

# RAGTIME

RAGTIME Final Conference

Brussels, 27<sup>th</sup> June 2019

## RAGTIME Cloud-Based Platform

**Bartolomeo Tiralongo**

*Solution Architect*

RINA Consulting

*Disclaimer: This presentation reflects only the author's views and neither the Agency nor the Commission are responsible for any use that may be made of the information contained therein*

# Building RAGTIME web platform

The development of the platform is part of the RAGTIME WP5, which has the **scope** of:



Cloud Architecture  
Design



Data Model  
Design



External Tools  
Integration



Cloud Based  
Platform



Graphical User  
Interface

# Context

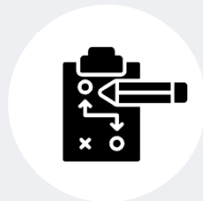
## *The Needs*



Harmonised approach for  
**infrastructure asset  
Management** (cross-asset)



Improving **data management**  
and **data quality**



**Prioritising** and **planning**  
asset investment

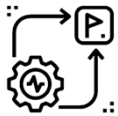


Building a **coordinated**  
asset management strategy  
at **corporate level**

# RAGTIME

## *Expected platform outcome*

Advanced Asset Integrity Management (AAIM) of transport infrastructures (TI) network across all phases in the lifetime of an infrastructure project.



**Lean procurement methodology**  
for mng. strategy.



**Financial, economic and risk  
assessment modules** through KPI



**Technical management tools** for  
design, operation and maintenance.



**Cloud-based Software Platform**  
The core RAGTIME functionalities

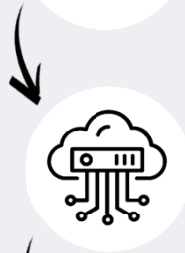


**Guidelines** for smart governance,  
risk-based delivery and management

# RAGTIME AAIM Software Platform



**Integrate** modules developed for Governance, Financial, Economic and Risk and Technical management.



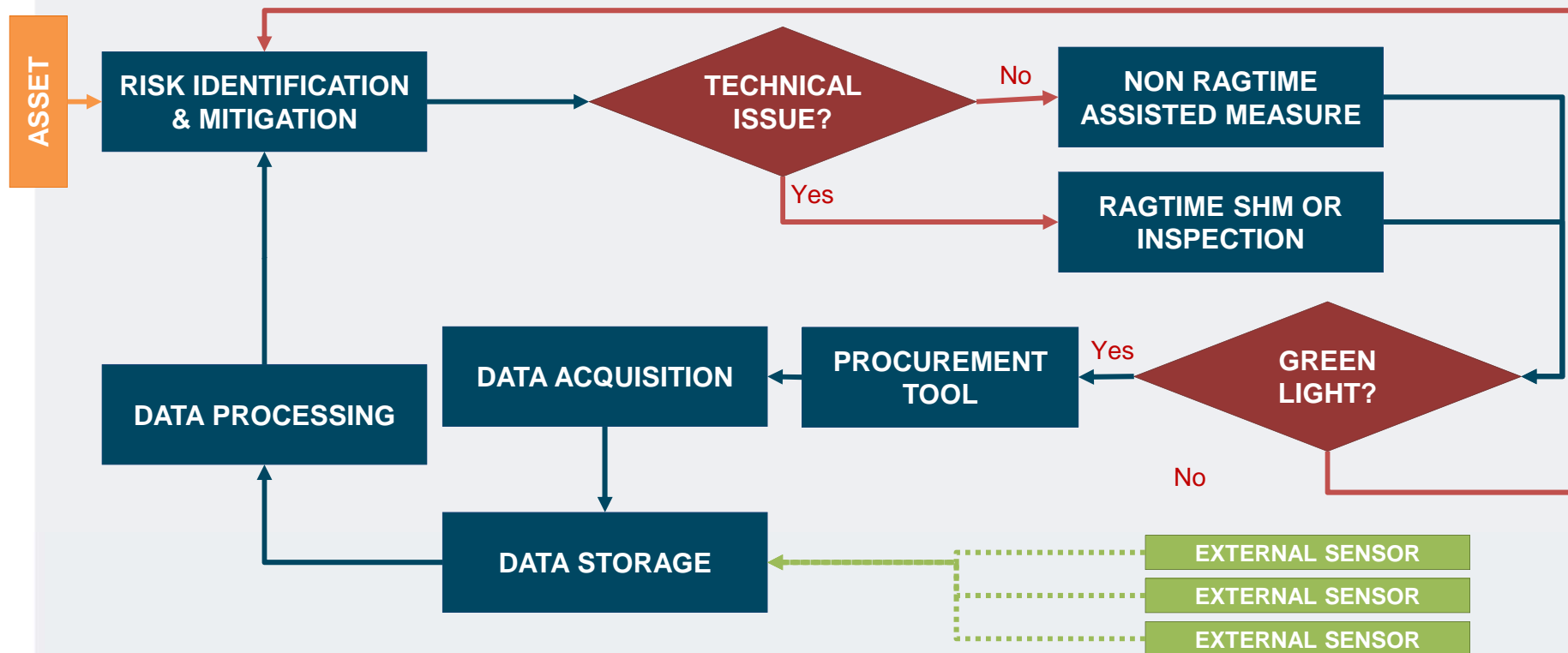
**Cloud-based platform** for connecting in-service **Asset Integrity Management (AIM)** tools and share real-time **Structural Health Monitoring (SHM)** info.



This will ensure **information sharing**, stakeholders **collaboration** and **system interoperability** during all stages of the life cycle of the infrastructure

# RAGTIME AAIM Software Platform

## Information Flow



# RAGTIME AAIM Software Platform

*The tech platform*



Based on **open data**  
models and **cloud**  
**technology**



Service **scalability**, **cross**  
**device** to increase the  
**availability** of information



Multiple **sensor data**  
**collection** in **time-based**  
database



Process data with **advanced**  
**algorithms** for **predictive**  
**maintenance**,...



**Modular** platform  
approach



3<sup>rd</sup> parties **modules**  
**integration**

# Towards the users



**Infrastructure  
managers & operators**



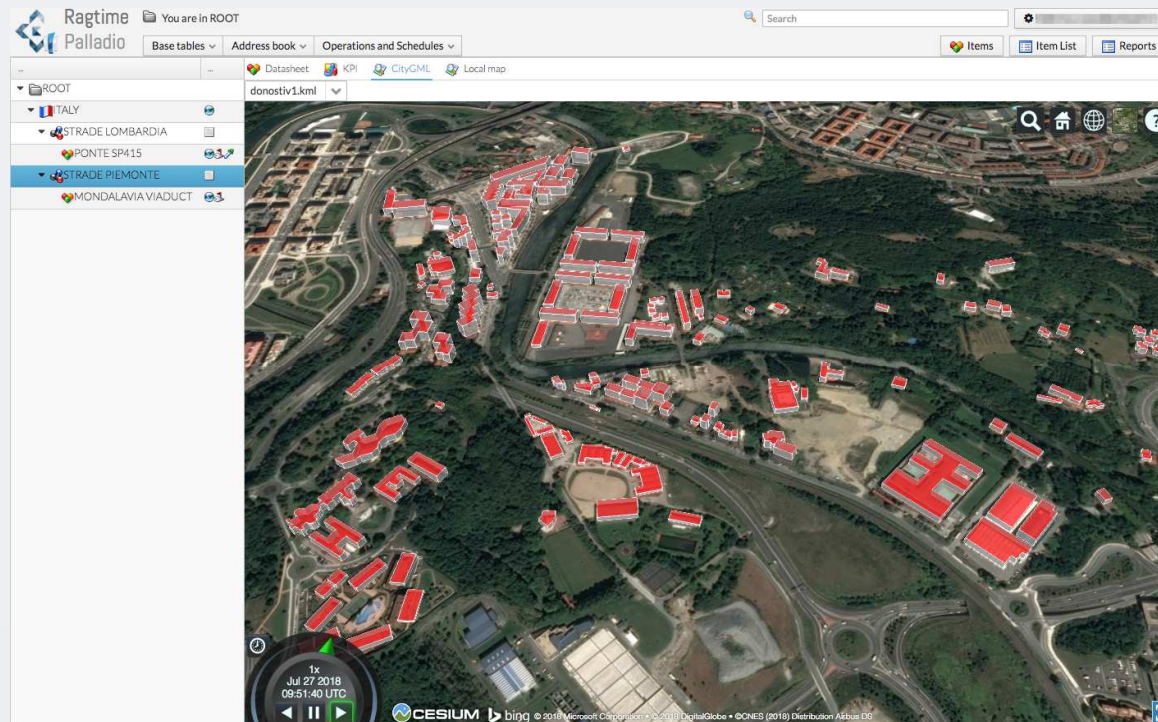
**General Contractors**  
*(including construction &  
maintenance companies)*



**(Public) Authorities**  
*which are in charge of  
monitoring and maintaining  
the transport network.*



# RAGTIME AAIM Software Platform



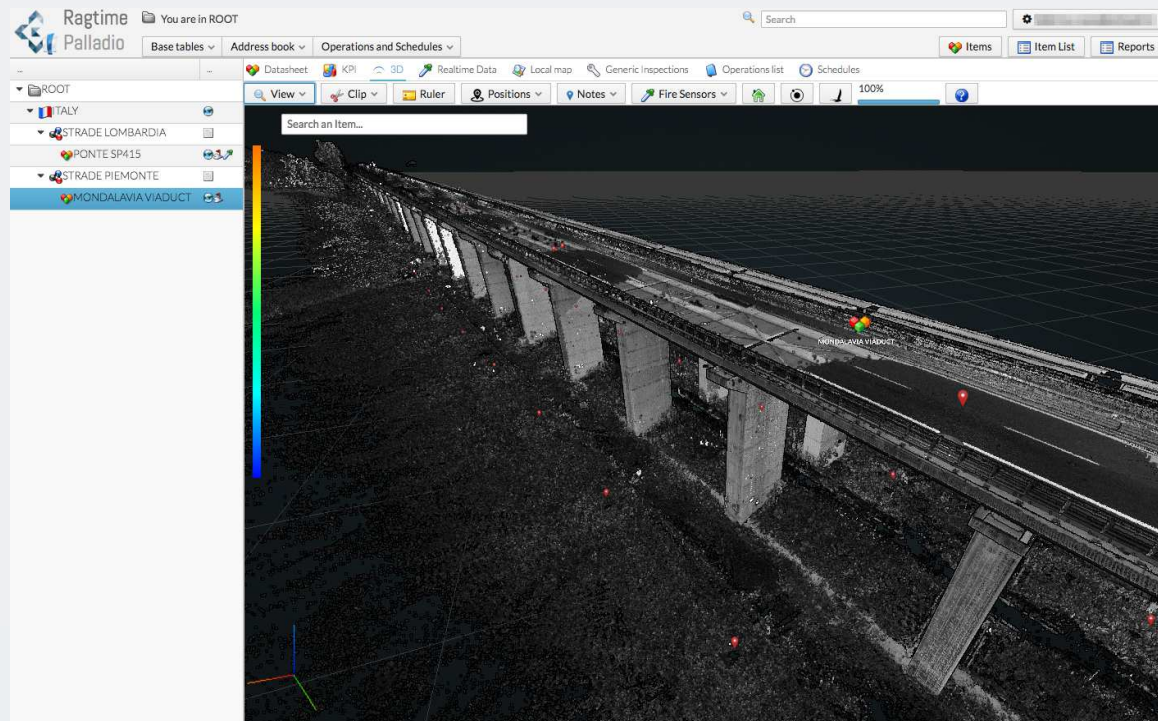
## LAYER VISUALIZATION

For each level of detail the proper information are showed.

## CITYGML VIEW

All the assets are shown in terms of CityGML information.

# RAGTIME AAIM Software Platform



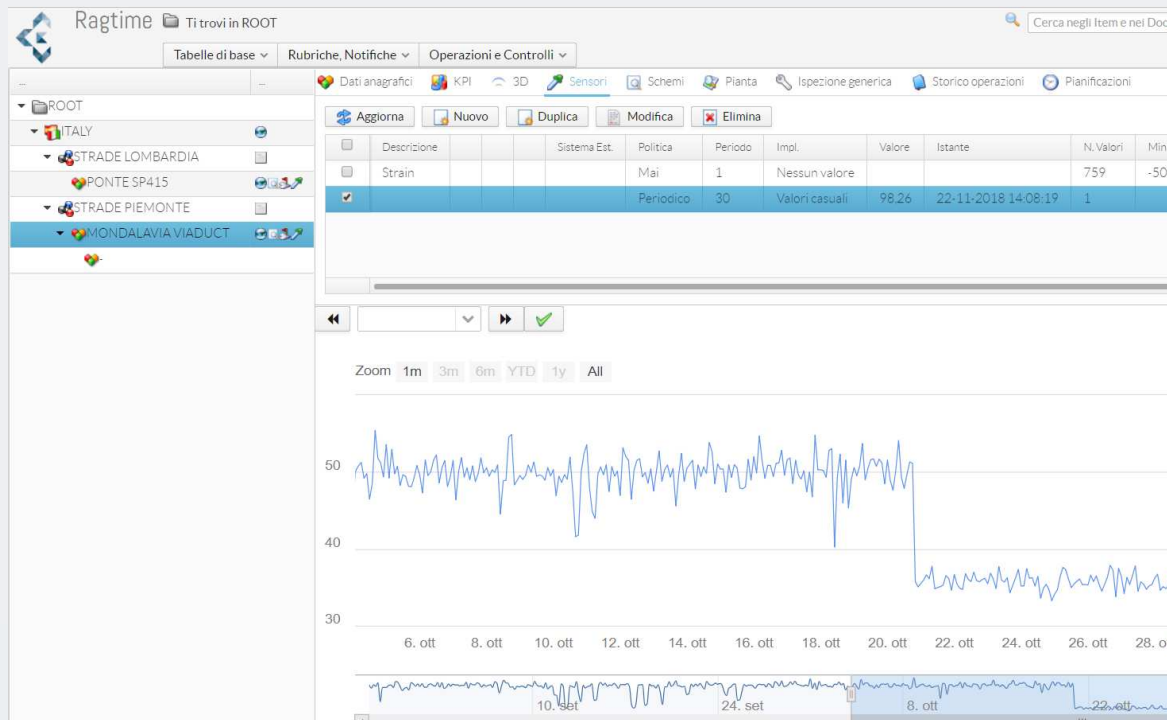
## 3D VISUALIZATION

From a cloud points, the asset can be rendered in internal viewer.

## SENSOR SELECTION

Sensors can be easily selected to review the measurements.

# RAGTIME AAIM Software Platform



## REALTIME DATA

Realtime data collected from the sensors installed in the asset

## HISTORIC VALUES

Sensors data collected through the time can be easily reviewed

# RAGTIME AAIM Software Platform

*Added value*



**Improved communication among the TI project and infrastructure managers** by operational risk-driven strategy (including risk and vulnerability)



**Reducing management costs** by means of a comprehensive methodology for lean procurement processes and advanced asset integrity management strategies.



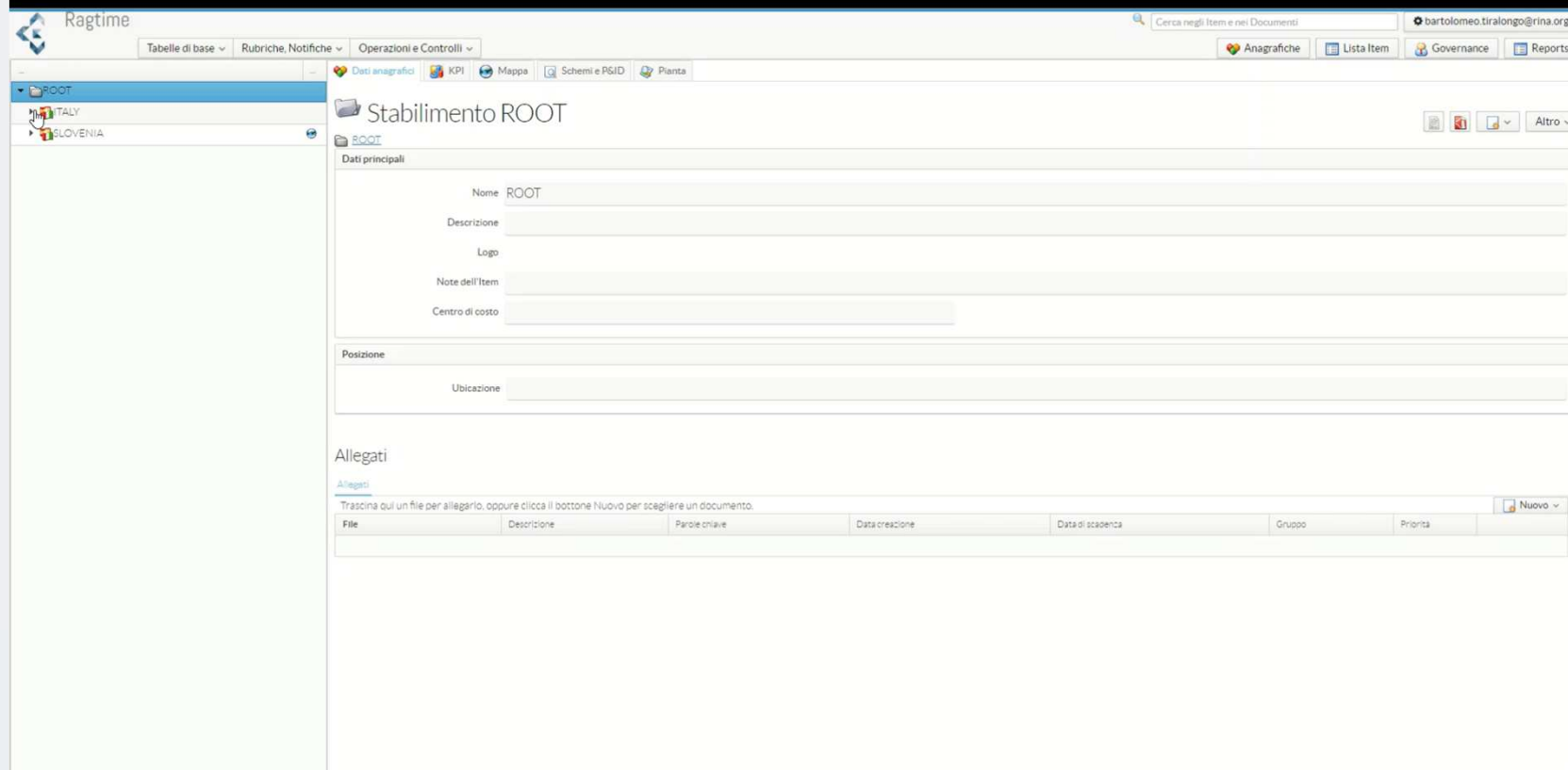
**Enriching the technological level of construction sector** by means of a multi-scale information based model for lifecycle condition assessment of the network.



Providing a **high-quality grade on management also through business models** that are adaptable to multi-criteria approaches and relevant trends.



# Platform overview

[VISIT THE PLATFORM](#)


The screenshot displays the Ragtime platform interface. The top navigation bar includes the Ragtime logo, a search bar, and a user profile dropdown. Below this, a secondary navigation bar contains tabs for 'Tabelle di base', 'Rubriche, Notifiche', and 'Operazioni e Controlli'. The main content area is titled 'Stabilimento ROOT' and features a left sidebar with a tree view showing 'ROOT', 'ITALY', and 'SLOVENIA'. The main form is divided into sections: 'Dati principali' (Name: ROOT, Description, Logo, Note dell'Item, Centro di costo), 'Posizione' (Ubicazione), and 'Allegati' (a table for attachments with columns for File, Descrizione, Parole chiave, Data creazione, Data di scadenza, Gruppo, and Priorità). A 'Nuovo' button is visible in the top right of the 'Allegati' section.

