Harnessing VTL in business

VTL ENGINE & EDITOR:
AN EASY TO USE TOOL FOR BUSINESS ORIENTED STATISTICIANS
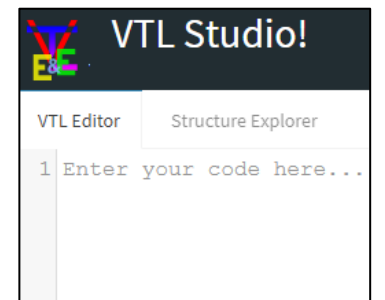
Context

- **SDMX models data and metadata**
  - Standard meta/data exchange and dissemination

- **VTL models transformations and validations**
  - Discoverable, actionable, reproducible processes
  - High-level, metadata driven, meant for business

- **VTL and SDMX: a perfect match**
  - Mappings exist for data and metadata
  - Rules can be embedded in Dataflows

VTL Engine & Editor

▶ Designed to simplify VTL development and test

 ▶ No complex IT infrastructure or IT expertise needed

 ▶ SDMX web services and other meta/data sources

 ▶ Very high coverage of VTL specification

▶ Available on GitHub as open source

 ▶ Distributed under EU Public License

 ▶ Integrated with R and Shiny as package
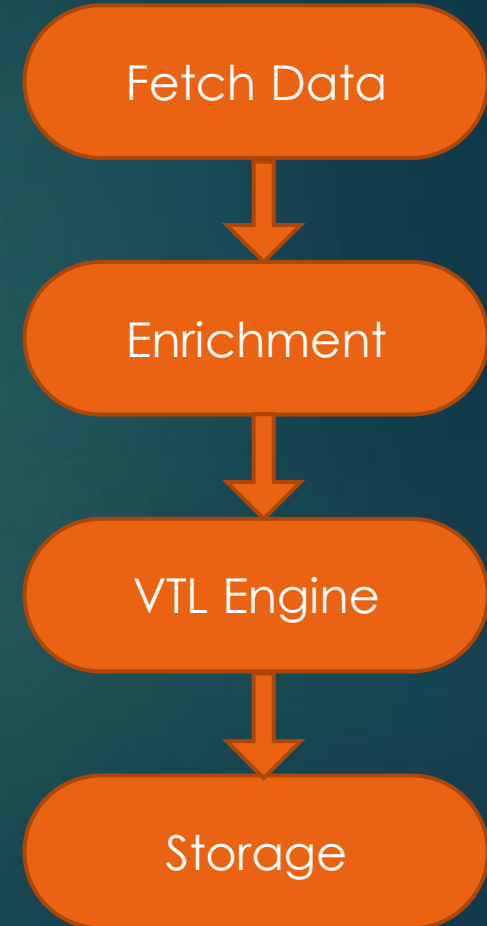
```
> install.packages("RVTL")
> vtlStudio()
```

VTL Studio!

| VTL Editor | Structure Explorer |

1 | Enter your code here...

Pilot on ESCB Balance Sheet Items

- Business scenario
  - BSI is a SDMX Dataflow disseminated by ECB
  - Data sent by NCBs to ECB must comply with some rules
  - These rules are expressed in a pseudo-language
  - NCBs implementations may lead to differing results

- Pilot results
  - All the rules translated into VTL using VTL Editor
  - All the rules tested with real data using VTL Engine

- VTL removes ambiguities on rules interpretation and execution

ECB Validation & Calculation Engine

- Business scenario
  - VALICE is one of the components of ECB data-centric platform
  - Its role is to support validations and transformations
  - Aimed at business users without IT skills

- VTL Engine is at the core of VALICE
  - The activity lasted for several years
  - Requirements of VALICE led to performance improvements

Fetch Data → **Enrichment** → **VTL Engine** → **Storage**

SDMX.IO collaboration

- Business case
  - Sdmx.io is a BIS initiative to integrate SDMX tools
  - Integration of VTL E&E with Fusion Metadata Registry

- The collaboration started very recently
  - VTL E&E would process VTL rules embedded in SDMX
  - Further scenarios considered based on users feedback

VTL E&E: Ideas for the future

▶ Complete the coverage of VTL 2.0 specification

▶ Improved support for Apache Spark

▶ Improved usability of VTL Editor with new UI

▶ VTL Editor additional features (i.e. GIT support)

▶ Deployment of VTL Engine in the cloud

▶ Improved integration with other languages

Thank you!

- For any question, suggestion or information please drop a line:
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- Questions can also be posted in the **SDMX User Forum**
  - https://www.yammer.com/unstats/#/threads/inGroup?type=in_group&feedId=121500557312