

SasViya: the connector between source tier & tax relevant data

2021 standard software configuration for tax professionals

From Tax Risk Management to Tax Data Analytics

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Presenters:

Robert de Vries, Ex-nihilo

Steeff Huibregtse, TPA-Global

EXNIHILO

Scope & purpose

What does a 2021 standard software configuration for tax professionals mean?

- Layers of software delivering integrated workspot solutions for tax professionals
- Each layer of software has to be connectable
- Each layer must be compatible with process & communication software (i.e. Office 365 or Google Suite)
- Each layer of software must be cloud native
- Cost of combinations of software need to be affordable.
- Demand from tax professionals can be assessed based on the 25 in-house tax challenges.
 - <https://www.tpa-global.com/ux-tax-day-digital-training-for-tax-professionals/>

Poll

Question: which issue can you relate to most?

- a. How to team up with your Finance and IT colleagues drives the success of the digital transformation of tax?
- b. Can you keep up to date with all digital tax filings in the world?
- c. Are you constantly worried about your compliance deadlines?

Where are you now? Where are you going?

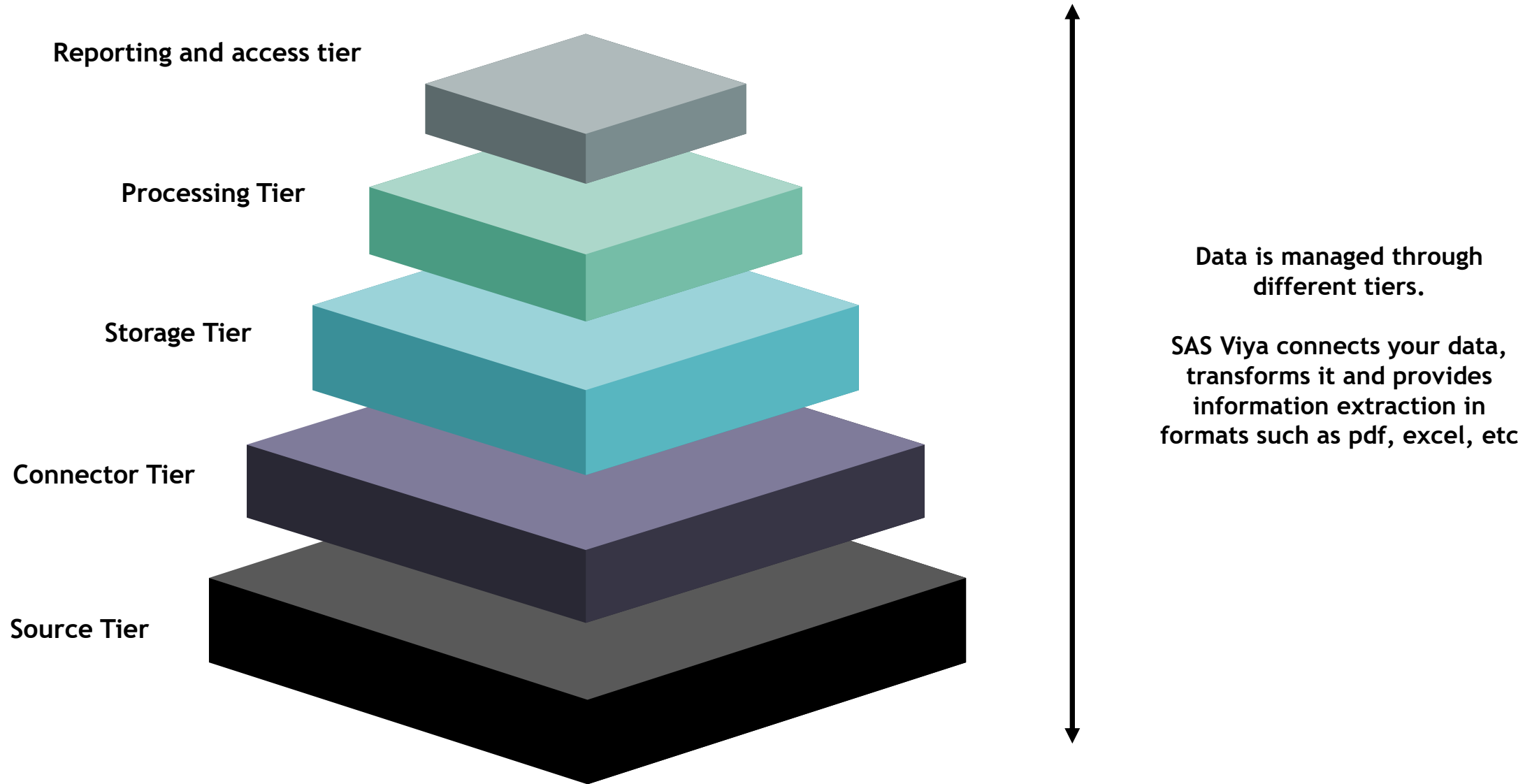
clickable version available on
www.tpa-global.com

Tax Technology Journey
By inspiring people, structuring your tax workflows and subsequently selecting the appropriate technology, TPA through this journey with 'clickable topics' challenges you.

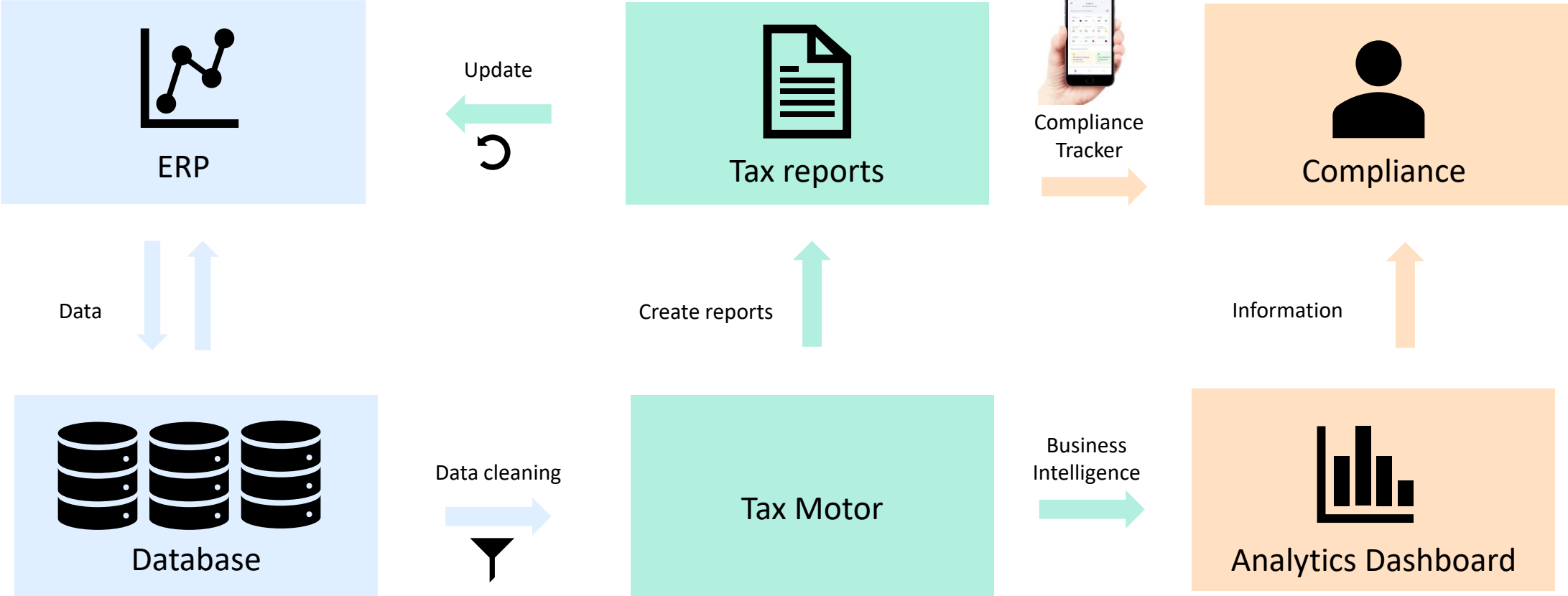
- 1 FOLLOW A UX DAY FOR TAX PROFESSIONALS**
In the future our daily tasks as a tax professional will be to
 1. assess data
 2. feed data into software, and
 3. get fit for purposes output.
- 2 VISIT TAX TECHNOLOGY PLAYBOOKS**
Through the playbooks, we:
 1. address the 'why on tax + technology' to develop your own tax technology roadmap or
 2. how to drive efficiencies by embracing an automated compliance factory, or to
 3. replace the tax risk management by tax data analytics.
- 3 PERFORM DATA ANALYTICS**
The concept of 'tax data architecture', 'tax data management' and 'tax data analytics' are being captured in a series of 11 taped soundbites.
- 4 USE BUILDING BLOCKS FOR TAX**
Now you know why, what and how the tax landscape starts changing your own roles. TPA is providing you with a webinar series on 'building blocks for tax software', where each webinar connects one software type with another type through the use of connectors or so-called APIs.
- 5 READ ABOUT THE FUTURE OF TAX IN 2025**
All of the above leads to a total score of being able to deliver 'turnkey projects on tax technology'. Such BPOs on tax will become the new 'tax engine' of most companies dealing with international tax and its digital complexities imposed by tax authorities.
- 6 CHECK ON YOUR MAIN TAX TECHNOLOGY CHALLENGES**
After your journey, what would be your own top 25 challenges for your in-house tax workflows. Use this checklist.

Transforming the World of Tax www.tpa-global.com

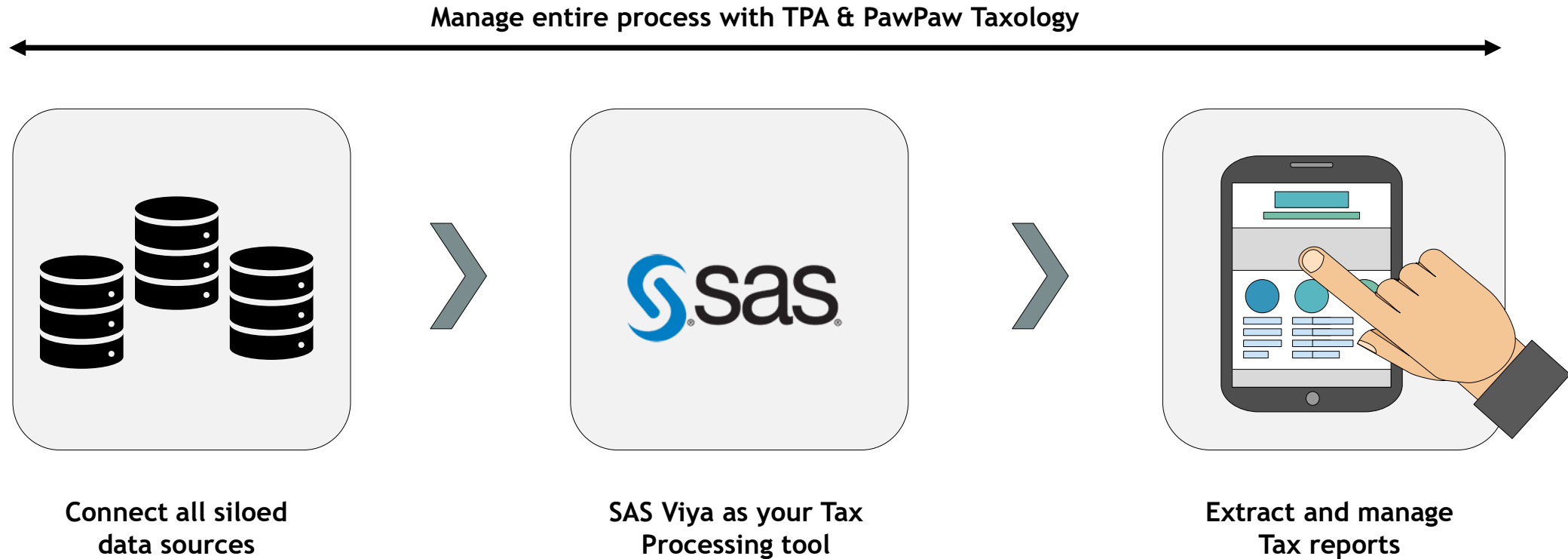
From Source to Dashboard – The Why?



From Data to dashboard process



SAS Viya for Tax



Market Differentiators

1

Connect to any source of data

SAS Viya can connect to any type of DB source

2

Multi-language programming

SAS Viya can read and process multiple languages including R, Python, SQL, etc

3

Data Quality Check

SAS Viya identifies possible data errors to ensure quality, allowing you to transform it and inject it back to the database.

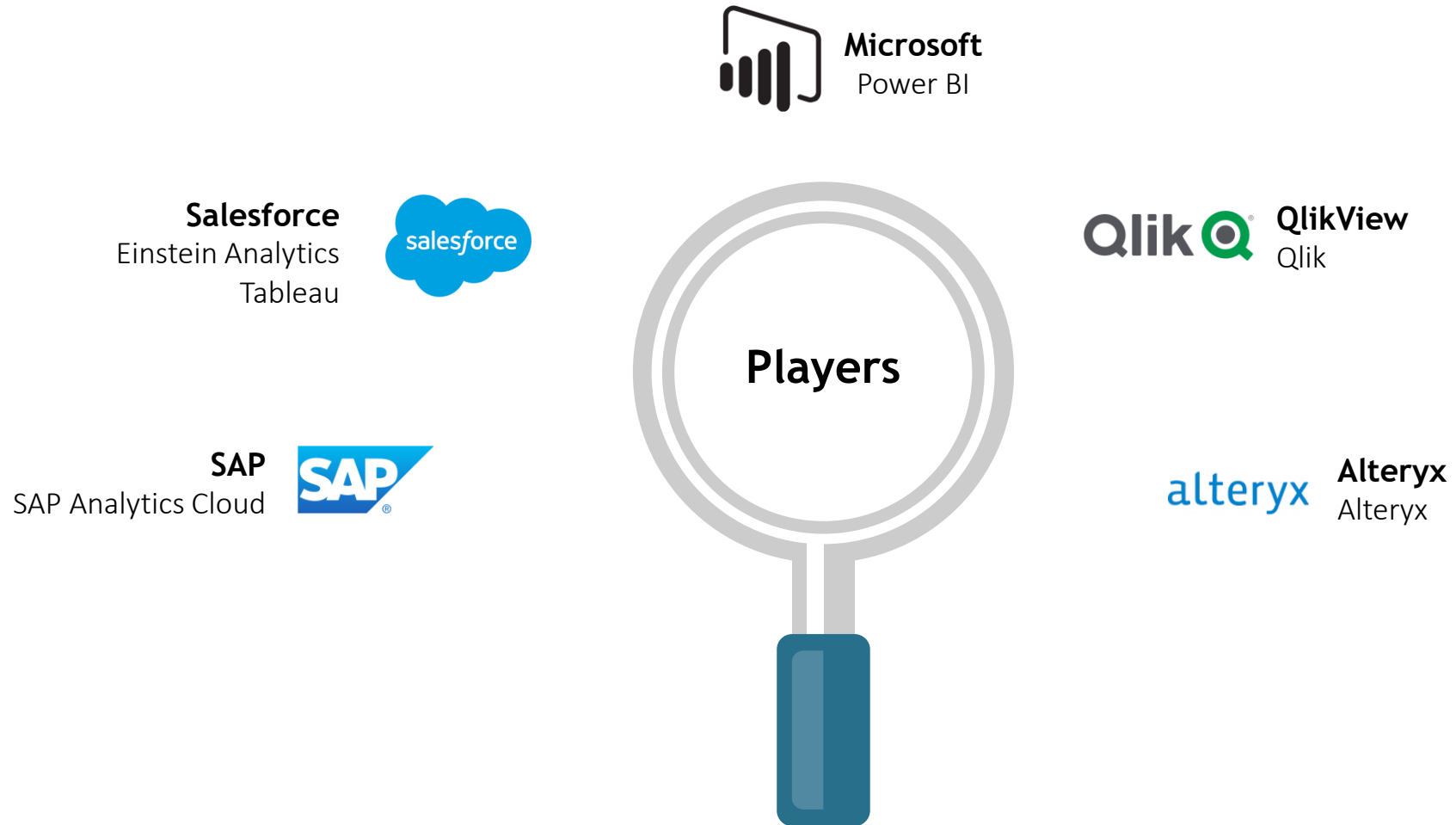
4

Latest technology

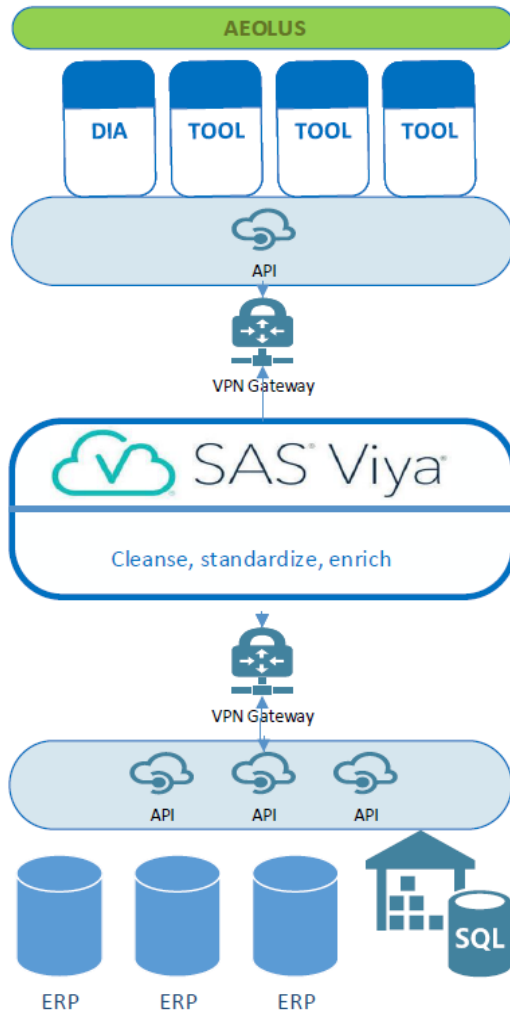
Create custom machine learning scripts to make the most of your data.



Competitors in Data Analytics



Vision: 21st century tax professional's "workspot" toolkit



- Leverage SAS Viya to cleanse, standardize data
- Update and edit information from SAS Viya: **Single source of truth**
- Customize Tax Templates
- Transform and load templates with SAS Viya
- Risk assessment and error detection alerts from SAS Viya
- Extract reports through various dashboards from SAS Viya:
 - Position report in content manager (DIA)
 - Submit directly to Tax Authorities
 - Update status of documents (Compliance Tracker)
- Integrate via API with 3rd party tax / legal / finance applications

Types of connectors & what they do?

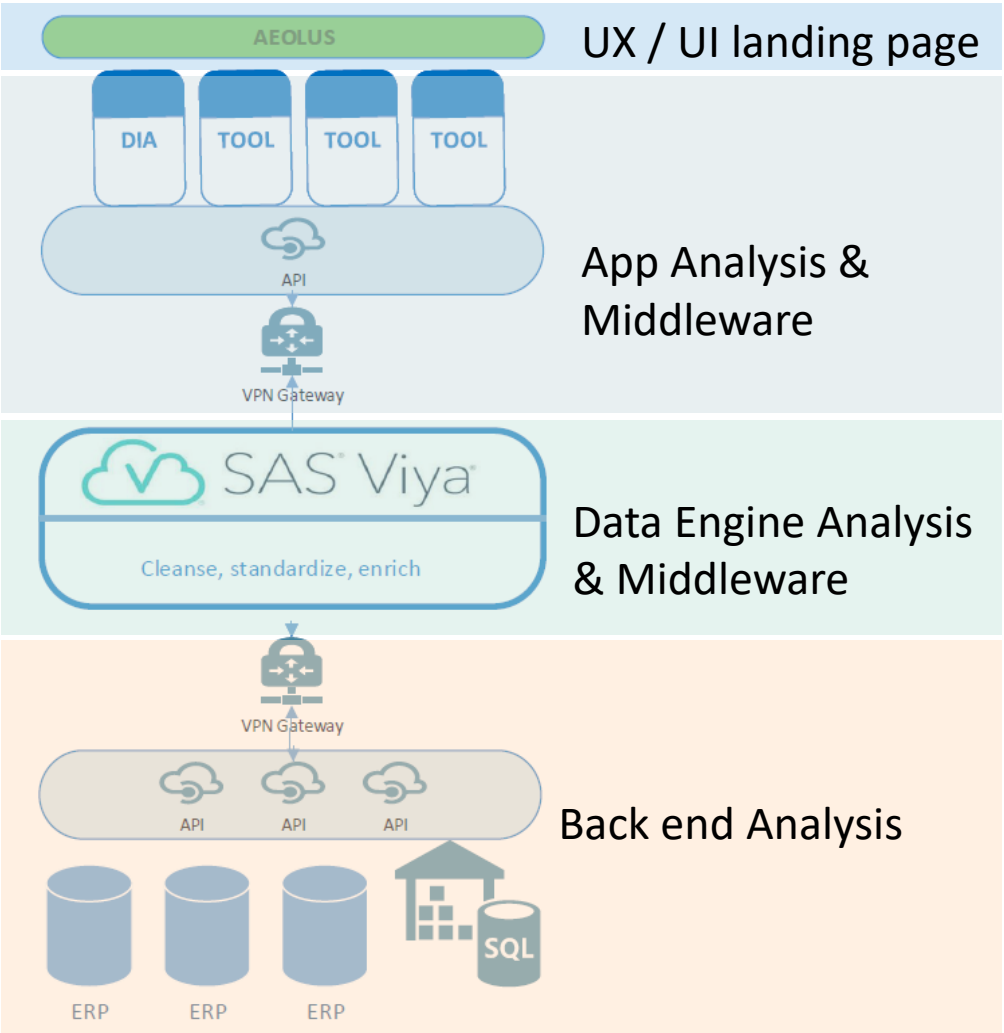
- **API Based:** Corporate's system (ERP such as SAP, Oracle or Xero) can consume with tax technology software. For such API no additional connector required.
- **Data Warehouse:** Corporate's system and tax technology software can connect to a Data Warehouse which acts as a middleware for connection.
- **SQL-SSIS:** Corporate's system and tax technology software connect to a SQL Table which acts as a middleware for connection.
- **File Based:** Corporate's system connects to an intermediate database. Tax technology software application and DSU connectors provide connectivity between intermediate database and tax technology software.

The API based system has 2 blocks, the Data Warehouse and SQL methods have 3 blocks and the File Based method has 4 blocks.

In today's practice: our standard implementation timelines are 4-6 weeks for complex implementations using above type of connectors.

For example the compliance tracker tool has been designed using APIs, it is possible to provide API connectivity to external systems.

Requirements list – Where do you stand?



Status Key

Developed

Partially developed

To be developed

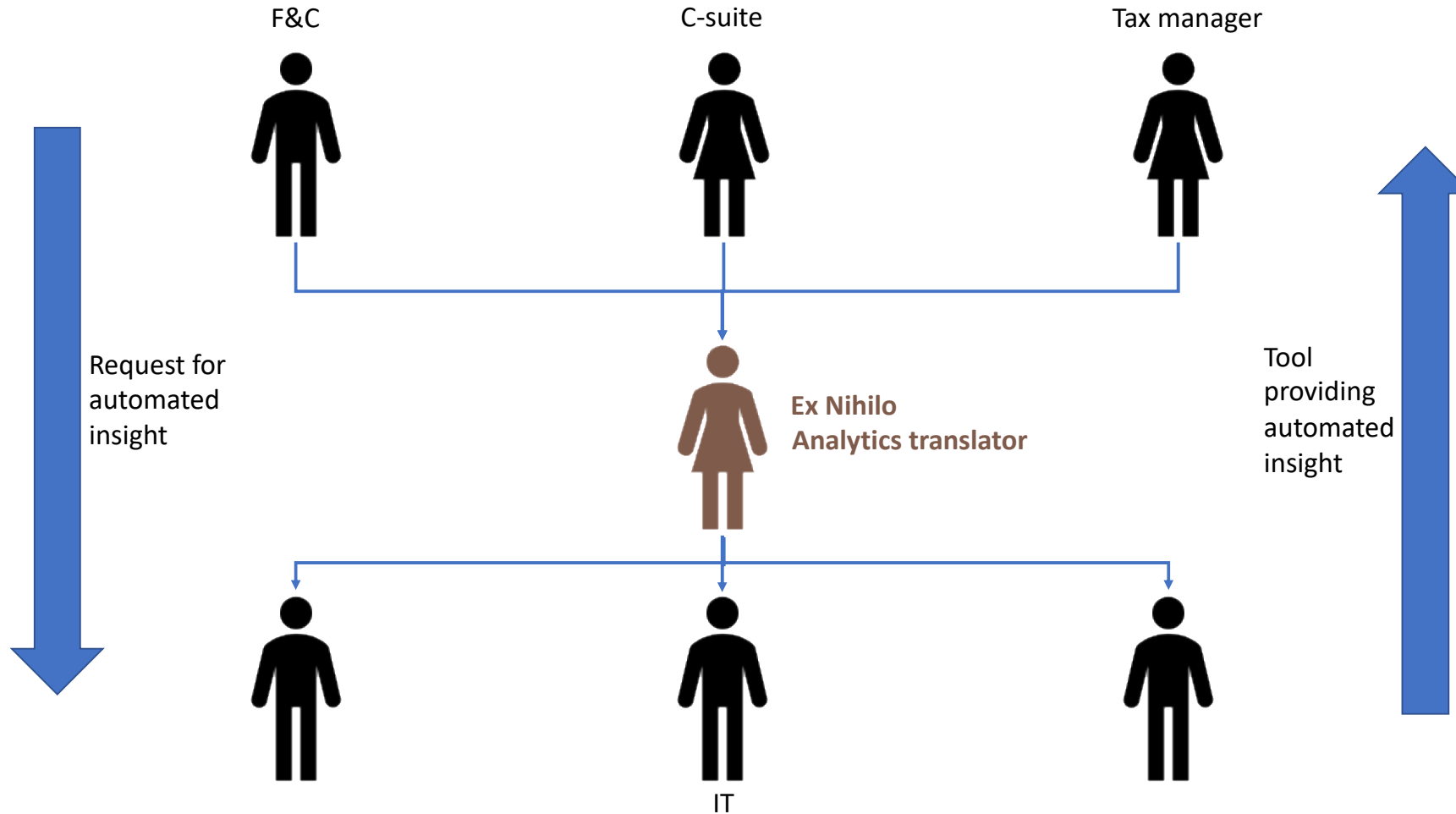
Mapping exercise: what dataset and data quality should be migrated through connectors to middleware and/or applications?

Back End		Connectors		Applications	
		Middle-layer	Approach	Status	Application
SAP	SAP S/4HANA				
	SAP ECC 6.0				
	SAP B1				
Oracle	Oracle Netsuite				
	EBS				
Peoplesoft					
Salesforce					
Custom ERP					
Other	Autoline				
	Icare				
	Mars				
	IWEEN				
	OFIN				
	ORION				
	BAAN				

Mapping exercise for SasViya

Relational databases	Nonrelational databases	PC files	R/3	SAP	ORC Engine
<ul style="list-style-type: none">• Amazon• Hadoop• JDBC• ODBC• Oracle• SAP HANA• SAP IQ• Snowflake• And many more	<ul style="list-style-type: none">• Predefined LIBNAME options• DBMS Interfaces for SAS/ACCESS:<ul style="list-style-type: none">-MongoDB-PI System-Salesforce	<ul style="list-style-type: none">• Reading and writing between SAS data sets and PC Files• Supported formats:<ul style="list-style-type: none">-XLS(X)-CSV-ACCESS-WK-TAB-DLMa.o.	<ul style="list-style-type: none">• A read only engine for using SAS to access data in the SAP R/3 or SAP BW systems	<ul style="list-style-type: none">• SAP BW (register table) Wizard• SAP (R/3 (register table) Wizard• SAP Server Wizard• SAS Data Surveyor for SAP (on SAS RFC)	<ul style="list-style-type: none">• SAS Base LIBNAME Engine

“9 out of 10 digitalization projects fail due to poor communication between IT, Finance and Tax”



Poll

Question: What do you fear most?

- a. A public CbCR on your website?
- b. Real-time assessment by tax authorities on your invoices and other tax relevant data?
- c. The lack of support on internal digital projects, which are aimed to disclose in a timely matter your tax forms to tax authorities?
- d. Lack of support on digital projects aimed to timely disclose your tax forms

Demo SasViya

The screenshot shows the SAS documentation website for SAS Viya 3.5. The top navigation bar includes the SAS logo, the page title "SAS® 9.4 and SAS® Viya® 3.5 Programming Documentation", and the version "SAS 9.4 / Viya 3.5". On the right, there are links for "Customer Support" and "SAS Documentation", along with search, PDF, EPUB, and Feedback options.

The left sidebar contains a navigation menu with the following items:

- What's New
- Syntax Quick Links
- SAS Viya Programming
- Data Access** (highlighted)
- SAS/ACCESS for Relational Databases
- SAS/ACCESS for Nonrelational Databases: Reference
- SAS/ACCESS for PC Files
- SAS/ACCESS for R/3
- Data Surveyor for SAP
- ORC Engine
- SAS/ACCESS Documentation
- V9 Engine
- SAS and Hadoop Technology
- SPD Engine
- XMLV2 and XML Engines
- INFOMAPS LIBNAME Engine and Procedure
- SAS SQL Query Window
- SAS LIBNAME Engine for SAS Federation Server
- SAS Analytics 15.2
- Base SAS Procedures
- DATA Step Programming

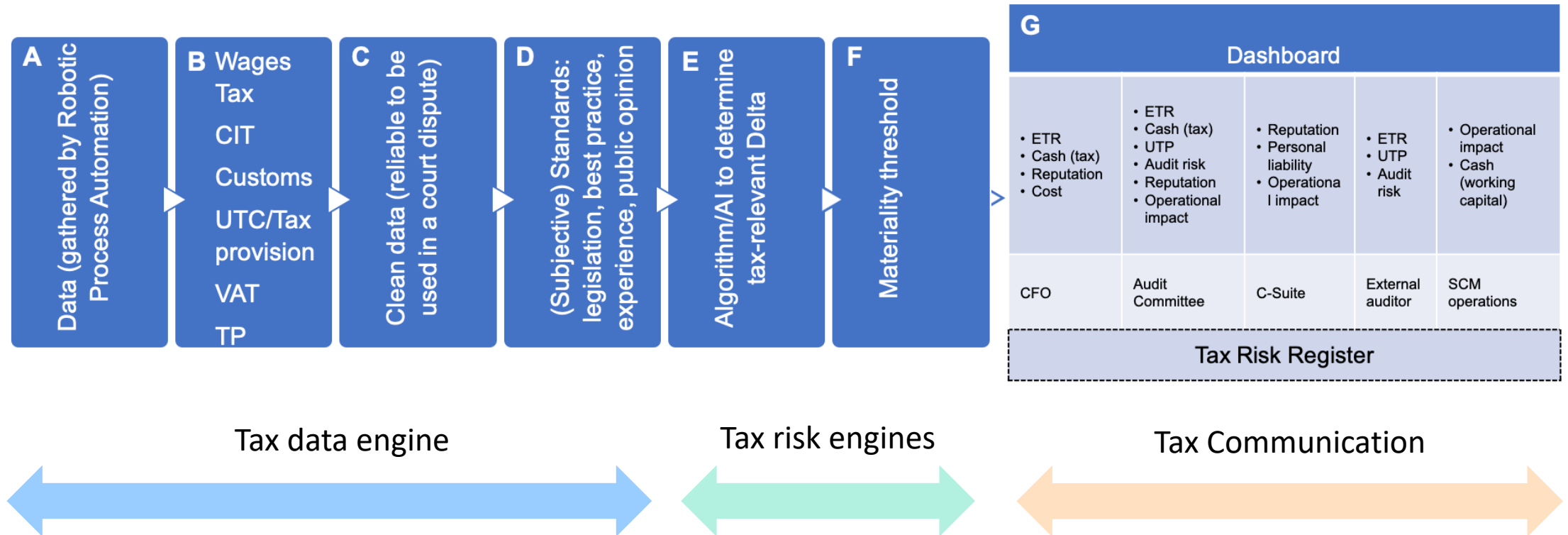
The main content area is titled "SAS/ACCESS for Relational Databases" and features a "General Reference" section with the following links:

- SAS/ACCESS Features by Host
- The LIBNAME Statement
- Data Set Options
- Macro Variables and System Options
- SQL Pass-Through Facility

Below this is a "DBMS-Specific Reference" section with the following links:

- SAS/ACCESS Interface to Amazon Redshift
- SAS/ACCESS Interface to Aster
- SAS/ACCESS Interface to DB2 under UNIX and PC Hosts
- SAS/ACCESS Interface to DB2 under z/OS
- SAS/ACCESS Interface to Google BigQuery
- SAS/ACCESS Interface to Greenplum
- SAS/ACCESS Interface to Hadoop
- SAS/ACCESS Interface to HAWQ
- SAS/ACCESS Interface to Impala
- SAS/ACCESS Interface to Informix
- SAS/ACCESS Interface to JDBC
- SAS/ACCESS Interface to Microsoft SQL Server
- SAS/ACCESS Interface to MySQL
- SAS/ACCESS Interface to Netezza
- SAS/ACCESS Interface to ORC

From Data to digital mailbox to dashboard reporting to multiple stakeholders



CbCr report - the first step by tax authorities to 'tax data analytics' of a multinationals' value chain?

Country Snapshot 2019



Country*

Commentary



United Kingdom

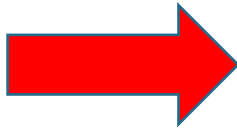
We are one of the largest banks in the UK, with operations spanning all business lines. We have been consistently ranked as one of the top four largest UK taxpayers in the last six years.

Various factors mean that the profit we report as being earned in the UK differs from the profits on which we are subject to UK corporation tax. In particular, being a UK-headquartered bank, the profit figure includes dividends received from overseas subsidiaries, which are not taxed in the UK as they have already been taxed in the jurisdiction in which those profits were earned.

In 2019, we paid no UK corporation tax. This reflected contributions of £1,231m made to our main UK pension fund and the offset of tax losses brought forward from prior years, as well as overpayments in respect of a number of prior years. In the UK, a contribution to a company pension fund attracts tax relief when the payment is made and, when large contributions are made, this can cause taxable profits to vary significantly from one period to another.

The bank levy we paid in 2019 was also reduced as a result of taking into account overpayments made in prior years.

Turnover Em	Audited	Unaudited	Audited	Unaudited				Audited	
	Profit/ (loss) before tax Em	Total tax paid/ (refunded) Em	Cor- poration tax paid/ (refunded) Em	Social Security paid Em	VAT paid Em	Bank levy paid Em	Other taxes paid Em	Public subsidies received Em	Average number of employees
13,717	1,367	1,305	–	412	605	218	70	–	48,241



Poll

Question: Any suggestions for next events?

- a. More interactive
- b. More case studies
- c. Comparing software solutions
- d. The changing role of tax professionals

Key take-aways

- a. Define the desired and required tax insights?
- b. Which tax technology software covers source tier to clean data?
- c. Which tax technology software injects clean data in tax forms?
- d. Which tax technology software converts tax forms in XML?
- e. Which tax technology software facilitates filing to digital tax authority's mailbox?
- f. How to report your tax risks to multiple stakeholders, which includes tax authorities?
- g. What is the required dashboarding for tax compliance and tax risk?

Q&A

Appendix

Data flowcharts tax engines

