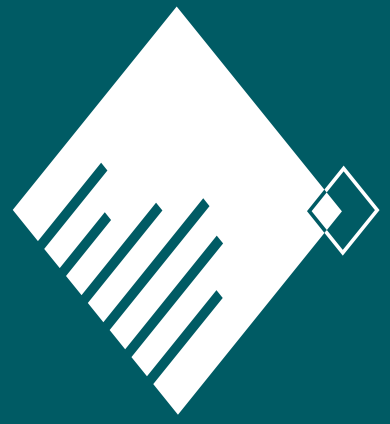

SCHEMATIQ

Think Beyond

Excel is *the* ubiquitous business modelling tool in most organisations.

What if it could be *Faster*?

Complex , repetitive calculations and masses of VBA really slow Excel down

What if it could be *Better Governed* ?

Multiple sources of input , repetitive formulae and desk top installation make Excel a difficult to control… but still brilliant platform.

What if it could be *Infinitely Scalable*?

Excel data row and memory limits really constrain business models

What if it could be *Connected and Shared* inter and intra enterprise?

Excel is a desktop tool, with limited connectivity , no API capability, no history or version control

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Are your Excel assets holding
your company back?
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Schematiq clients transact $bns/annum of business on our platform

Entain Group
achieved over **$25m** of cost savings and over **$4m** new business with the Schematiq platform across the group's global sport betting brands

Hiscox save $millions/annum by eliminating their Python modelling development teams by using the Schematiq platform

Uniper gained control of their Excel estate avoiding $millions in transformation costs using the Schematiq Platform

Hiscox reduced the time for the Underwriting quote process from 20 minutes to milliseconds using Schematiq APIs

SCHEMATIQ

A new way of working…
without a totally new
learning curve
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Think Beyond

What Does Schematiq Do?

SCHEMATIQ

What Does Schematiq Do?

- Turn logic built in spreadsheets directly into **powerful cloud-running API functions**
- **Integrate existing processes** into enterprise data models, to increase control and automate
- Spreadsheets **continue to be developed in Excel** supplemented by Schematiq Workbench

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What Does Schematiq Deliver?

Control

Source Control, Enable Dev Ops in EUC

- Source Control, Share, Merge and release changes
- Enforce Standards
- Regression Testing

Benefits

- Know who ran what when with which data set
- Clear view of dependency between users and workbooks across your estate
- Ensure sheets are not broken by changes

Scale

Platform Calculation Scaling and Data Access

- Parallelise Spreadsheet Calculations
- Reliable Execution (Batch) or realtime
- Control access to business-critical data sources by caching/throttling

Benefits

- Results available much quicker
- Results delivered outside work hours
- Controlled access to Enterprise data sources

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What Does Schematiq Deliver?

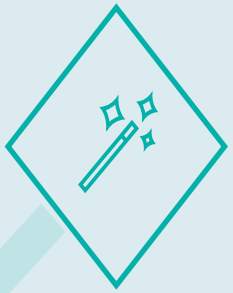
Share

Gateway & API Access

- Generate API's directly from existing spreadsheets
- Connect Excel Models to Tableau/Qlik/Power BI
- Expose sheets as web applications or plug into enterprise systems

Benefits

- Models run on demand in milliseconds
- Use the best tools to analyse your data
- Improved time to market for model changes with Business driven release cycle



Optimise

Workbench: Excel Add-in & Local Service

- Advanced Data Processing Functions
- Data Links – Connect, move and simplify
- Templates – Refactor & Reuse Logic
- Advanced Visualisation – Data & Errors.

Benefits

- Connect to any data source without hundreds of lines of VBA
- Share and reuse functions in a controlled manner
- Eliminate the main operational risks and constraints of Excel
- Small cultural change as staff continue to use Excel

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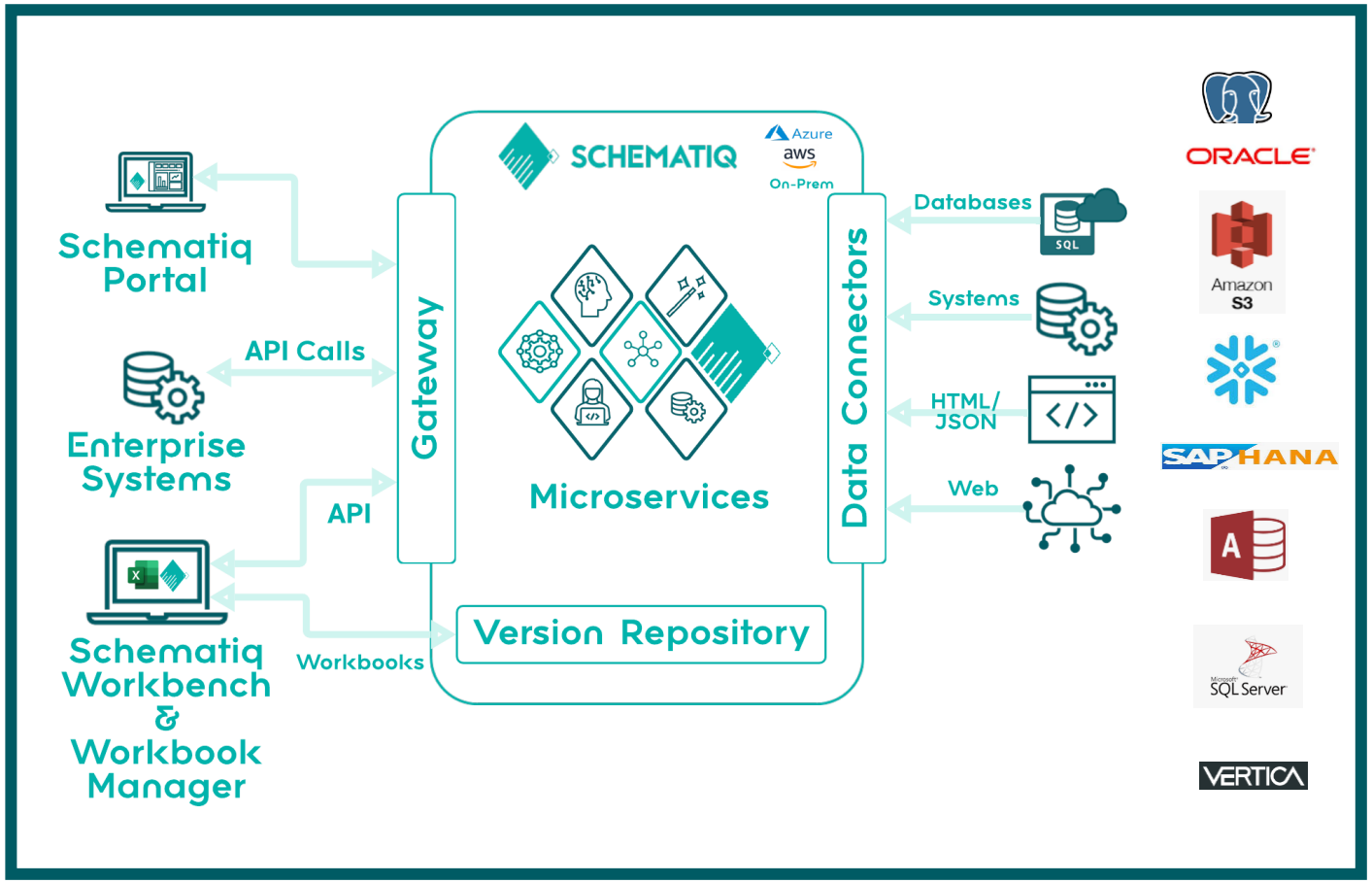
Schematiq Platform High Level Architecture



Schematiq Enterprise Platform; A microservices based application platform designed to bring control, scalability, connectivity, and performance, to Excel based business models; without the enormous expense of recoding or re-platforming. It delivers:

- Massively scalable running of Schematiq Engines Excel presenting workbooks as APIs
- Scheduling of workbooks to run individually or as part of a process
- Access to all an organisation's data.
- Complete control of the governance of Schematiq based Excel estate

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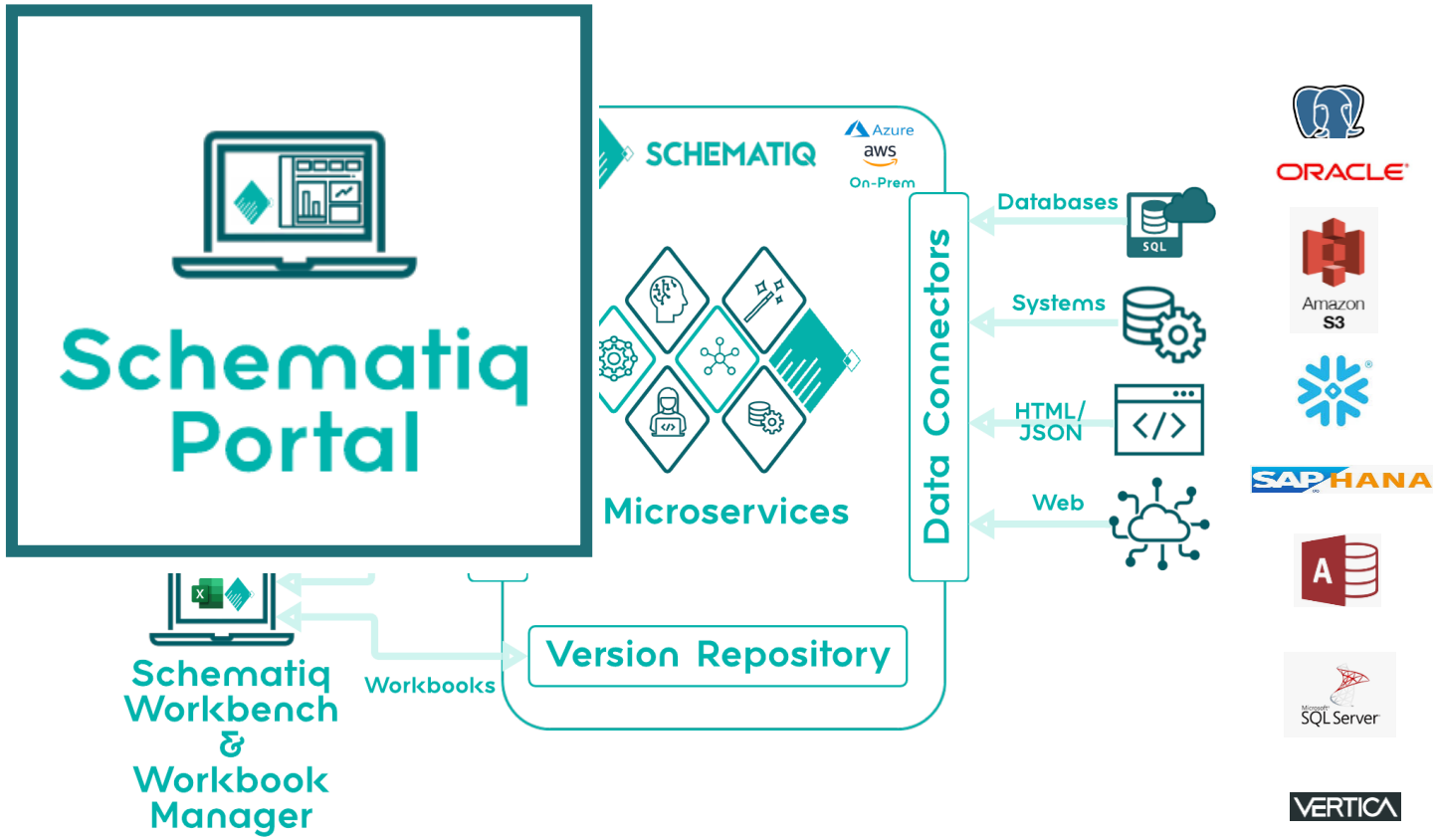
Schematiq High Level Architecture – Schematiq Portal



Schematiq Portal is a cloud based component that is focused on the control and governance of the Schematiq platform. Using the platform-based microservices, it allows users to configure:

- Hierarchical project structure for Schematiq projects
- Governance on which users or groups who have access to view run or change workbooks
- Scheduling the running of spreadsheets Defining APIs on Excel workbooks or functions and permissions for those APIs.

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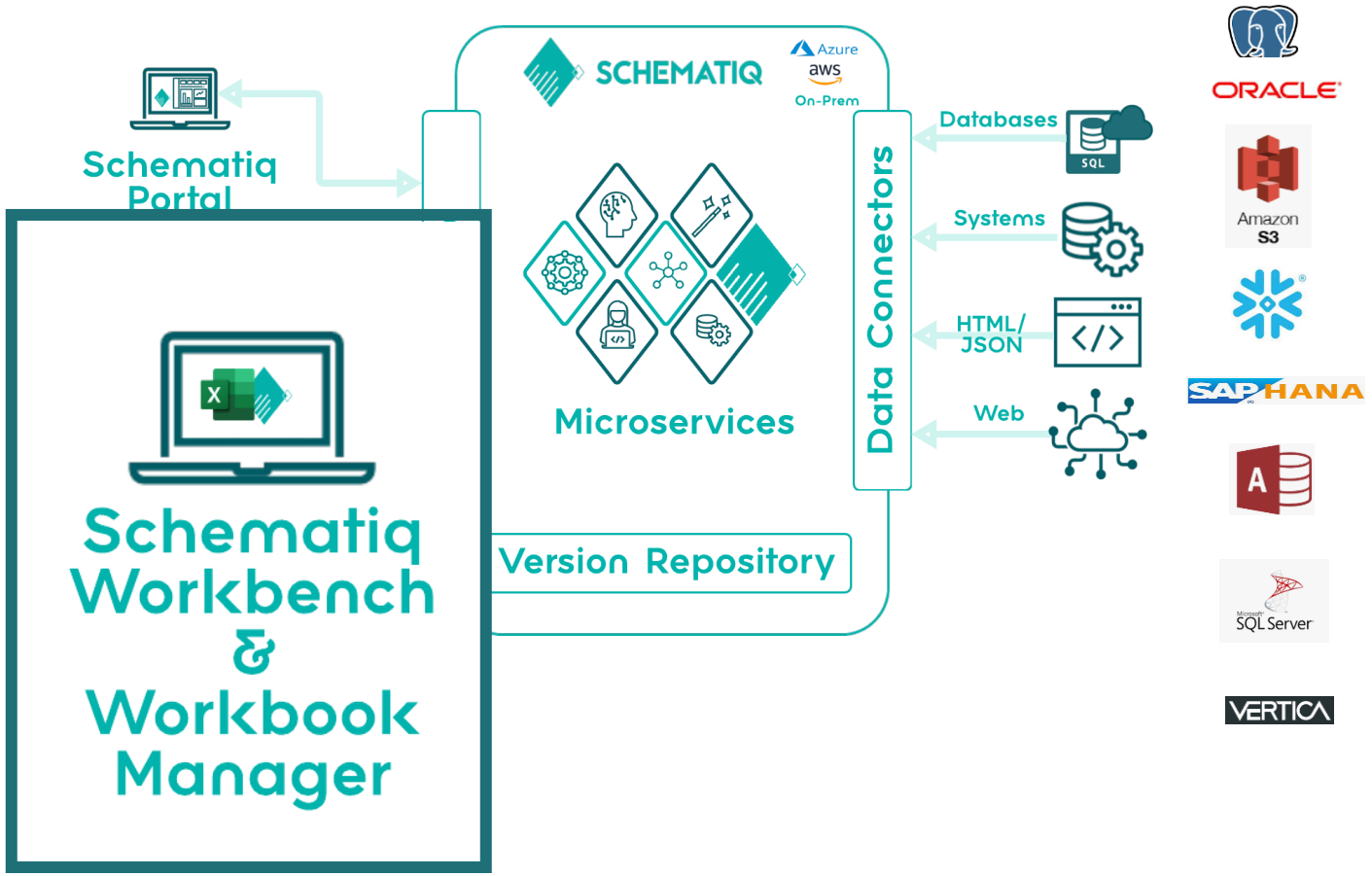
Schematiq High Level Architecture – Schematiq Workbench & Workbook manager



Schematiq Workbench is a process that runs alongside Excel on a user's desktop which takes away all the heavy lifting from the Excel process **allowing *Excel to operate without data range or memory constraints*.**

It introduces:

- VBA free access to most databases
- Tables of millions of rows in a single cell, and table based calculations
- Encapsulation of functions.
- Efficient date functions

Schematiq Workbook Manager provides easy-to-use access to industry-standard version control and a testing framework for Workbooks and functions

SCHEMATIQ

Should we stifle innovation or enable it?

SCHEMATIQ
Think Beyond

Key Schematiq clients

FTSE 100 company Entain Group have chosen Schematiq as a strategic tech partner to help automate core functions across the group brands and business including trading, finance, resourcing and HR

Schematiq provides German energy company Uniper with a flexible solution to model complex trades in their gas trading portfolio that runs daily as part of their valuation and P&L processes

UK based Gazprom M&T have partnered with Schematiq for several years to support many complex finance processes in their B2B gas supply business including reconciliations and billing processes.

Hiscox use Schematiq to integrate and automate, complex actuarial and underwriting Excel models into their online broking systems. Saving $m per annum and enabling rapid time to market

CCLA chose Schematiq as their strategic platform to move their money-market trading operations away from spreadsheets and bring a step change in performance and control.

Swiss energy company **Alpiq** are adopting Schematiq to control and scale Excel spreadsheets across their enterprise. Initial use-cases have focused on their 24/365 European energy arbitrage business worth $1bn/annum

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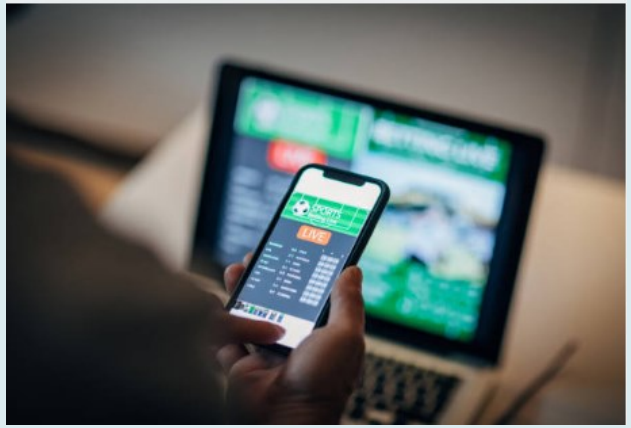
Case Studies – Global Sports Betting

Sports book Automation



The Problem

- Entain Group were looking to standardize their technology approach to running sports betting books
- The company was expanding rapidly and integrating new brands every quarter
- They are heavy users of Excel and wanted a solution that retained agility but with greater control

Delivery Differentiators

- Schematiq allowed Excel models to be turned into APIs and integrated with core Entain systems
- The Schematiq data links allowed easy integration of new data sources
- Little retraining as the sports book traders were Excel users.
- Rapid delivery timelines

Our Solution

- We help build a bespoke model for market data integration
- Workbook across the business were converted and integrated with Schematiq APIs
- Schematiq governance framework ensures robust control

Result

- Platform is rolled out across BWIN, Labrokes, Coral & BetMGM
- Over 300 users groupwide
- Automation facilitates agile business expansion
- New markets e.g. Cricket100 created in weeks
- Entain Group estimate over $25m of cost savings and over$4m new business with the Schematiq platform

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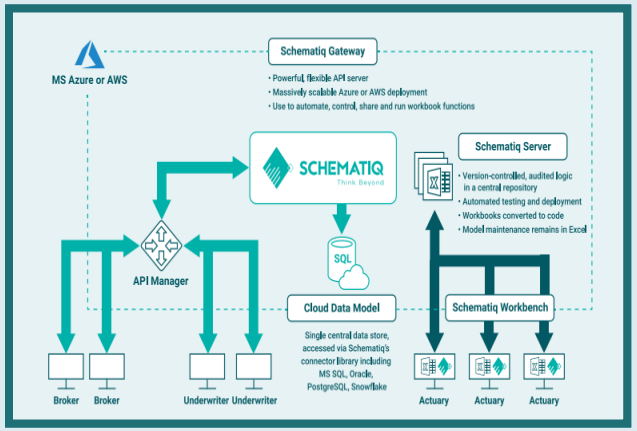
Case Studies – London Markets Insurance

HISCOX

Quote and Bind automation



The Problem

- Projects to rewrite pricing models in code had failed to deliver.
- Quoting was completely manual , limiting the expansion of business
- Catastrophe models were slow to run with the Integration of new datasets time consuming

Delivery Differentiators

- Schematiq allowed Excel models to be turned into APIs and integrated with Quote systems
- The Schematiq data links allowed easy integration of new data sources
- Little retraining as the Underwriters and actuaries were Excel users.
- Rapid delivery timelines

Our Solution

- Models were ported to the Schematiq Platform in the cloud and exposed via APIs.
- APIs were called directly by the online Broking systems.
- Model changes are managed by the Pricing actuaries not IT
- Schematiq governance framework ensures robust control

Result

- First model was automated in 6 weeks of contract signature
- Quotes can be produced in milliseconds
- Automation allowed for business expansion
- Time to market for model changes was days rather than months for code-based models.
- Hiscox save millions by eliminating a python modelling team

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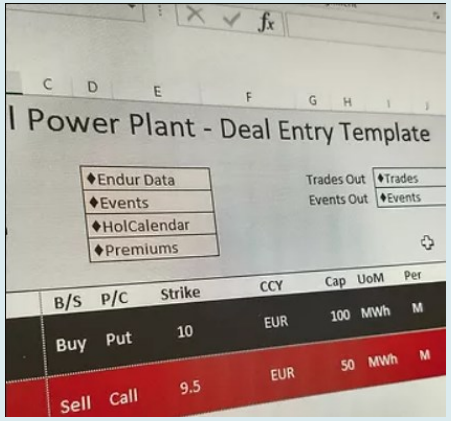
Case Studies – Commodity Trading

Portfolio Optimisation Workbench



The Problem

- A legacy analytics models had fallen out of favour, and been tactically replaced by more flexible Excel and VBA spreadsheets.
- However, those sheets lacked any data control, version management and presented a large operational risk.
- A new optimisation tool was being developed, but costs had spiralled trying to recreate the flexibility and transparency of Excel

Our Solution

- With Schematiq, we were able to use Excel as an interface but leverage quant models as the back end and connect directly to trading and market data systems.
- Further scenario analysis could then be completed, scaled on the cloud and seamlessly integrate multiple users inputs and assumptions.

Delivery Differentiators

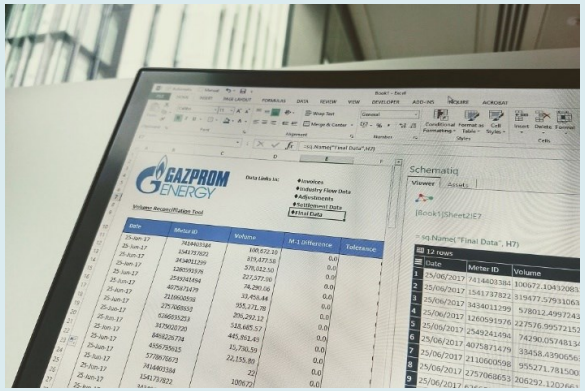
- Schematiq removes all data limitations within Excel allowing you to build fast performing scalable applications.
- Asset Manager is able to version control all sheets in workflow, allowing a Dev-Ops approach to developing, testing and rolling-out the core functionality.

Result

- Using Schematiq as the Workbench to access data and models saved months of custom interface design, and allowed a truly agile approach to developing the new models
- User adoption increased as flexibility of model allowed better insight into model behaviour and allowed easy addition of new features

Case Studies – Gas Trading & Utilities

Settlement & Reconciliation Process Improvement



The Problem

- Legacy systems that were no longer fit-for-purpose had generated complex, time-consuming Excel-based processes to fill the gap.
- Business unable to scale due to overhead and risk of managing manual processes.
- Needed value delivering quickly to relive over-stretched resources and increasing amounts of data

Delivery Differentiators

- Schematiq Workbench allows incremental improvements to existing processes, meaning improvements can be made in days not months.
- Transform Spreadsheets to enterprise-quality applications without needing migration to new system/solution
- Without the need for complete re-platforming user adoption improves and delivery risk reduces

Our Solution

- Use Schematiq to remove data limitations and leverage powerful data blending and validation tools to deliver new processes in weeks.
- Build a library of common templates that can be used in multiple processes across business, removing repeated work.

Result

- Automation of Portfolio reconciliation process reduced time needed from 3-4 days to 1-2 hours – equivalent to around 40 w.d./ annum , implemented in under a week.
- Project served as template for further improvement initiatives using Schematiq which within 6 months saved a further 100 w.d./ per annum

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