

Tax & Data Analytics

Workshop 2

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Introduction from Data to Dashboard

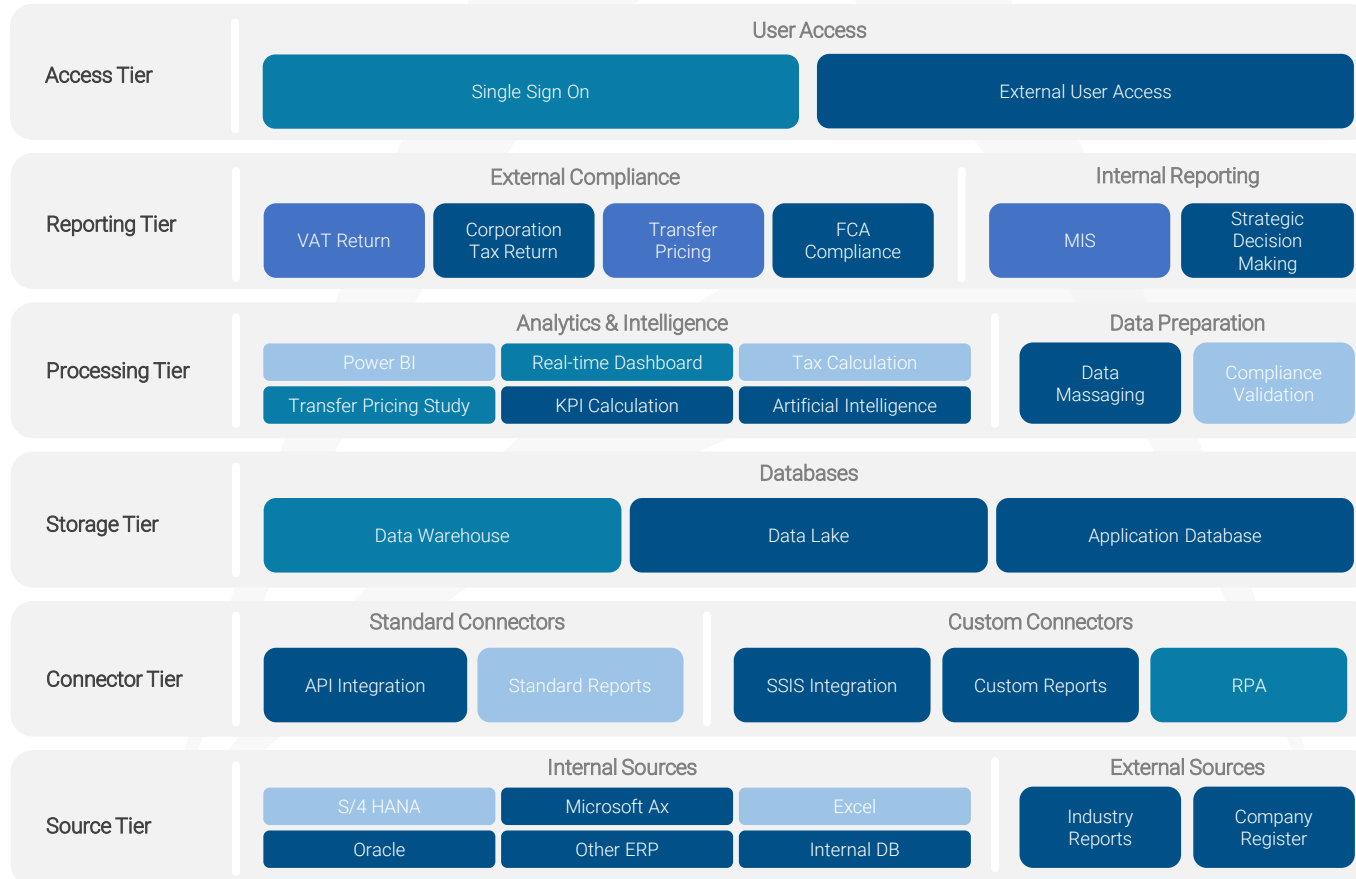
Data Architecture

Examples

Introduction from Data to Dashboard

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.

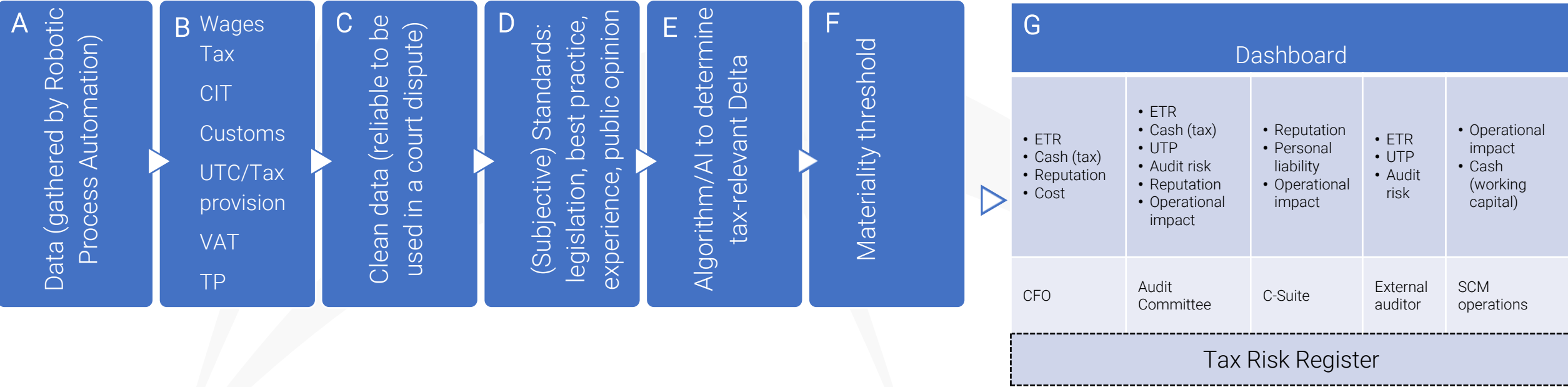


3. Implementation Approach

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

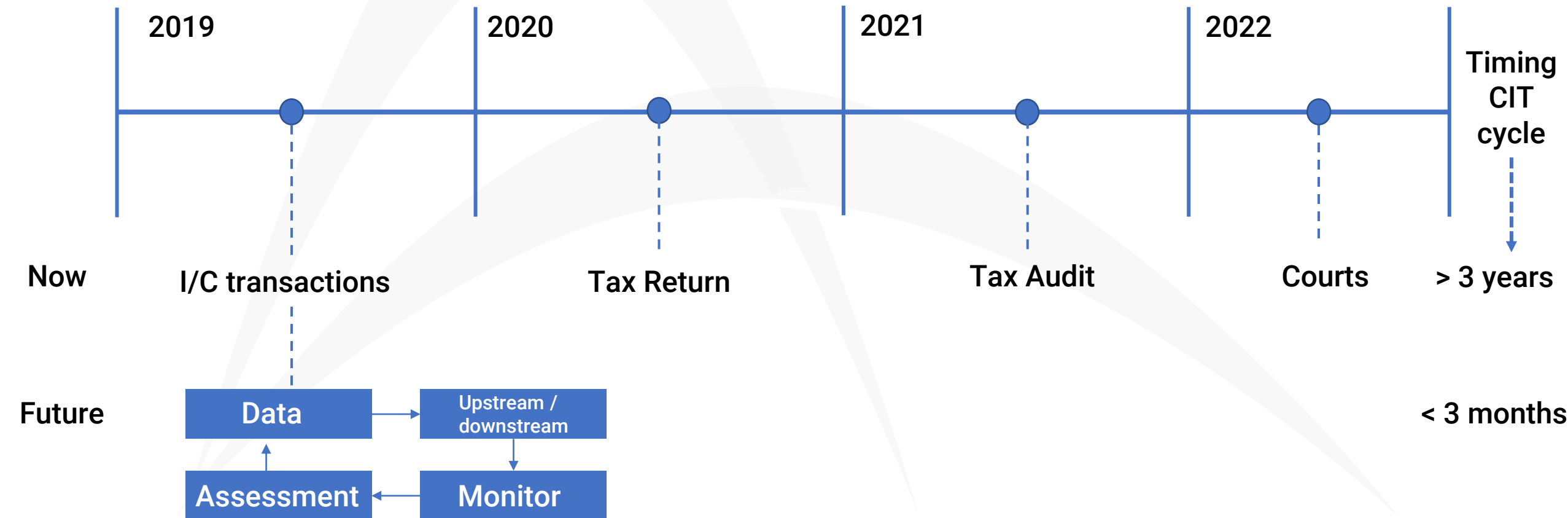
Is there any legal protection (e.g. attorney privilege)?

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



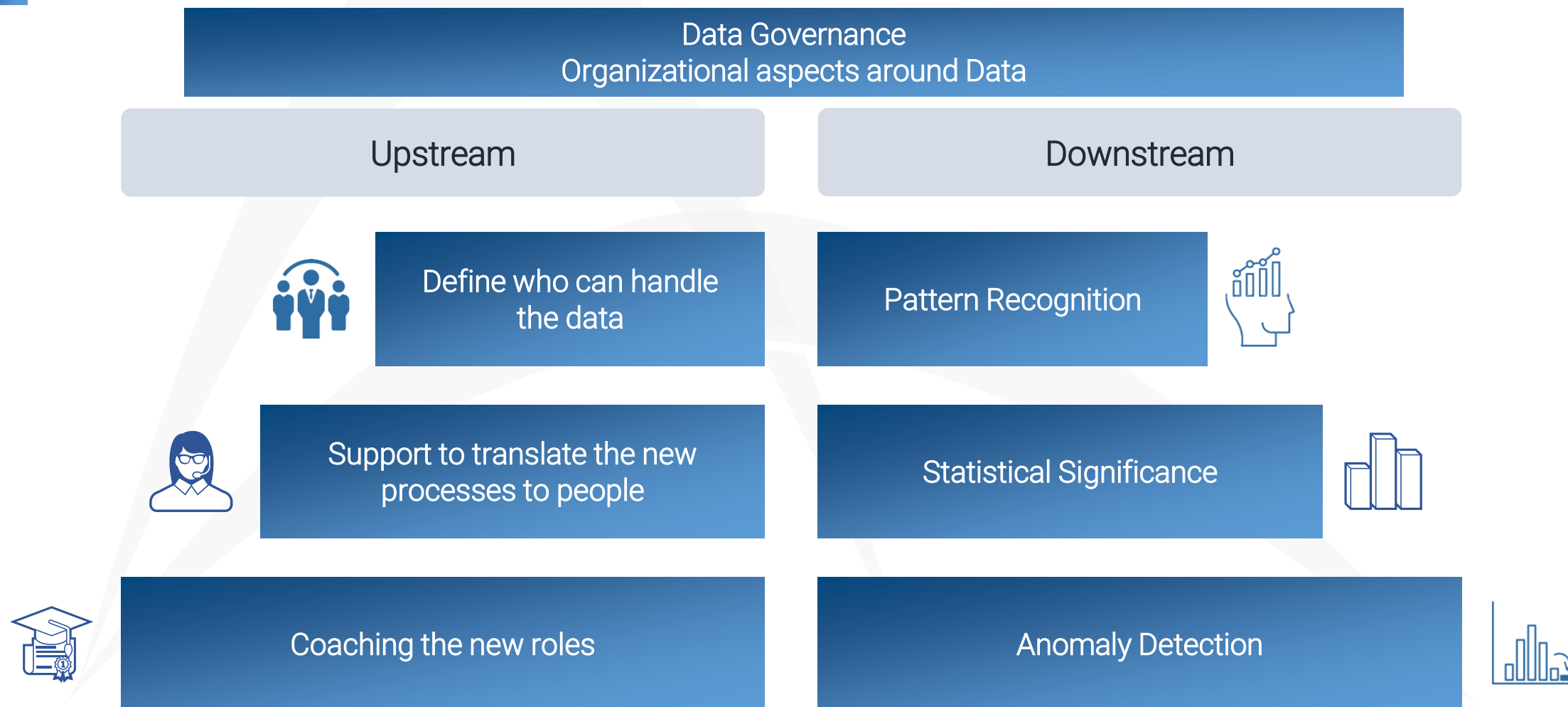
Introduction from Data to Dashboard

Data Architecture

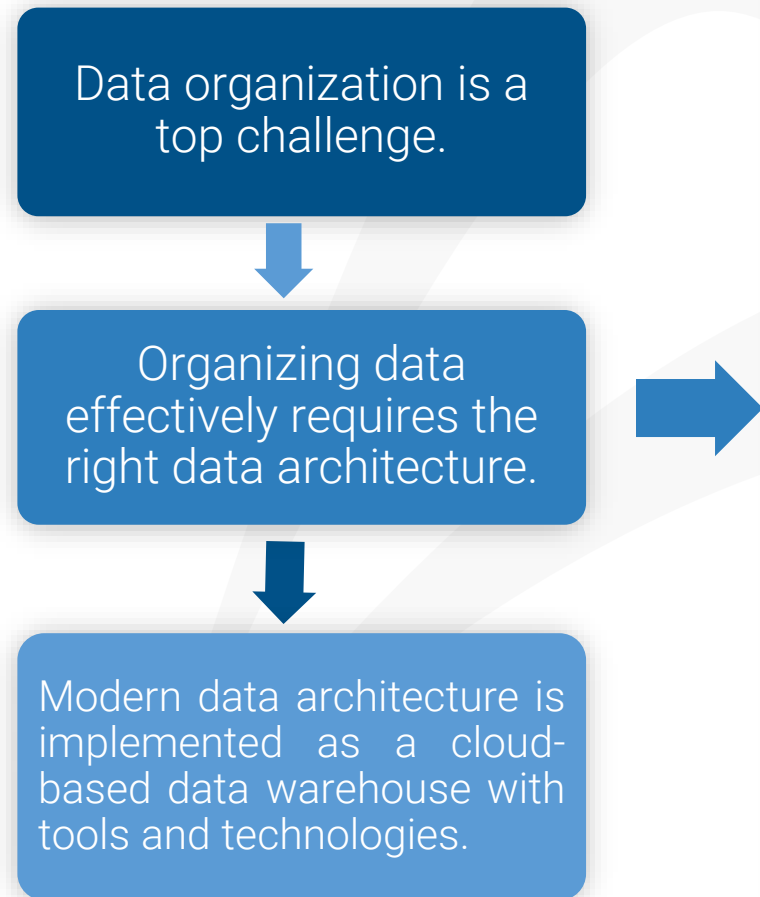
Examples

Data Architecture

Introduction to Data Ecosystem

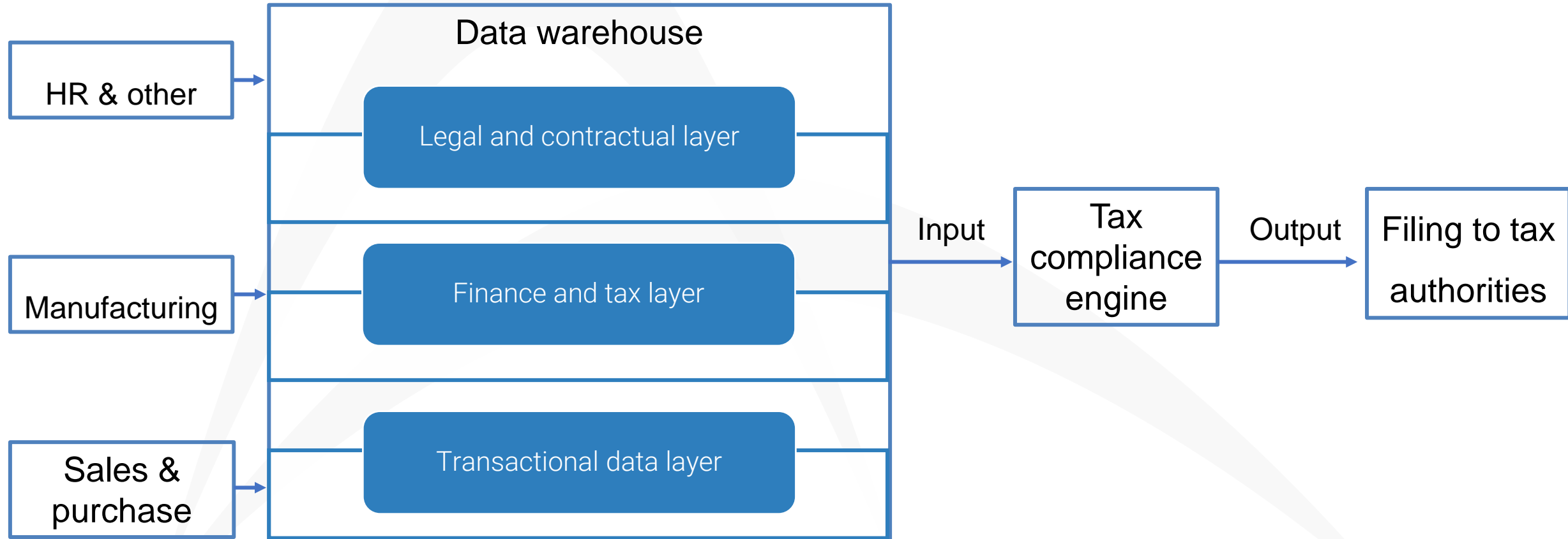


Introduction to Data Architecture - FAQ

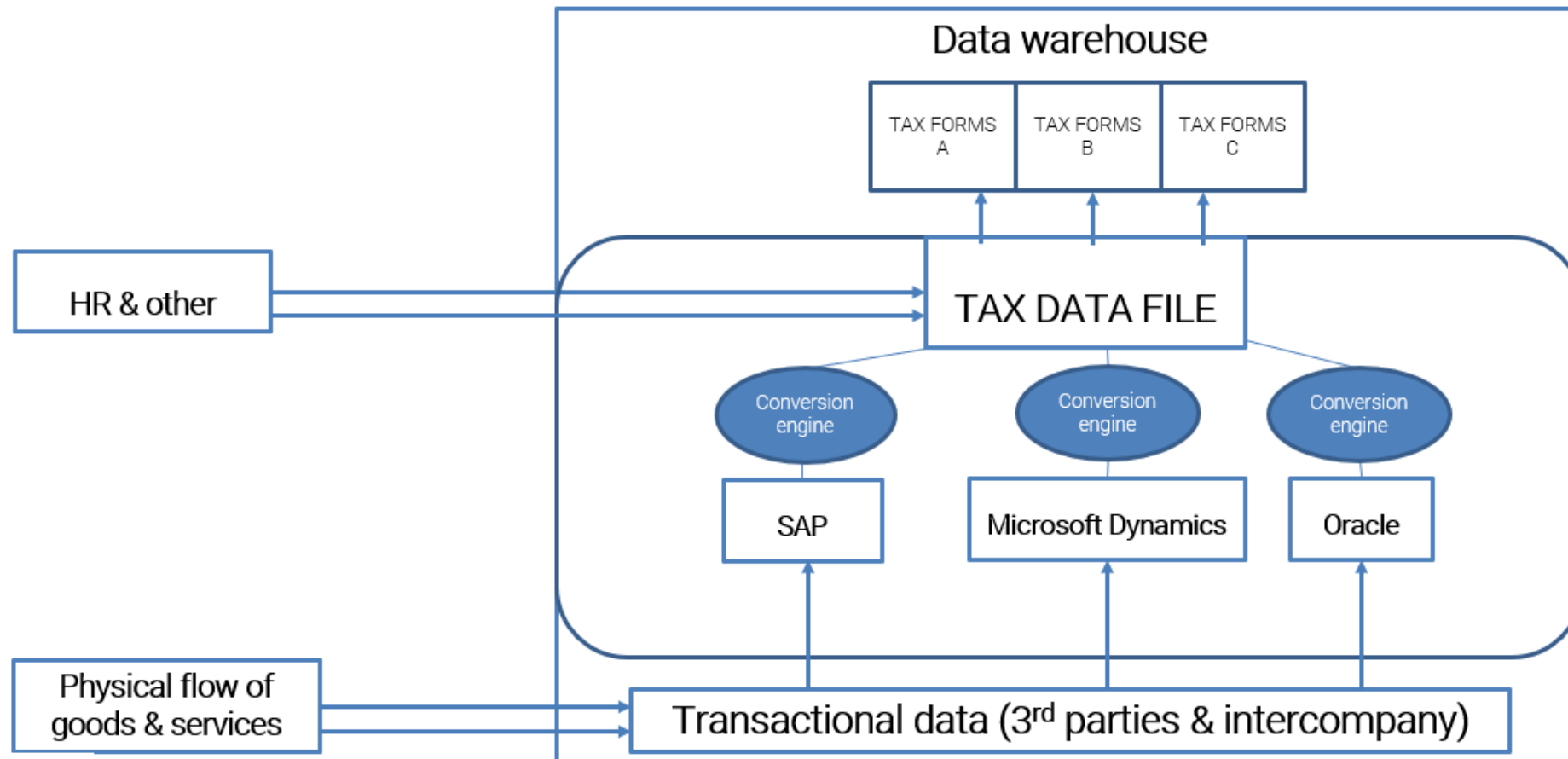


- What is your strategy for tax data at source in ERP or financial system of record?
- What is your strategy for “accurate, correct and complete” of data retrieved from source for tax purposes?
- What are your corporate-wide data policies, if any, and are you in alignment?
- What is your strategy for 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?

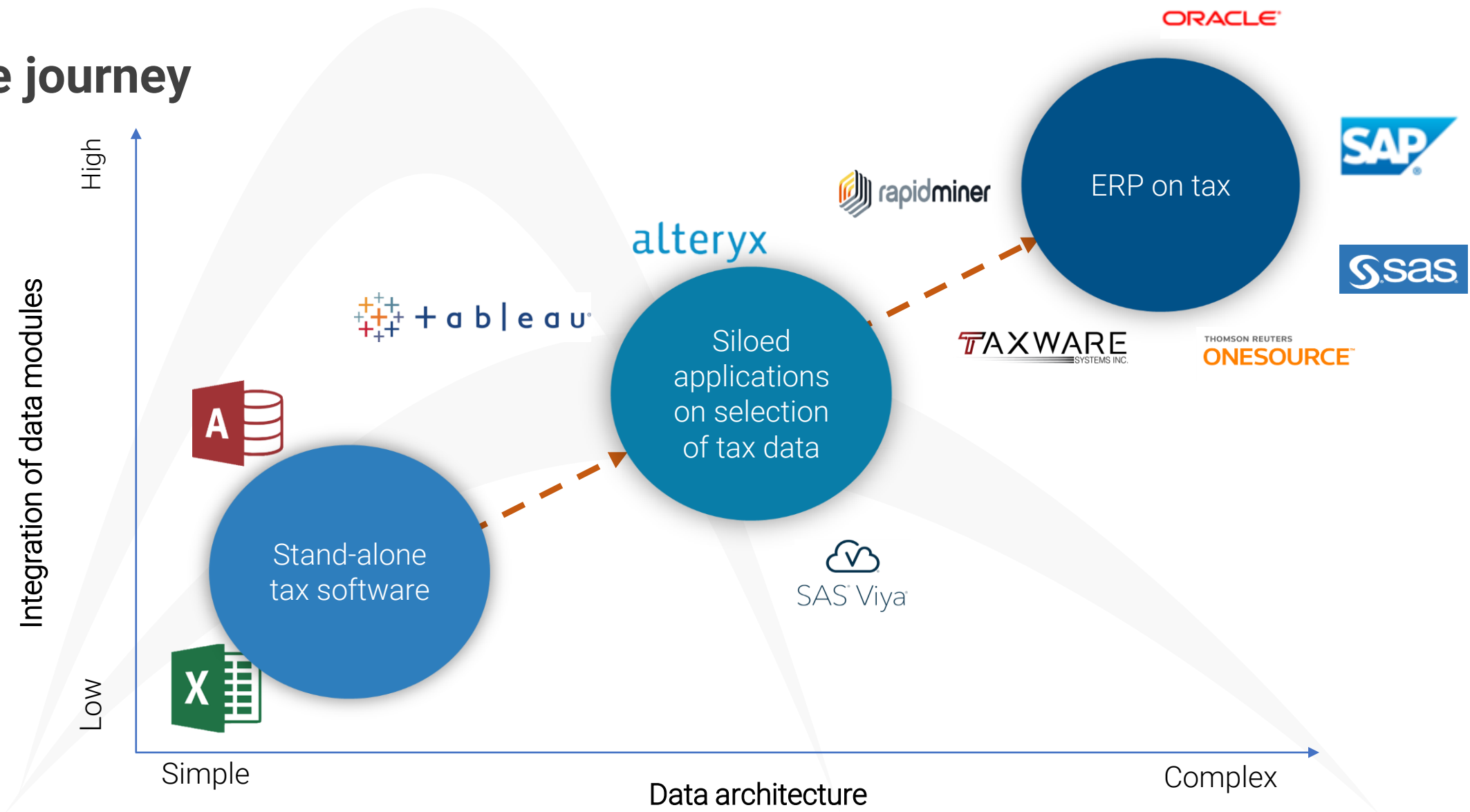
Data Architecture – Visualisation (I)



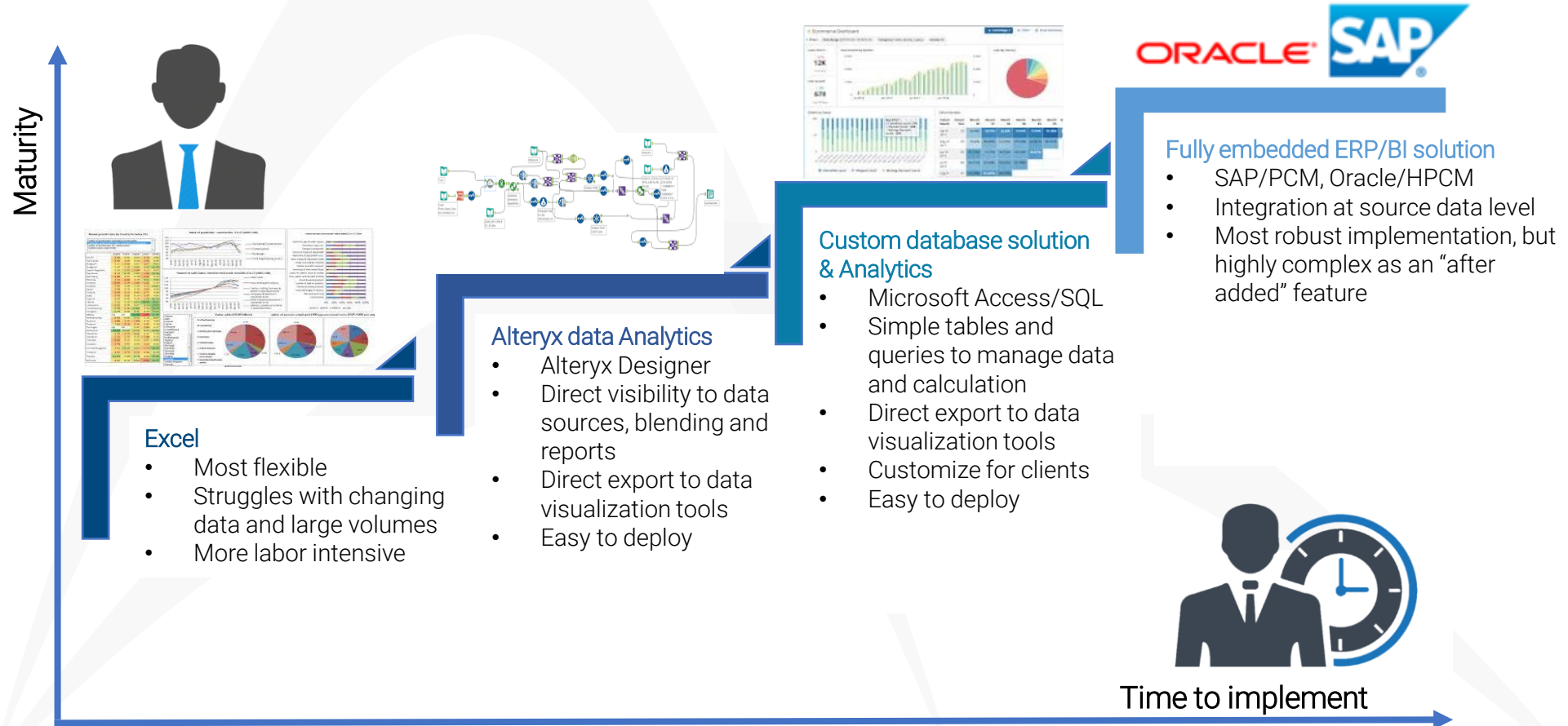
Data Architecture – Visualisation (II)



The journey



The Software Curve



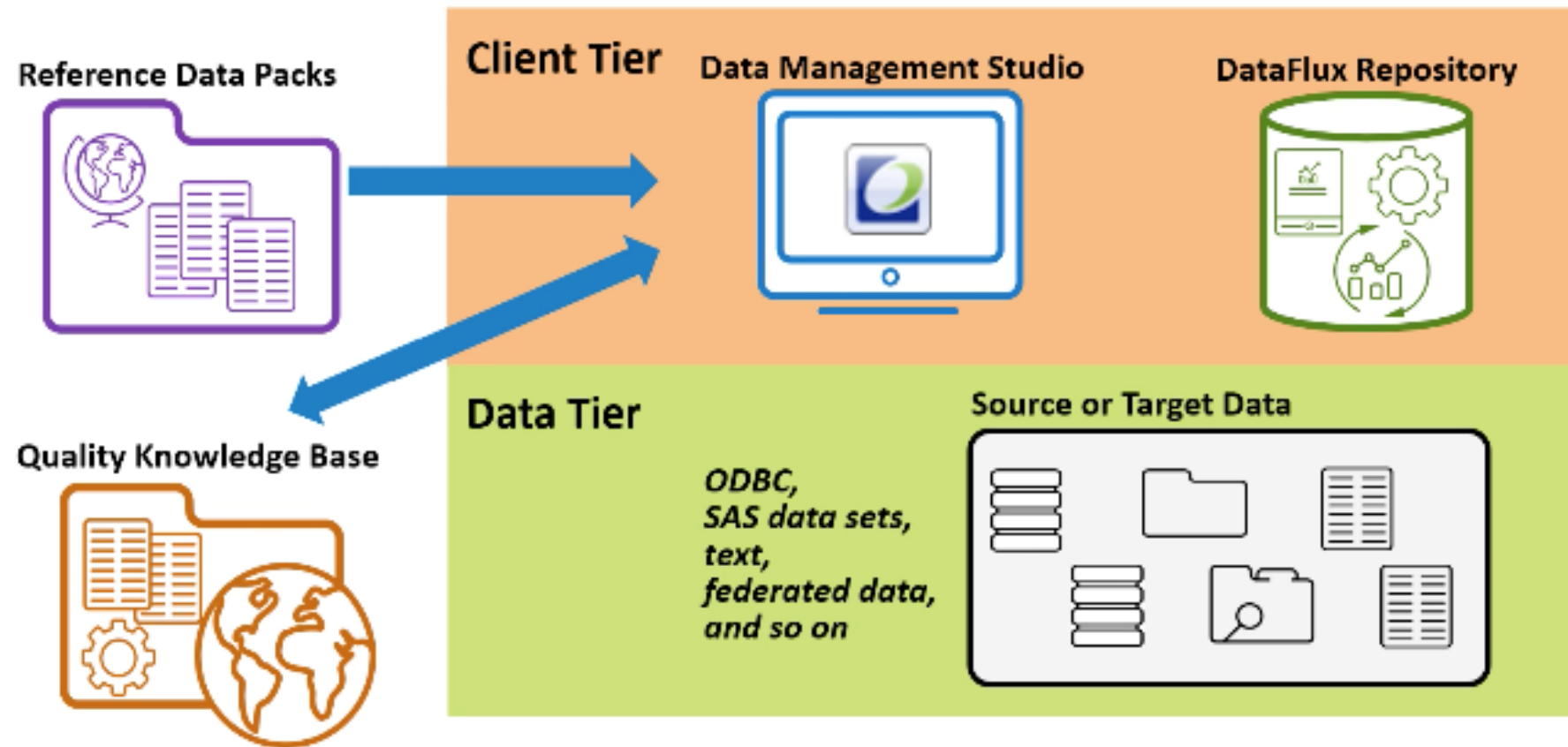
Introduction from Data to Dashboard

Data Architecture

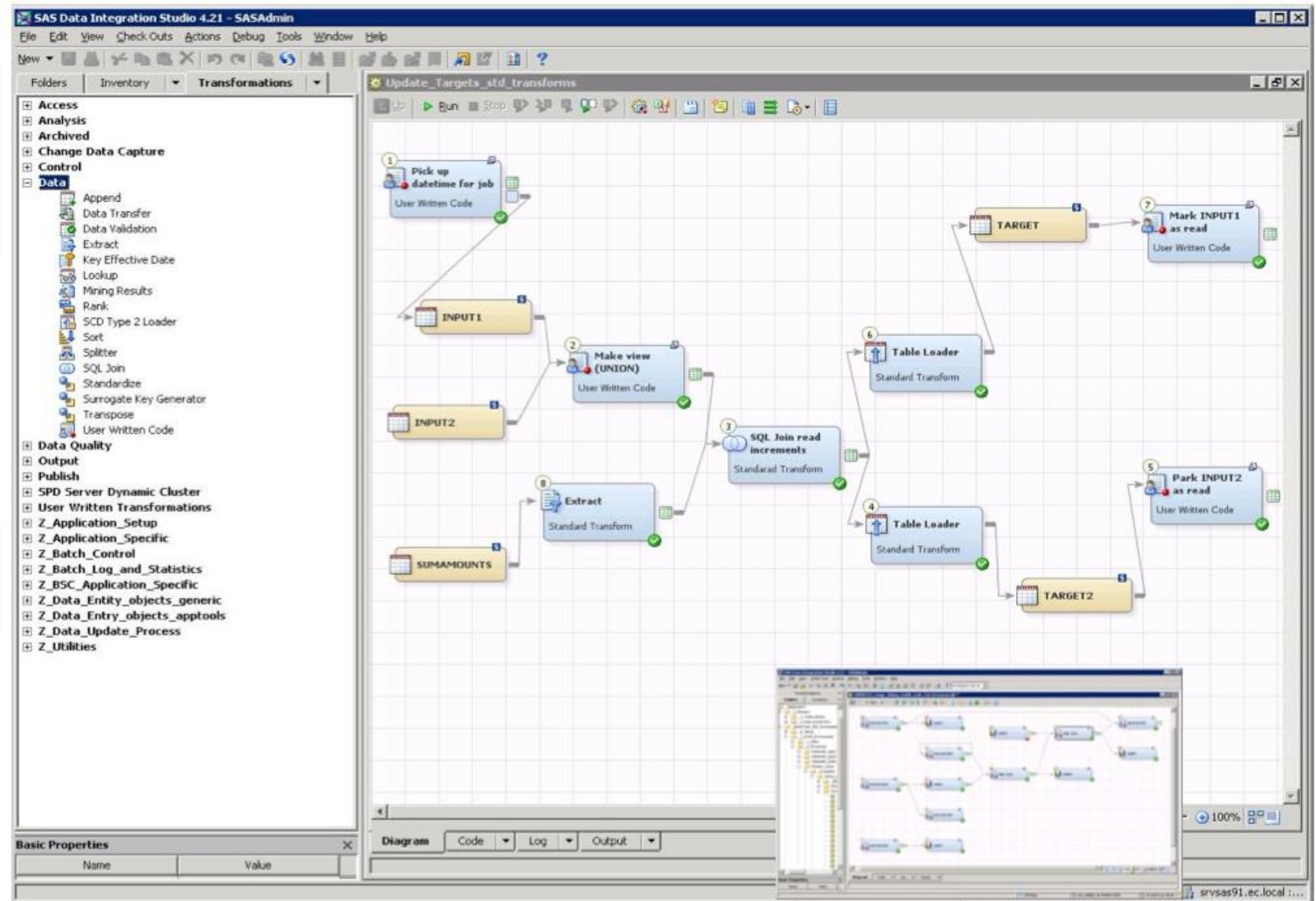
Examples

Examples

Big Data Processing



Big Data Processing



Big Data Processing

The screenshot displays the SAS Data Integration Studio 4.21 - SASAdmin interface. The left pane shows a project tree with folders like Applications, _0_Generic, and _1_Frequently used in process diagram. The main pane shows the configuration for the `tools_data_update_data` tool. The `Source Code` tab is active, showing a routine for updating a target table with Change Data Capture. The `Properties` tab is also visible, showing a table of properties for the tool. The `Edit Prompt` dialog is open, showing the configuration for the `update_key` property.

SAS Data Integration Studio 4.21 - SASAdmin

tools_data_update_data Properties

General | Source Code | Code Options | Inputs/Outputs | Notes | Advanced | Authorization

```
/* Routine for updating a target table with Change Data Capture;

%data(update_data(
    object_i = %object_i,
    dstarget=%dstarget,
    dstrans  = %dstrans,
    upd_mode = %upd_mode,
    upd_mode_replace = %upd_mode_replace,
    update_key = %update_key,
    sortv     = %sortv,
    rc        = %rc
);
```

tools_data_update_data Properties

Displayed Text	Name	Type
tools_data_update_data		Standard group
Options		Standard group
Object name of target table	object_i	Text
Name of target table	dstarget	Text
Name of table with transactions coming in	dstrans	Text
Update mode	upd_mode	Text
Mode of replacing data in update process	upd_mode_replace	Text
Update key	update_key	Text
Unique key	key	Text
Sort variables	sortv	Text
Bulk update	bulk_update	Text
No of elements in whereclause limit	no_elements_w...	Numeric (intege
Update Mode Replace Technical Method	upd_mode_repl...	Text
Return Code	rc	Text

Edit Prompt

General | Prompt Type and Values

Name: update_key

Displayed text: Update key

Description: Key that identifies the scope of transaction data. This is an important parameter that identifies the key of the data that is coming in daily for updates. It is used to obtain change data capture.

Parent group: tools_data_update_data\Options

Options

☐ Hide from user ☐ Requires a non-blank value

☐ Read-only values

OK Cancel Help

Big Data Processing

```
proc sql;
  connect to odbc as db (required="driver=sql server native client
                           seerver'          ;
                           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

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