Implementation of Statistical Data and Metadata eXchange (SDMX) at Reserve Bank of India - Strengthening Data Governance, Data Management, and Data Visualization

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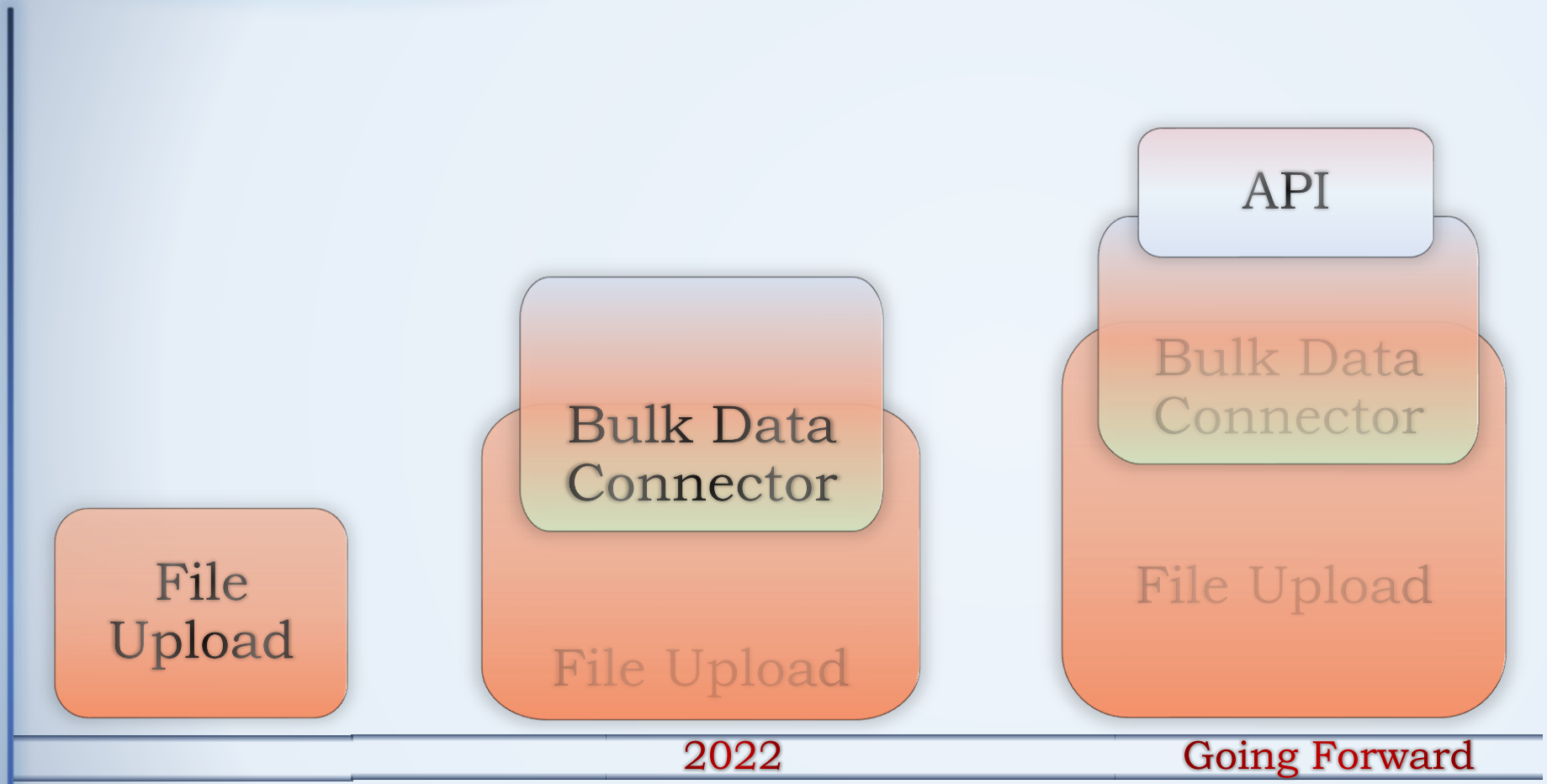
Agenda

- ✓ Overview of Existing Data Management
- ✓ Experience of SDMX – Data Reporting
- ✓ SDMX Current Implementation
  - Overview
  - Workflow - Collection, Dissemination and Analytics
  - Converter Engine
  - Data Query Engine
- ✓ How will SDMX enhance Data Governance?
- ✓ Other Advantages
- ✓ Challenges

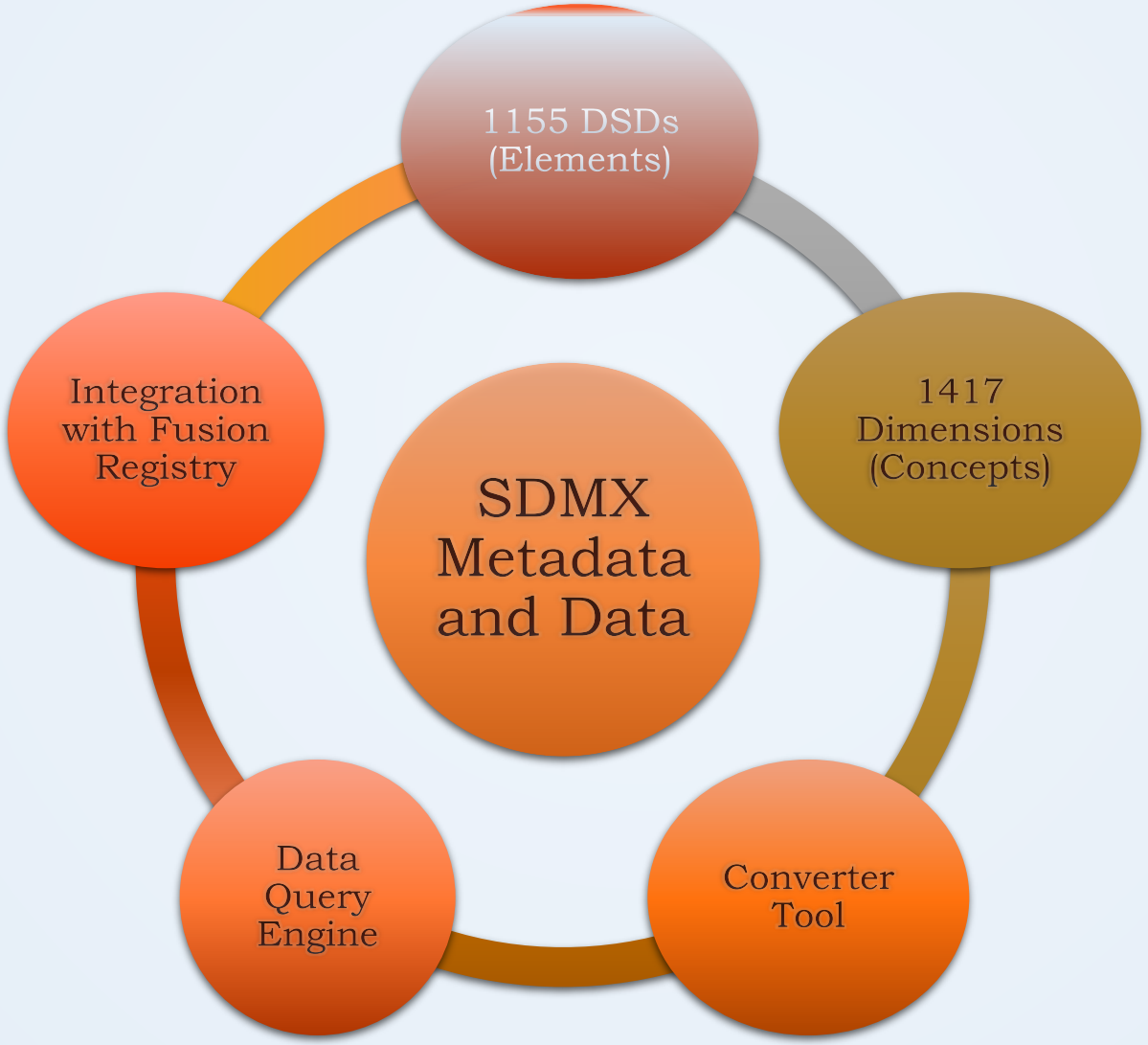
Existing Data Management

Public	SAARC Countries	RBI Internal Users/ Regulated Entities (10,000+)	International Organisation
Macroeconomic and financial data series through DBIE (1200 Reports)	SAARC Finance Database	Regulatory, Supervisory, Financial Sector and Payment Systems	Reporting to BIS/IMF – LBS, CBS, Macro-economic series

Experience of SDMX – Data Reporting



SDMX- Implementation Overview



SDMX-driven Data Lifecycle Workflow

Regulated Entities

Reserve Bank of India, CIMS

Data Collection

SDMX-ML Metadata

API

Fusion Metadata Registry

SDMX Metadata Management

SDMX-ML Data Flow

Processing and storage

Internal Data

Public Data

Data Dissemination

Reports, API

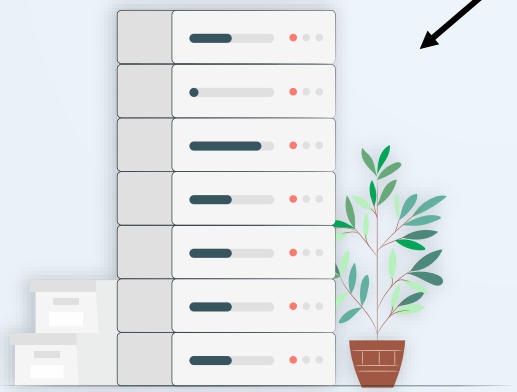
Data Query Engine

Data Governance Portal

BANK FOR INTERNATIONAL SETTLEMENTS

Converter Engine

250 Returns of 10,000+ Entities, Macroeconomic Data



Element based Data

Converter Tool

Spark Engine (Validations)

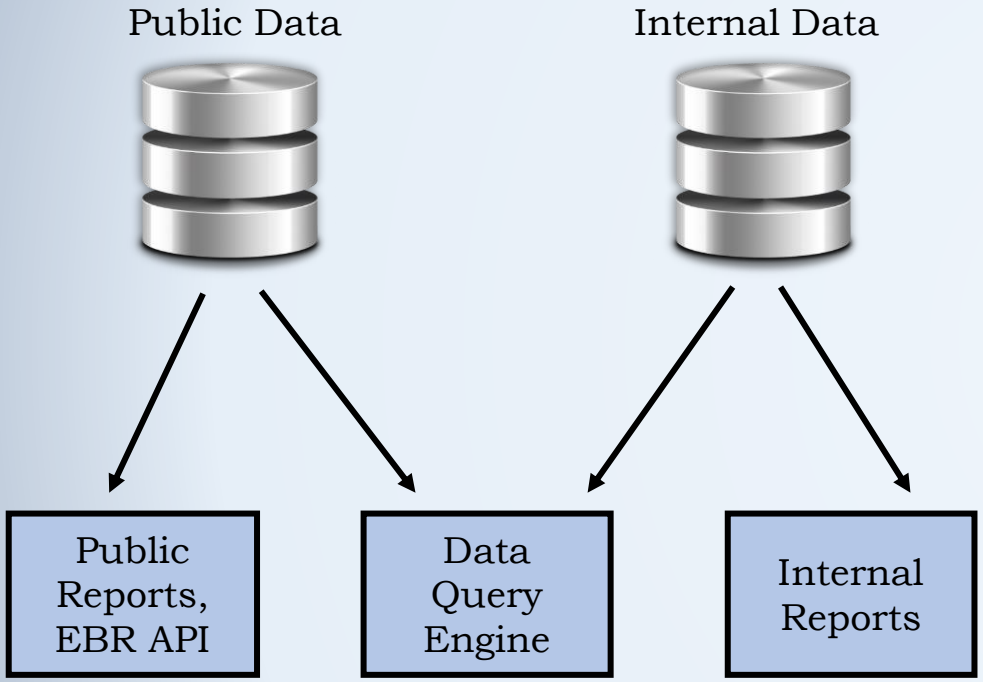
Metadata and Mapping

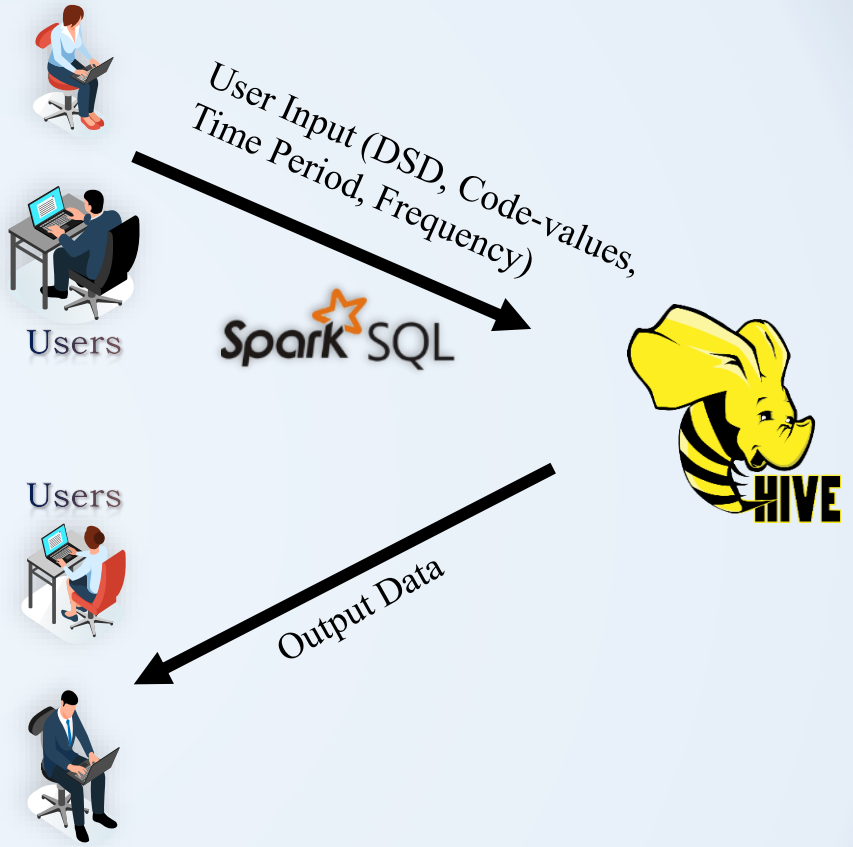
Fusion Metadata Registry

1,000 Elements and 1,200 Dimensions with Code Lists from 250 Returns

155 Elements and 217 Dimensions from Macro-Economic Indicators - includes sectors such as Real, Financial, Corporate, Public finance, External and Socio-economic

SDMX-driven Data Query Engine



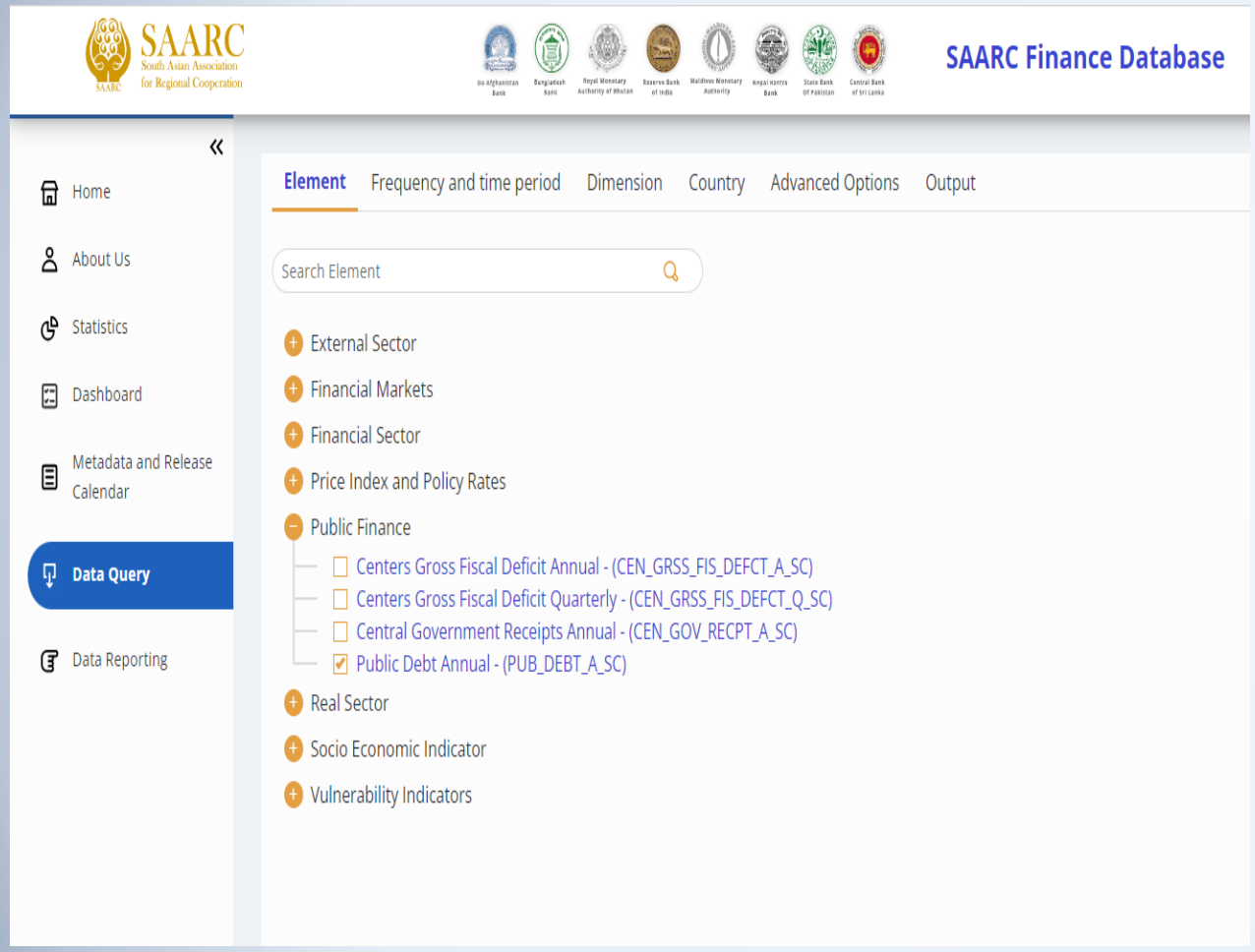


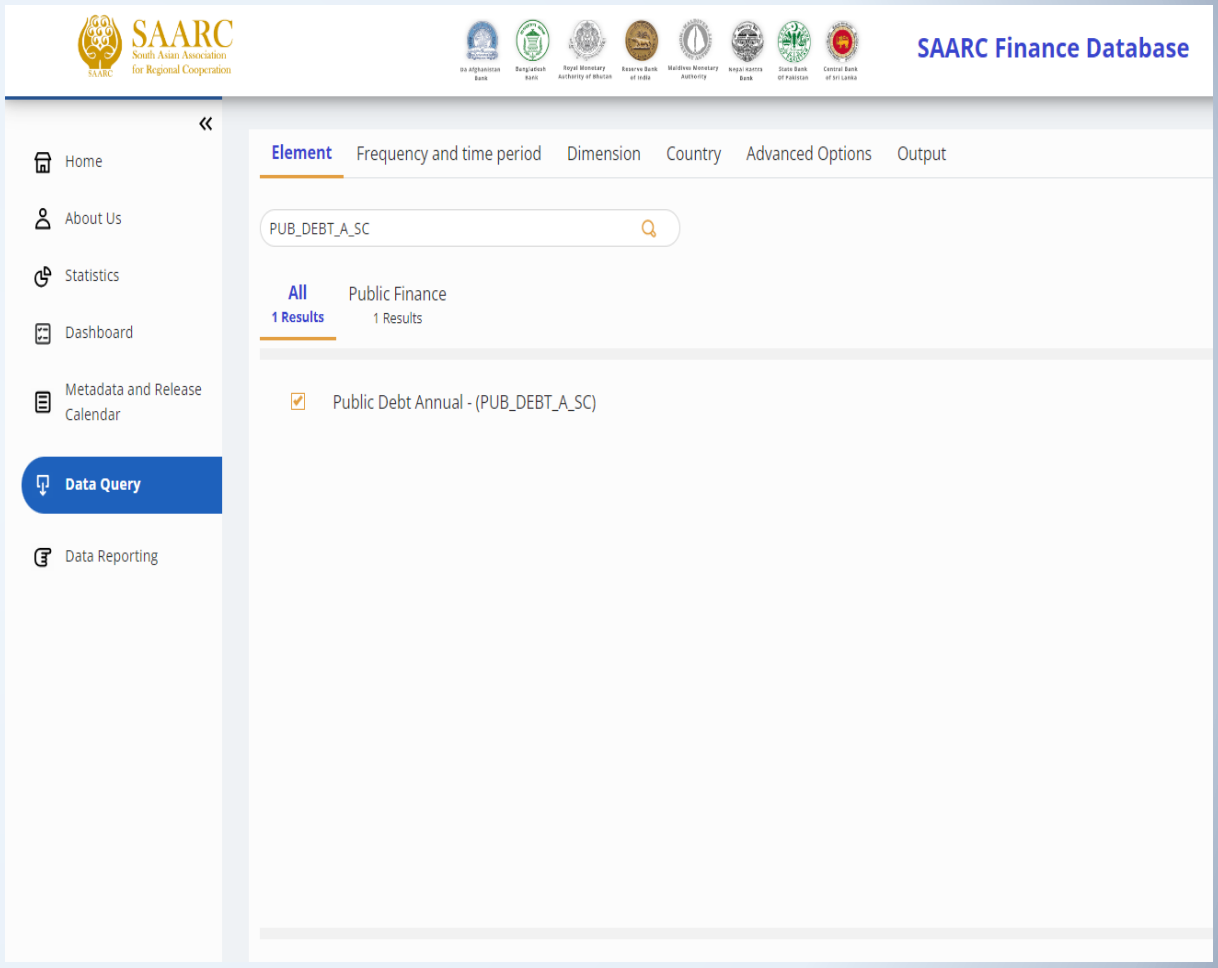
Analytics

Cloudera Data Science Workbench

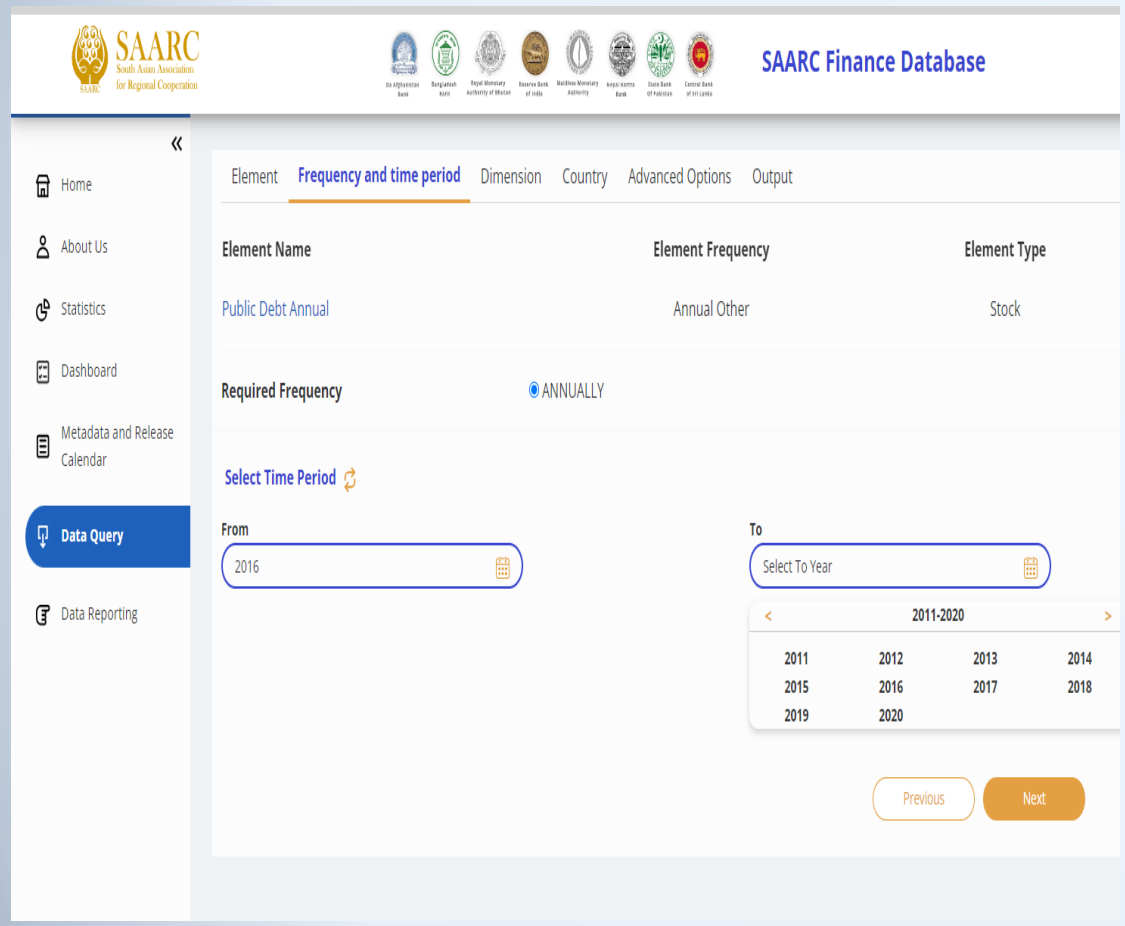
python APACHE Spark R Studio R

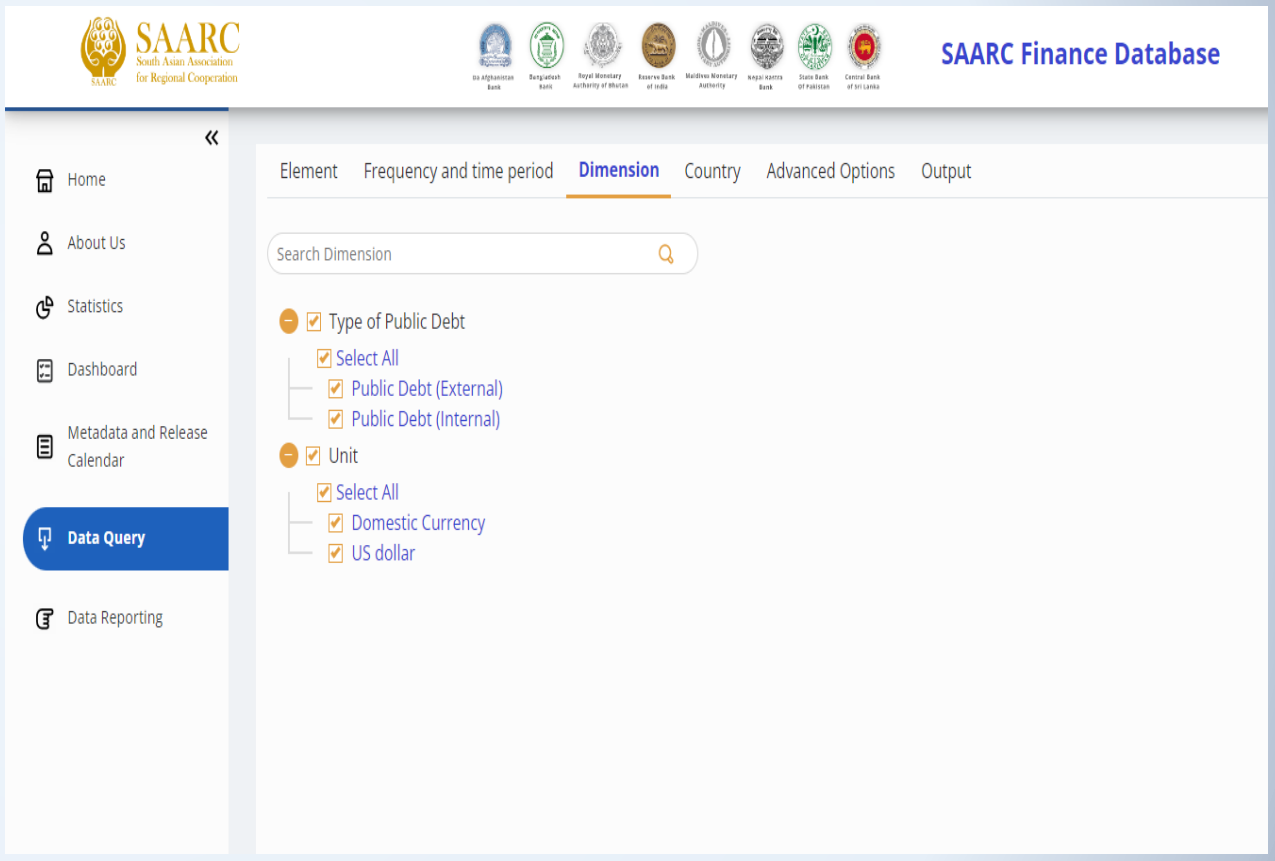
SDMX-driven Data Query Engine



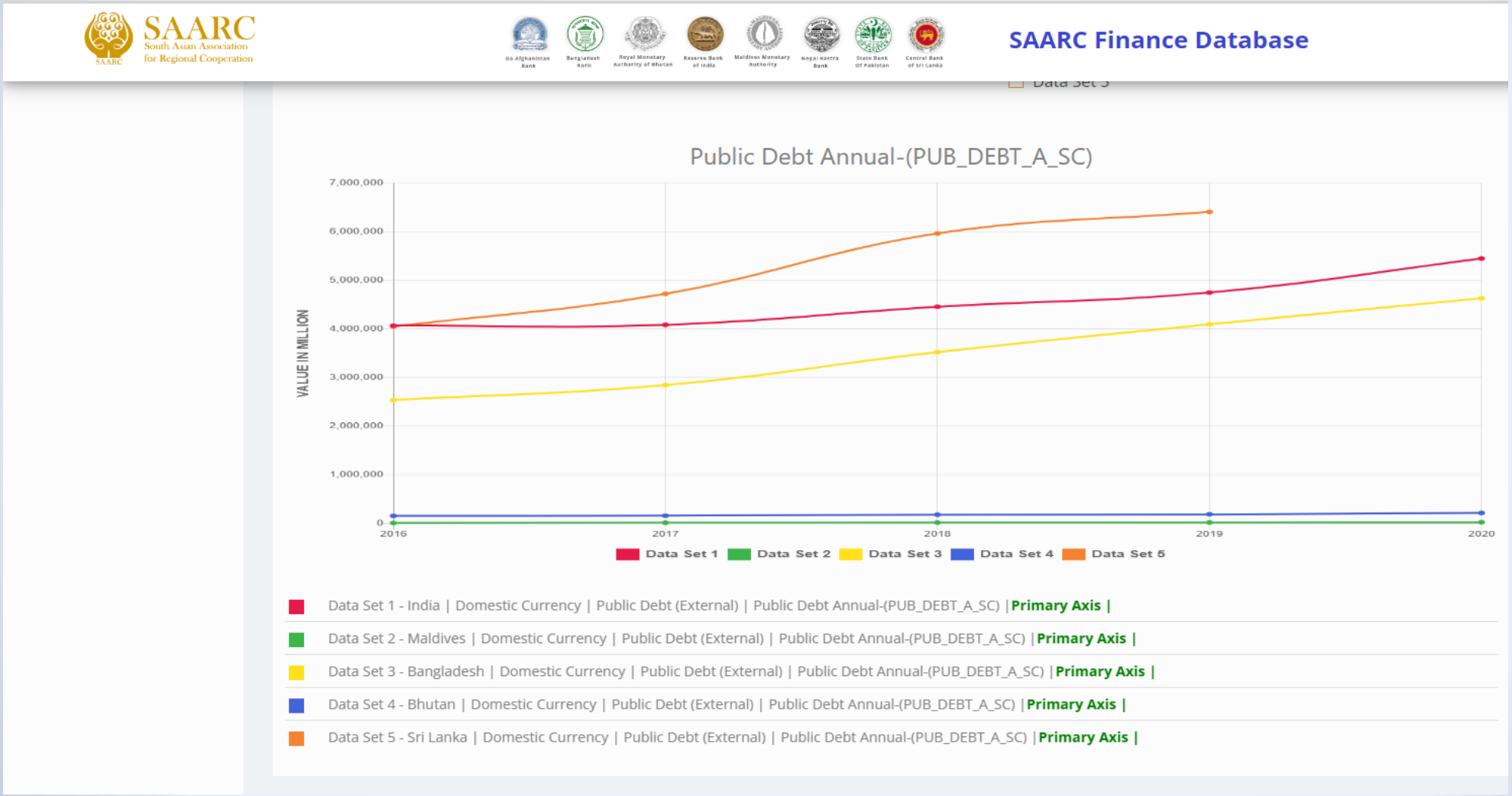


SDMX-driven Data Query Engine

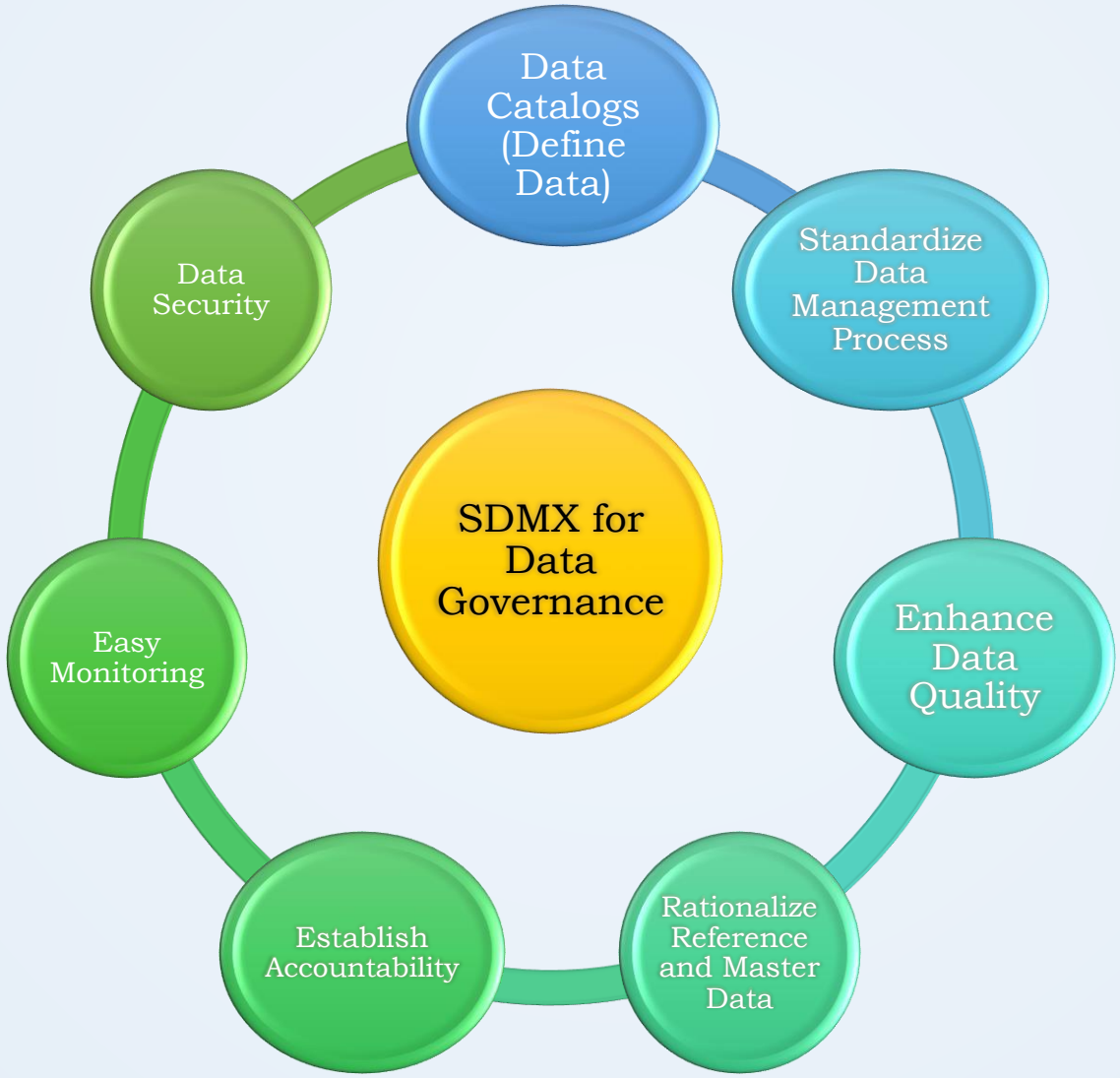




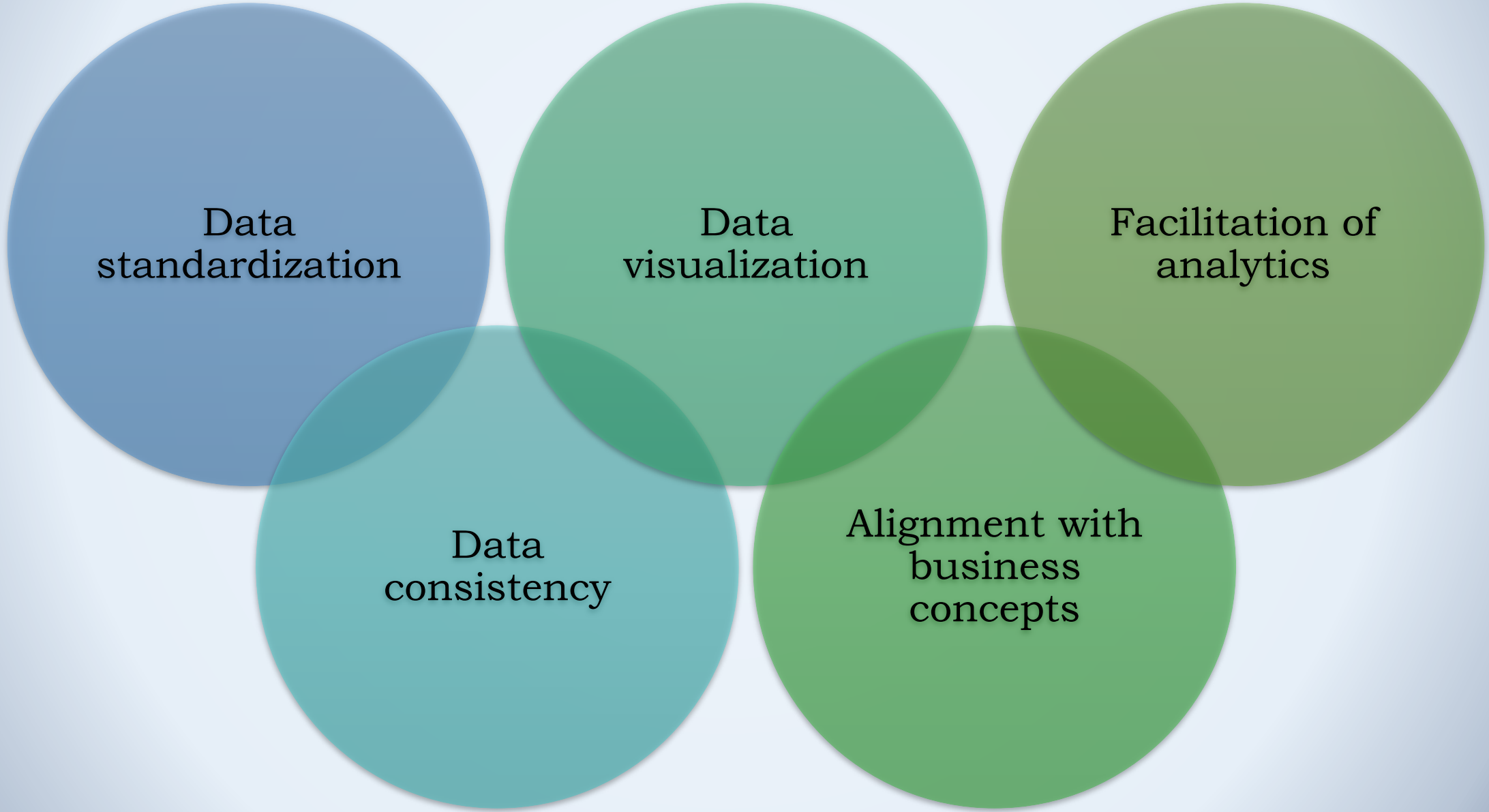
SDMX-driven Data Query Engine



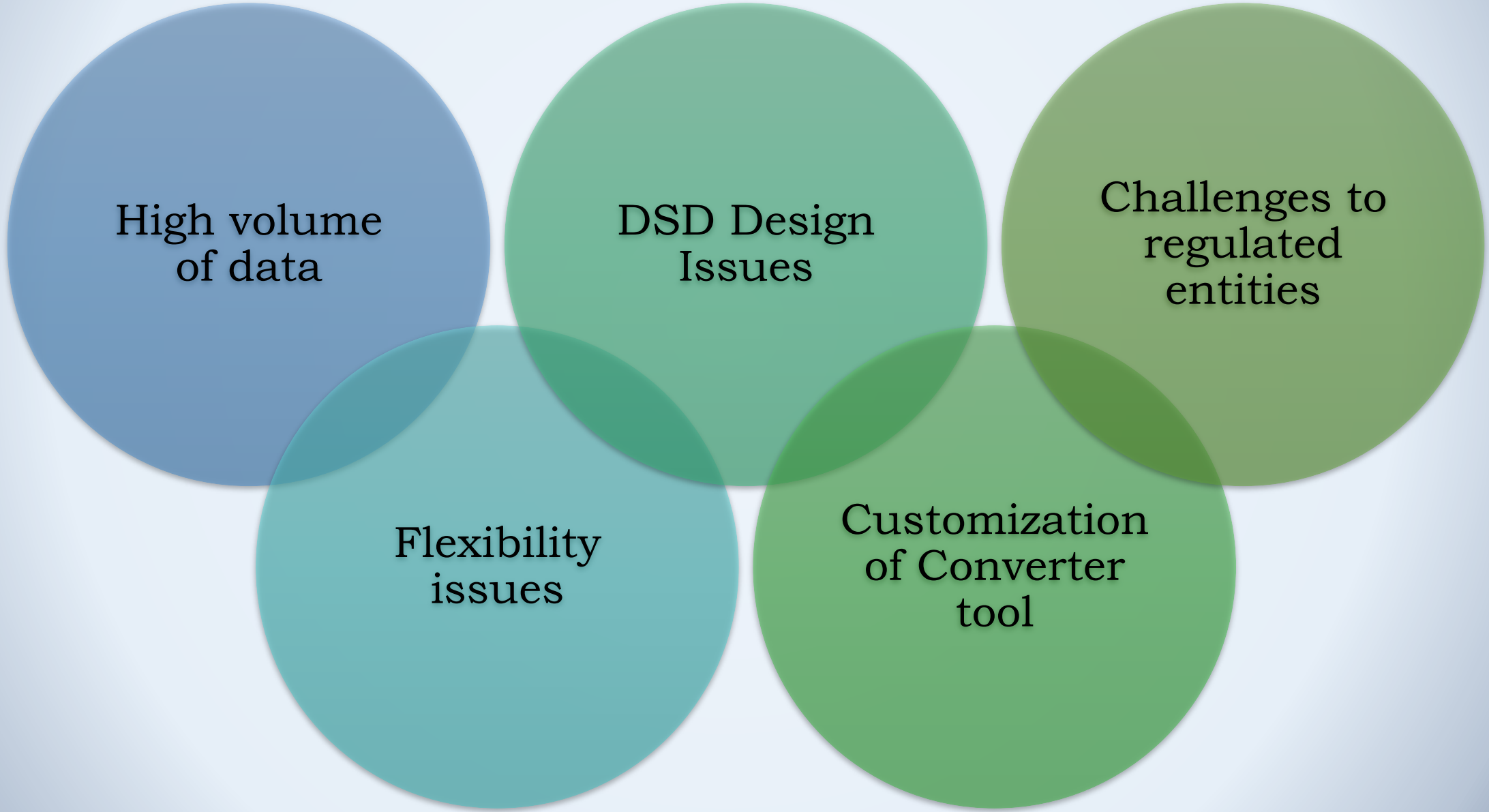
How will SDMX enhance Data Governance?



Other Advantages



Challenges faced



Thank You!