

OMI RON

Intelligent Road Asset Management Platform

Road Digital Twin



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**OLD ROADS,
NEW TECHNOLOGIES**
safe and intelligent road asset management

OMICRON solution: road Digital Twin

Tool to enhance road health and maintenance workers' daily work

Makes it easier to understand the roads' state of conservation

Supervise from the office using a realistic, geo-referenced environment

Static, dynamic and historical processed data asset in just one platform

Platform successfully developed and tested

Impact:

- 83% less time to get information from an asset
(compared to using a traditional approach)



Road Digital Twin – online tool



Digital Twin



The screenshot shows the 'Assets' table in the OMI((RON interface. The table lists various assets with their IDs, names, types, and coordinates. A 3D model of a road is visible in the background.

| Asset ID | Name | Suggested Alt | Facility ID |
|---------------------------|------------|-------------------|---------------|
| ITA_A1_38_301_ART_304_INC | Altabeneve | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_ART_305_INC | Altabeneve | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_301_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_302_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_303_INC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_304_INC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_305_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_306_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_307_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_308_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_309_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_310_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_311_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_312_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_313_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_314_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |
| ITA_A1_38_301_SRA_315_DEC | Sevier | ITA_A1_35_246_249 | ITA_A1_38_301 |

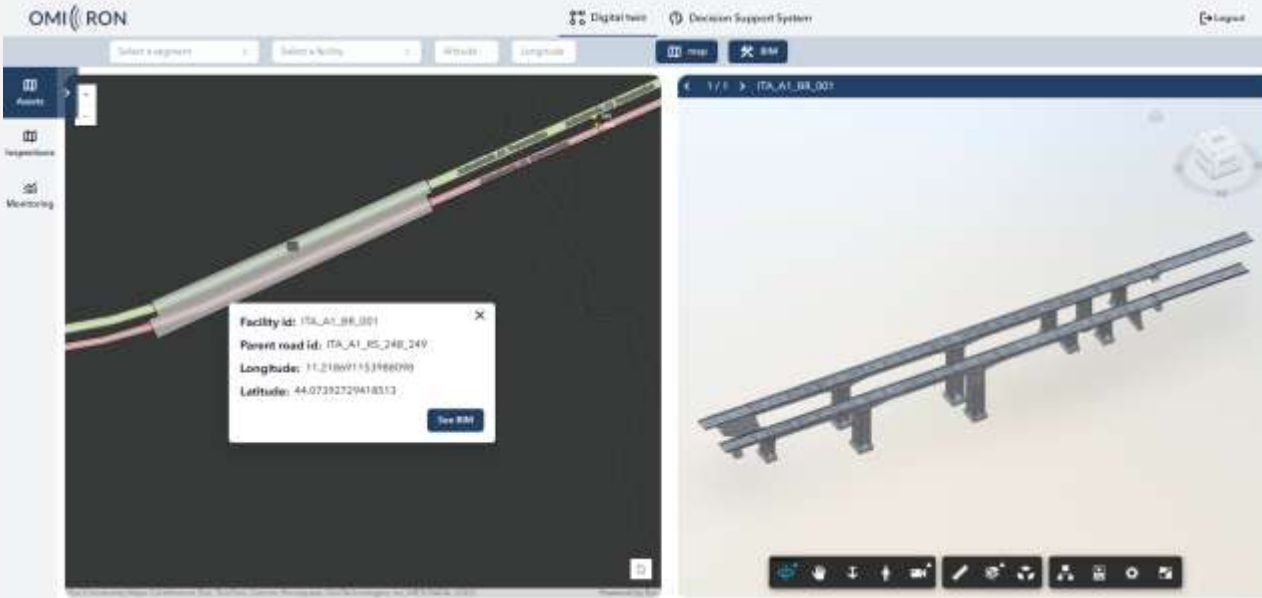
Decision Support System



Road Digital Twin – online viewers



2D viewers



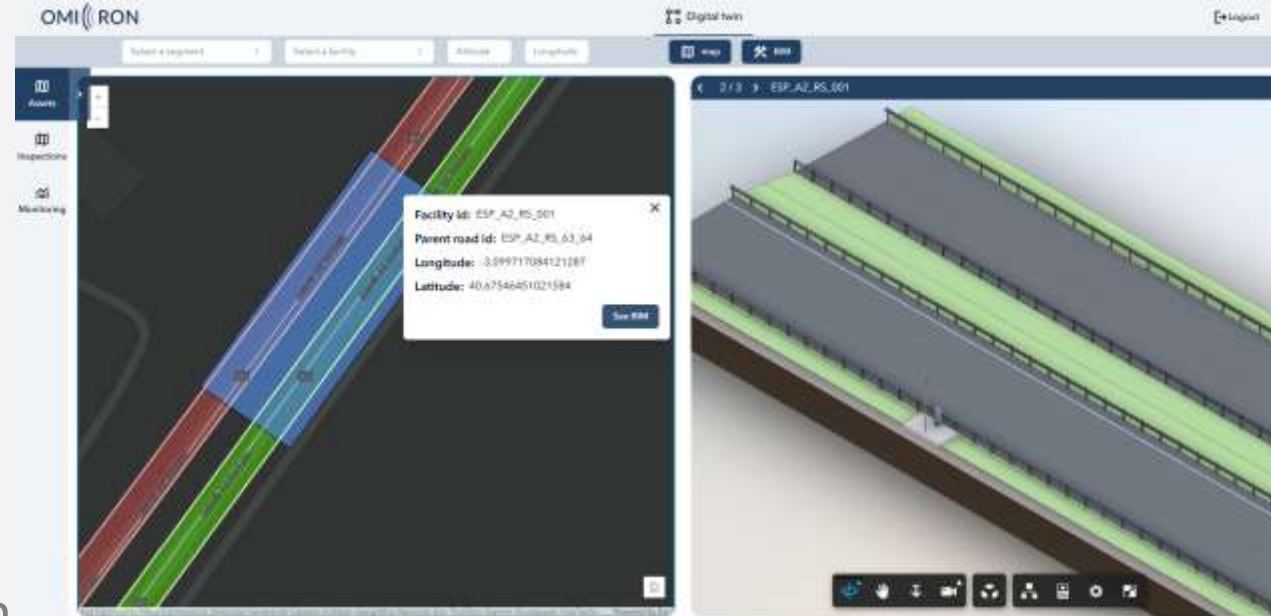
3D viewers



Road Digital Twin – online viewers



- GIS-BIM connection



- Asset-data connection





Intelligent Road Asset Management Platform

Introduction to the Digital Twin

OMICRON Road Digital Twin - conclusions

- Developed tool demonstrates **the technology is viable**
 - The platform properly **integrates** the **Digital Twin** and **Decision Support System**.
 - The viewers help **users easily find assets and asset data**
 - information finding **reduced more than 50%**.
- Operation and maintenance decisions are made on a fully information basis
 - **Real-time** data
 - **Historical** data
 - **Static** data



OMICRON solution: road Digital Twin

Product developed specifically for roads

Could be developed for other kind of infrastructures

Smarter decisions in less time

Login and check how the platform works!

<https://omicron-dev.regenseurope.com/login>

Email: omicronfe@omicron.com

Password: finalevent



Intelligent Road Asset Management Platform

Thank you

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