Tax & Data Analytics

Workshop 2

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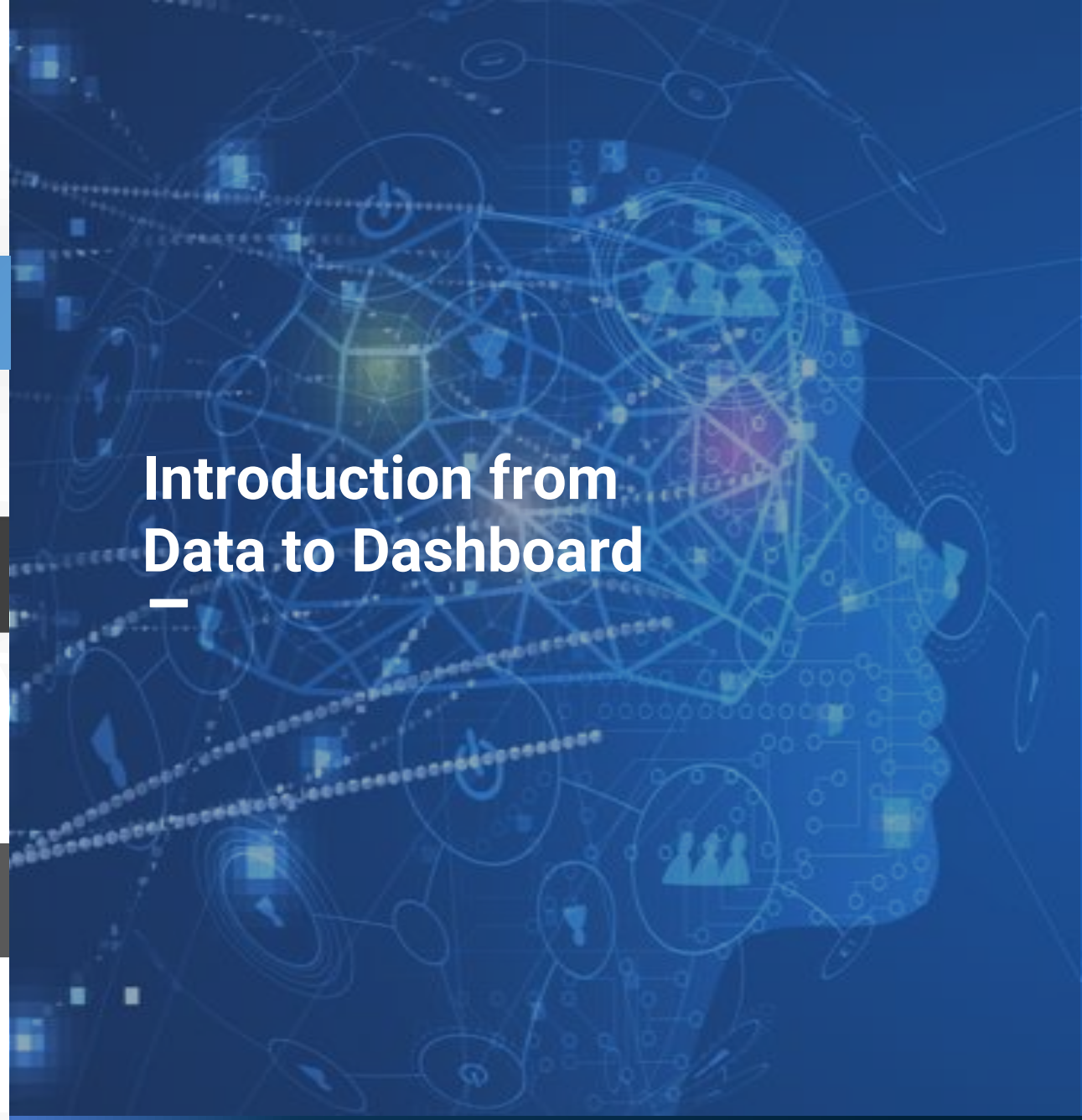
Introduction from Data to Dashboard

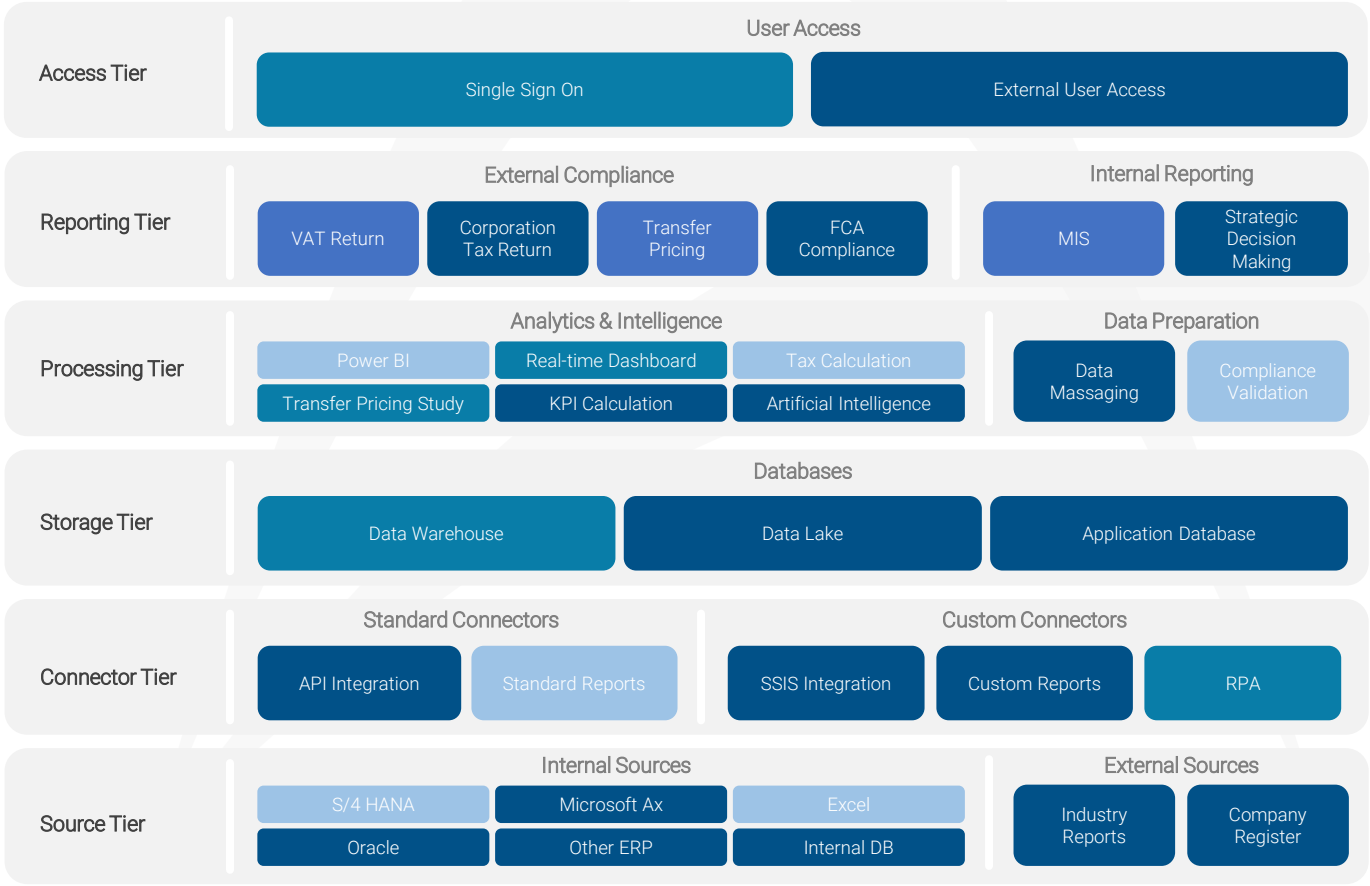
Data Architecture

Examples



The data economy – setting the tax scene

System optimization can be planned using the data platform template. Each level contains possible systems and tools that may be required for various end uses and internal processes.



1. End Uses

What are the end uses of the data? E.g. VAT compliance, transfer pricing.

2. Current Systems

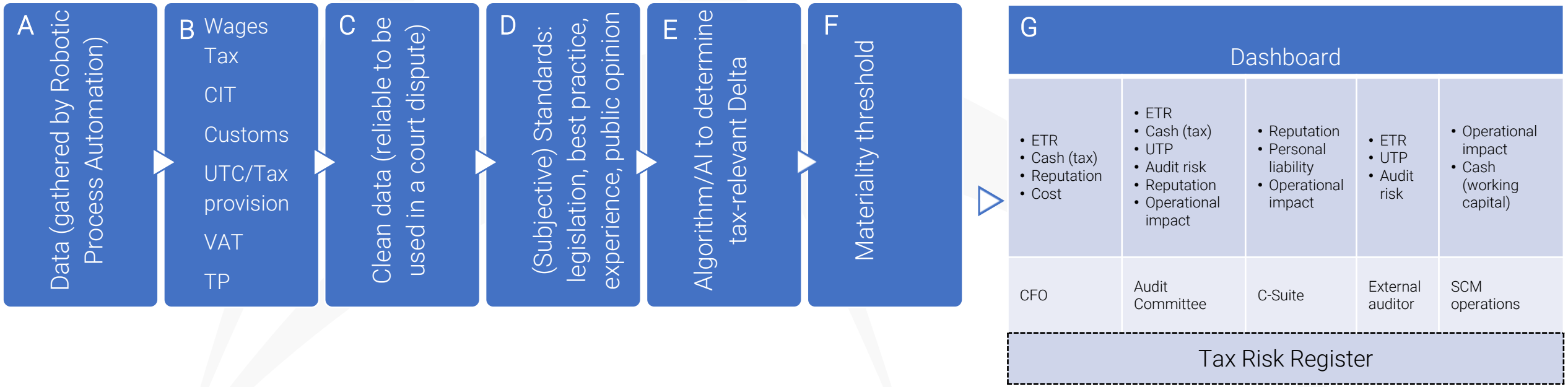
Which systems are in place currently? E.g. S/4 HANA, transfer pricing tool.

3. Implementation Approach

Which approach should we implement? Individual systems or data warehouse.

Q: Please explain what is happening here?

From Data to Dashboard – Tax Risk Monitor



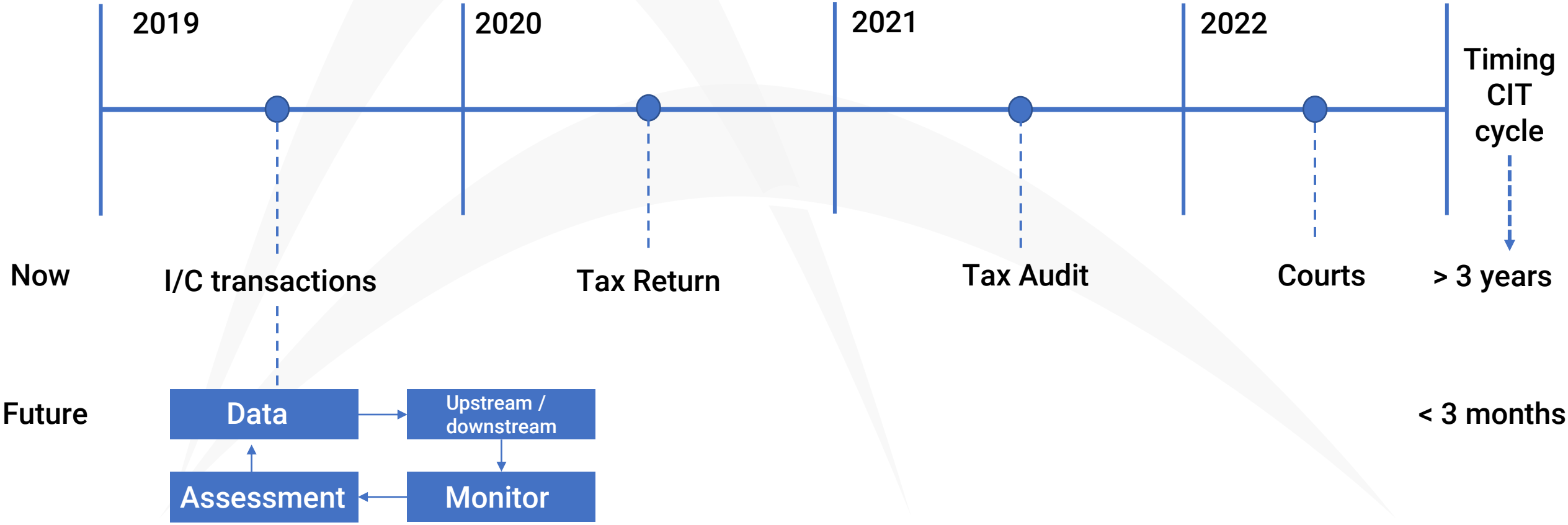
From Data to Dashboard – Questions

A	B	C	D	E	F	G
What is the governance on data?	Are there other any risk categories to be added?	What is your definition of clean data?	What are your categories of standards?	How deltas/risks are determined now?	Is there a materiality threshold?	Who are the relevant stakeholders?
Who is the supplier of data (tax team, finance team, etc.)?	Are these risk categories stable or volatile?	Will / can this clean data be used for other purposes?	Is there a hierarchy of standards?	Is there any process in place to determine deltas?	If yes, how do you apply the threshold?	Which reporting do these stakeholders expect?
What are the sources of data (ERP, Excel files, Word files, etc.)?	What is the weighting of risk categories?	Do you use a data manual / chart of accounts?	Are these standards subject to change?	Which deltas are tax-relevant?		What is the frequency of reporting?
What is the format of data (numbers, text, other)?	How do these risk categories fit into your “Enterprise Risk Management” (ERM)?					What is the format and the style of reporting?
What is the quality of data?						

From Data to Dashboard – Questions

H. Regulatory and liability aspects
Is there any legal protection (e.g. attorney privilege)?
Is there a requirement / necessity for full disclosure of tax risk register?
What are the C-Suite liabilities in relation to disclosed information?
What is the governance on ERM / Tax risk management?

Introduction from Data to Dashboard – “the catch 22” dilemma visualized



Introduction from Data to Dashboard

Data Architecture

Examples

Introduction to Data Ecosystem

Data Governance
Organizational aspects around Data

Upstream	Downstream
Define who can handle the data	Pattern Recognition
Support to translate the new processes to people	Statistical Significance
Coaching the new roles	Anomaly Detection

Introduction to Data Architecture - FAQ

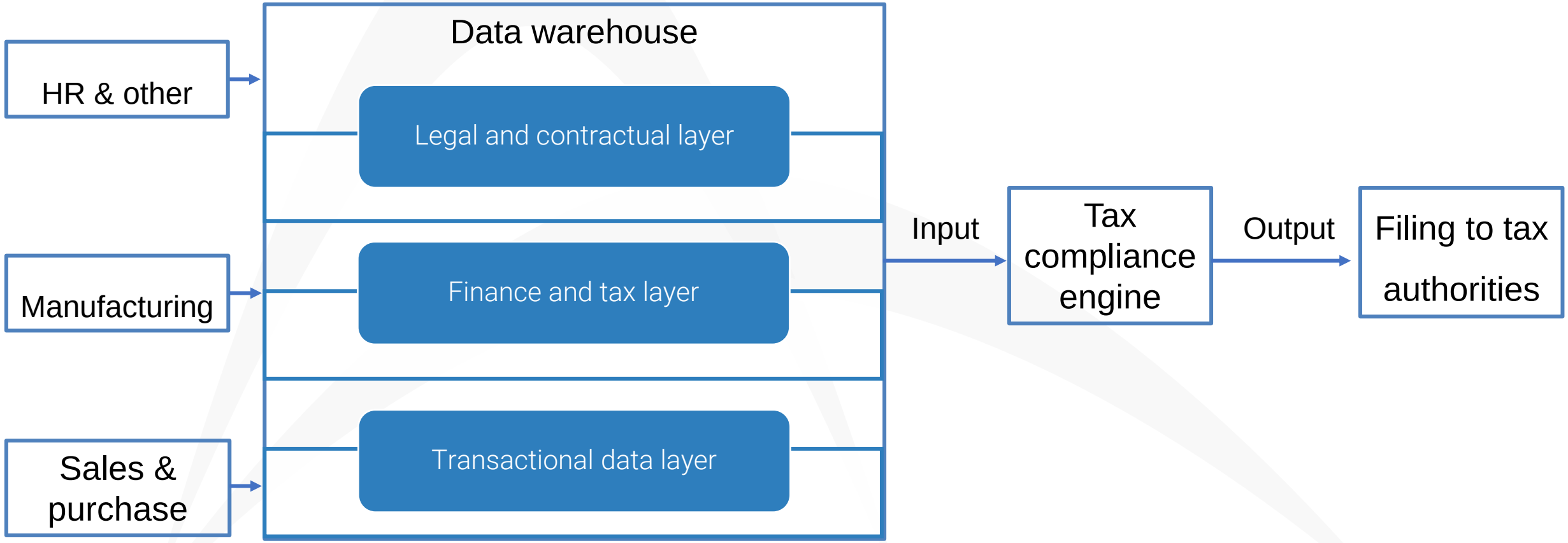
Data organization is a top challenge.

Organizing data effectively requires the right data architecture.

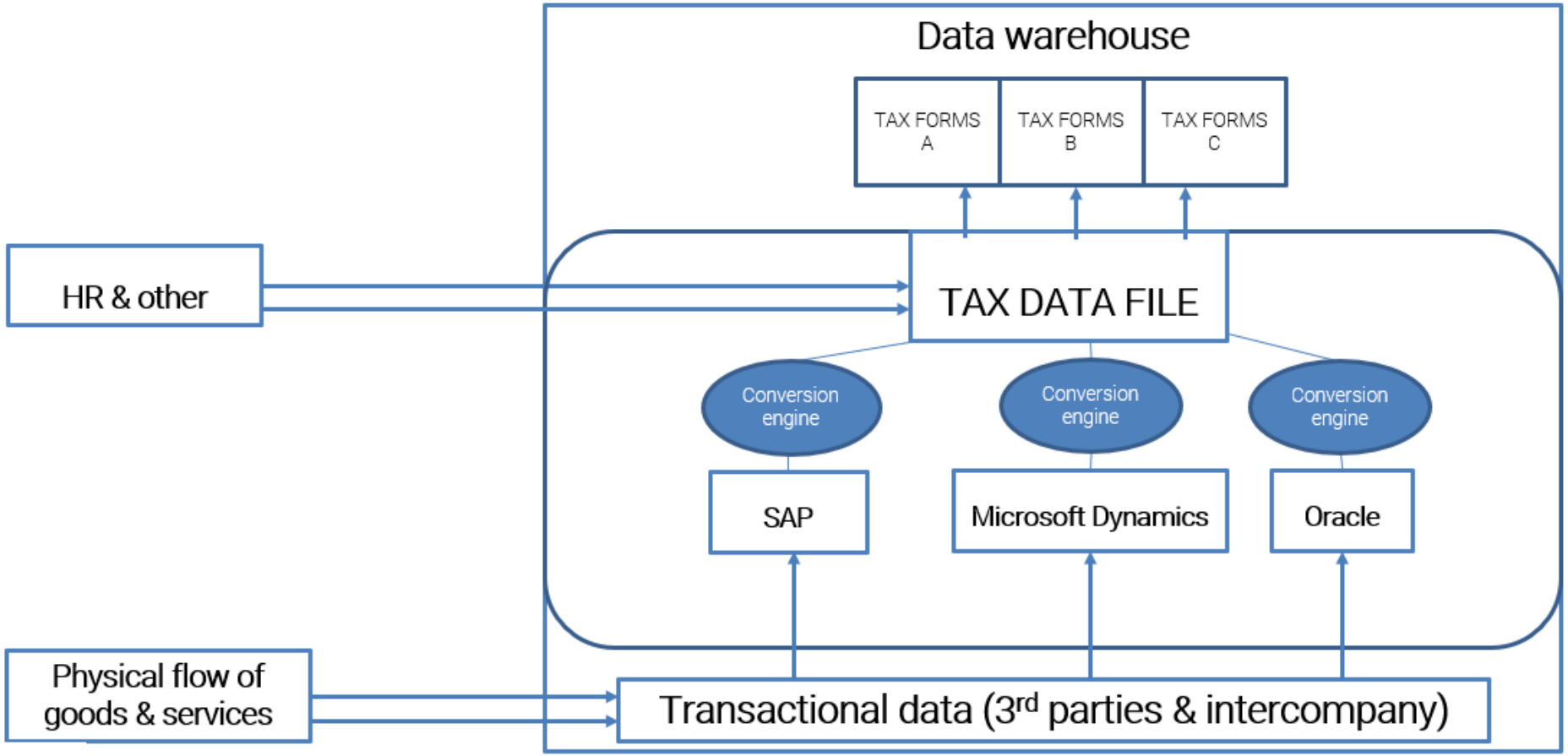
Modern data architecture is implemented as a cloud-based data warehouse with tools and technologies.

- What is your strategy for tax data at source in ERP or financial system of record?
- What is your strategy for “accurate, correct and complete” of data retrieved from source for tax purposes?
- What are your corporate-wide data policies, if any, and are you in alignment?
- What is your strategy for tax specific data, i.e. book to tax differences or tax opportunities?
- How do you ensure data quality throughout, creating the level of trust in data needed?

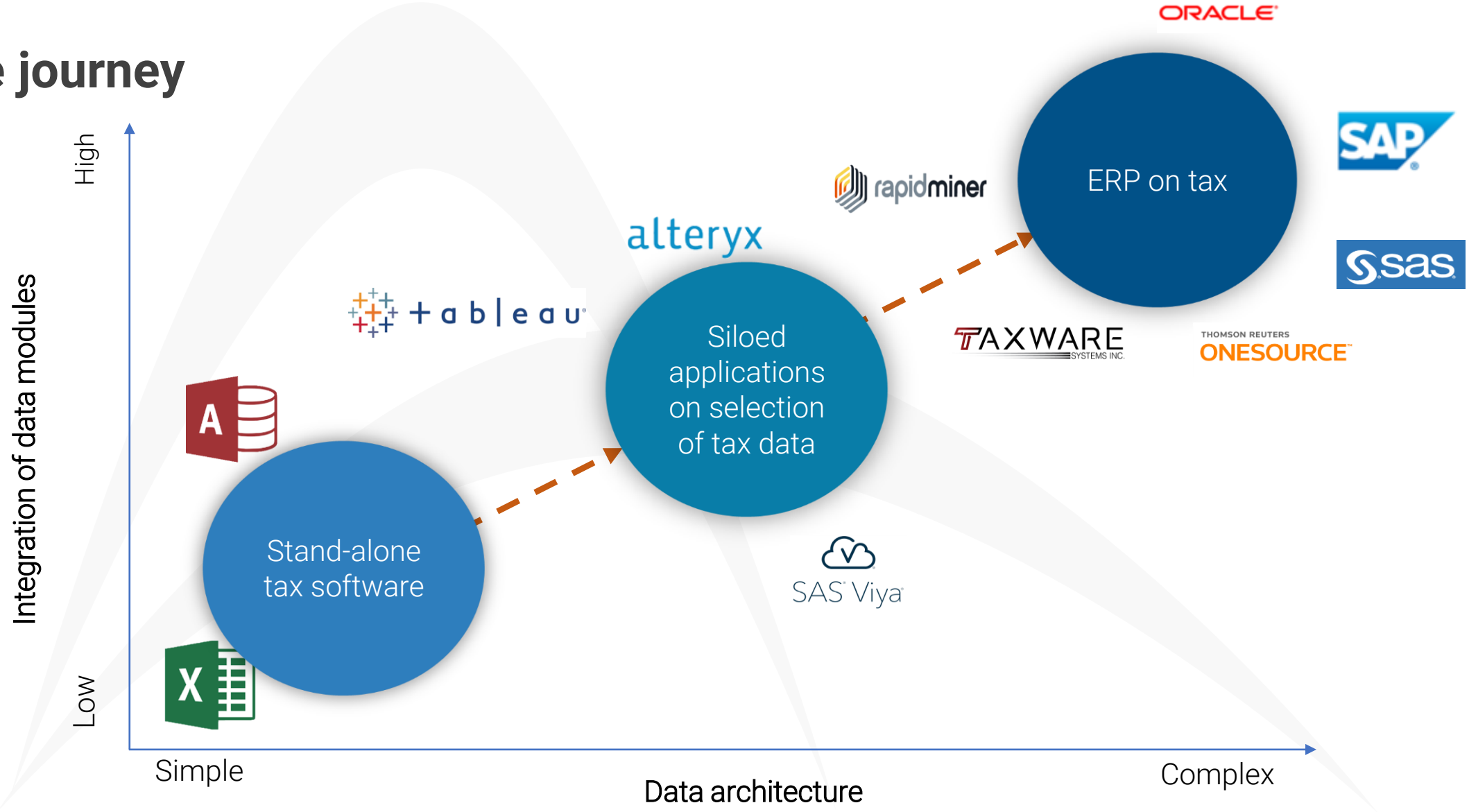
Data Architecture – Visualisation (I)



Data Architecture – Visualisation (II)



The journey


ORACLE
SAP
rapidminer
ERP on tax
alteryx
sas
tableau
Siloed applications on selection of tax data
TAXWARE SYSTEMS INC.
THOMSON REUTERS ONESOURCE
Stand-alone tax software
SAS Viya
High
Integration of data modules
Low
Simple
Data architecture
Complex

The Software Curve

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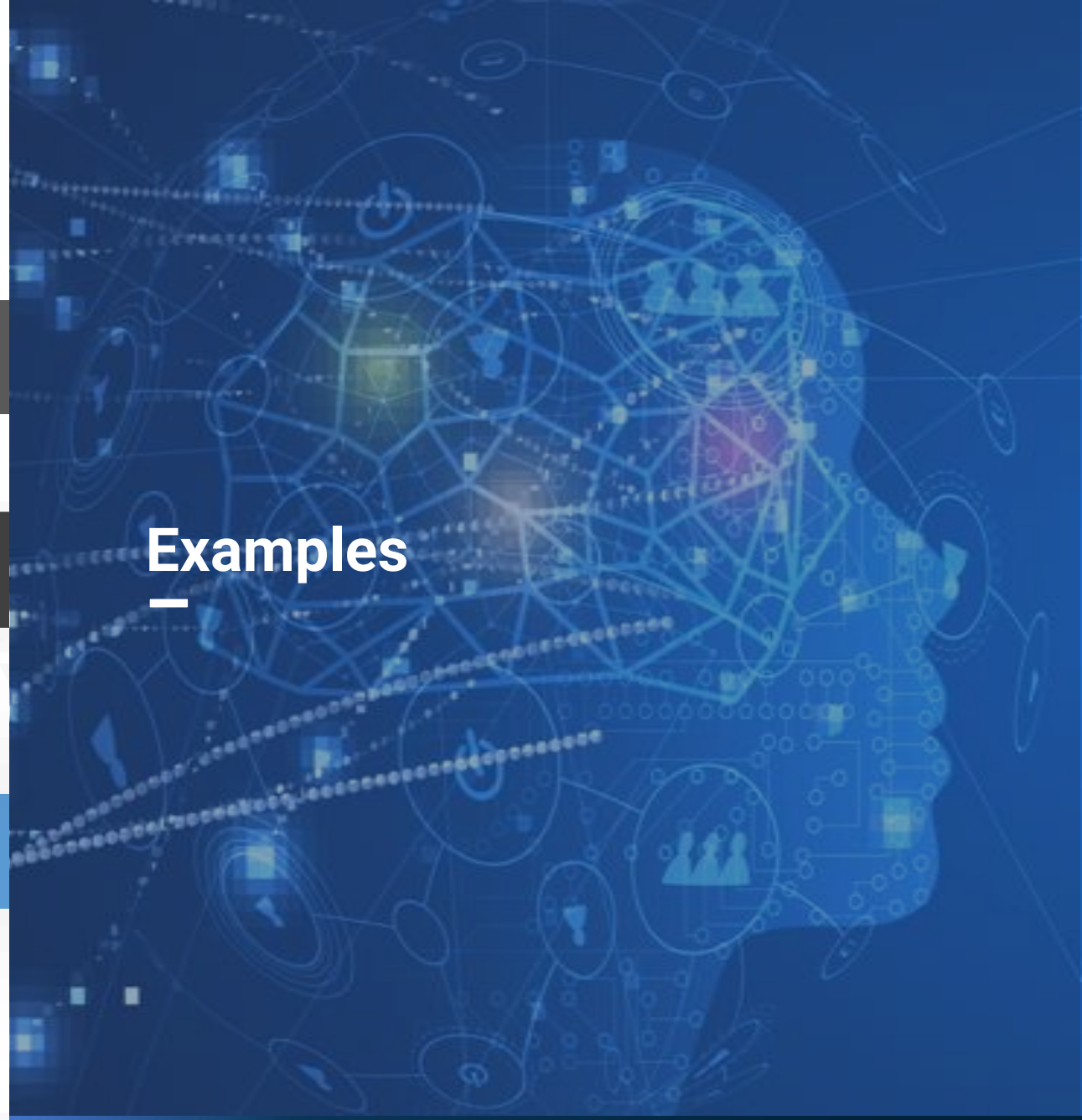
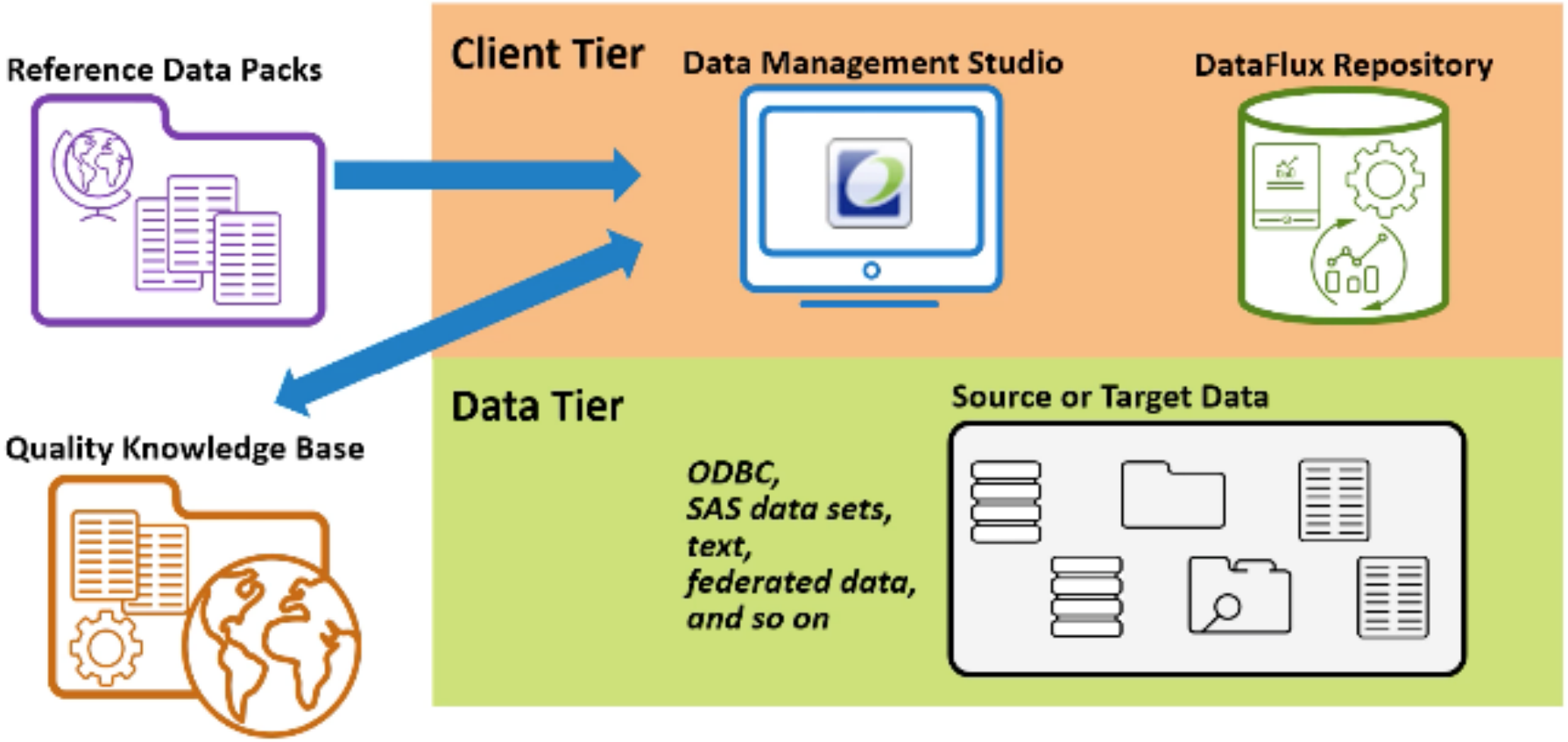
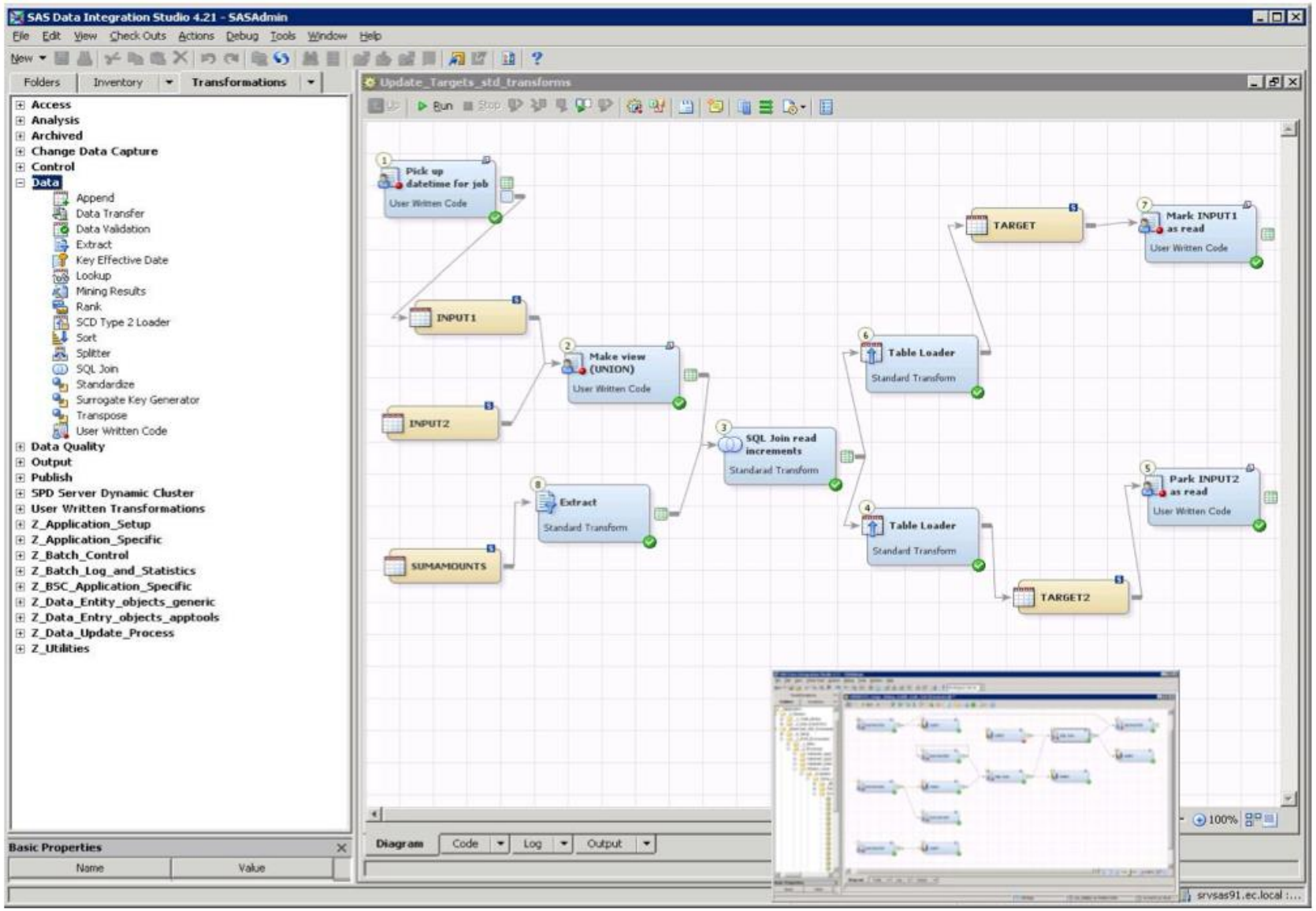


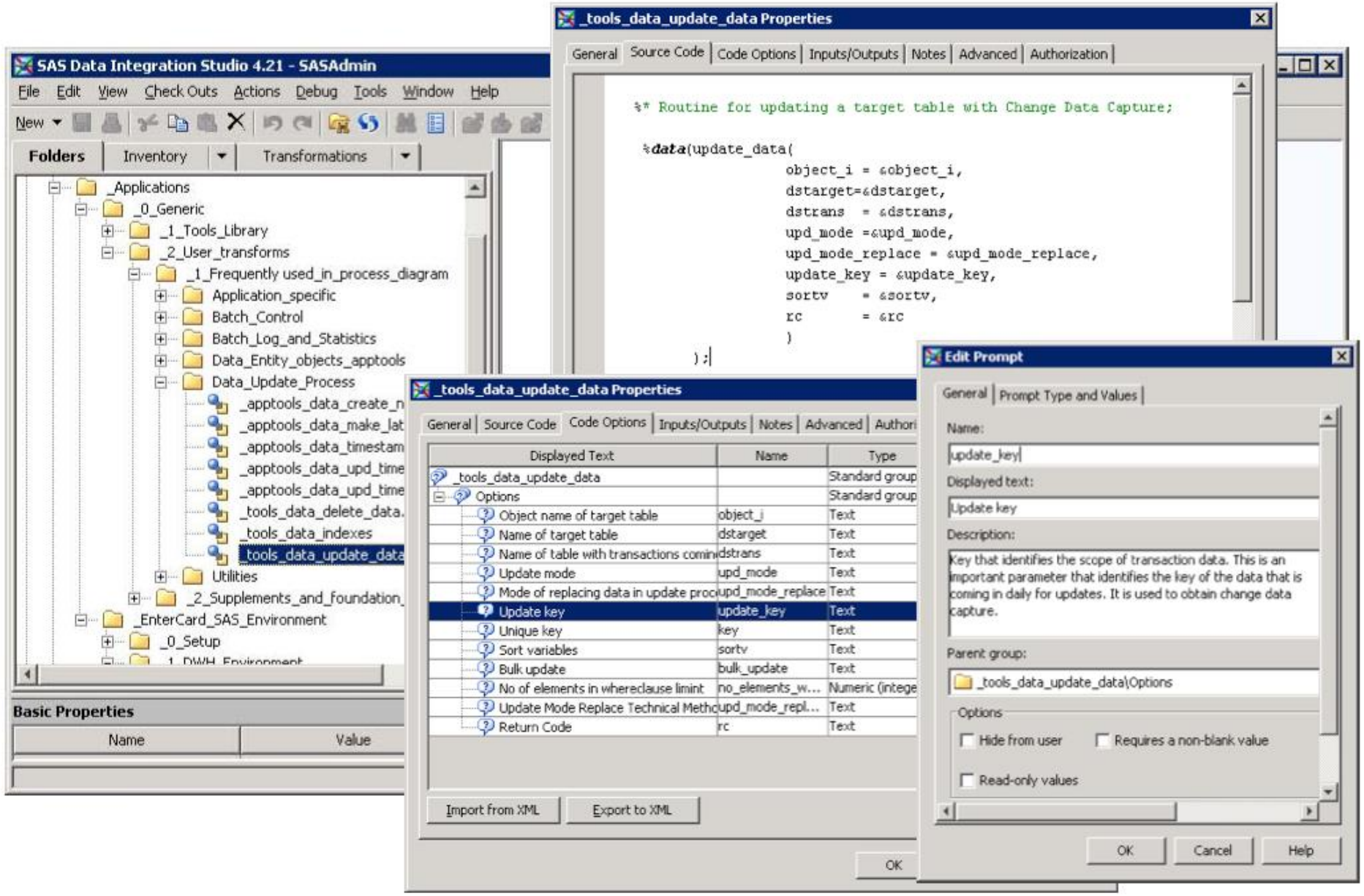
Big Data Processing



Big Data Processing



Big Data Processing



Big Data Processing

```
proc sql;
   connect to odbc as db (required="driver=sql server native client
                                    server=          ;
                                    Trusted_Connection=Yes;
                                    Database=        _     :");

    execute(drop table ukbb_statin) by db;
    execute(create table ukbb_statin (
            chr varchar(2),
            bp numeric(18),
            beta float,
            p_value float,
            trait varchar(20)
            )) by db;
    execute(insert into ukbb_statin
                                    ) by db;
quit;
```

Thank You

Our global network covers over 5,000 professionals who enable us to deliver scalable solutions in the area of tax & legal, digital transformation, running a compliance factory and effectively dealing with dispute resolution.
To ensure the highest quality and seamless service provision, thereby meeting international standards and regulations, a global team of dedicated professionals and specialists is a key and determining factor.
Through linking three ecosystems: Tax, Transfer Pricing and Valuation, Tax + Technology and Tax Litigation and Mediation – we deliver a world of tax in control.

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