



# Datapath Shape and functionality

Information creation



**GATELAB**

A EURONEXT COMPANY

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# Gatelab's Datapath for data management

Gatelab's Datapath is the simple answer to the complicated world of data management.

## Gatelab's Datapath solution:

- Scalable and flexible solution to collect, clean, organize and distribute data
- Easily deployed both on premises and on cloud
- Architecture based on microservices for modularity and easy scalability
- Extensibility of processing/visualization languages
- Platform synergies, quick integration with other systems
- Holistic view of the data lifecycle

## Datapath features:

- **Reduced Risk:** Elimination of Excel spreadsheets and the consequent development of dedicated applications will drastically reduce operational risk. Data access security and audit for user/group at different level of application
- **Data Sharing:** Sharing and rationalization of data on a common platform. Platform. Ability to access a variety of data sources (Oracle, Sybase, SQL Server, MongoDB, WebSphere MQ, etc.)
- **Smart View:** Provision of a user-friendly graphical interface. Data mining
- **Flexibility:** Dynamic publication. Dynamic layout. Data export in different formats (csv, excel, xml, mxml, etc.)

# Business Functionality



## Flexible data model

In conjunction with internal integrations, Datapath creates a dynamic framework that provides a solution capable of capturing, cleaning, storing, integrating, analyzing and distributing data for any financial asset class in various format.



## Easily configurable workflow engine

Internal programmer configurable to manage data flows and processing pipelines.



## Business integration

Proprietary and third-party libraries can easily be interfaced to adapt to the ever-changing regulatory contexts (I.e.: pricing of complex derivatives, risk management tools). This allows the connection between data and modeling to be managed in the best possible way, enabling to analyze a large amount of data using an easy interface with cast sheets to perform business analysis



## Configurable rule engine

The predefined set of data validation and cleanup rules can be extended by the customer



## Multi-language SDKs

Easy exposure of the data to internal bank systems through specialized clients for each programming language and also excel.



## Customized data view

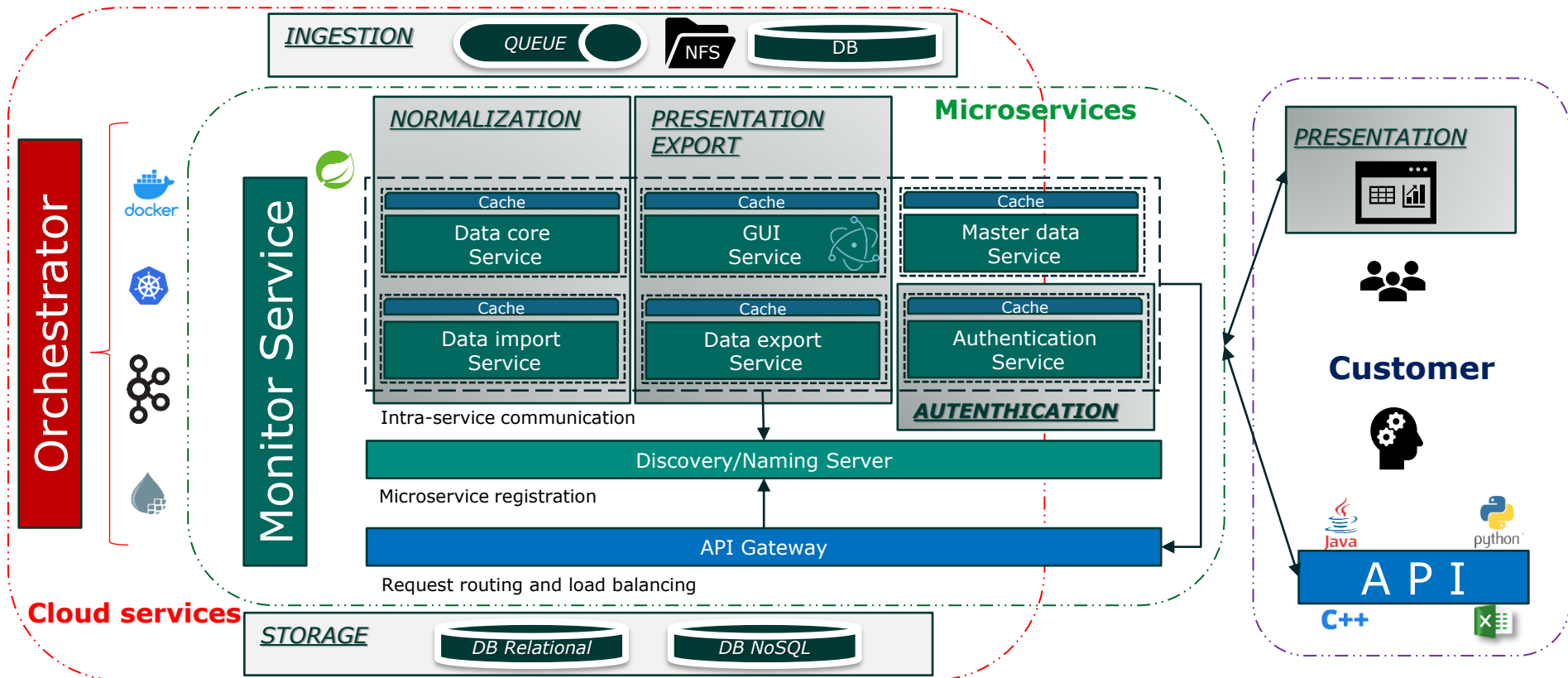
In addition to the standard table view, it is possible to create views tailored to the needs of the business with the integration of filters and dynamic graphics.

# Technical Functionality

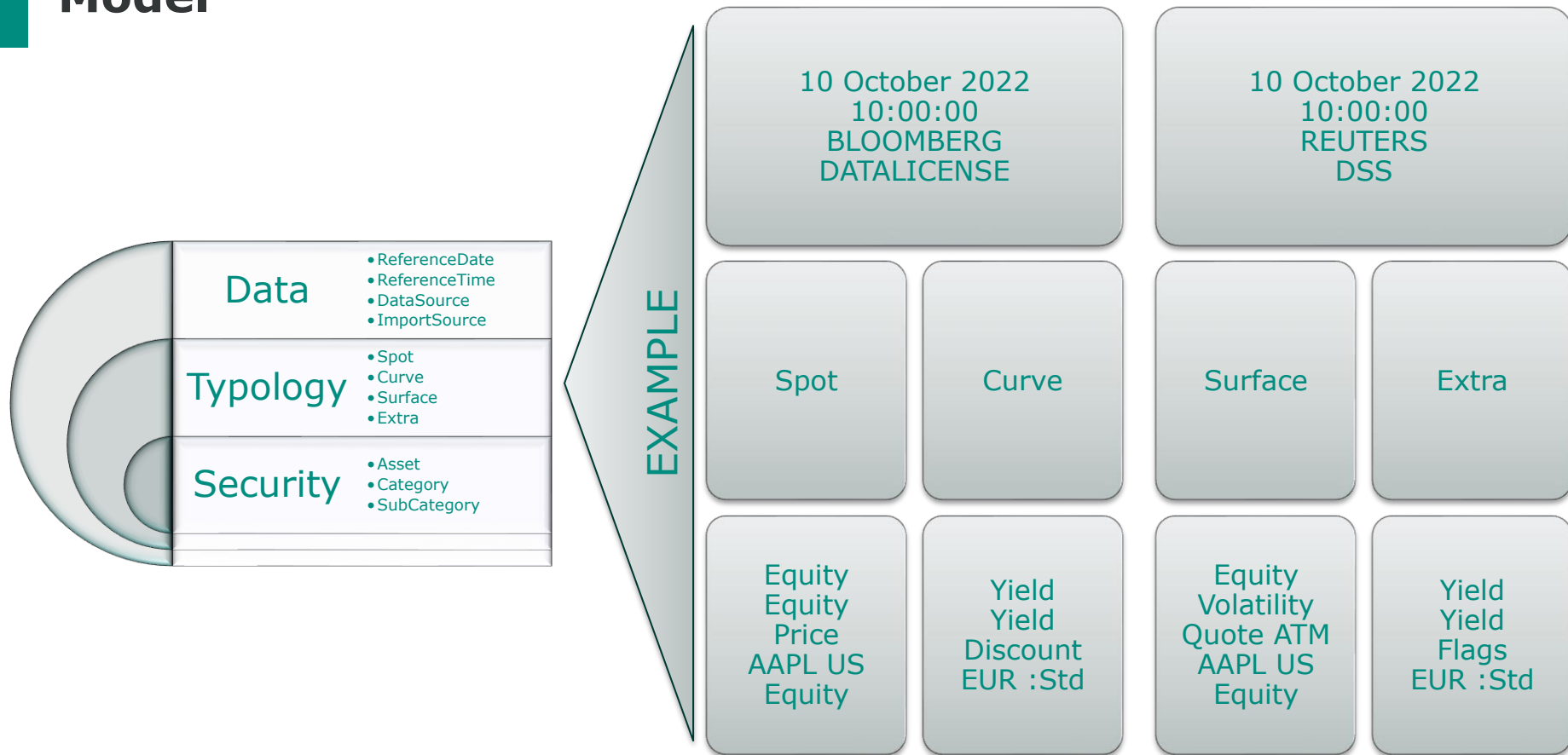
1. Architecture based on microservices for modularity and easy scalability
2. Flexible model to support point/vector/matrix/cube data
3. Reliability, segregation and configurable data caching
4. Security for user/group at different level of application, from global to market data category level
5. Faster data processing by leveraging enhanced multi-threading capabilities
6. Data export in different formats (csv, excel, xml, mxml, etc.)
7. Standardization of data import in csv format with configurable data mapping
8. Easy administration from graphical interface that allows data visualization / configuration and process management
9. Language extension by API including C++, Java, Python, Excel
10. Supply of monitoring and statistics tools

# Architecture

On-premise solution includes only the microservices container

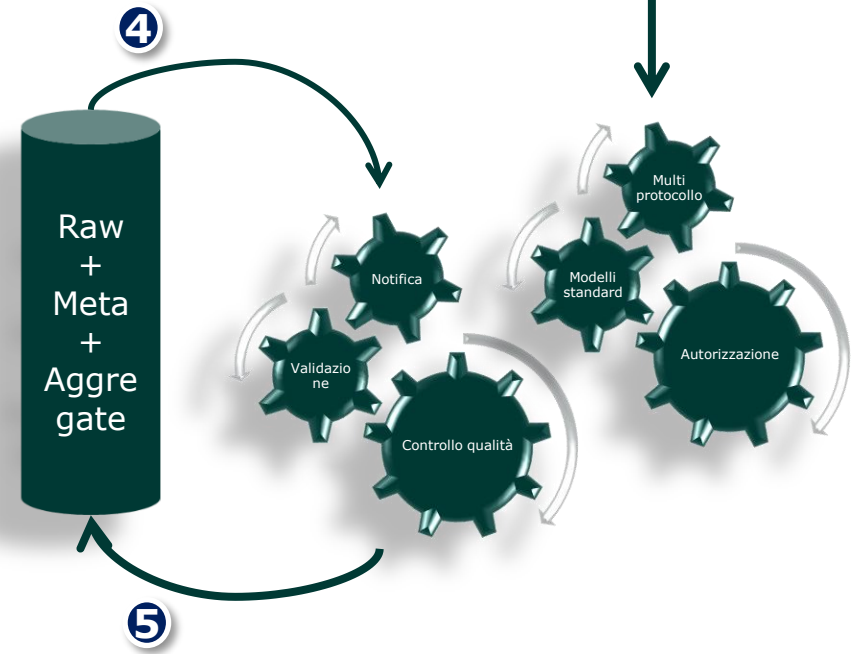


# Model



# Workflow

- 1 Interface gateway with info provider
- 2 Sending notifications in GUI and via email
- 3 Raw data saving on db
- 4 Checks on the data and sending notifications for anomalies
- 5 Data aggregation in curves, surfaces and cubes
- 6 Multi-protocol / format sharing after authorization check



## Use case

### Data Visualization

- Easy graph/table data interconnection with cross customizable filters
- Shared, persisted and audited data view

### Analytical integration

- Easily integration of financial library in common framework
- Simulation scenarios

### Market Data Management

- Data consumption in multi device and multiple format and protocol
- Update and extend software standards across the bank for cost saving
- Data mining, security and segregation



# Visualization

Zoom in/out, export and view configuration

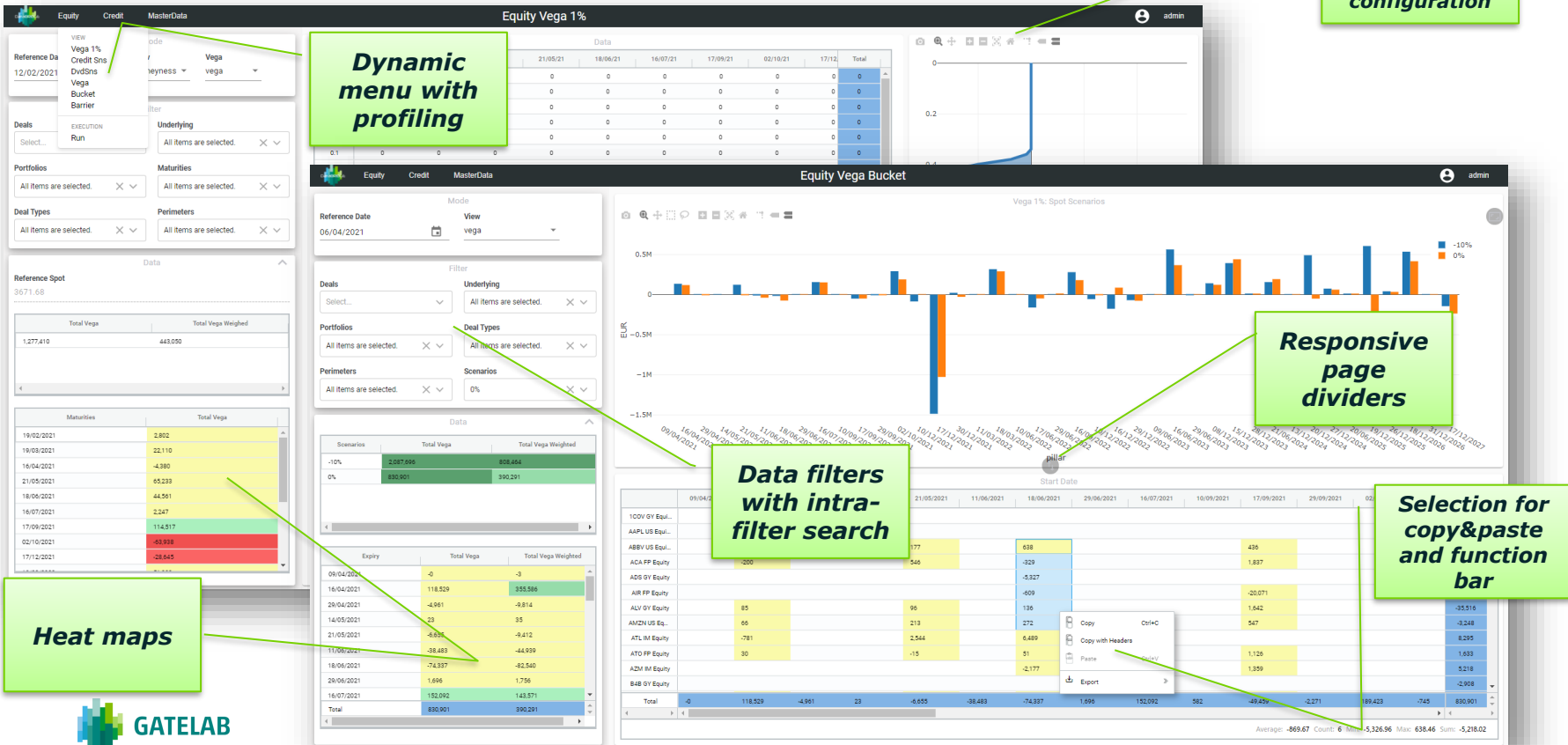
Dynamic menu with profiling

Responsive page dividers

Data filters with intra-filter search

Selection for copy&paste and function bar

Heat maps





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