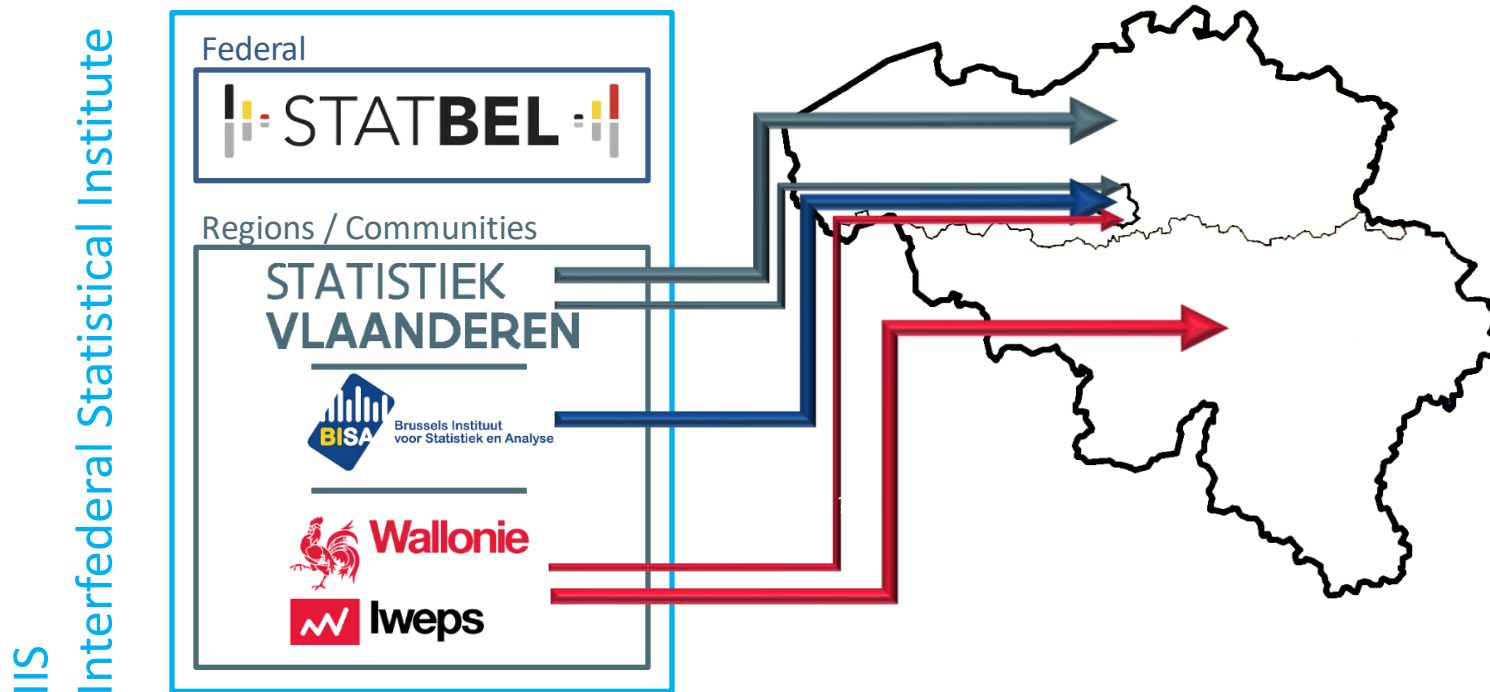


# Statistics Flanders switching from statistics to data, in a safe and controlled way

SAS event, 30 March 2023

# Context FSA – Flemish Statistical Authority in Belgium

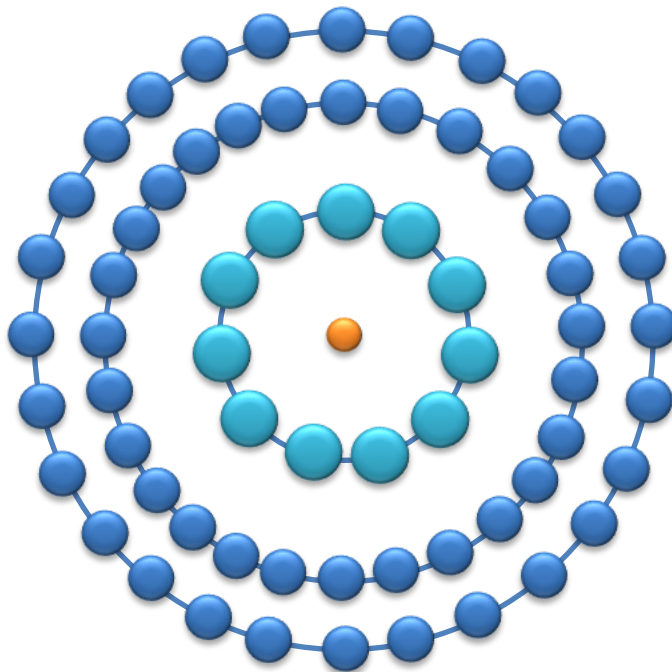


Simplified representation of the Belgian statistical landscape.

# FSA: Coordination of a decentralized network

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## Network Statistics Flanders



-  FSA
-  Policy areas
-  Entities

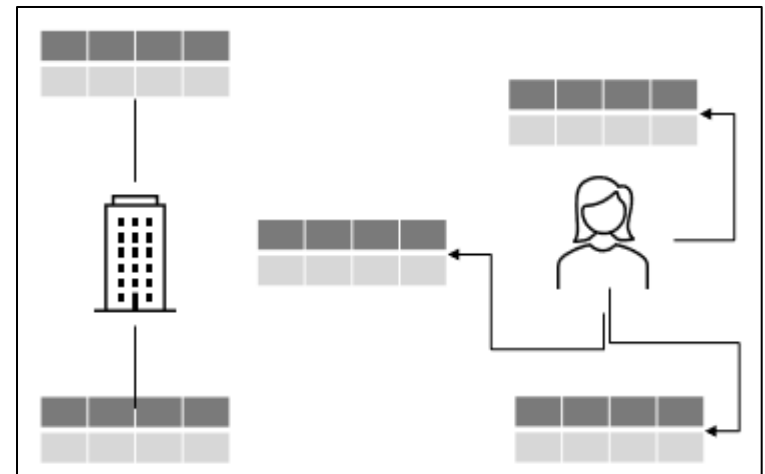
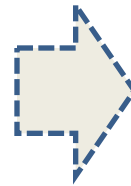
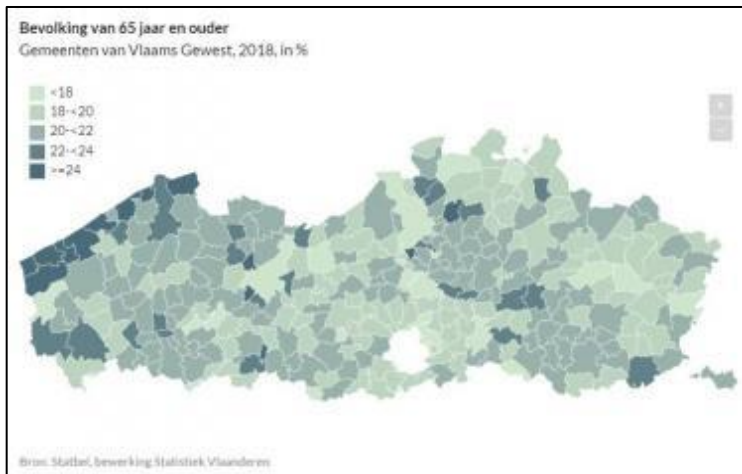
Decentralized production between:

- 11 policy areas (demography, economy, mobility, environment, ...)
- 55 entities
- VGC: Flemish Community Commission
- Municipalities & provinces

Sources:

- Regional, local and federal sources and data owners
- Also, sources from outside the government

# Data exchange challenge: From “statistics” to “data”

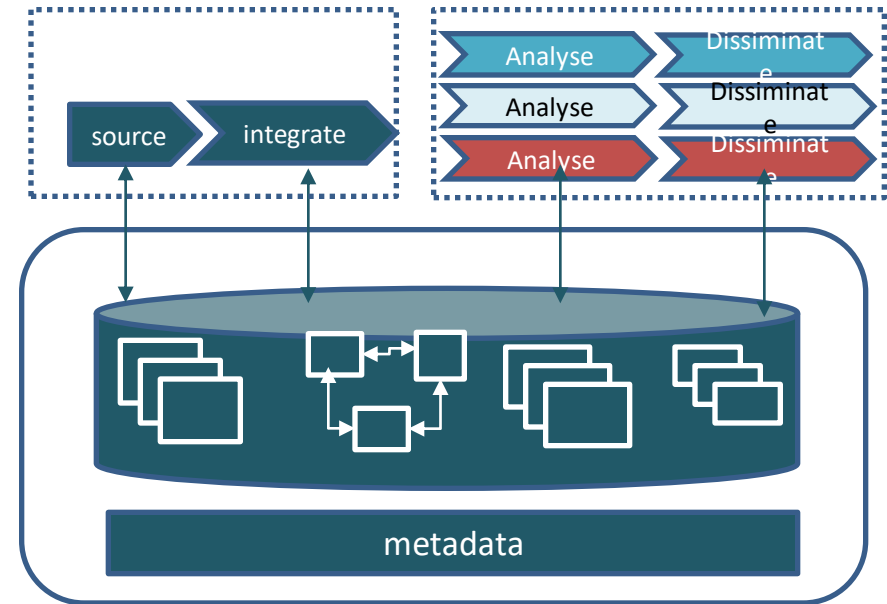
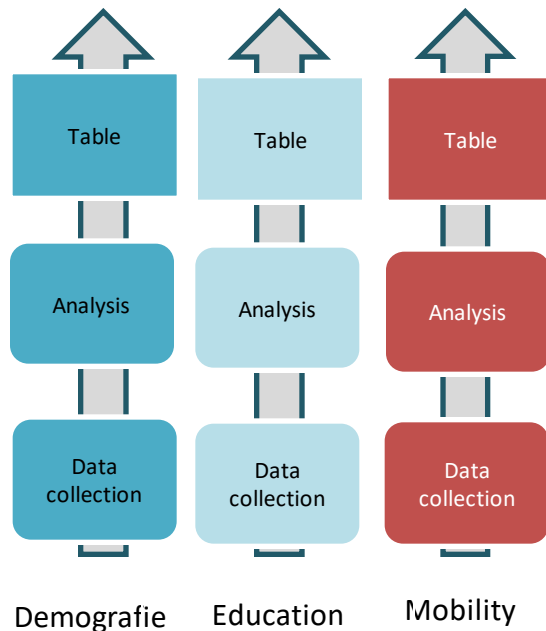


# Portfolio of our offering based on SAS VIYA

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- **Static Aggregated ‘open’ data**
  - Key numbers wrapped up in tables and graphics available on our website
  - Open data tables published on the Flemish open data platform
- **Dynamic Aggregated open data**
  - Interactive (filters) data tooling available via website
- **Micro-data under strict conditions**
  - Safe room, remote access facility
- **Trusted third party**
  - Intermediate between governmental registers and end users
  - Adding, when necessary, additional services by linking data

# From “stovepipes” to “integration”

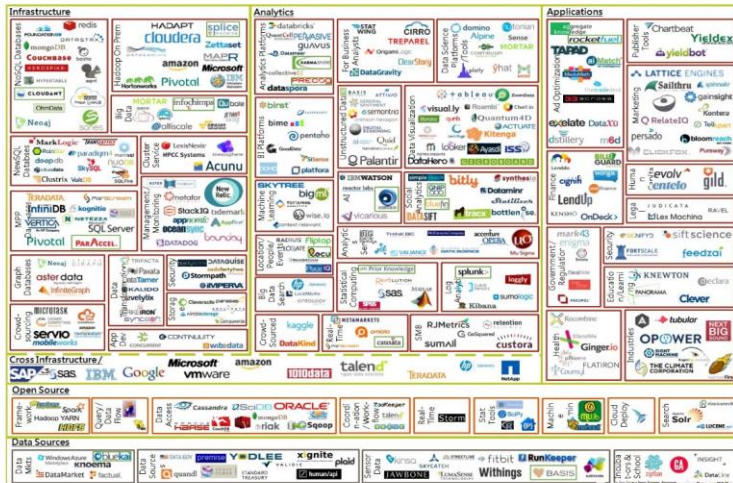


## Holy trinity of data in a S-DWH:

- Centralization
- Reproducibility
- Reusability

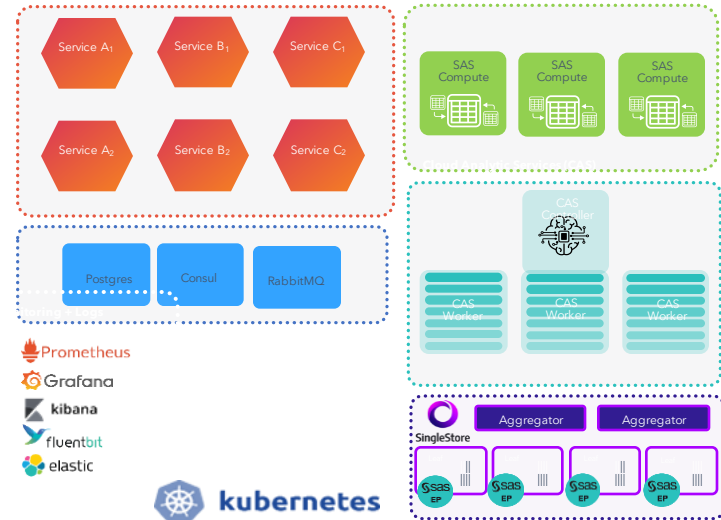
# Technology choices

BIG DATA LANDSCAPE, VERSION 3.0



© Matt Turk (@mattturck), Sutan Dong (@sutlandong) & FirstMark Capital (@firstmarkcap)

英特尔商用频道  
weibo.com/intelbiz



# The need – In search off

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- Software package



1 solution => simple learning curve



Standardisation of processes



Central (data) platform



Open-source Integration



Cloud - independent



local support

- Partners for a flexible collaboration



Technical expertise



Local presence => flexibility



Business knowledge



Understand local culture



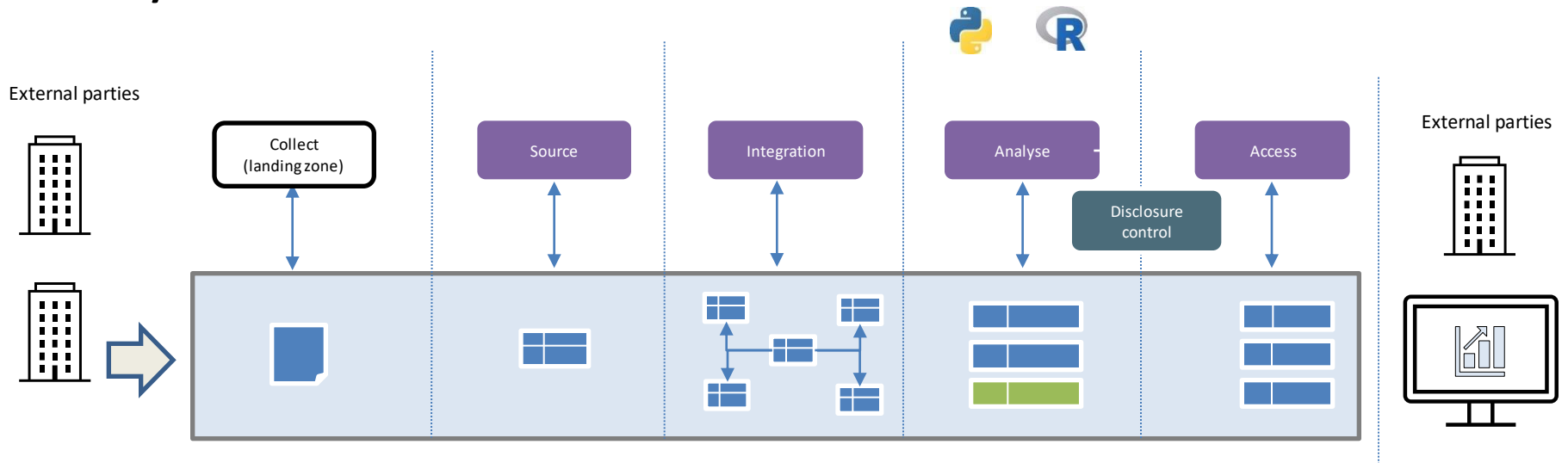
# Why SAS VIYA

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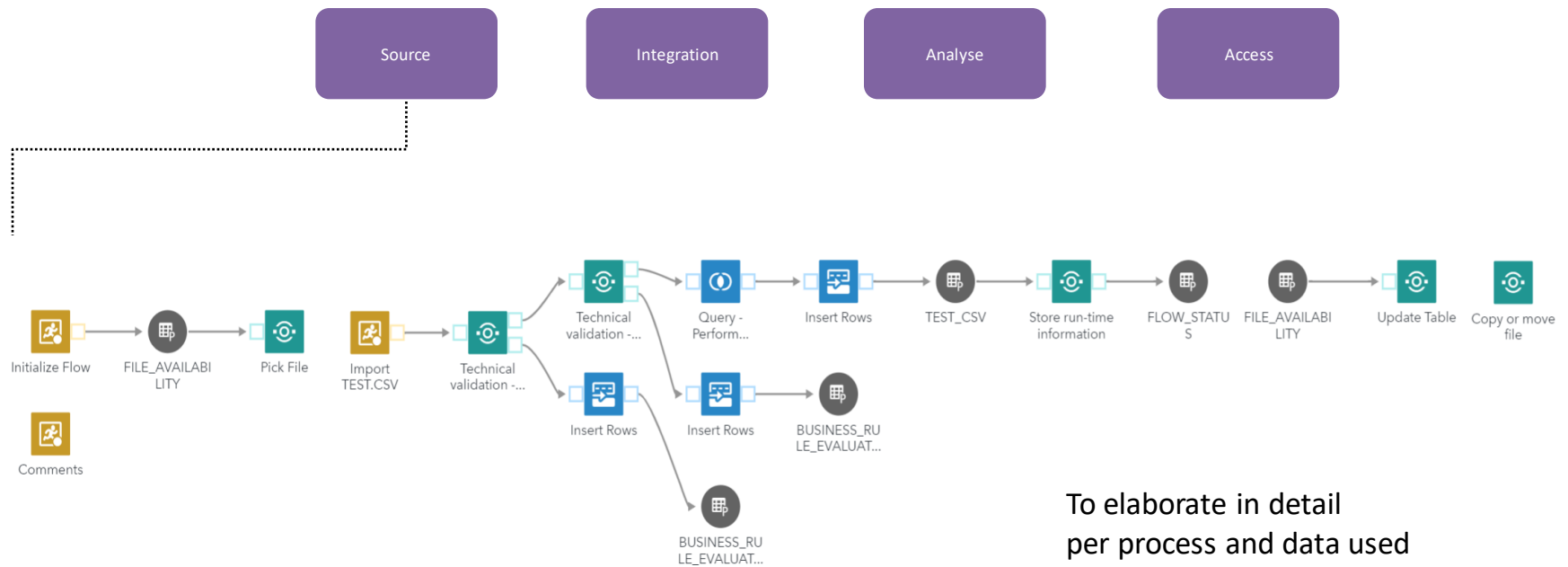
- Gives us the opportunity to standardize
  - Flows can be shared, build on templates
    - Different roles can work together
  - CAS (Cloud Analytic Services)
    - Calculation capacity and sharing data
  - Visual Analytics
    - Powerful reporting
- Enables us to replace several legacy softwares by 1 platform
  - Cognos, SPSS, Datastage, Qlickview =>SAS VIYA
- Allows us to work with partners that have excellent

# Functional architecture of our Statistical Datawarehouse

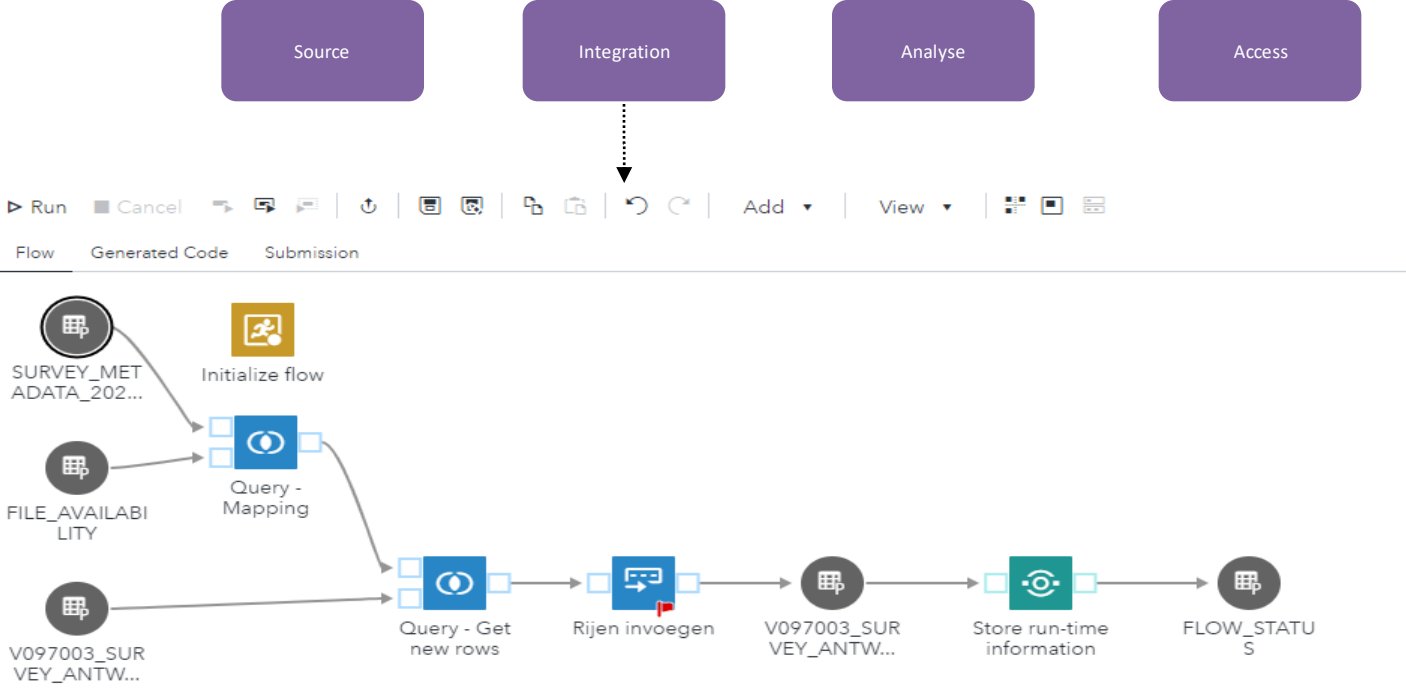
## 4 layer model of Eurostat



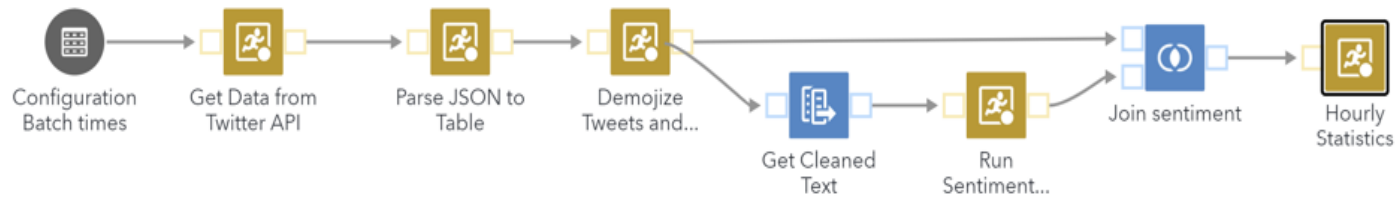
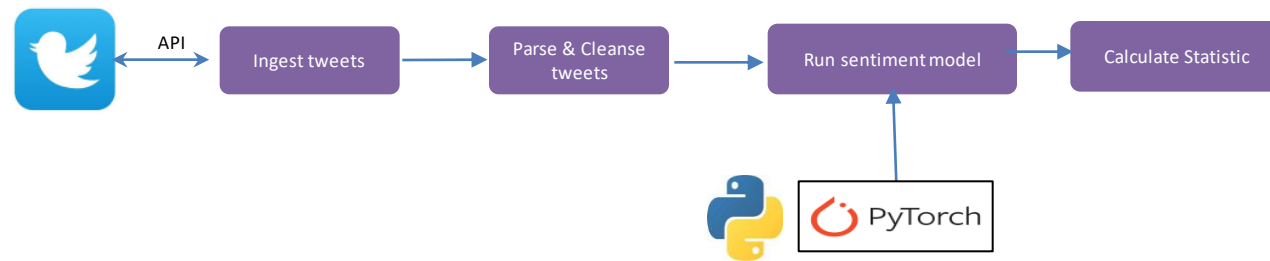
# “Basis ETL templates” for each layer: SAS Studio Flow



# “Basis ETL templates” for each layer: SAS Studio Flow



# “Twitter-Sentiment” : SAS Studio Pipelines



# Demo – proces flow in SAS Studio

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- This demo explains the generic approach build to handle survey data in the Statistical Datawarehouse, and executed by 3 different roles in the process
  - Data Engineers: Reception of the files & Quality check
  - Survey team: Correction steps
  - Analyst: Standard statistical analysys

[Demo handling incoming files & data preparation in SAS Studio](#)

[demo handling incoming files & data preparation in SAS VIYA](#)