



ANSELM:

an open-source framework for
data analytics and
data visualization.

Giuseppe Marziano
Data Scientist and Developer



#OSW2021



RETE ITALIANA
OPEN SOURCE

ANSELM:

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supersEt
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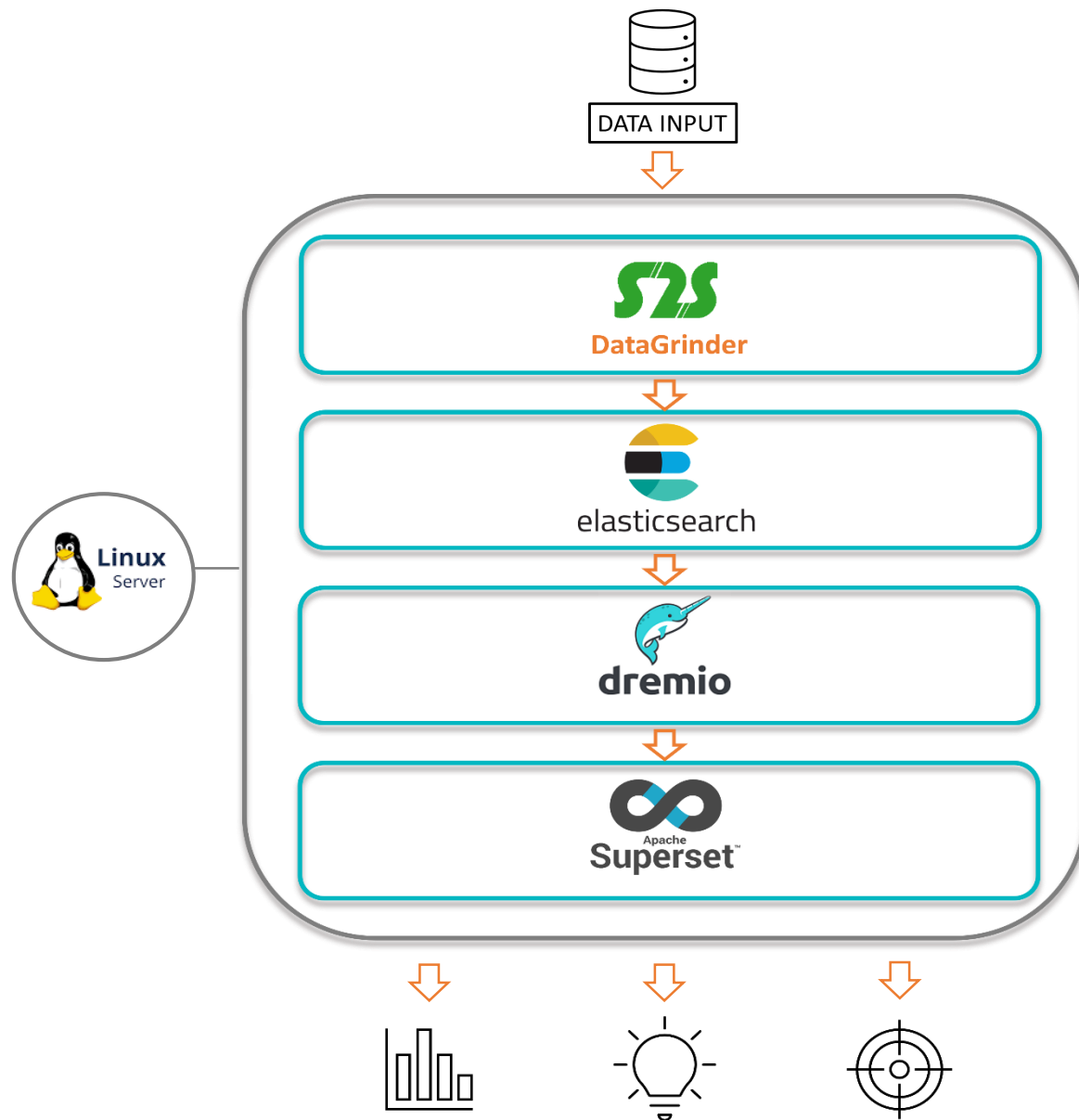
an open-source framework for
data analytics and
data visualization.

Ingegnerizzato e sviluppato da:
Beatrice Di Pietro
Giuseppe Marziano
Claudia Pozzobon

AGENDA

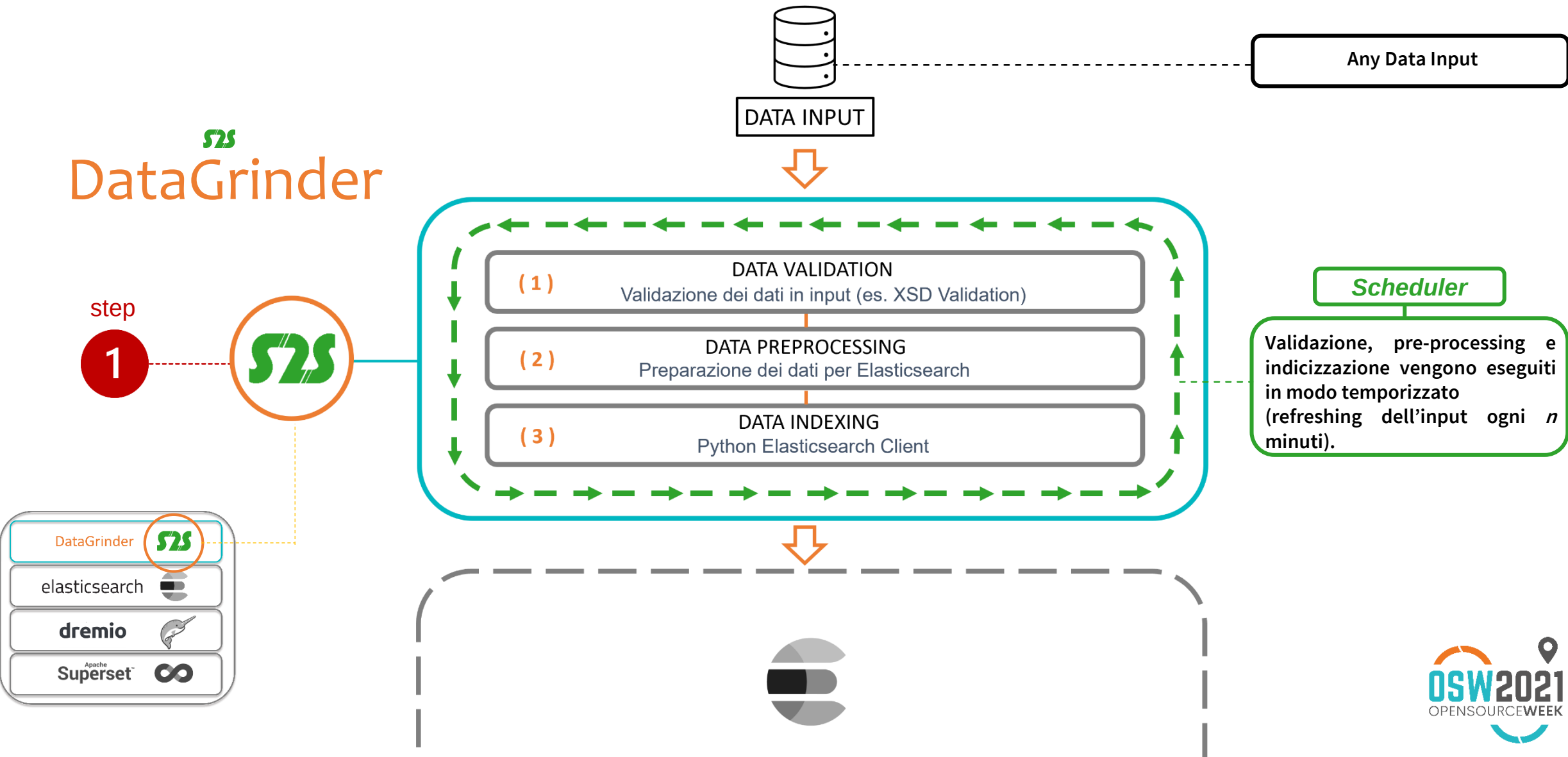
- ANSELM - Introduzione
- ANSELM - Workflow
- SUPERSET - Data Visualization
- Sviluppi In Corso
- Conclusioni

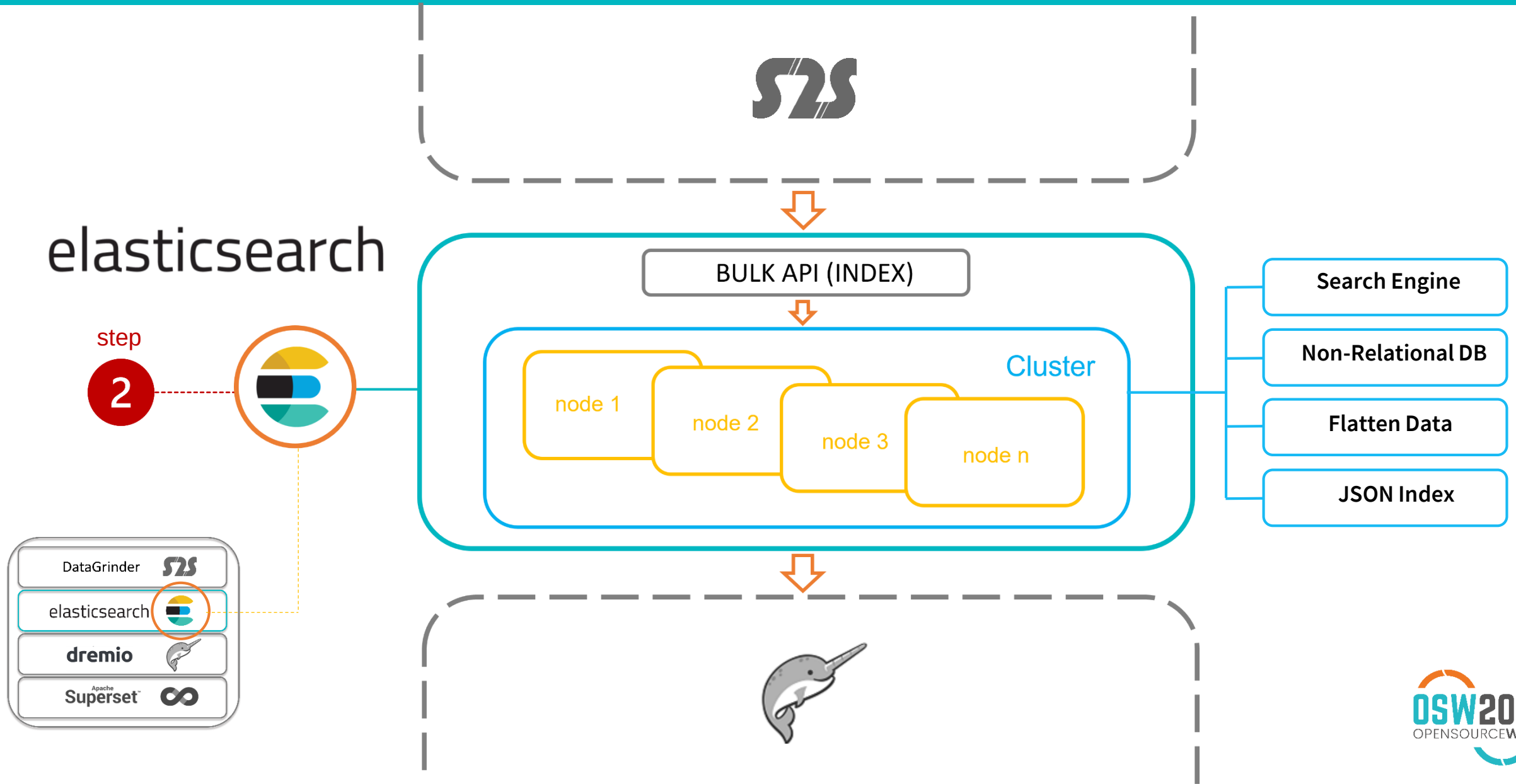
ANSELM - Introduzione



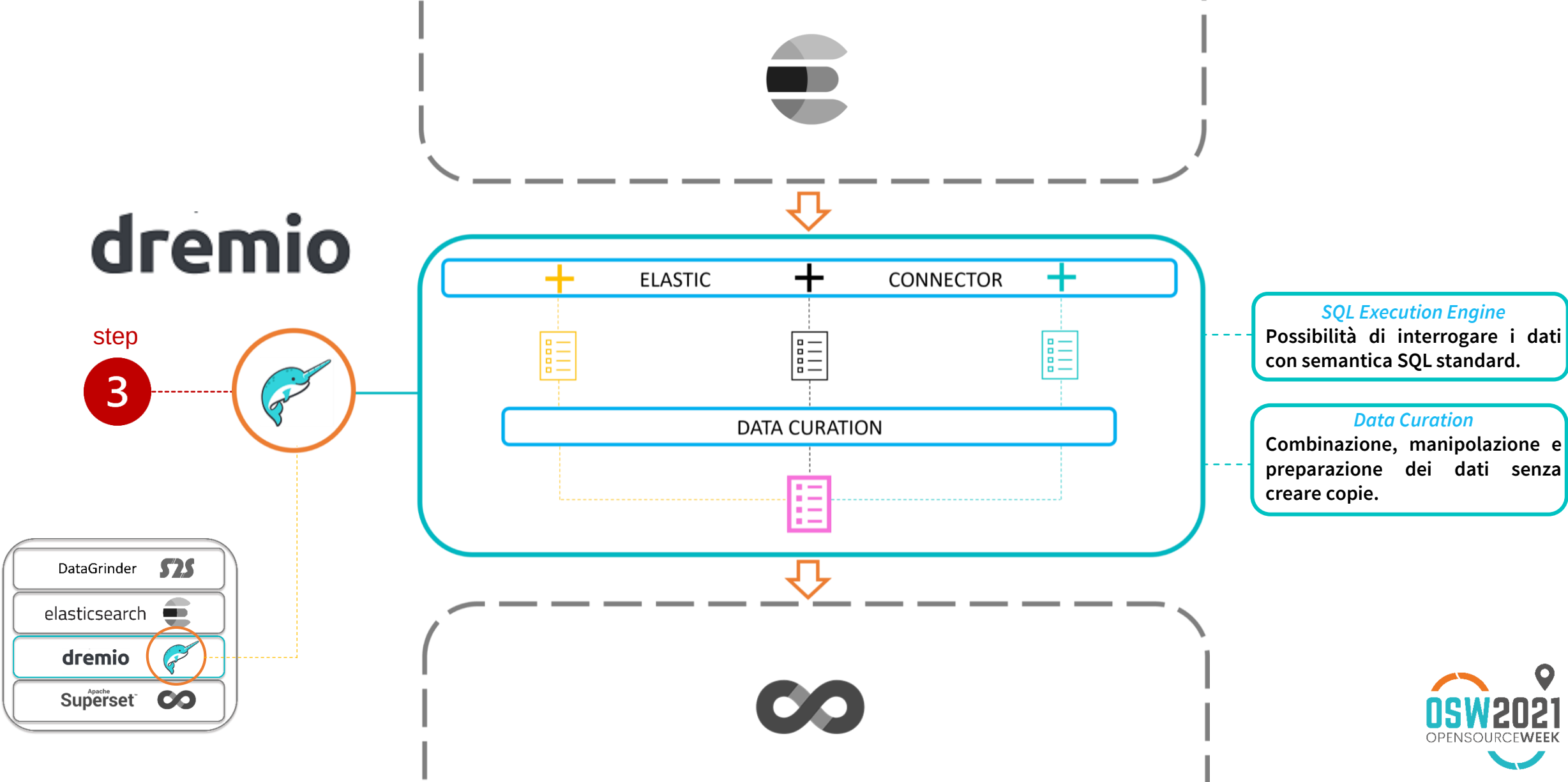
ANSELM

- Gestione Input
- Indicizzazione
- Preparazione dei dati
- Esecuzione delle query
- Analisi descrittiva
- Analisi statistica
- Metriche e benchmarking delle prestazioni
- Visualizzazione dei dati
- Analisi visiva
- Elaborazione di report

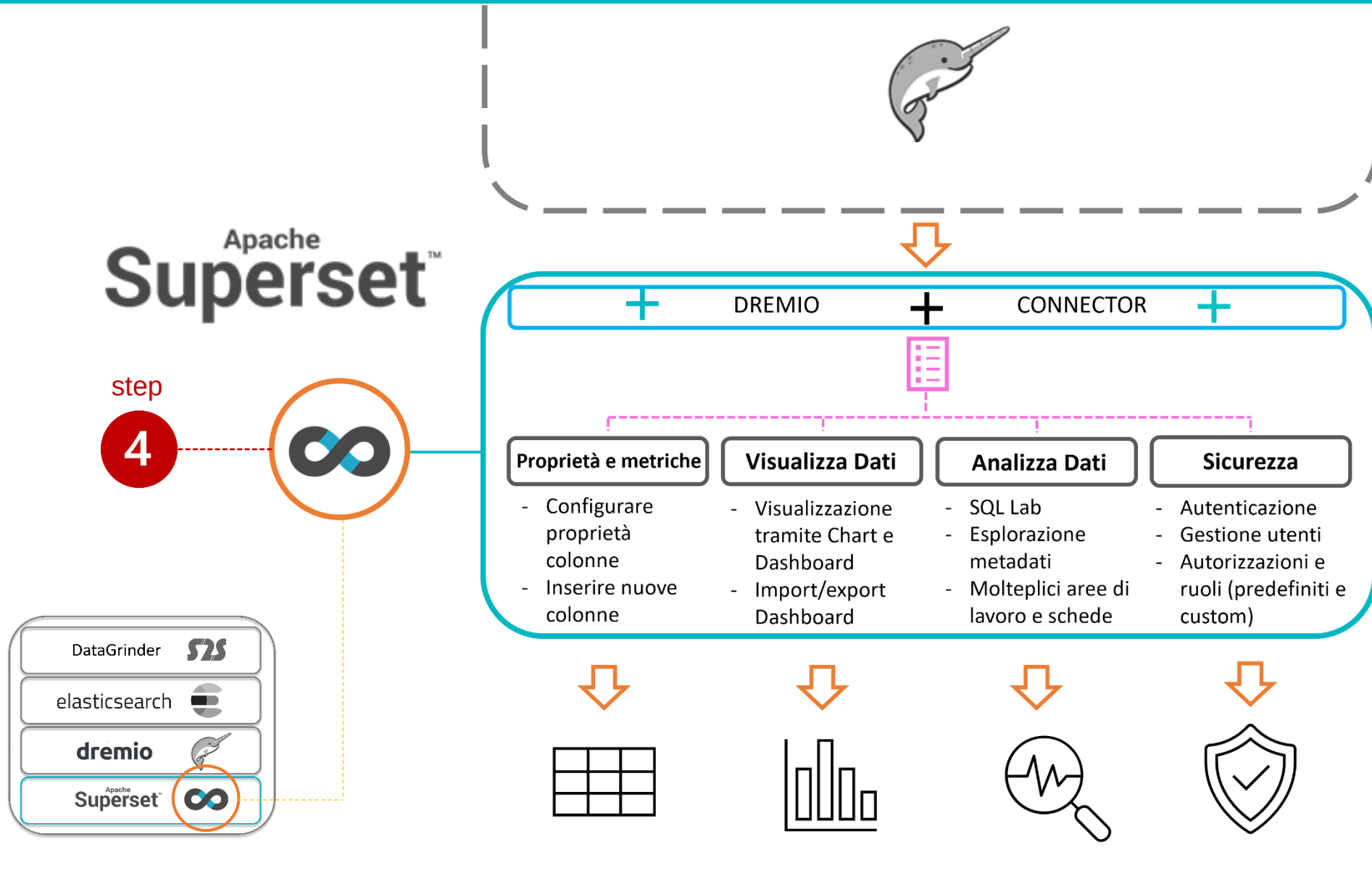




ANSELM – Workflow: Data Curation



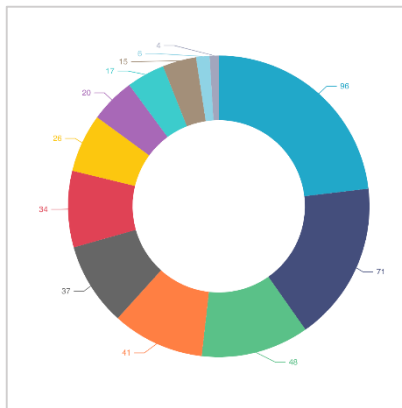
ANSELM – Workflow: Visualization and Analytics



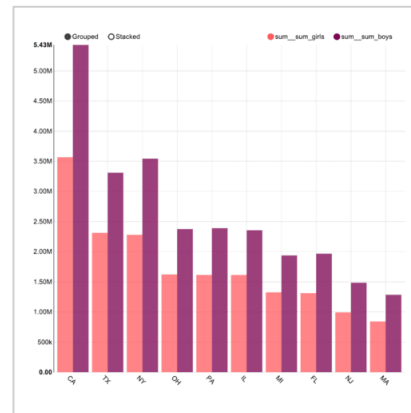
- Analisi dei dati
- Visualizzazioni dei dati
- Grafici
- Report

- Superset permette di esplorare i dati mediante diverse tipologie chart

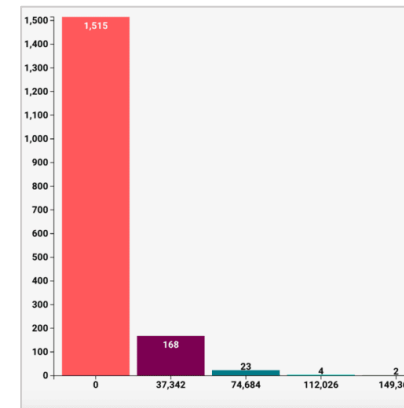
Pie Chart



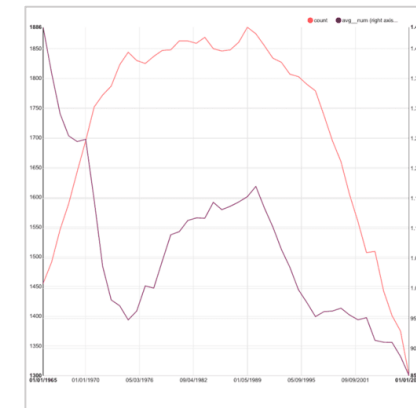
Bar Chart



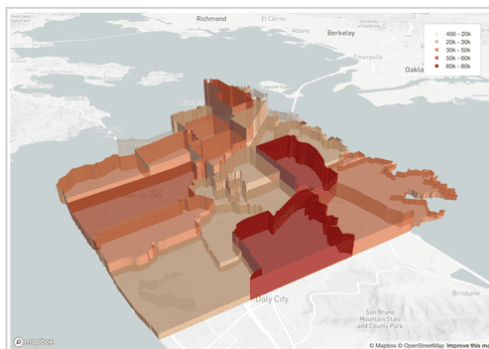
Histogram



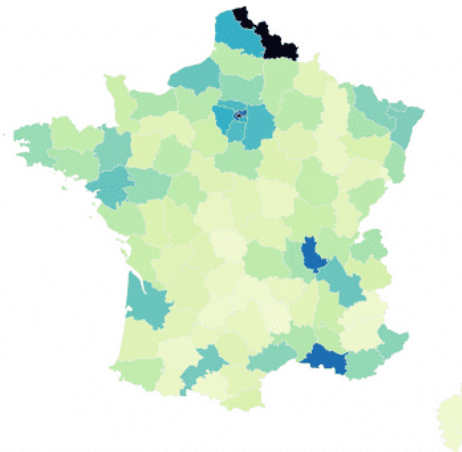
Line Chart



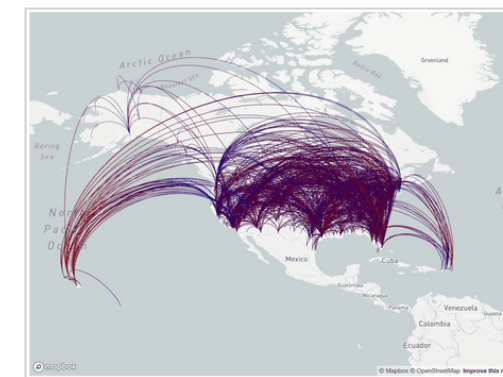
Geospatial Polygon



Country Map



Geospatial Arc



SUPERSET – Manipulation and Export

The screenshot shows the Superset SQL Lab interface. At the top, there is a query editor with a SQL query: `SELECT "Sales", "OrderDate", "Status", "Quarter", "Month", "Year", "ProductLine", "MSRP" FROM public.cleaned_sales_data WHERE "OrderDate" > "2020-01-01" AND "OrderDate" < "2021-01-01" LIMIT 5000`. Below the editor, there are buttons for 'RUN', 'LIMIT: 1000', and a timer '00:00:00.22'. To the right of the editor are buttons for 'SAVE AS' and 'COPY LINK'. Below the editor, there is a table with columns: state, started, duration, progress, rows, sql, output, and actions. The table contains two rows of query results.

state	started	duration	progress	rows	sql	output	actions
success	21:21:12	00:00:00.26		100	<code>SELECT "OrderNumber", "QuantityOrdered", "PriceEach", "OrderLineNumber", "Sales", { ... }</code>	public	edit copy share
success	19:06:28	00:00:00.08		0	<code>SELECT "Date", "Total membership" - la FROM public.superset_stats_jan_21 ORDER BY "Date" DESC</code>	public.daily_new_members	edit copy share



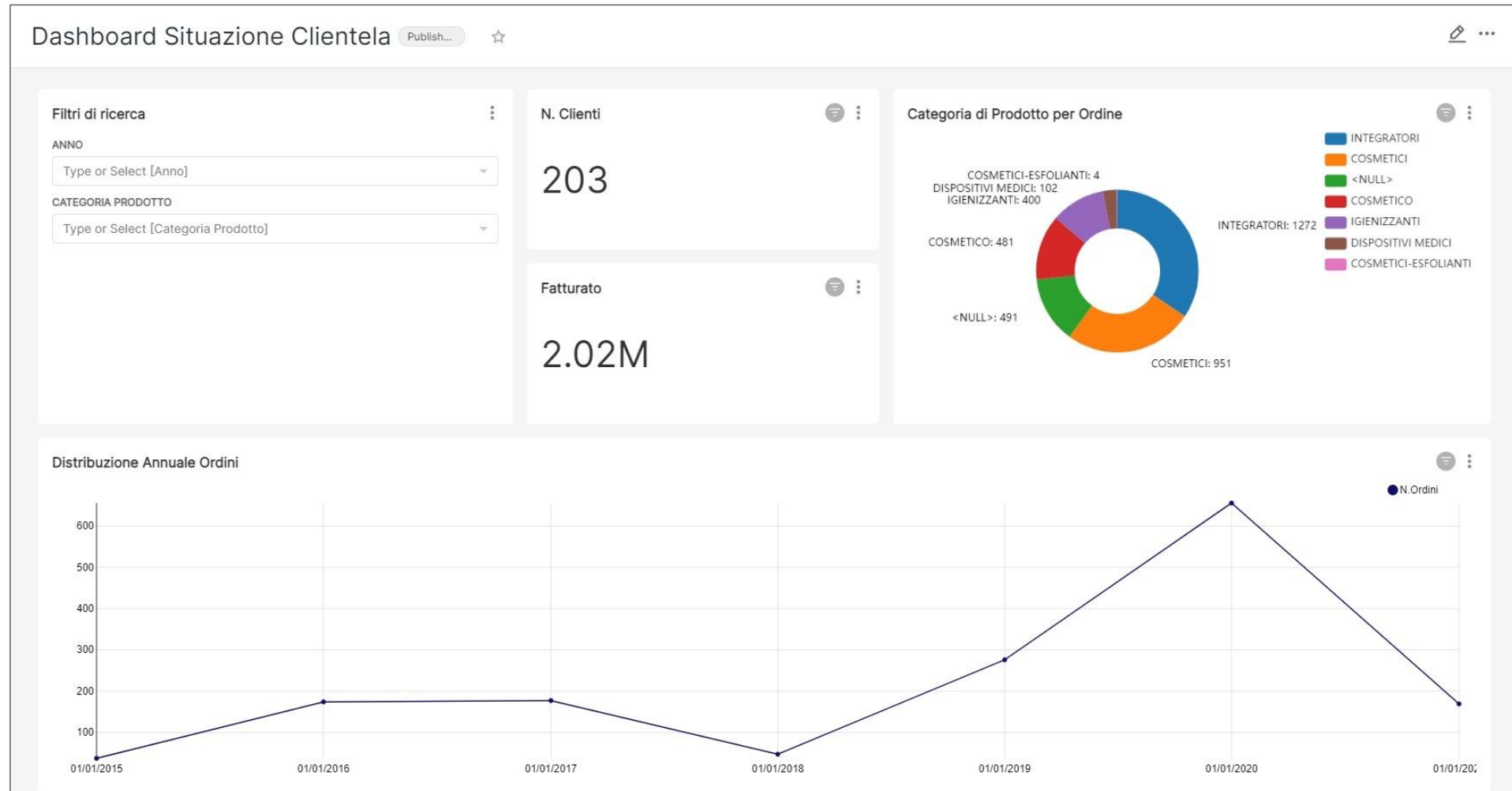
SQL Lab : Editor che consente di scrivere query e visualizzare i metadati:

- Molteplici schede come area di lavoro
- Possibilità di creare tabelle e viste sul db

Superset consente di esportare i Chart Data in diversi formati:

- Default: **JSON, CSV**
- S2S Export: **XML, XLSX**

SUPERSET - Caso d'uso reale: Dati ERP



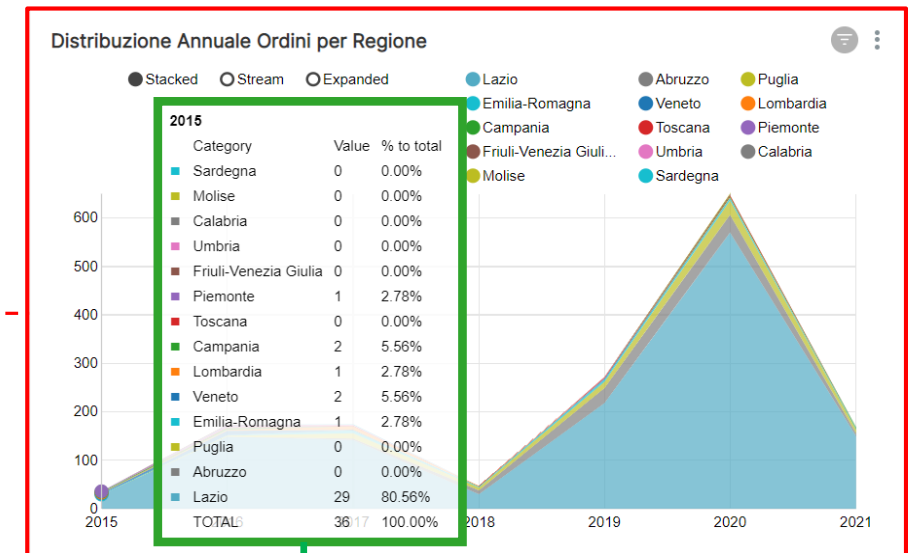
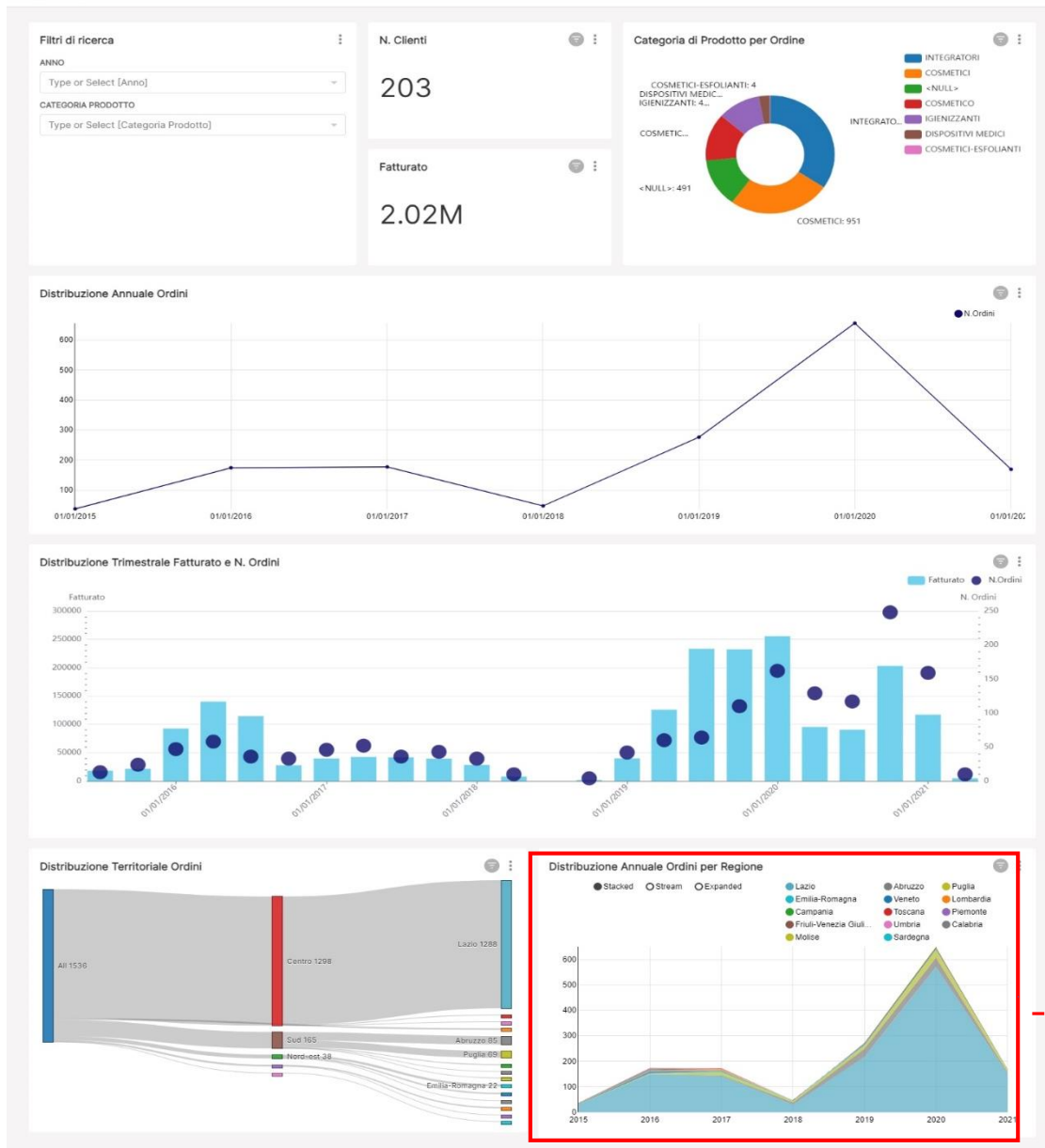
SUPERSET - Un esempio di Dashboard



Sankey
Diagram

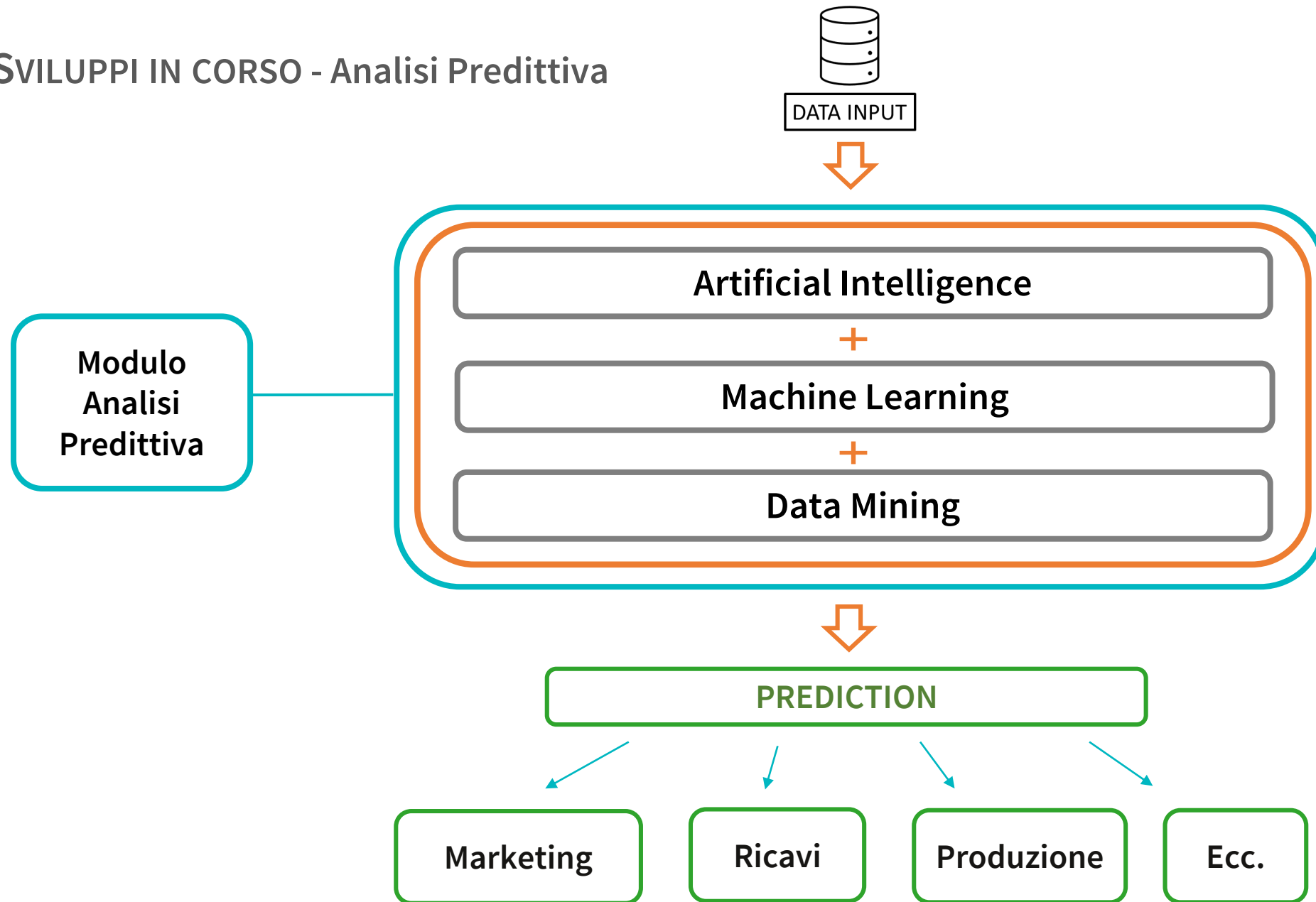
Area
Chart

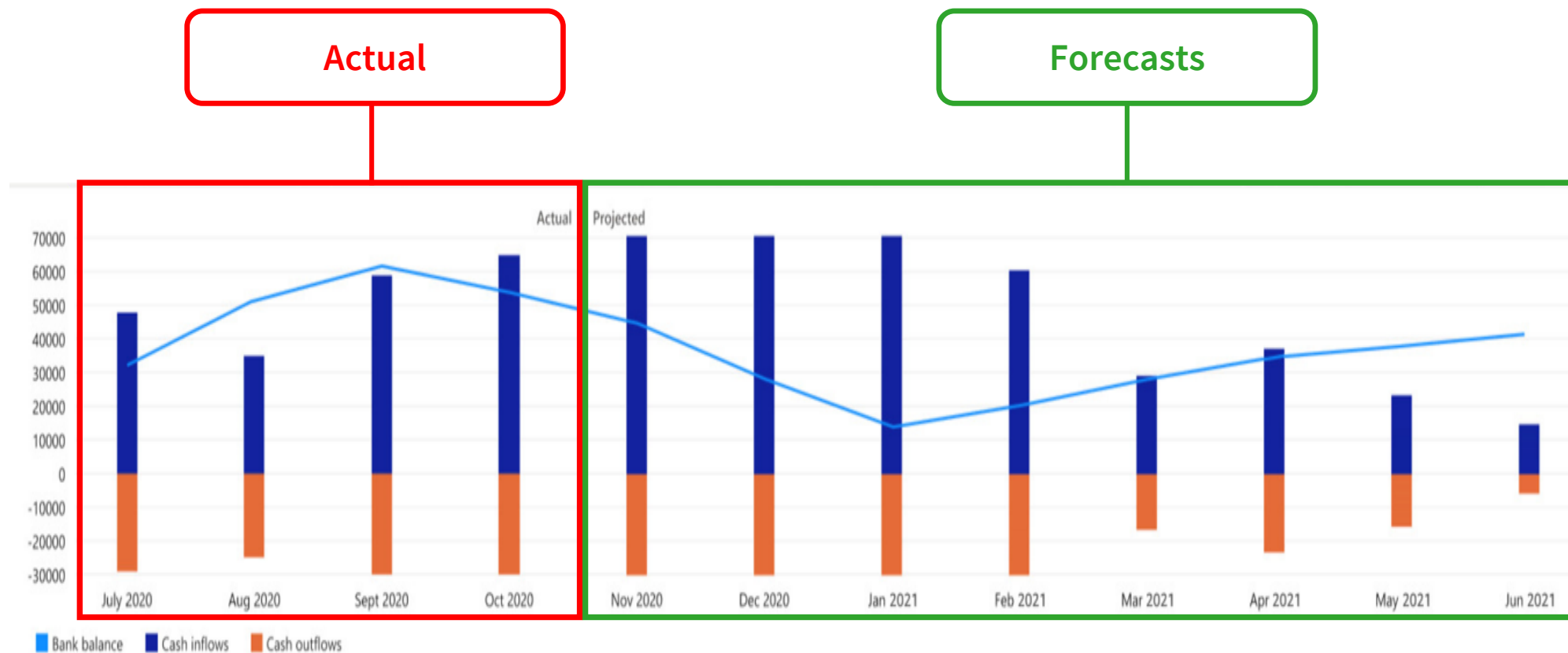
- Superset permette visualizzare i dati attraverso Dashboard interattive



Visualizzazione interattiva (Drill-Down)

SVILUPPI IN CORSO - Analisi Predittiva





ANSELM:

an open-source framework for
data analytics and
data visualization.

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Value Proposition:

- Any Data Input
- Analisi dei Dati Actual
- Data Visualization Self-Service
- Data Outlook
- Stack Open-Source

Grazie per l'attenzione!



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