LARUS

SOLUTIONS

GALILEO XAI

@AgileLARUS

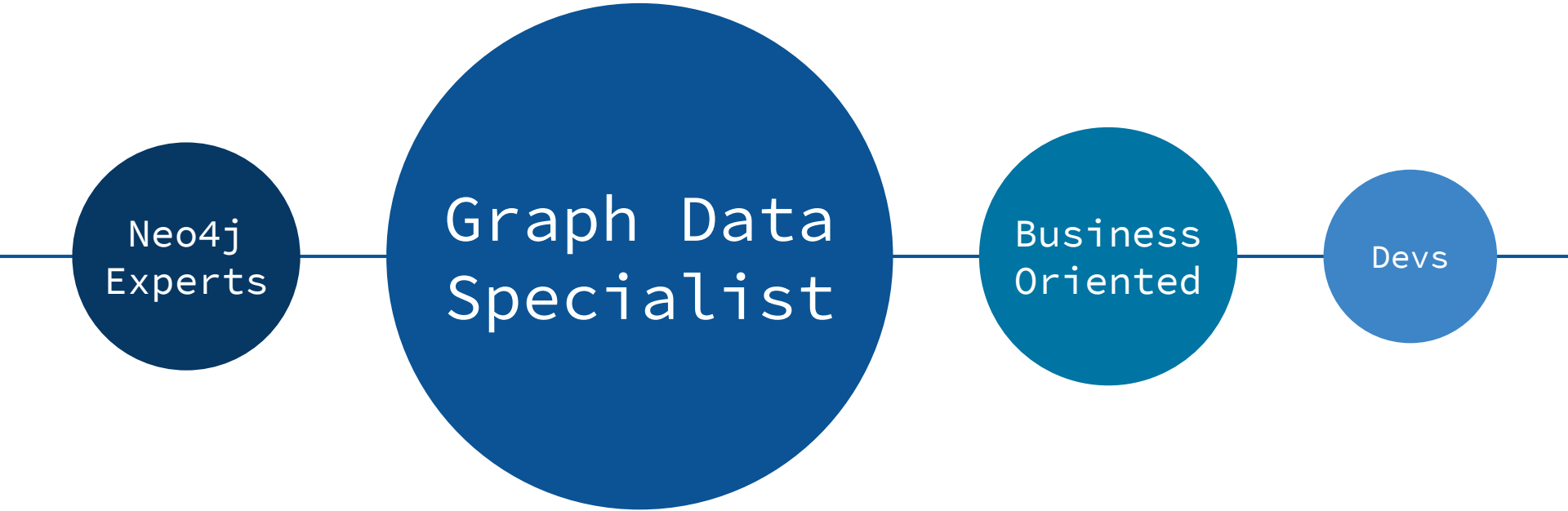
www.larus-ba.it

About us

Headquartered in Venice, **LARUS** is the #1 Neo4j Premier Partner in Italy. Their Certified Professionals support companies around the world designing data-driven platforms based on the most innovative open source technologies, for different areas: government, insurance, finance, industry, commercial and telco.

Headquartered in Pescara, **LARUS LABS** works closely with Neo4j contributing to the development of official components of the Neo4j Platform as the *Neo4j JDBC Driver*, the *Neo4j-Kafka* and *Neo4j-Spark* Connectors, the *APOC Library* and *ETL Components*.

Skills & Expertise



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LARUS NEO4J

Neo4j Premier Partner

Neo4j Spark Connector

AI Based on Neo4j

Neo4j Kafka Connector

Neo4j APOC, ETL, Apache Zeppelin

Neo4j JDBC Driver

First Spikes in Retail for Articles' Clustering

2011

Neo4j Solution Partner

2014

neo4j CERTIFIED Professional

2015

2016

2018

LINKURIOUS VISUALIZE GRAPH DATA EASILY

confluent

2019

FUJITSU

2020

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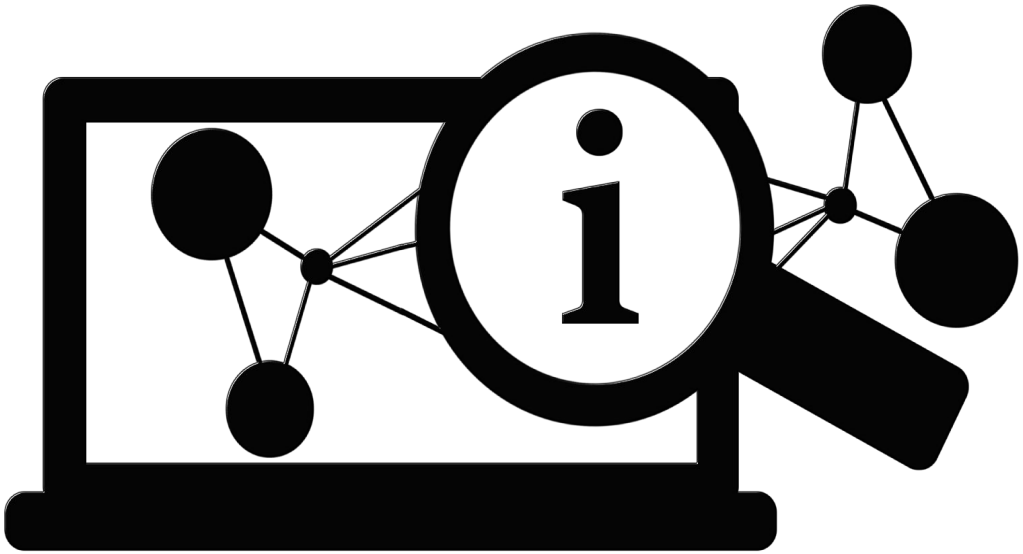
Galileo XAI

The graph-based platform for eXplainable AI

A REVOLUTIONARY APPROACH BASED ON GRAPH ANALYSIS

Graphs are ubiquitous in modern day industries and size of modern day Graph databases have grown exponentially.

On the contrary, doing connected analysis is extremely difficult with traditional technologies other than graph databases.



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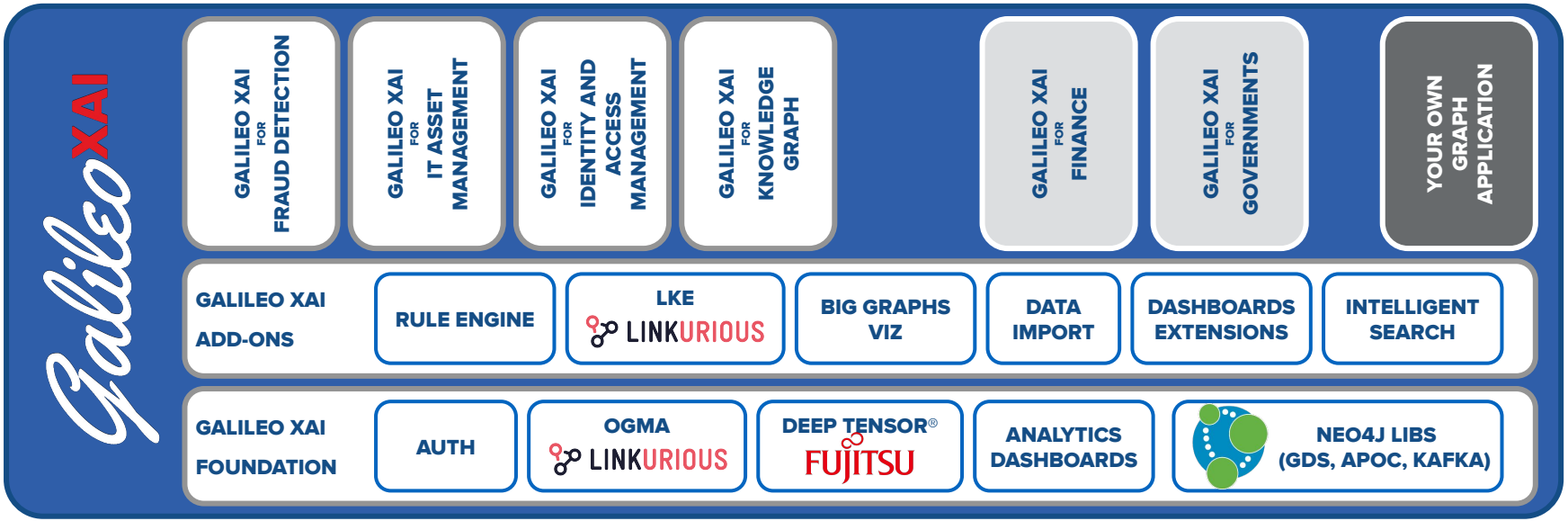
GALILEO XAI

Dedicated to the business intelligence teams and decision makers who want to extract new knowledge from their dark data, Galileo XAI is a data analytics framework based on graphs that can be quickly integrated with existing solutions.

Galileo XAI connects data silos and allows the implementation of advanced and predictive analyses on strongly connected data, by using advanced network science algorithms, simple and immediate pattern matching, Graph-AI, native graph visualization to explore the connections between data in an intuitive and immediate way.

GALILEO XAI: ARCHITECTURE



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Features

Flexible

Data model is built on your needs

Graph Exploration

An innovative way to discover new insights from your data

Custom Rules

Improve the system by adding your own experience

Realtime, Fast & Scalable

The best technologies for the best performances

Explainable AI

Make AI more broadly applicable

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Flexible

A data model built on your needs

The data are stored into a graph database (Neo4j).

The data model is very flexible and can be entirely adapted according to your needs and the information you want to store in.

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Graph Exploration

An innovative way to discover new insights from your data

Seek your point of interest.

See how it’s connected with others data: people, accidents, places, etc…

Discover new insights by following the links.

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Custom Rules

Improve the system adding your own experience

A rule is a pattern.

“Were people involved in this accident already involved in other ones, with different roles, but all together?”

This is only the simplest rule you can apply in real-time.

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Fast & Scalable

The best technologies for the best performances

Enterprise ready!

Find frauds when new data come in.

Apply a new rule to existing data to find, test and validate a new fraud pattern.

Ready to manage huge data volumes.

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Explainable AI

Graph technology incorporates context and connections that make AI more broadly applicable and graphs can be used to train machine learning models leading to more accurate AI decisions.

Understand AI outcomes

By analyzing large graphs, Galileo XAI not only enable enterprises to gain valuable insights but also provide easy-to-understand explanations behind AI decisions leading to trust and increased adoption.

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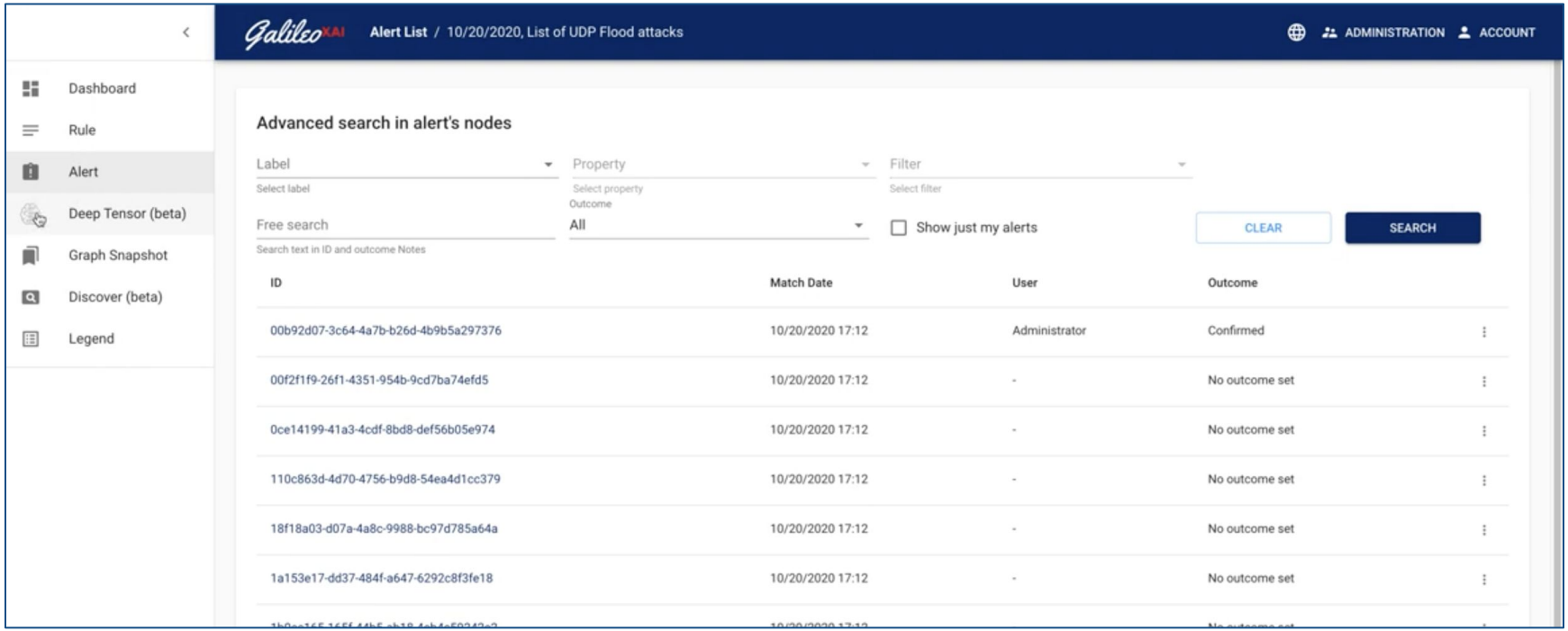

Real-Time Analysis

Find new evidences on your data as soon as they occur.

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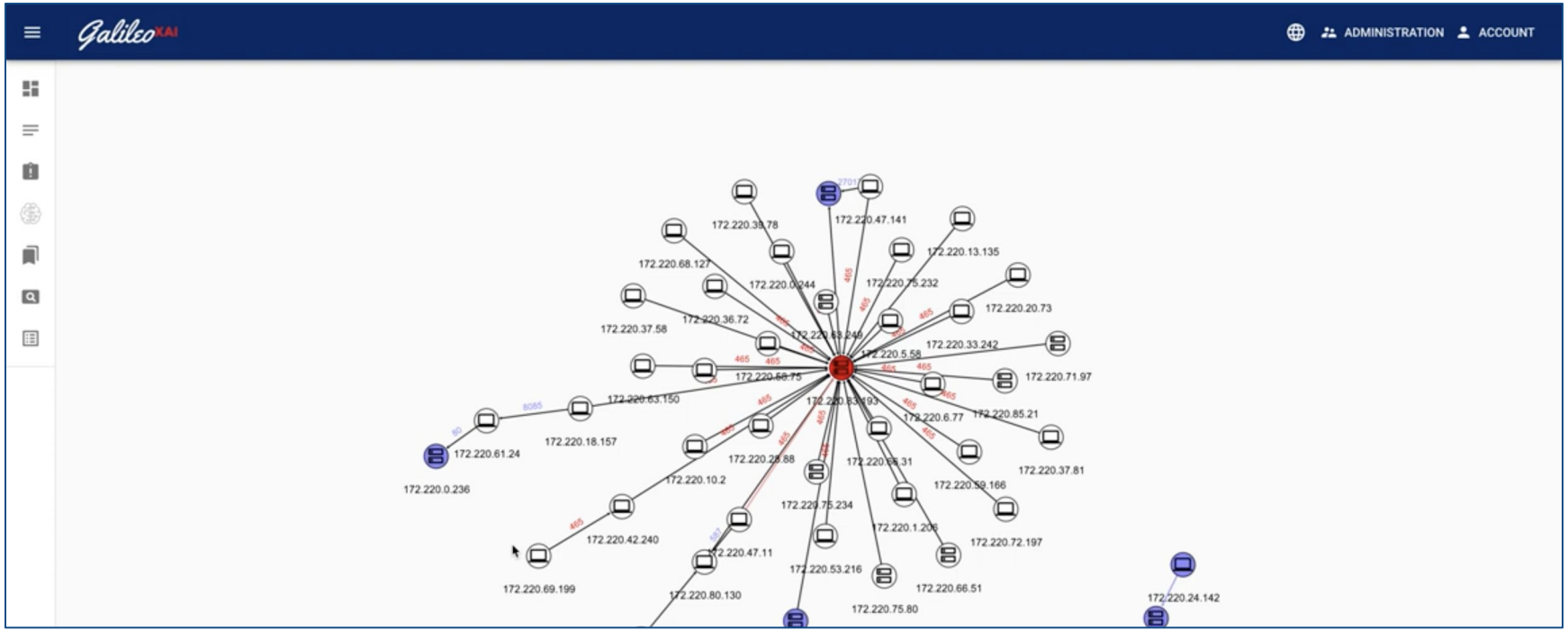

Discover Patterns

Not only thresholds. Solve most complicated cases where someone is connected to others subjects through very complex relationships.

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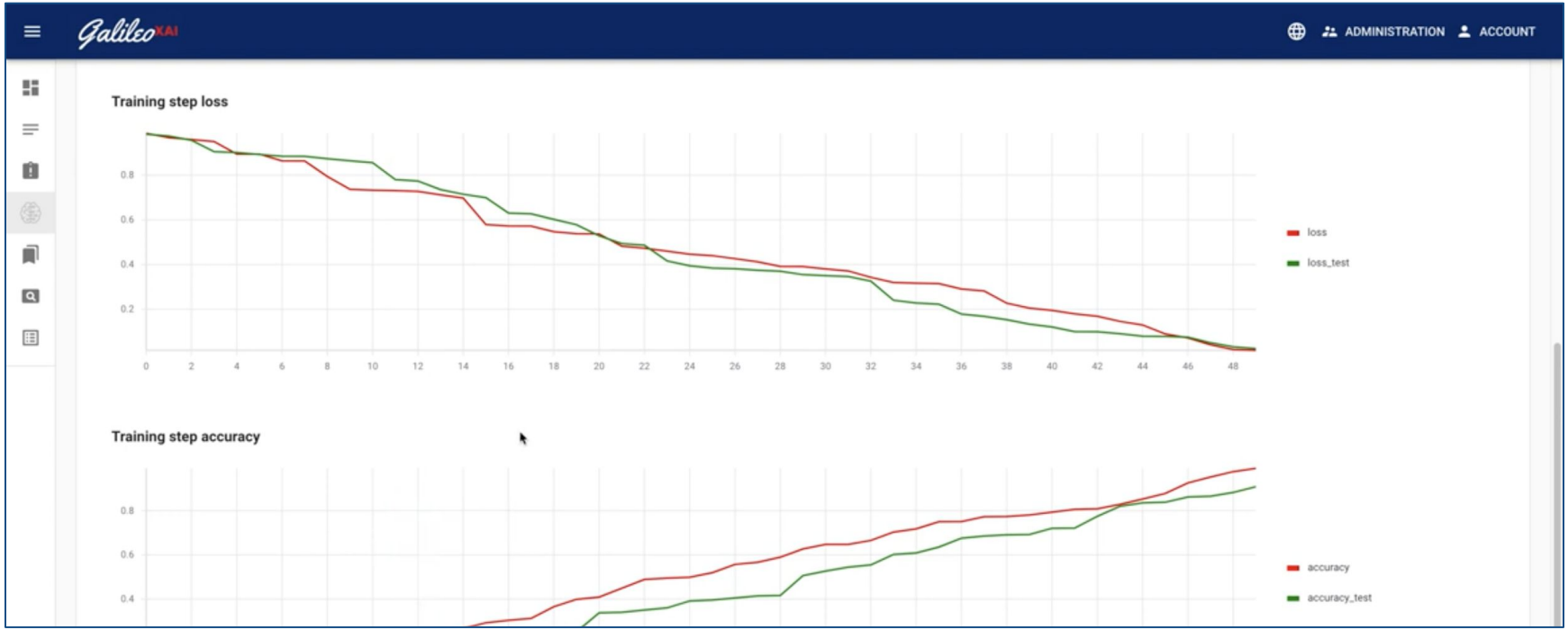

Apply Explainable AI

XAI explains the rationale for the decision-making process, surfaces the strengths and weaknesses of the process, and provides a sense of how the system will behave in the future

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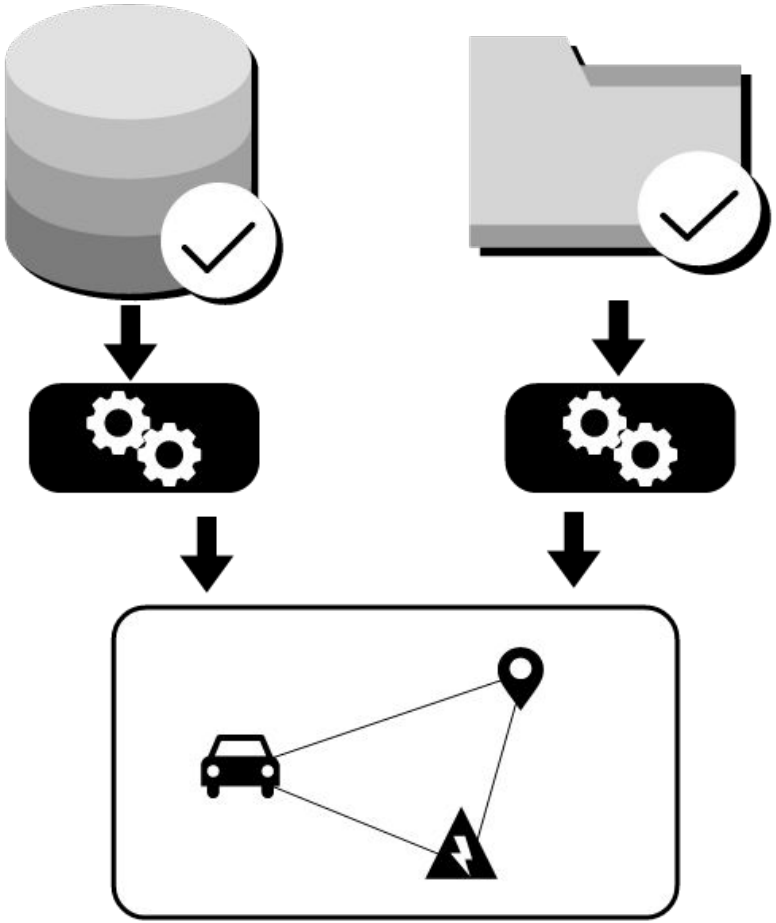
Load Your Data

With Galileo XAI “Import” component you can load your own data with ease.

Put this custom component in your data pipeline and fill the data model.

You can start with the shipped data model and increase or change it incrementally according to your specific needs and favourite information.



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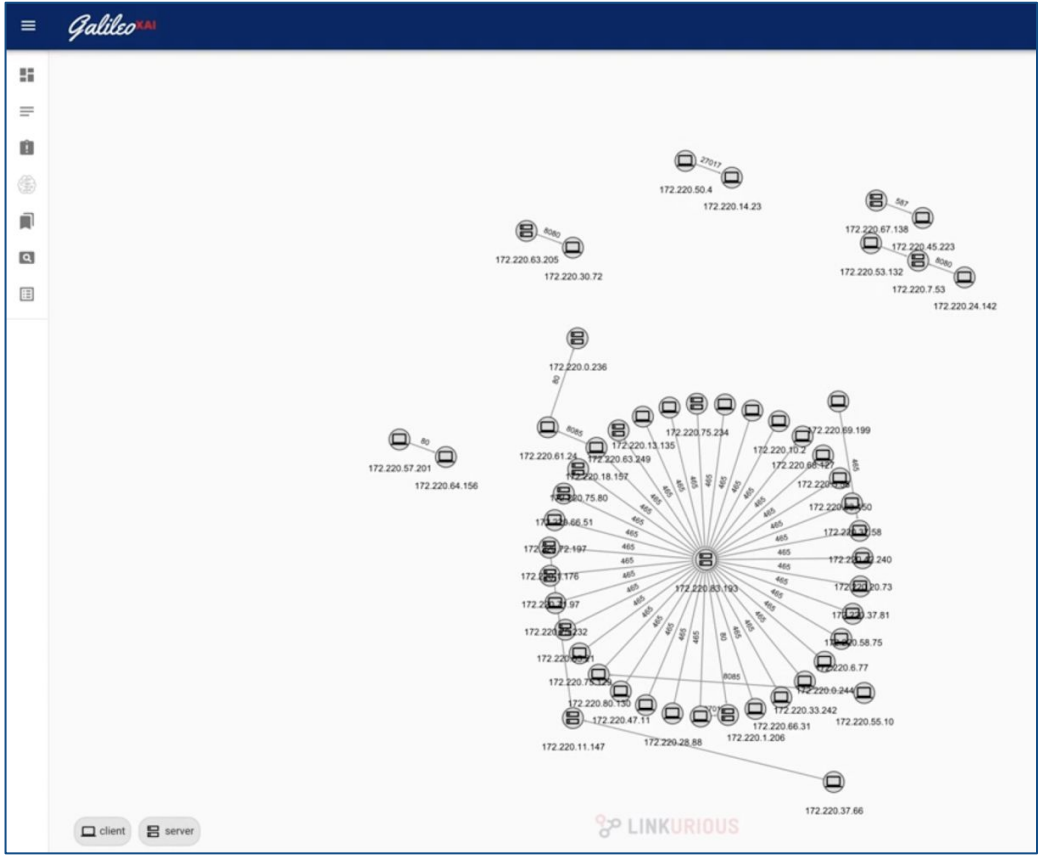
Discover Patterns

Working with patterns is easier and more human friendly than defining thresholds.

Start thinking at your data as a “graph”, a network of connected actors, such as a Subject who DRIVES a Car INVOLVED in an Accident.

Surf on your data as well as you’re used to surfing on the web.



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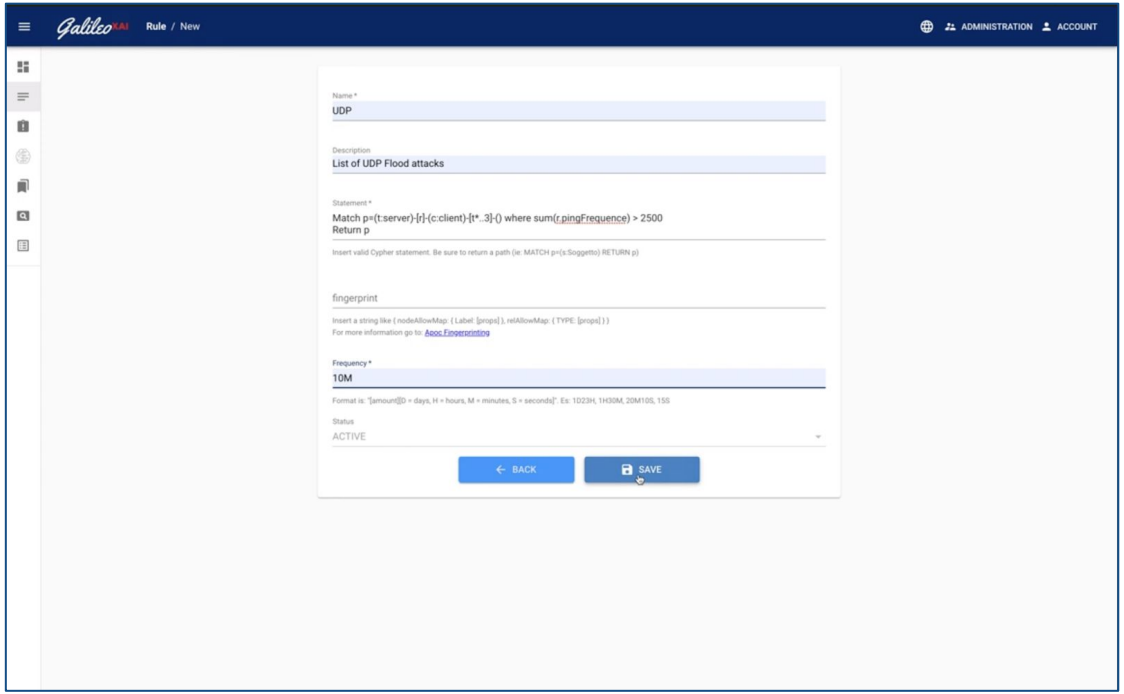
Custom Rules

Get new rules to improve the system.

You can buy them from the marketplace, ask for modifying existing ones or build them from scratch with our experts' team.



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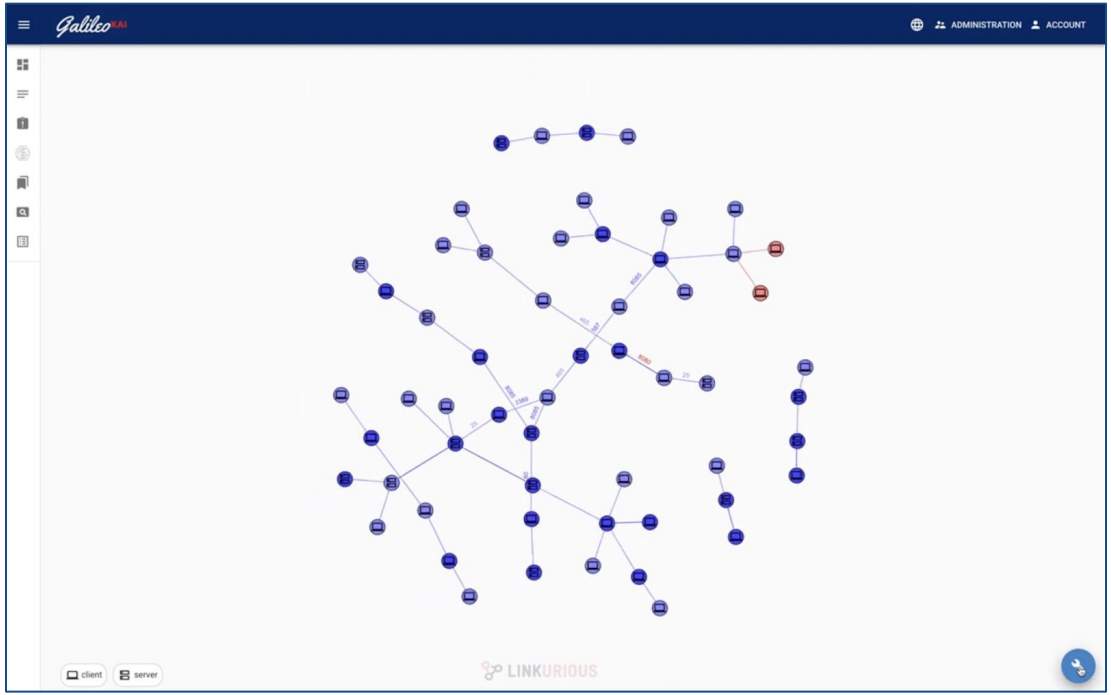
Rules are Patterns

A rule is a pattern of connections that can be detected on the data model.

When new information come into the database, the rules are automatically applied and alarms occur when a new event is detected.



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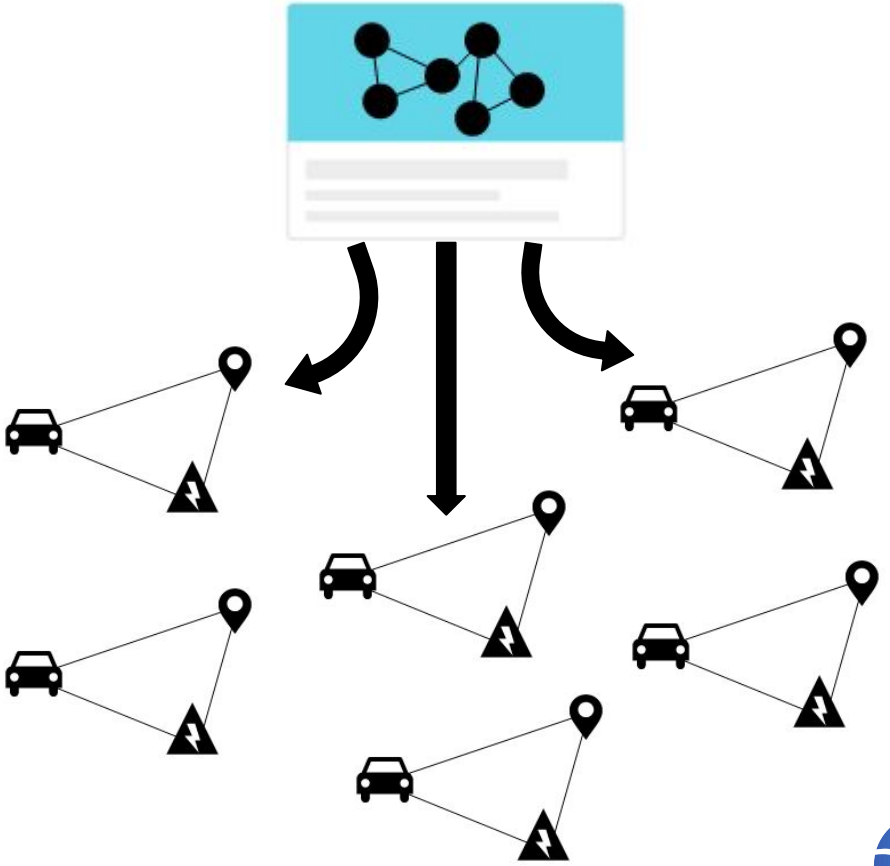
Apply new Rules

Apply a new rule to the entire database

- As soon as you load it on Galileo XAI
- When you change execution parameters
- When you change the data model adding new information



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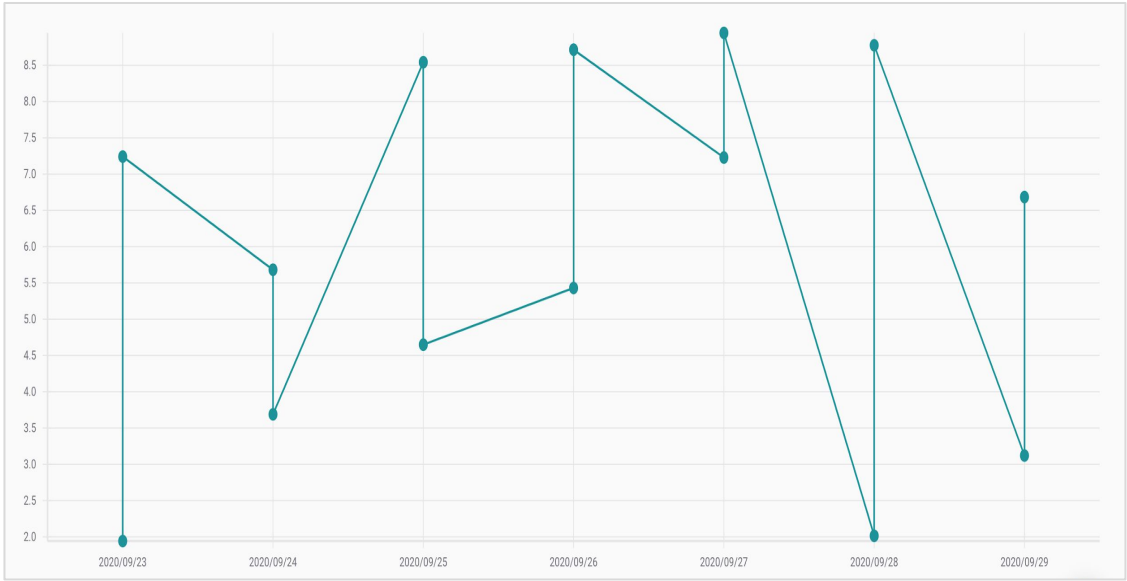
Manage & Monitor

Keep track of each event trend.

Understand how your company can improve by using actual metrics.

Get the documentation related to an event, open a ticket, involve your team and start working on it.



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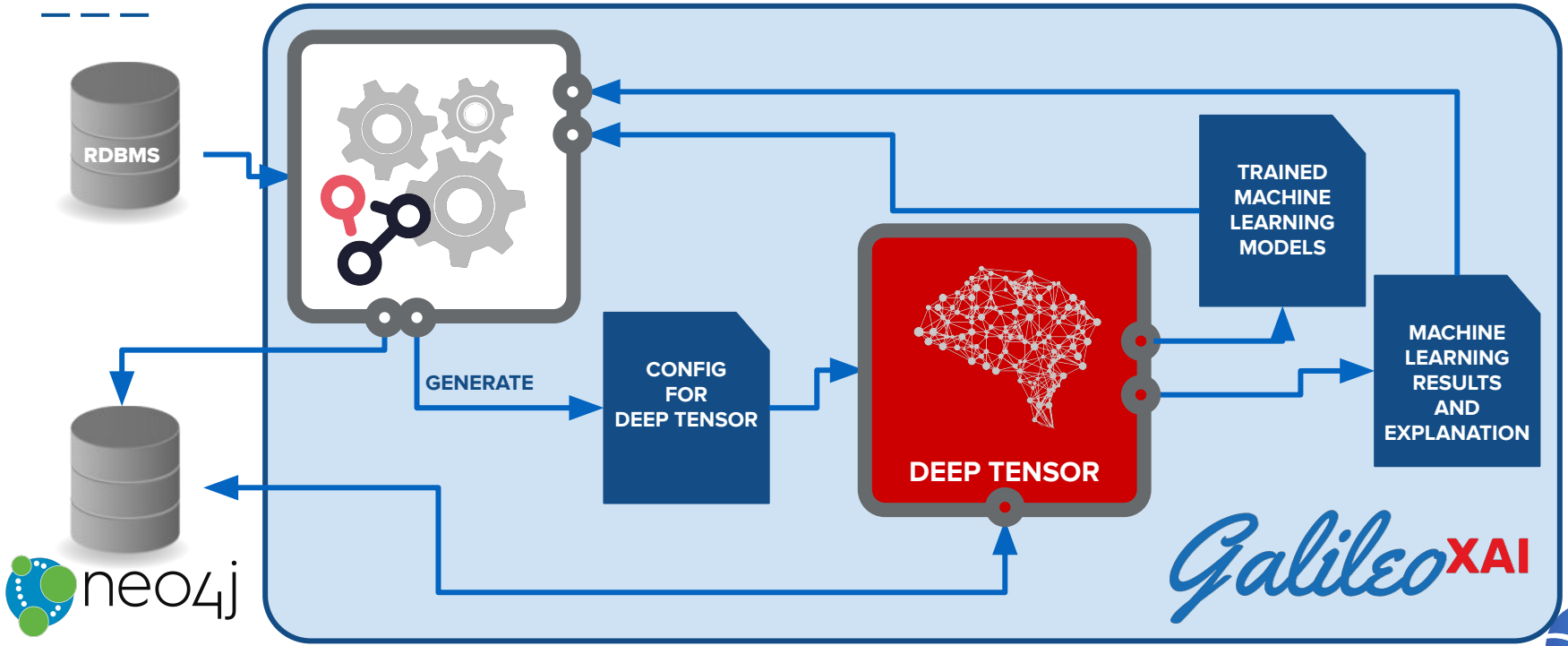
GALILEO XAI: DEEP TENSOR® INTEGRATION



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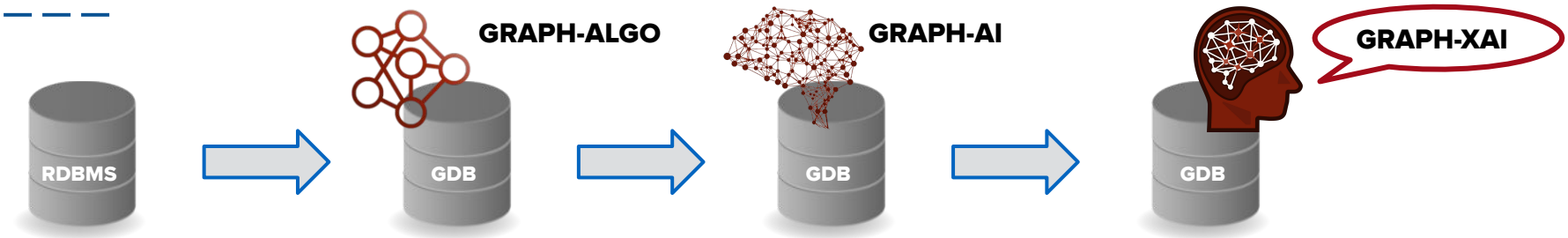
GALILEO XAI: PIPELINE



RDMBS to GRAPHDB

- Graph model design by GDB specialist
- Domain specific knowledge
- LARUS and NEO4J has a lot of knowhow

- *Customer and GDB specialist*

GRAPHDB to GRAPH-AI

- Discovering and identify the cases (issue) by graph-tool
- Designing the AI-problems
- Creating training data by graph-tool
- Run GAI and tuning
- Redesign graph model?

- *GDB and GAI specialists*

GRAPH-AI to GRAPH-XAI

- Discovering and identify the explanation needs
- Designing the XAI-problems
- Application and visualization design
- Run XAI and tuning

- *Customer, GDB and GXAI specialists*

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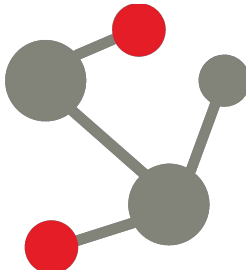
GALILEO XAI & DEEP TENSOR APPLICATION AREAS

Finance

Cybersecurity



Chemistry and Genomics

Healthcare and Human Resources

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The graph-based platform for eXplainable AI