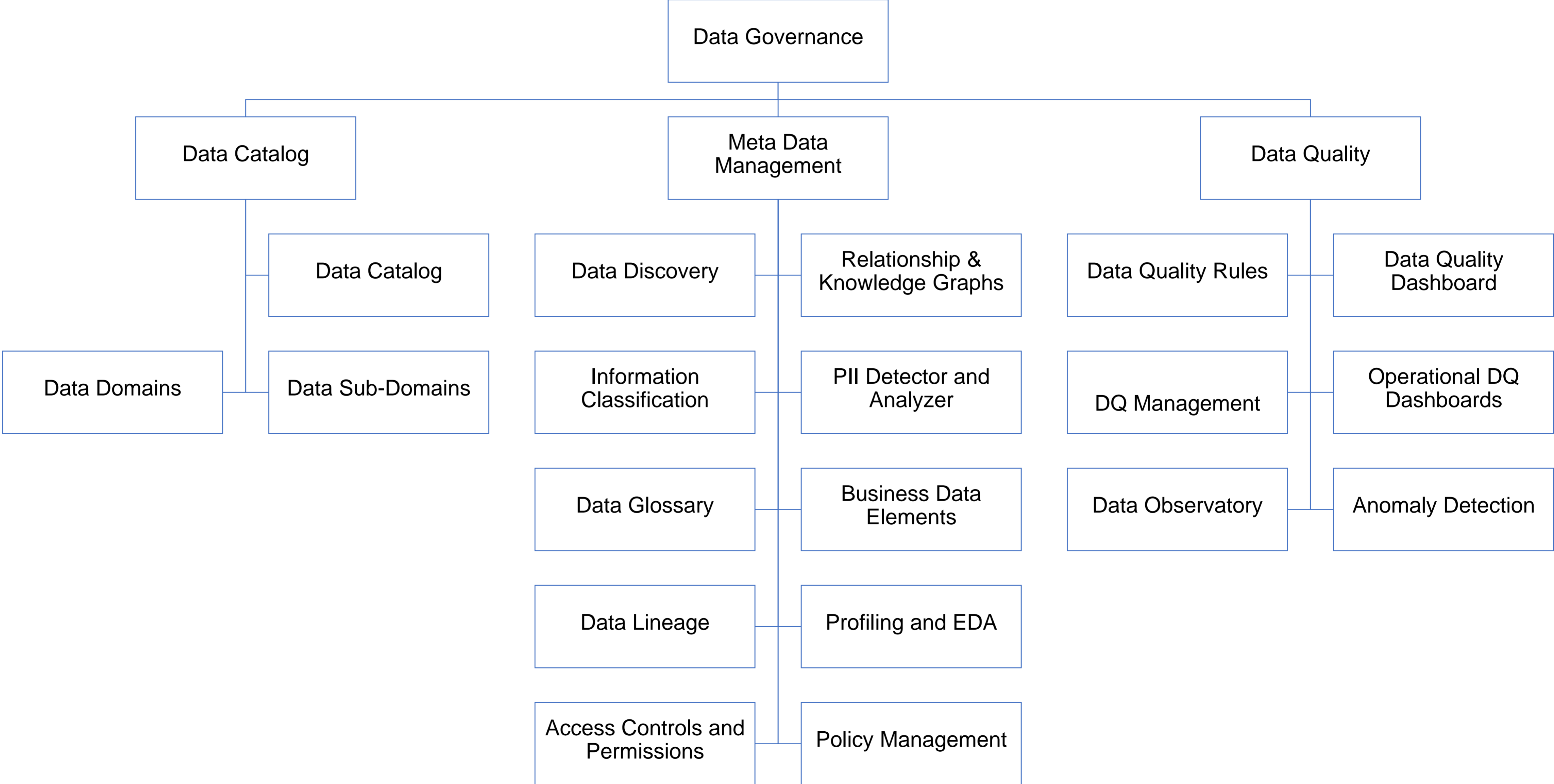
ScikIQ abstract Complexities around Complex Ecosystem

SAP DATA MIGRATION

SAP Data Integrator comes with rich library of functions and transformation routines which helps in migrating SAP Data from Application, Database or API layer to Cloud Data Lakes.

Non Invasive Minimal to Zero Impact on Source

Automated Data Reconciliation

Extract Data from S4, BW or ECC with Zero Complexities and minimal Impact on the Source
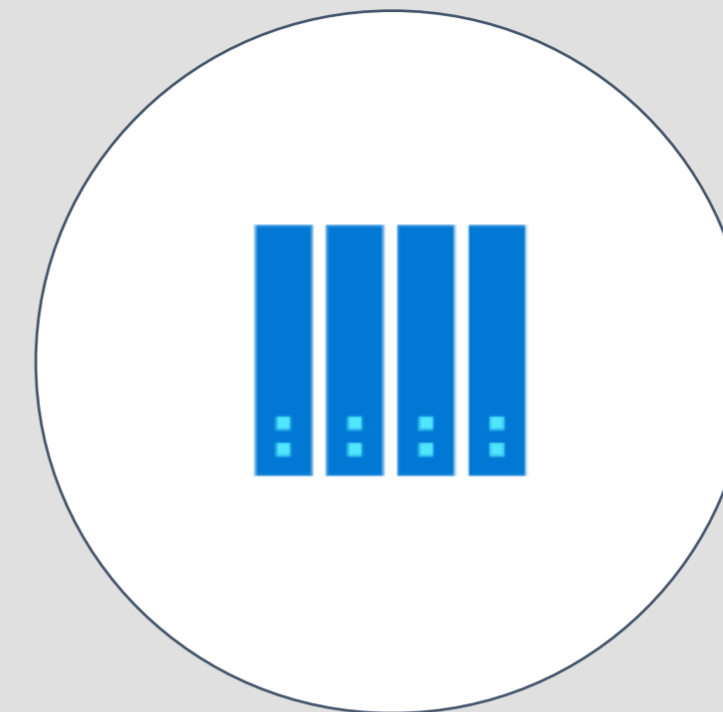
Hybrid/ Multi-Cloud Platform

Fast, Secure and Self-Serve Platform

Visual/NO Code Interface

Cost Effective ~50-80% reduction in TCO

Fully Fault Tolerant – Start your Workload from last saved Check point

SAP DATA MIGRATION APPROACHES
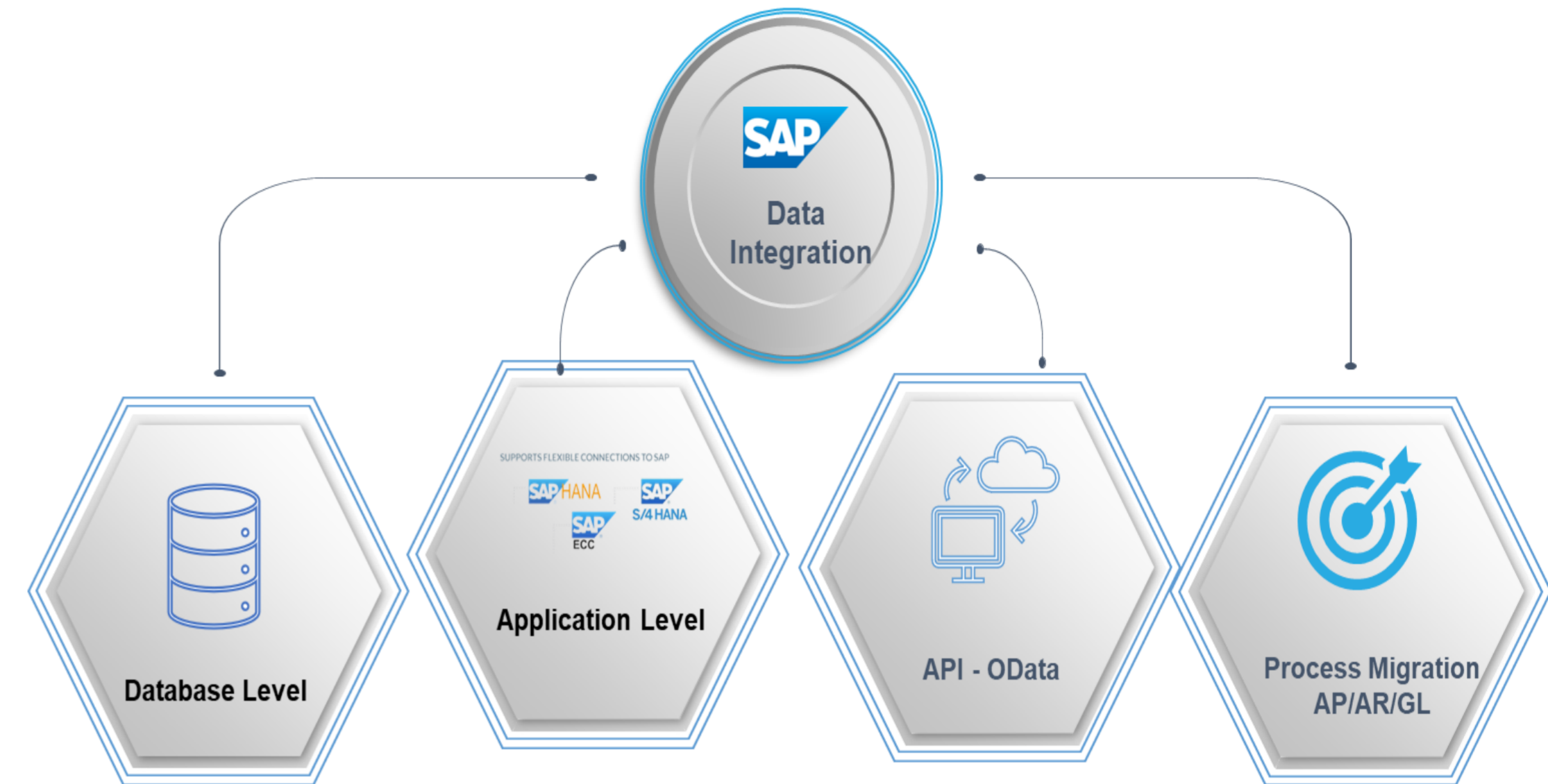
SUPPORTS FLEXIBLE CONNECTIONS TO SAP

With SciklQ, you can extract data from a full range of SAP including SAP HANA, ECC 6.0 or SAP BW with just a few clicks. Through it **NO Code Data Integration and Data Transformation Platform** it let our client teams to effortlessly centralize all the data & build single version-of-truth thereby enabling them to make faster, smarter & confident decisions using data.

SciklQ supports SAP Data Extraction from SAP using following methodologies

1. **Database Level:** Extraction Framework at Database Level extracts raw data as it is being written to SAP database, transform the data to consumable formats with the required mappings and writes on a target database i.e., Snowflake or Vertica.

2. **Application Level: SciklQ** uses Remote Function Call libraries to natively connect and extract data from remote function modules, views, tables, and queries.

3. **OData**: SAP OData connectors allow you to browse different OData services exposed in the SAP server through its Catalog service. You can select any service of your choice, retrieve the meta-data of various entities exposed in the selected service and then design a job within SciklQ to extract data for the given entity set.

4. **Process Migration** : Select AR, AP, GL or P2P process and let SciklQ pull the data out of all the related tables from SAP for Process Consumption and Dashboarding

Data Integration – SAP S/4 HANA

The following table highlights the high-level Capabilities of any Data Integration tool which can extract data from SAP ERP i.e., Enterprise Resource Planning Software

Source Object	Type	Extraction Mode	Scenario Detail
Table	Transparent	Full	Extract the complete data set from transparent table such as Sales Header, Sales Item, Billing Item.
		Delta	Extract delta records based on timestamp, incremental column such as Sales Header, Sales Item, Billing Item.
	Clustered	Full	Extract the complete data set from clustered table such as BSEG.
		Delta	Extract delta records based on timestamp, incremental column from a clustered table such as BSEG.
Extractor	Standard	Full & Delta	Extract data (Full & Delta) from SAP provided standard extractors
	Custom	Full	Extract data from customer developed extractors such as Sales Order, GL Accounts Balance, Billing extractors.
		Delta	(1) Extract data from customer developed extractors, should bring only delta records which are posted after the initial extractions.
			(2) Some custom extractors are not enabled with Delta, in such scenarios based on time column or incremental column from extractor extract only delta postings.
ABAP CDS Views	Standard/Custom	Full	Extract the data from ABAP CDS view
		Delta	(1) Extract only delta postings from ABAP CDS view such as I_SALESORDERITEMCUBE.
			(2) Not all the CDS views are enabled with delta extractions in those scenarios extract delta postings based on time field or incremental column from CDS views.

Data Integration – BW on HANA/BW4HANA

SAP Enterprise Data Warehouse has functionalities such as data modelling, administration, and provision management. It integrates multi-source data, aggregates, and transforms data, carries out data cleansing and stores data. The following table highlights the high-level Capabilities of any Data Integration tool which can extract data from SAP BW i.e. SAP Data Warehouse

Source Object	Type	Extraction Mode	Scenario Detail
Info Object	Master Data	Full	(1) Time independent: Extract Customer master and text data from generated HANA View. (2) Time Dependent: Extract Material master and text data from generated HANA View.
DSOs/ADSOs	Write Optimized	Full/Delta	(1) For one-time load, extract the data from ADSO generated HANA VIEW for objects such as Sales Order, Billing, Shipment, General Ledger ADSOs. (2) For subsequent Delta extractions, based on Request ID fetch the delta request data from ADSO generated HANA view for objects such as Sales Order (ADSO).
	Standard	Full/Delta	(1) For one-time load, extract the data from ADSO generated HANA VIEW for objects such as Sales Order, Billing, Shipment, General Ledger ADSOs. (2) For subsequent delta extractions, fetch delta postings for Sales Order, Billing, Shipment, General Ledger ADSOs. Based on Creation/Change Date fields from ADSO generated HANA view extract the delta postings.
Open Hub Destination (OHD)	Table & File	Full	Extract data from objects such as Purchase Order, Purchase Order Item OHD.

DATA INTEGRATION – ECC ON HANA

Source Object	Type	Extraction Mode	Scenario Detail
Table	Transparent	Full	Extract the complete data set from transparent table such as Sales Header, Sales Item, Billing Item.
		Delta	Extract delta records based on timestamp, incremental column such as Sales Header, Sales Item, Billing Item.
	Clustered	Full	Extract the complete data set from clustered table such as BSEG.
		Delta	Extract delta records based on timestamp, incremental column from a clustered table such as BSEG.
Extractor	Standard	Full & Delta	Extract data (Full & Delta) from SAP provided standard extractors
	Custom	Full	Extract data from customer developed extractors such as Sales Order, GL Accounts Balance, Billing extractors.
		Delta	(1) Extract data from customer developed extractors, should bring only delta records which are posted after the initial extractions. (2) Some custom extractors are not enabled with Delta, in such scenarios based on time column or incremental column from extractor extract only delta postings.
ABAP CDS Views	Standard/Custom	Full	Extract the data from ABAP CDS view
		Delta	(1) Extract only delta postings from ABAP CDS view such as I_SALESORDERITEMCUBE. (2) Not all the CDS views are enabled with delta extractions in those scenarios extract delta postings based on time field or incremental column from CDS views.

SAP S/4 HANA is an ERP application that runs on the SAP HANA database. It is the innovative in-memory version of the Business Suite ERP platform and is based on SAP HANA's in-memory database. SAP S/4 HANA is the abbreviation for SAP Business Suite 4 SAP HANA, denoting it is the fourth version of SAP Business Suite. SAP S/4 HANA is a next-gen ERP application and ideal as a transactional system for large enterprises.

SciklQ + - Out of the box ML Capabilities

Data Analysis & Understanding	Data Preparation	Modeling	Evaluation
Statistical Summary	Outlier Detection	SVM	Model-level Stats
Time Series	Normalization	Random Forests	ROC Tables
Sessionize	Imbalanced Data Processing	Logistic Regression	Error Rate
Pattern Matching	Sampling	Linear Regression	Lift Table
Date/ Time Algebra	Missing Value Imputation	Ridge Regression	Confusion Matrix
Correlations	And More…	Naive Bayes	R-Squared
Date Type Handling		Cross Validation	MSE
Sequences		And More…	
And More…			