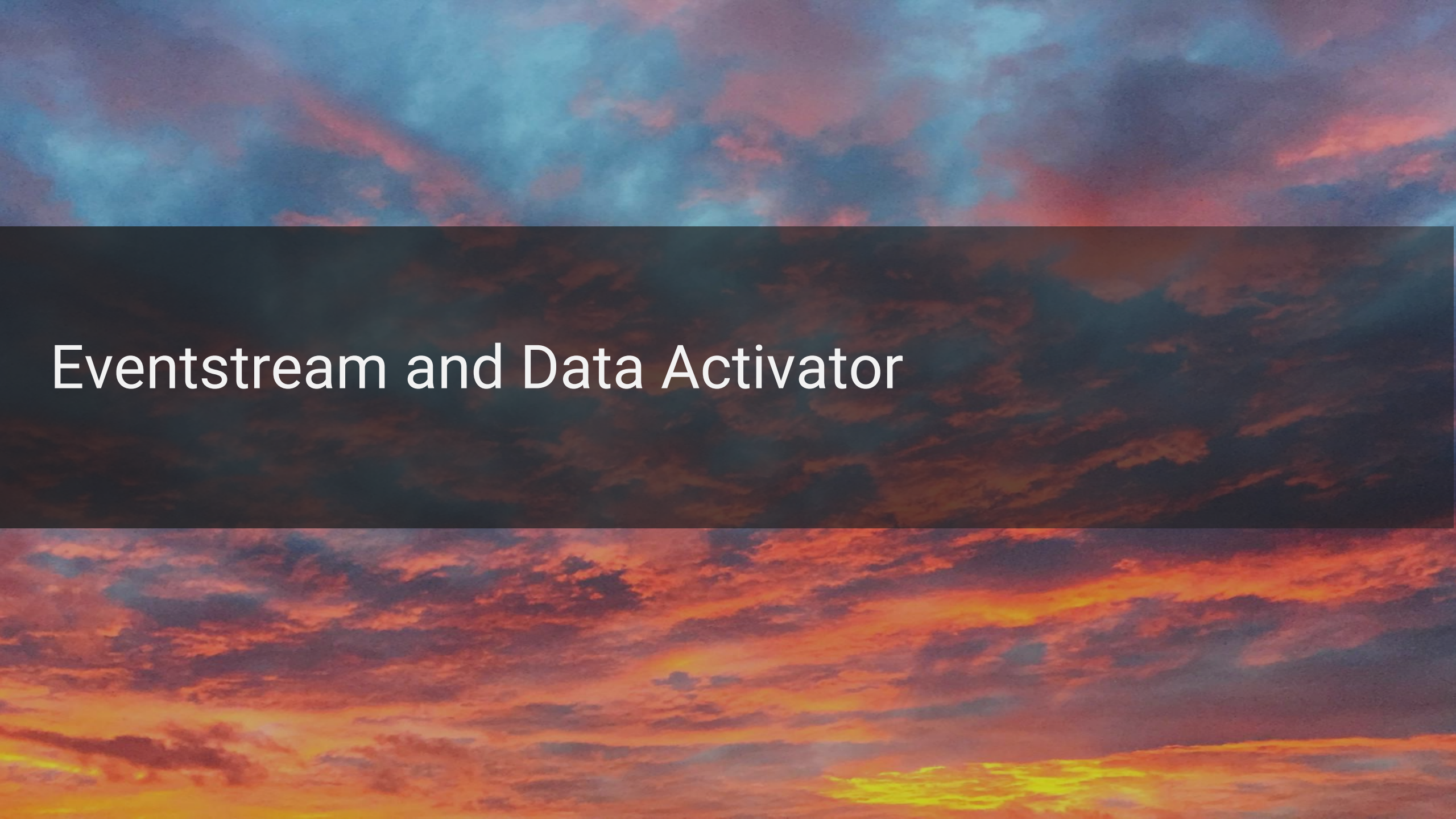

Eventstream and Data Activator

Brian Bønk Rueløkke

Principal & Enterprise architect, Data & AI

Fellowmind

https://linkedin.com/in/brianbonk
https://dcode.bi
https://github.com/brianbonk

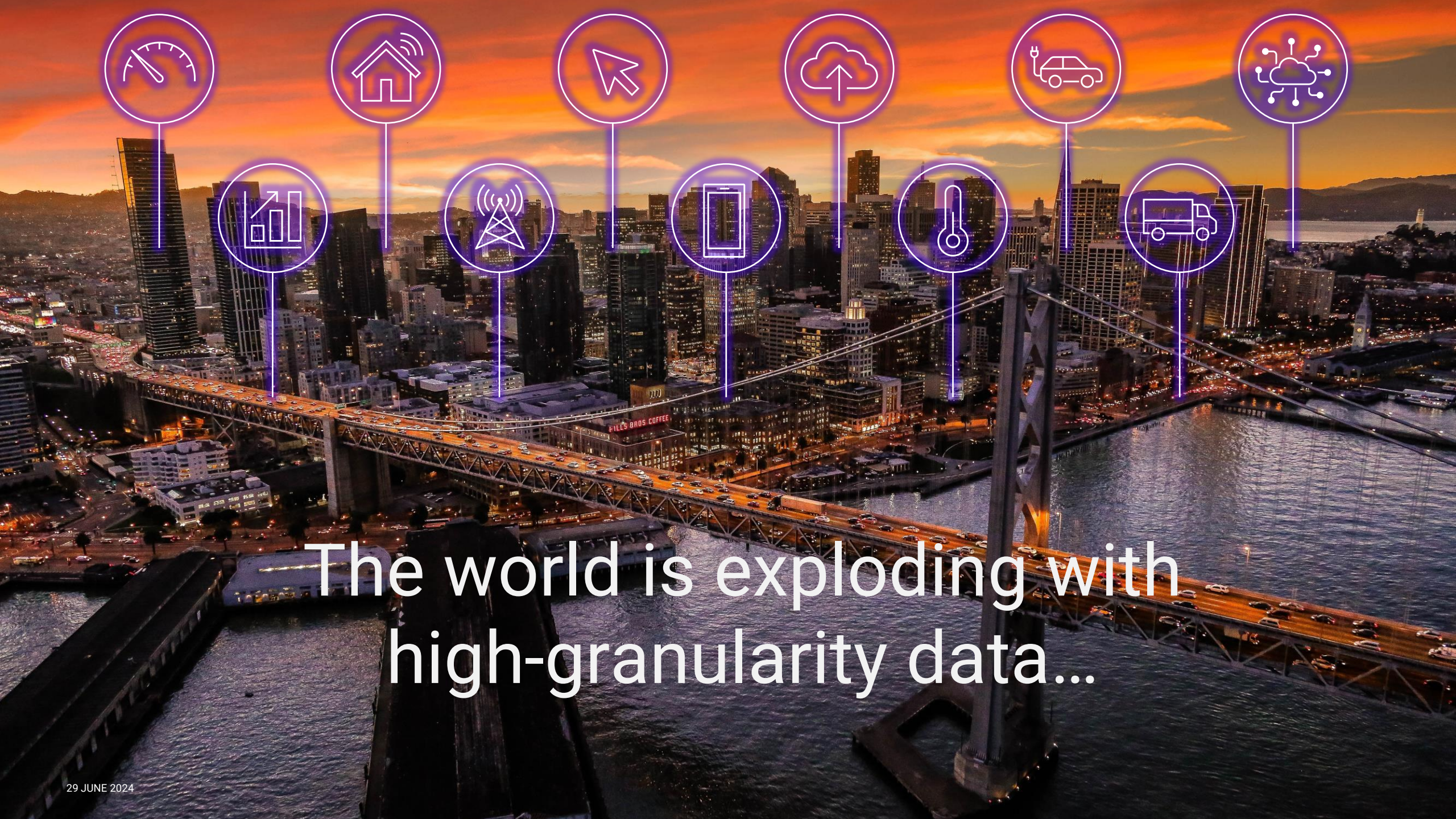
MVP Microsoft Most Valuable Professional

Microsoft
FastTrack Recognized
Solution Architect
Power BI
2022 >>

Microsoft
Certified Trainer
Data Platform
2018 >>

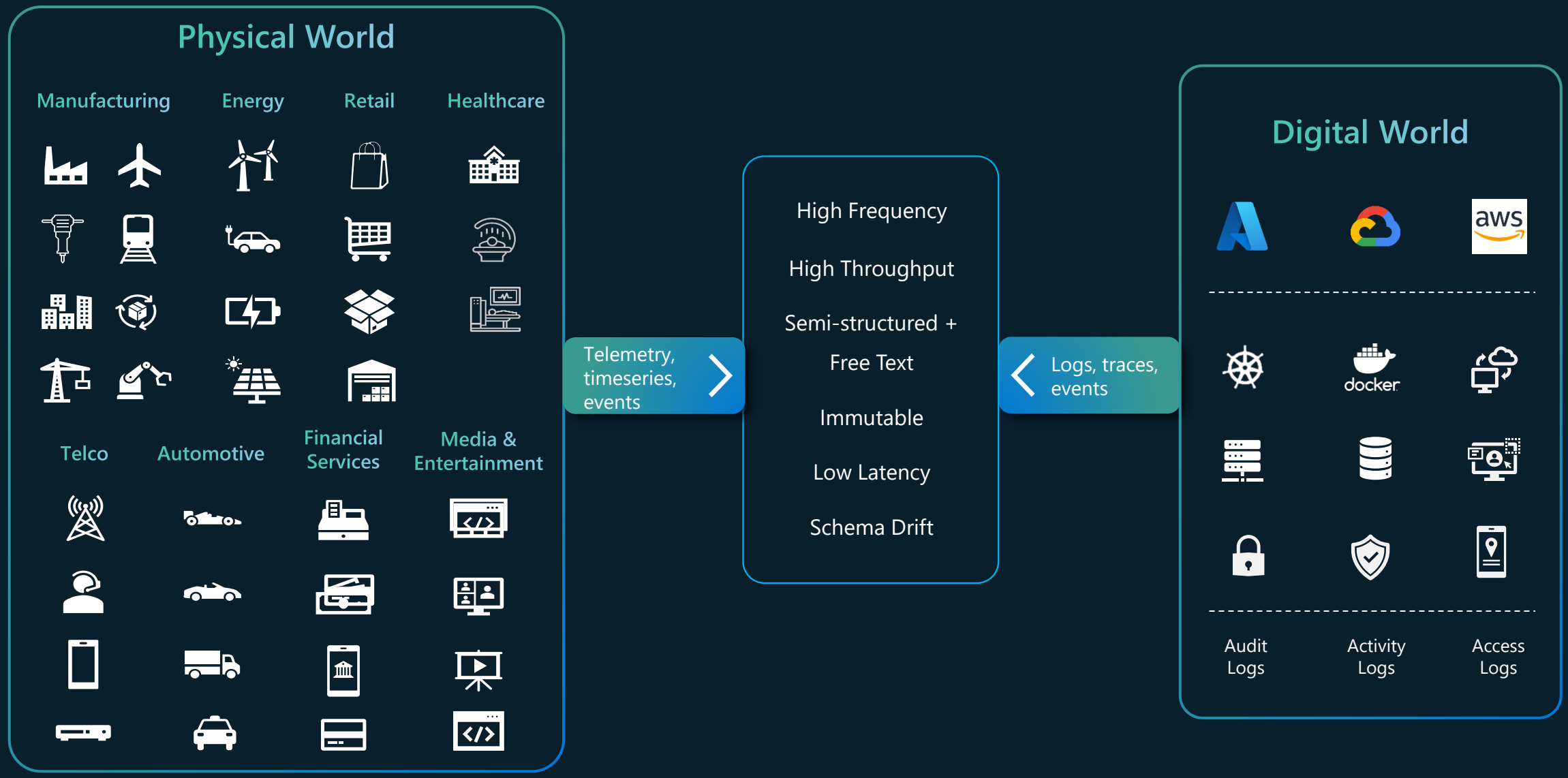
REAL-TIME INTELLIGENCE IN FABRIC

REAL-TIME INTELLIGENCE IN FABRIC



The world is exploding with high-granularity data...

Time based data: difficult to manage, yet critical for success



Microsoft Fabric

Microsoft Azure

Enterprise real-time data platforms

Azure Event Hubs

Azure Event Grid

Azure Stream Analytics

Azure Data Explorer

+

Self-service reporting and activation

OneLake

Data Activator

Power BI

=

Real-Time Intelligence in Microsoft Fabric

Fully integrated, no/low-code real-time SaaS data platform

Microsoft Fabric

Get data

Data Factory

Prepare data

Synapse Data Engineering

Synapse Data Warehouse

Synapse Data Science

Synapse Real-Time Analytics

Use data

Data Activator

Power BI

Store data

OneLake

Microsoft Fabric

Get data

Prepare data

Use data

Data Factory

Synapse Data Engineering

Synapse Data Warehouse

Synapse Data Science

Real-Time Intelligence

Power BI

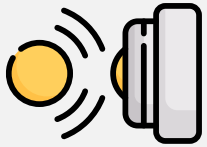
Handle streams

Real-Time Hub

Store data

OneLake

Microsoft Fabric

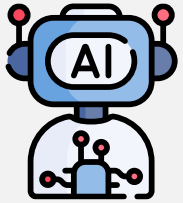


Event ingestion

Real-Time analytics

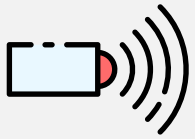
Real-Time dashboards

Real-Time triggers



Real-Time AI

Real-Time applications



Event driven actions

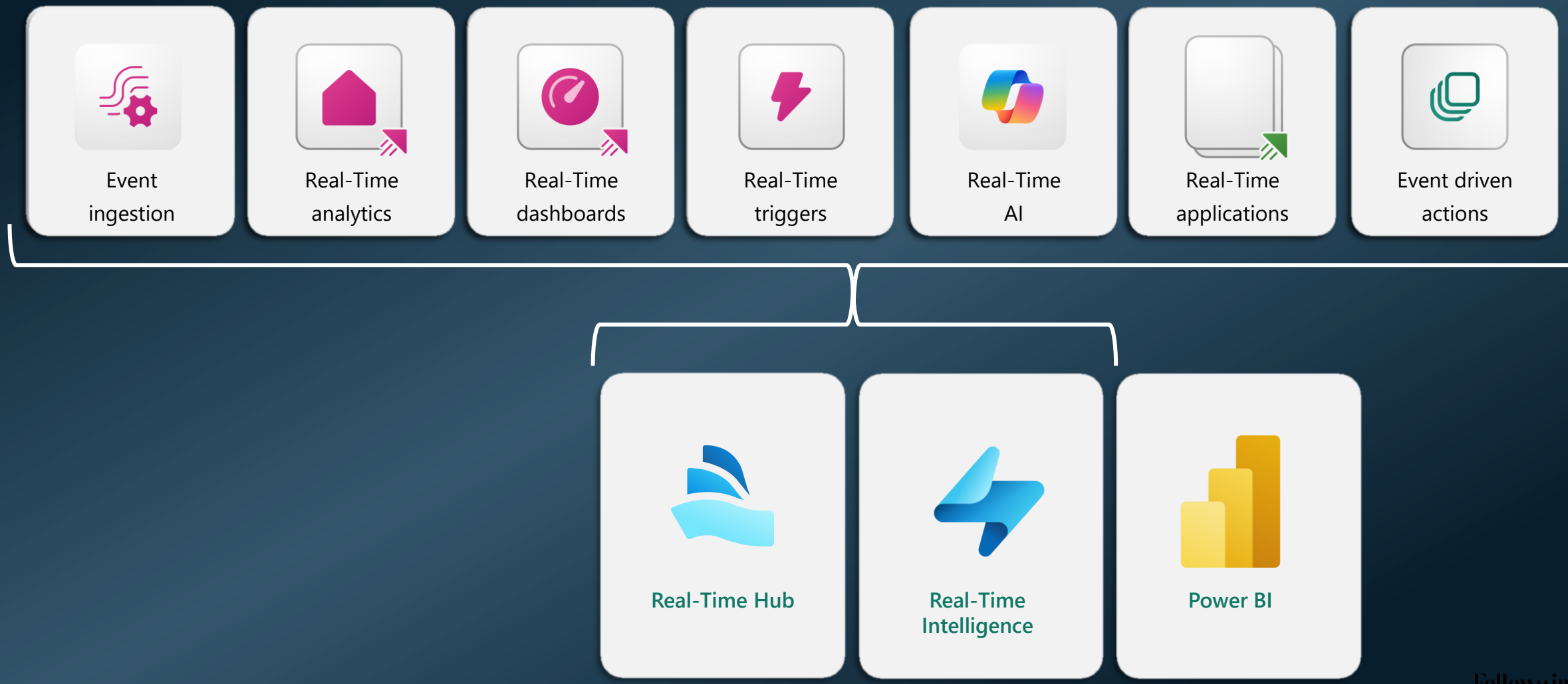
Real-Time Hub

Real-Time Intelligence

Power BI

Fellowwind

Microsoft Fabric



Fellowwind

DEMONSTRATION

EVENTSTREAM DEMO

Live coding
(hopefully no demo-ghost 👻)

REFLEX DEMO

Live coding
(hopefully no demo-ghost 👻)

PERSPECTIVE & PATTERNS

Perspective and patterns

Ingest & process

1. Over 1M/1 HR IIoT events, 30k tags, from 40 factories are streamed in real time with sub-second latency
2. Contextualization data (OPC asset metadata, shift details, weather, component cost, etc.) mirrored into Fabric OneLake

Analyze & transform

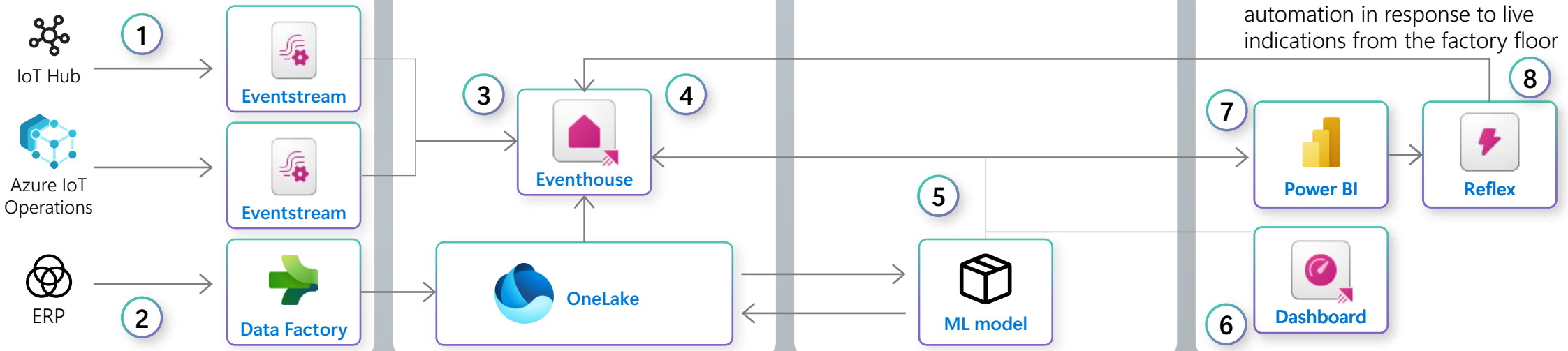
3. IIoT events are enriched in-motion with the Contextualization data and asset hierarchy from OneLake, providing clean and meaningful views
4. Enriched data is aggregated on the fly for long-term view

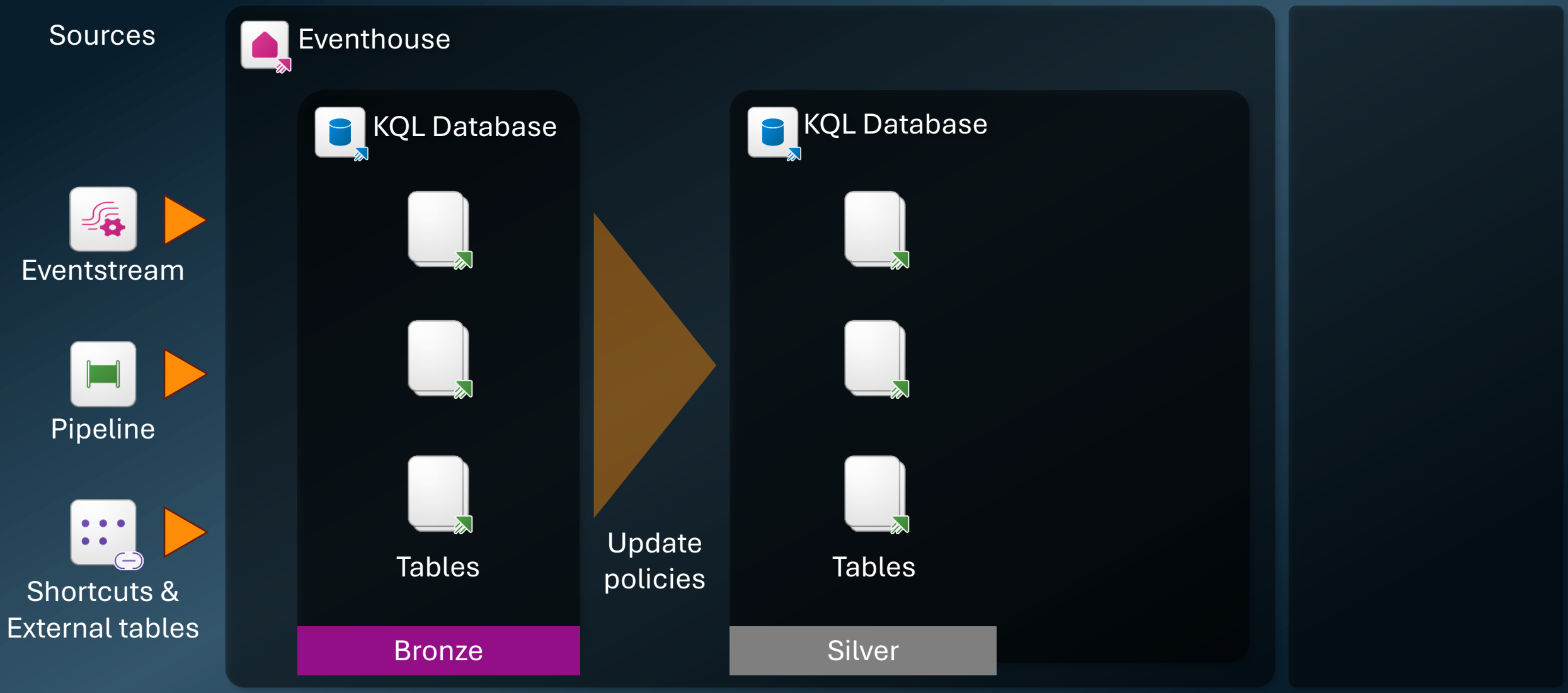
Train

5. Build, train, and score ML models in real time, persisting the scored data in OneLake

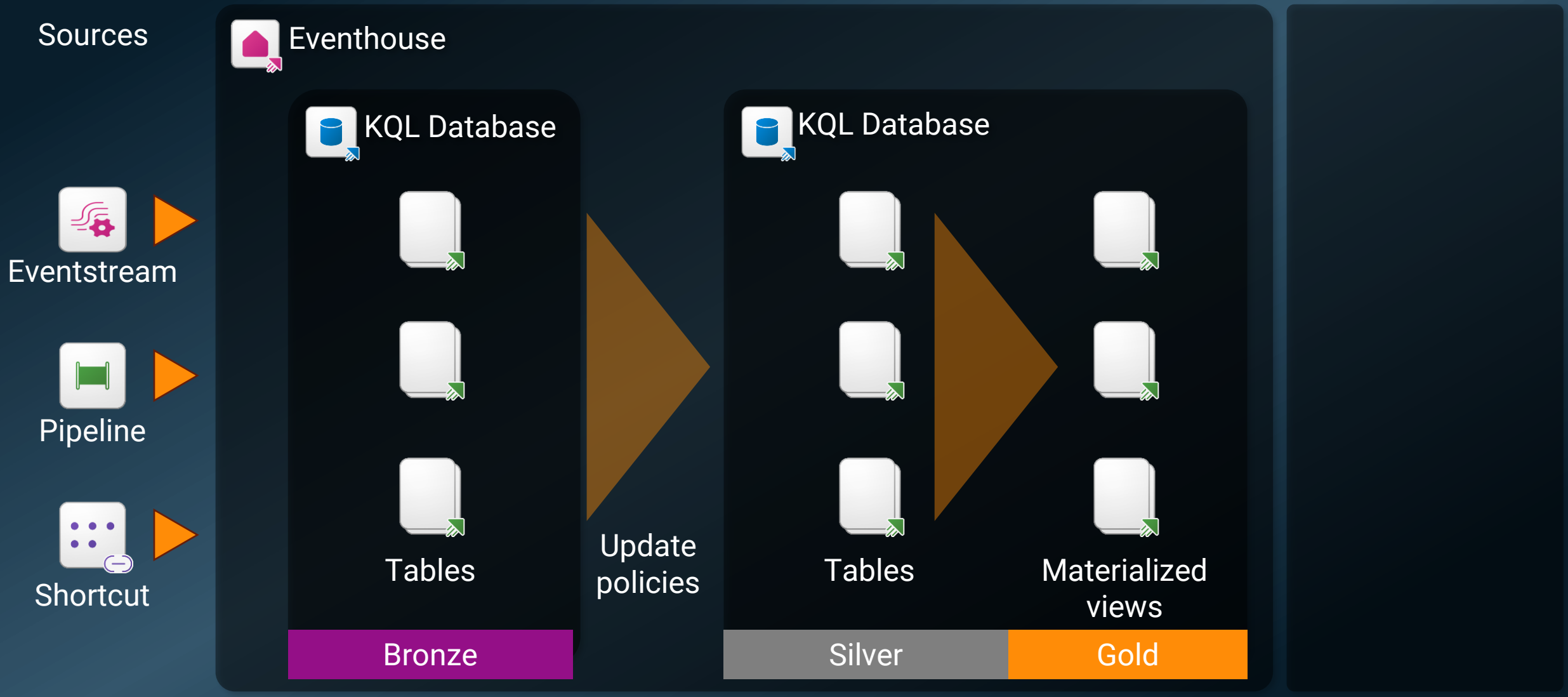
Visualize and activate

6. Real time dashboard of all factories with ability to easily shift from low granularity to high granularity view
7. Enhance organizational BI reports with high granularity enriched data
8. Notify users and activate automation in response to live indications from the factory floor

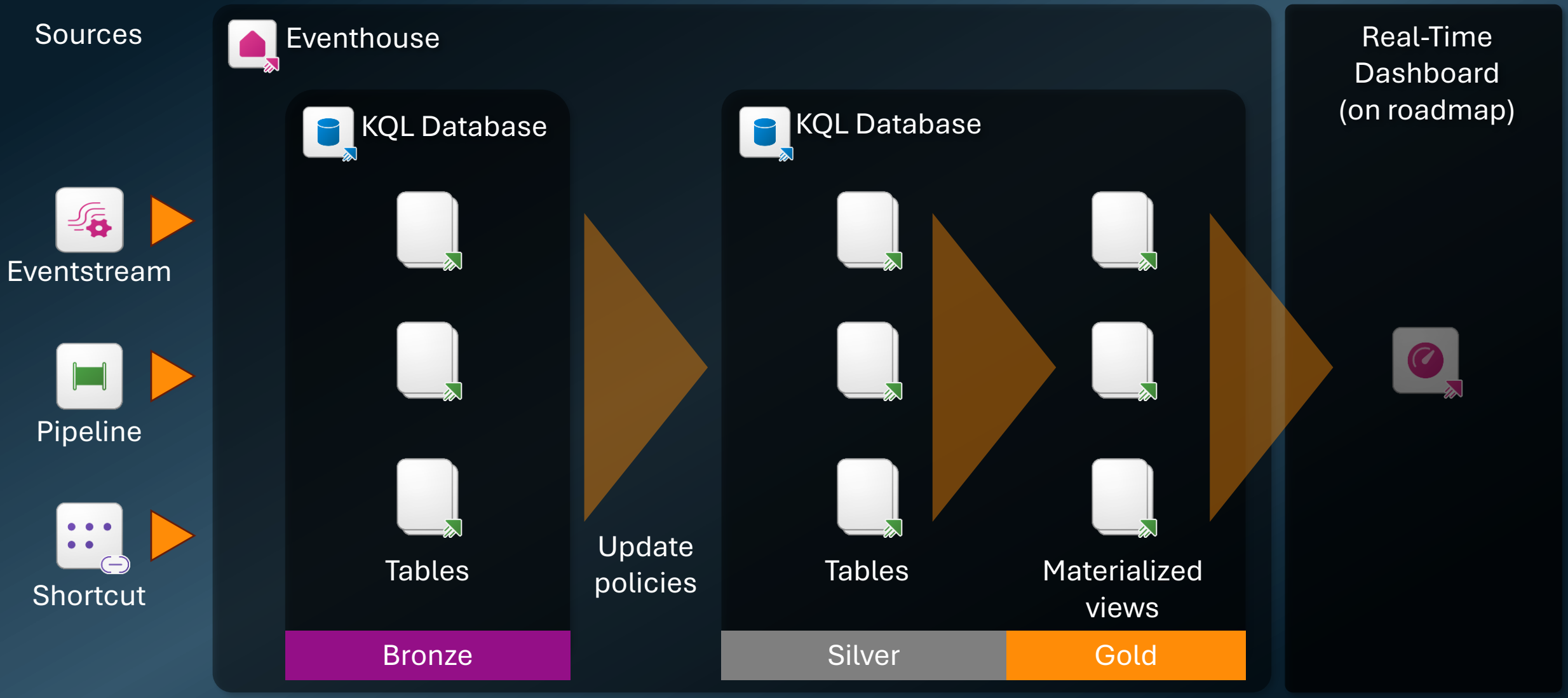



Sources
Eventhouse
KQL Database
KQL Database
Eventstream
Pipeline
Shortcuts &
External tables
Tables
Update
policies
Tables
Bronze
Silver

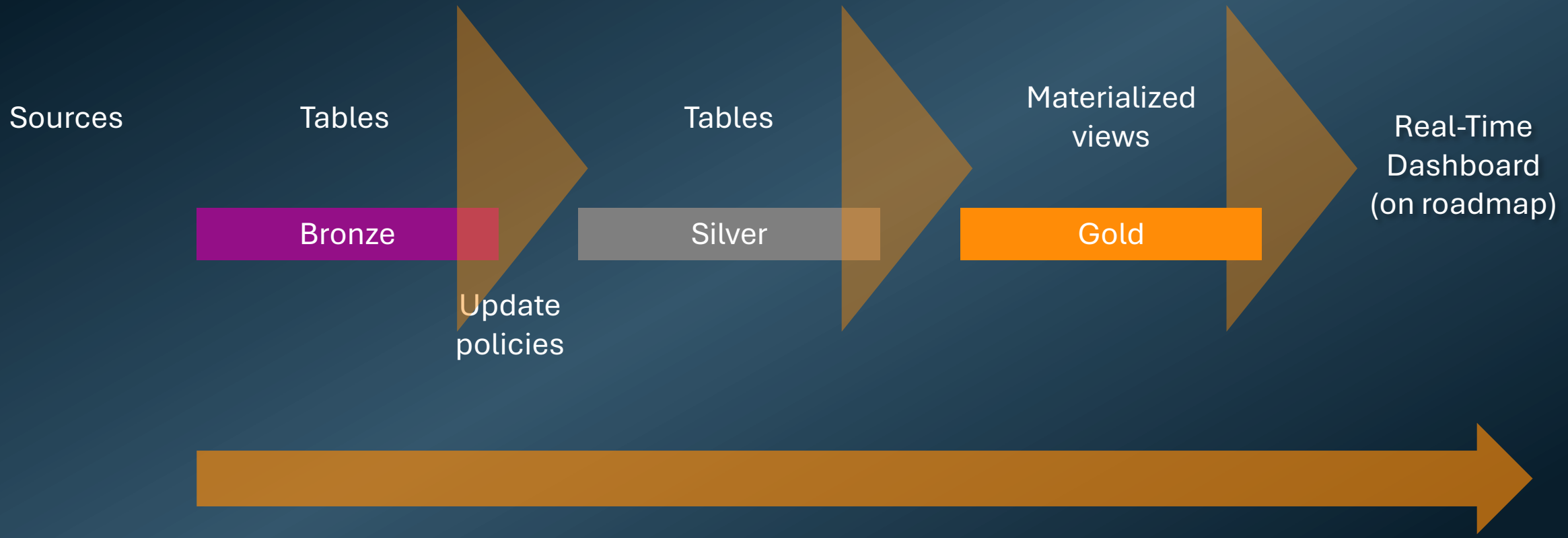
Fellowwind


Sources
Eventhouse
KQL Database
KQL Database
Eventstream
Pipeline
Shortcut
Tables
Update policies
Tables
Materialized views
Bronze
Silver
Gold

Fellowwind


Sources
Eventhouse
KQL Database
KQL Database
Real-Time Dashboard (on roadmap)
Eventstream
Pipeline
Shortcut
Tables
Update policies
Tables
Materialized views
Bronze
Silver
Gold

Fellowwind



Sub 1 second

Fellowwind

Thank you

Feedback

Connect with me at:

https://linkedin.com/in/brianbonk
https://brianbonk.dk
https://github.com/brianbonk

Connect