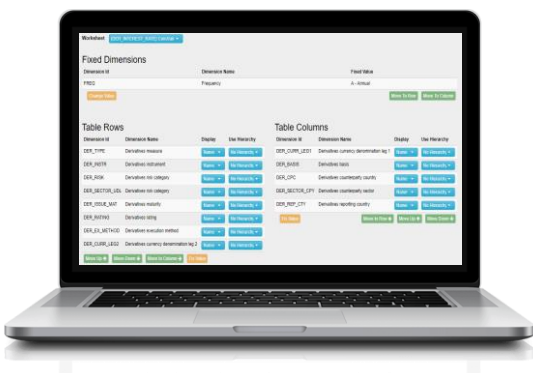




Fusion Registry® 9

Excel Data Reporting Templates



Excel Data Reporting Templates is a new feature for Fusion Registry® 9 which simplifies and improves manual data collection by automatically generating pre-formatted Excel data reporting spreadsheets, personalised for each data provider.

The feature is designed for data collecting organisations who have multiple providers that report data manually using Excel spreadsheets or other flat-file formats such as CSV.

Fusion Registry 9 is a complete and fully integrated statistical data and metadata management system for SDMX.

How Does It Work?

Excel Data Reporting Templates are defined by the data collecting organisation based on their SDMX structural metadata.

Using a Template, Fusion Registry will generate Excel spreadsheet based forms on demand for data providers to populate with their observation values. The generated spreadsheets are automatically personalised for each data provider, containing only the cells that the provider is required to report data for.

Where a Template defines multiple collection forms, each is presented as a separate worksheet within an Excel workbook.

Once populated with observation values, the completed spreadsheets can be presented back to the Fusion Registry for data validation, transformation and load. The process can be performed using the graphical user interface, the REST web services API, or by simply dropping the spreadsheet file into a pre-defined location, either by the data provider or the data collecting organisation.

Key Benefits

The Excel Data Reporting Templates feature means that the manual data collection cycle can now be fully **metadata driven**, significantly improving efficiency and robustness.

Streamlined Procedures

- Excel spreadsheet forms can be automatically generated on demand from the structural metadata and layouts defined in Fusion Registry – no need to hand-craft and manually maintain forms.

- Data providers can generate and download their own Excel spreadsheet forms at any time using Fusion Registry’s REST web service API.
- A single Template can be used to generate spreadsheet forms automatically personalised for each data provider – no need to create separate Templates for each data provider.

Improved Consistency

- Using standardised forms that are machine generated from the metadata ensures that data is always reported in a consistent and predictable format.
- Template designers can lock the layout of the spreadsheets, preventing, for instance, the insertion or deletion of columns which could cause the reported data to be misinterpreted.
- Fusion Registry understands what metadata was used to generate a template and ensures the same metadata is used to validated the reported data - even if changes to the metadata have been made subsequently.

Improved Data Quality

- The generated spreadsheets are automatically personalised for each data provider. A provider’s spreadsheet contains only the cells they are required to report data for which minimises the risk of spurious data being supplied.
- Cell colours can be used to identify important observation attributes such as observation confidentiality (the green cells in Figure 1) and provide a strong visual marker for data providers.
- Data quality can also be improved by defining Validation Schemes which set mathematical rules for the reported data. The rules can be used to both embed formulae in the Excel worksheet for calculating values like totals and checksums, and for enhanced server-side validation.

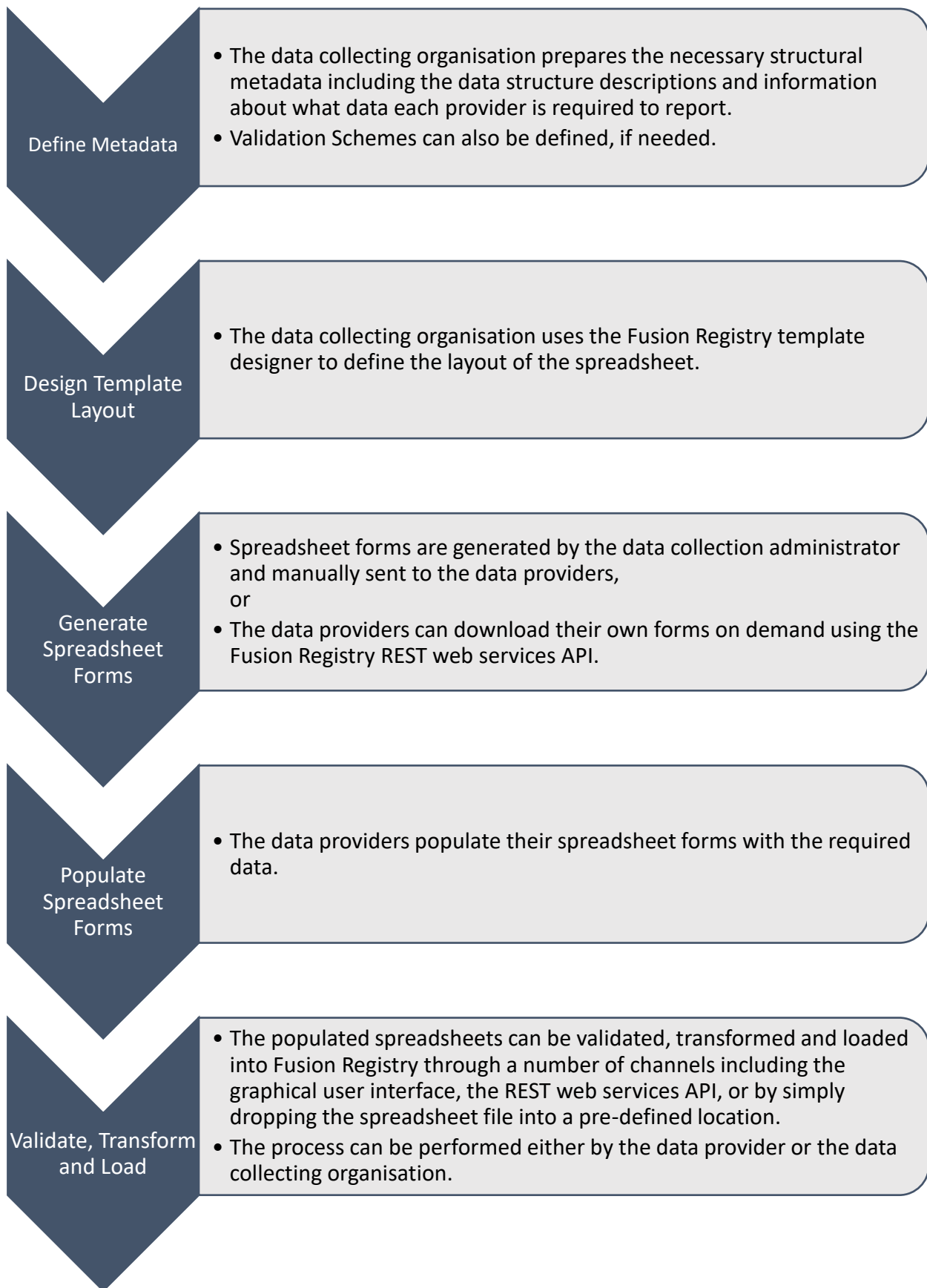
No Macros or Plugins

- The Excel spreadsheets generated are simple workbooks which use standard Excel features and formulas. There are no macros, VBA or plugins which could violate information security policies.

Reporting country	Currency type of booking location	Offshore centres	Residents	Offshore centres	Residents	Offshore centres	Residents	Offshore centres	Residents
Austria	Local currency								
Belgium	Local currency								
Finland	Local currency								
France	Local currency								
Germany	Local currency								
Greece	Local currency								
Ireland	Local currency								
Italy	Local currency								
Luxembourg	Local currency								
Netherlands	Local currency								
Portugal	Local currency								
Spain	Local currency								
Denmark	Local currency								
Norway	Local currency								
Sweden	Local currency								
Switzerland	Local currency								
United Kingdom	Local currency								
Canada	Local currency								
Japan	Local currency								
United States	Local currency								
Hong Kong SAR	Local currency								
Singapore	Local currency								
Turkey	Local currency								
Chile	Local currency								
Chinese Taipei	Local currency								

Figure 1 Example of an Excel Data Reporting Template spreadsheet, automatically generated by Fusion Registry

Manual Data Collection Process using Excel Reporting Templates



Example

The following example shows the Fusion Registry template designer and the resulting generated spreadsheet.

Worksheet [CBS_FULL] Constraining BIS cons ▾

Fixed Dimensions

Dimension Id	Dimension Name	Fixed Value
FREQ	Frequency	Q - Quarterly
CBS_BANK_TYPE	CBS bank type	4B - Domestic banks

Change Value Move To Row Move To Column

Table Rows

Dimension Id	Dimension Name	Display	Use Hierarchy
L_MEASURE	Measure	Name ▾	No Hierarchy ▾
L_POSITION	Balance sheet position	Name ▾	No Hierarchy ▾
REM_MATURITY	Remaining maturity	Name ▾	No Hierarchy ▾
L_CP_SECTOR	Counterparty sector	Name ▾	No Hierarchy ▾

Move Up ↑ Move Down ↓ Move to Column → Fix Value

Table Columns

Dimension Id	Dimension Name	Display	Use Hierarchy
L_REP_CTY	Reporting country	Name ▾	IBFS_COUN ▾
L_INSTR	Type of instruments	Name ▾	No Hierarchy ▾
CURR_TYPE_BOOK	Currency type of booking location	Name ▾	No Hierarchy ▾
CBS_BASIS	CBS reporting basis	Name ▾	No Hierarchy ▾
L_CP_COUNTRY	Counterparty country	Name ▾	IBFS_COUN ▾

Fix Value Move to Row ← Move Up ↑ Move Down ↓

Figure 2 Fusion Registry Excel Data Reporting Template Designer

Worksheet		CBS_FULL		Observation Confidentiality	
Dataflow		BIS:WEBSTATS_CBS_DATAFLOW(1.0)		C	Confidential statistical information
Provision Agreement		BIS:CB1_CBS(1.0)		D	Secondary confidentiality set by the sender, not for publication
FREQ	Frequency	Q	Quarterly	F	Free
L_MEASURE	Measure	S	Amounts outstanding / Stocks		
L_REP_CTY	Reporting country	AT	Austria		
CBS_BANK_TYPE	CBS bank type	4B	Domestic banks		
OBS_STATUS	Observation Status	A	Normal value		

Type of instruments	All instruments					
Currency type of booking location	Local currency					
CBS reporting basis	Immediate counterparty basis					
Counterparty country	All countries	Residents	Rest of the World (Non-residents)			
			Developed countries			
	European developed countries					
	Euro area		Denmark	Switzerland		
Balance sheet position	Remaining maturity	Counterparty sector	France	Spain		
			Local claims	All maturities	All sectors	
Total claims	All maturities	All sectors				
		Banks, total				
		Official sector				
		Non-bank private sector				
Cross-border claims	All maturities	All sectors				
Total assets (financial and non-financ	All maturities	All sectors				
International claims	All maturities	All sectors				

Figure 3 The template spreadsheet generated from the layout definition shown in Figure 2

Using Excel Data Reporting Templates with the Fusion Hub-and-Node Data Collection Architecture

Metadata Technology's Hub-and-Node architecture is an alternative solution for integrating statistical data from any number of data providers.

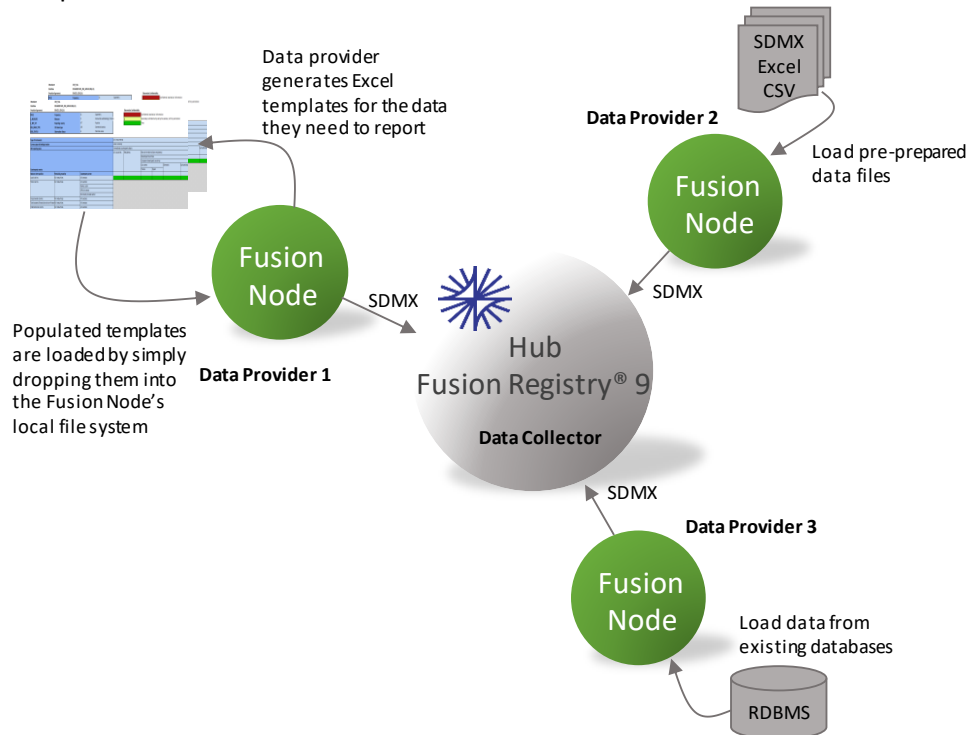


Figure 4 Example Hub-and-Node architecture incorporating Excel Data Reporting Templates

Each data provider runs a Fusion Node – a light-weight but powerful interface server that takes data from a range of sources and transforms it into valid SDMX. The 'Hub' Fusion Registry dynamically integrates the data into a single unified virtual data warehouse for analysis and dissemination.

Data providers that supply data as Excel can now generate their own personalised data reporting templates directly from their local Fusion Node. Once populated, the templates are simply dropped into the Fusion Node's file system where they are validated, loaded and automatically integrated into the virtual data warehouse.

For More Information

Excel Data Reporting Templates is a feature of Fusion Registry 9 – Metadata Technology's data and metadata management system for SDMX, and is available in both the Community and Enterprise Editions.

Fusion Registry 9 Community Edition is free to download and use.

Fusion Node is a component of Fusion Registry 9 Enterprise Edition.

Fusion Registry 9 Enterprise solutions are designed to meet clients' specific requirements. Please contact us to discuss your requirements, support options and prices.



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