

# EO solutions for critical infrastructures monitoring



*Sistemi, Servizi e Applicazioni spaziali a sostegno delle grandi infrastrutture nazionali*  
4 Novembre 2021

# Planetek Group

## Our Premises

Bari – Athens - Rome



# Planetek Group Key Numbers

Small Medium Enterprise



year **1994**

year **2006**



people **60**

people **25**



M€y **5,8**

K€y **1,1**



# Planetek main activities

## ■ EO Services

- Coastal Management
- Water Quality
- Urban, Land, Forestry
- Law Enforcement, Security, Emergency
- Climate Change (Land)
- Agriculture, Mining, Infrastructure, Aquaculture
- Space Weather

## ■ EO Platform & Technologies

- TEP/DIAS
- SDI
- RHETICUS
- Application Platforms
- Cyber Security
- Artificial Intelligence
- Blockchain
- PDGS processing pipelines
- Onboard Software
- Payload Control Center & EGSE SW

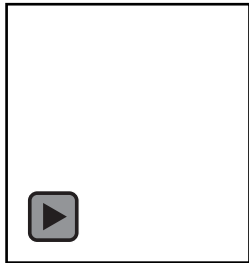




## Geo-Info as a service

Automatic cloud-based geoinformation  
service platform for territorial monitoring

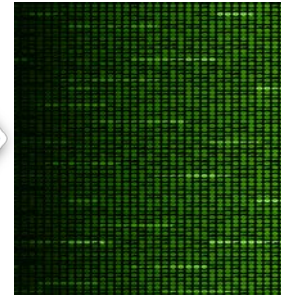
# Data Processing Workflow



Satellite Data



Automatic Processing



Knowledge



Rheticus® is an automatic cloud-based geo-information service platform  
for **Land, Water and Infrastructure monitoring**

# Rheticus® Services



**Landslide & subsidence monitoring for land-use and infrastructure**



**Monitoring water and sewer networks**



**Dynamic Roadway and Railway Networks Monitoring**



**Monitoring of coastal water & freshwater quality and marine resource exploitation**



**Urban dynamics monitoring for anthropogenic changes**



**Burnt area detection, fire severity, vegetation regrowth, illegal infrastructure**



**Vineyards monitoring and identification of biophysical parameters**



**Farm monitoring and identification of best harvesting and selling times for optimizing aquaculture activities**

# Rheticus® Services for Infrastructures Monitoring

# Rheticus® Displacement



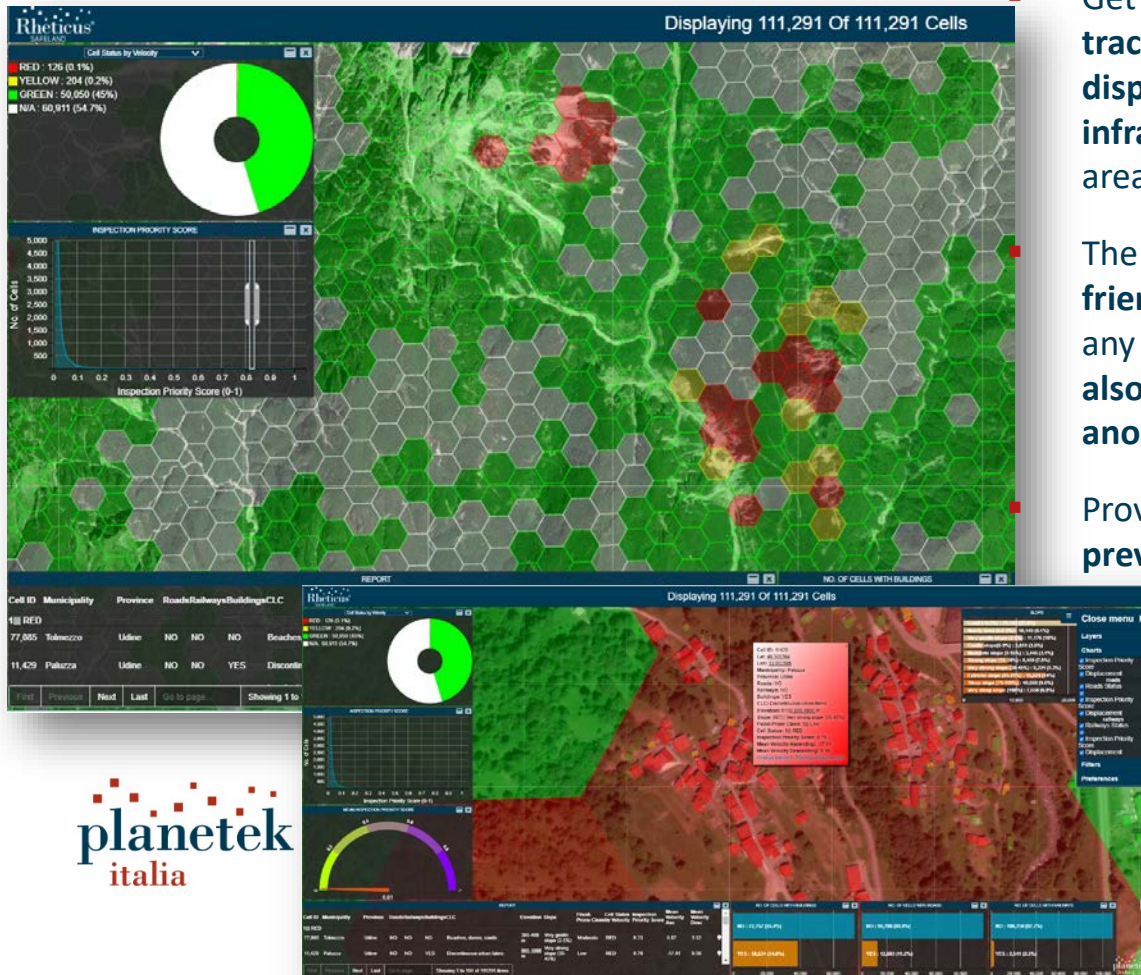


# Rheticus® Safeland

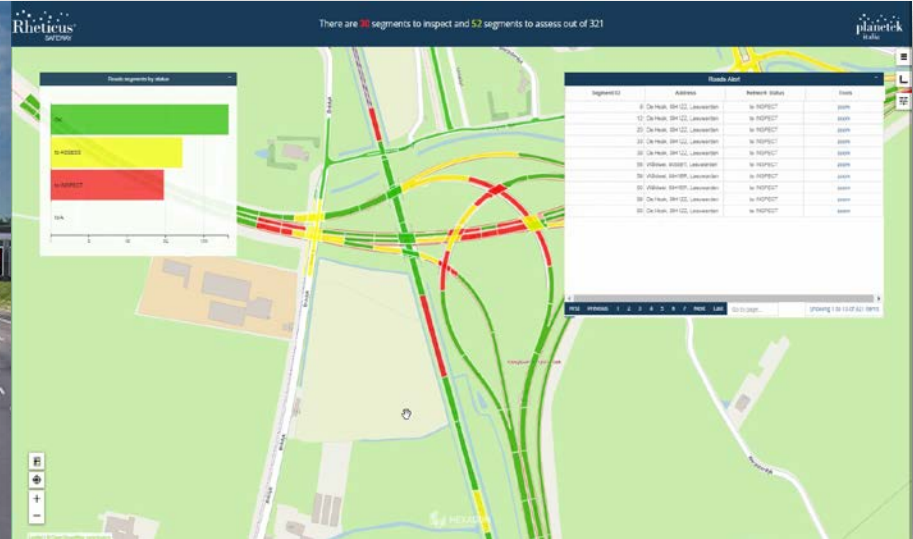
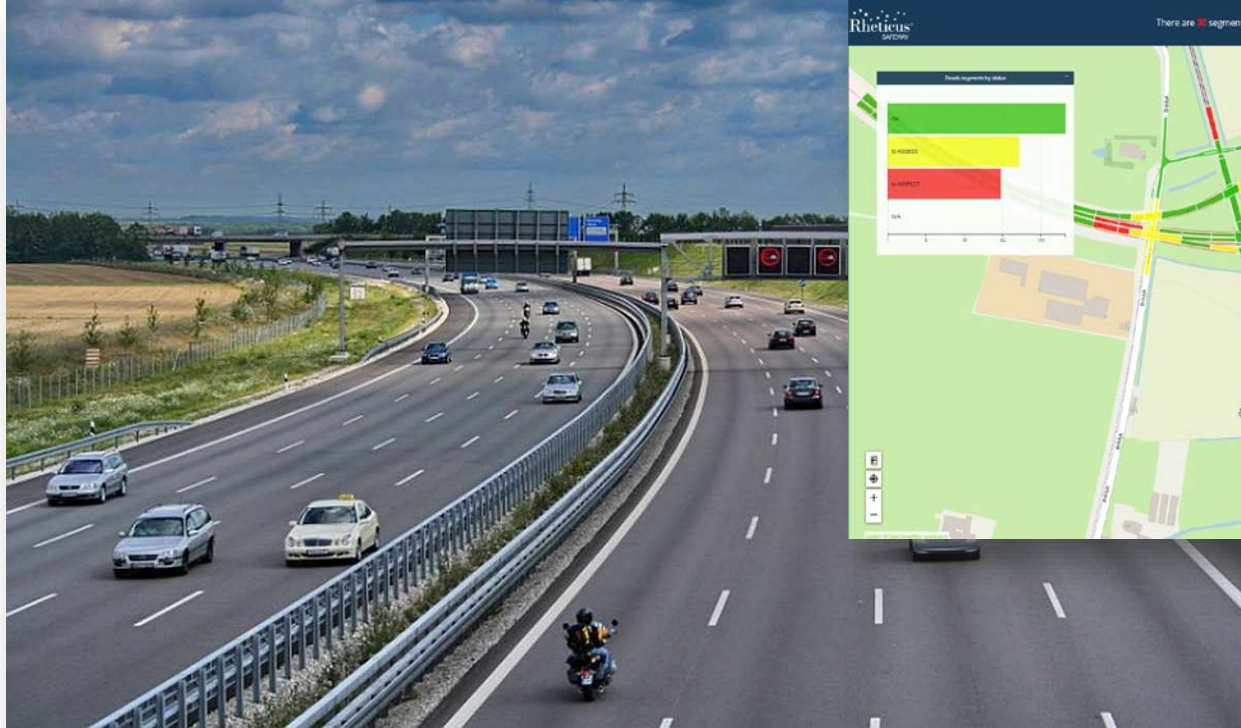
Get an in-depth analysis, which thoroughly tracks any relevant event, such as ground displacement, average slope, existing infrastructures or buildings, within your area of interest

The analysis leads to a reliable, **user-friendly, periodical report**, that pinpoints any displacement to the millimeter, while also tracking emerging trends and anomalies

Provides invaluable **assistance** with damage prevention and limitation



# Rheticus® Safeway



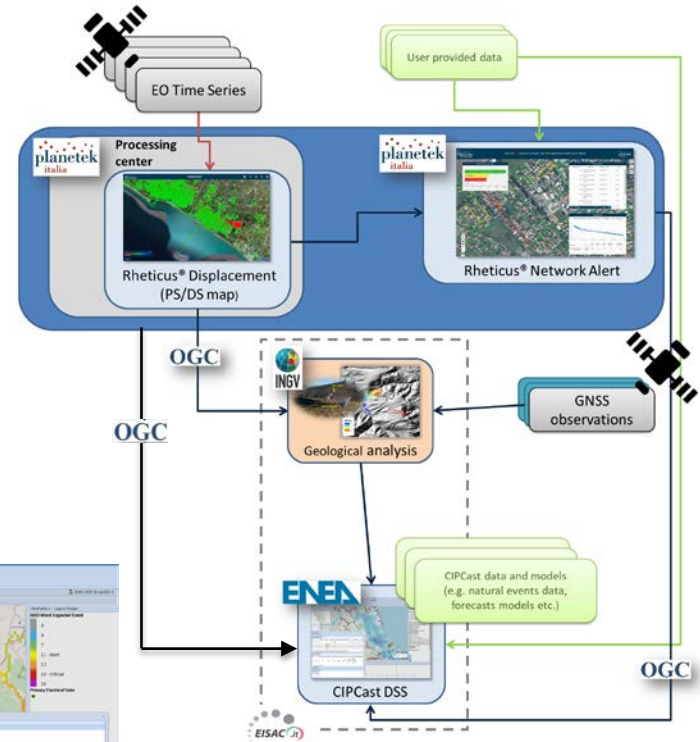


# Rheticus® Urban Dynamics

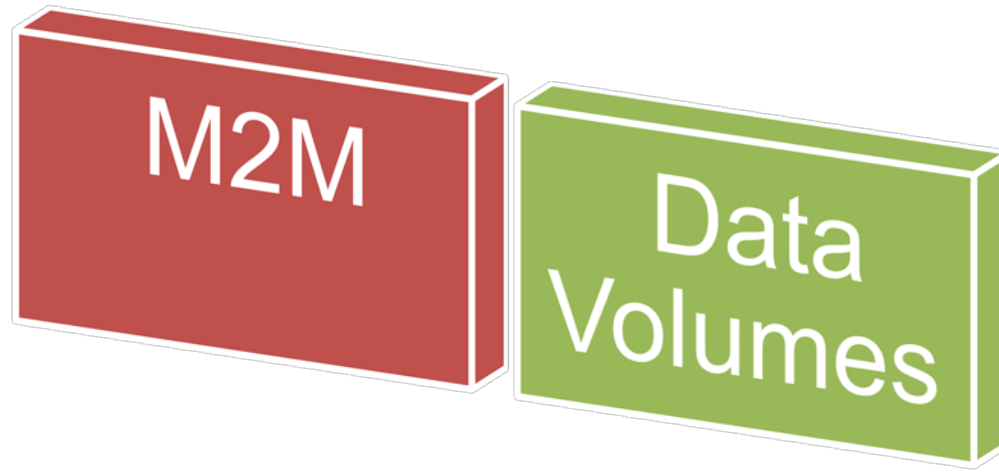


# SCIRES – Supporting Critical Infrastructures Resilience from Space

- Planetek is leading the SCIRES initiative, with ENEA and INGV (EISAC.it)
- Rheticus® and CIPCast (the ENEA DSS for Critical infrastructure) have been integrated to deliver multivariate risk analysis for (interconnected) Critical Infrastructure



# Towards efficiency



# Grazie!

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