

CI502430

## Athena Project for INWIT

Alder Moriggi – One Team  
Andrea Perego – One Team  
Giulia Cicone – INWIT  
Roberto Susinno - INWIT

### Learning Objectives

- Assess the potential of BIM combined with GIS
- Evaluate a system which automatically checks the consistency of projects according to BIM standard libraries
- Improve asset management planning and maintenance operations execution
- Identify how a platform for data retrieval may reduce disruption risks

### Description

How Athena Project Unlocked the Power of Data for Efficiency

### Speaker(s)

	<p><b>Alder Moriggi</b> <i>Software Developer Engineer</i></p> <p>Alder Moriggi is an analyst and software developer engineer at One Team, an Italian System Integrator company and Autodesk Platinum Partner.</p> <p>As Senior Analyst, works close to customers on many projects, covering different industries.</p> <p>I have always worked in CAD &amp; GIS fields, since 2012 with Autodesk software. From 2019 I started developing Forge Platform solutions.</p> <p>I really enjoyed to get involved in Athena Project because I could face and improve all aspects I worked on in the last years. Project's next steps are equally challenging.</p>
	<p><b>Andrea Perego</b> <i>Consulting &amp; Marketing Director</i></p> <p>Andrea Perego is an innovation enthusiast who firmly believes in the power of ideas supported by sweat and tears.</p> <p>The fil rouge of my professional experiences is indeed the constant quest for various forms of "innovation": the in-depth study of cutting-edge technologies, the involvement in heterogeneous consulting projects, the interaction with different cultures and perspectives. These milestones have contributed to raise in me the ambition of taking part in projects creating value through innovation.</p>

	<p>Currently I am working at One Team for the introduction of the BIM (Building Information Modeling) and the Industry 4.0 paradigms in the Italian market.</p>
	<p><b>Giulia Cicone</b>  <i>BIM Manager - Innovation &amp; Engineering</i></p> <p>BIM Manager and Innovation&amp;Engineering specialist at INWIT. Always focused on digitalization, I've spent the last five years dedicated to build BIM environment for Telcos' aims, at first in Vodafone Italia and now in INWIT.</p> <p>As Innovation specialist I work also on IoT and part of my job is discovering new solutions to support INWIT's business.</p> <p>I've started Athena Project trying to convey all my previous experiences and now is far from its early stage, but lot of challenging things are yet to come.</p>
	<p><b>Roberto Susinno</b>  <i>Cloud Architectures Manager - IT Solution</i></p> <p>Cloud architect and IT specialist at INWIT, the major Italian tower company.</p> <p>Former AAA &amp; multimedia operation coordinator at Telecomitalia.</p> <p>Over the last 20 years I earned a wide experience in management &amp; integration of IT architectures and I'm actually driving the digital transformation process for INWIT.</p> <p>For Athena Project I designed the cloud architecture, the network flows.</p> <p>I'm actually working on further integrations vs. a digital signature platform and a blockchain based versioning system.</p>

## One Team

One Team Srl is a leading high technology SME with more than 30 years of experience in providing consultancy and end-to-end software and hardware solutions for Architecture, Engineering, Construction, Manufacturing, Owner/Operators (AECO) and GIS firms face the challenges of implementing design, construction and geospatial digital tools. One Team has strong relationships with industry leading software manufacturers, for which it holds the top qualifications (Autodesk Platinum Partner, ESRI Silver Partner, HP Gold Partner...) and is a member of Autodesk, ESRI and Microsoft Developer Networks and, hence, is specialized in the integration of CAD / BIM / GIS / ERP systems.

For more information visit <https://www.oneteam.it>



# one team

## INWIT

Inwit is an acronym for Italian wireless infrastructures and was founded 2015 with the acquisition of tower assets from major Italian TLC operator Telecom Italia.

In 2019 resulting merging operation with Vodafone towers, INWIT assumed its actual asset, size and organization becoming the major tower operator in Italy.

Inwit market capitalization is about 10B € which makes it the 19° Italian company overall and one of the principal stocks in FTSE MIB index

INWIT primary target is supporting the two major Italian TLC companies in developing 5G network. Moreover, INWIT grants access to its infrastructures to any other TLC operator as a neutral host.

INWIT, in the near future, is willing to explore and develop traditional radio coverage solutions as DAS and Small Cells but also innovative services and scenarios like IoT devices hosting, environmental control, drones nesting.

# INWIT

Infrastrutture Wireless Italiane

## Assess the potential of BIM combined with GIS

We have dedicated a specific section of the Athena platform to cartography. In this section users can perform analysis by filtering the models based on the components they instantiated and can view the result on a georeferenced map. Each model contains its own territorial information to be correctly geolocated, so we also manage display filters for users according to the territorial permissions they have (some people can only see sites in northern, central or southern Italy).

**ATHENA**

FORGE INWIT  
One Team  
Administratore

Parametri di ricerca - 24137 elementi visualizzati

Codice Codice Nome Nome Tipo Cliente

Area Regione Provincia Città Città

Altri Filtri

© OpenStreetMap contributors.

**ATHENA**

FORGE INWIT  
One Team  
Administratore

Parametri di ricerca - 1471 elementi visualizzati

Codice Codice Nome Nome Tipo Cliente

Area Regione Lazio Provincia ROMA Città Città

Altri Filtri

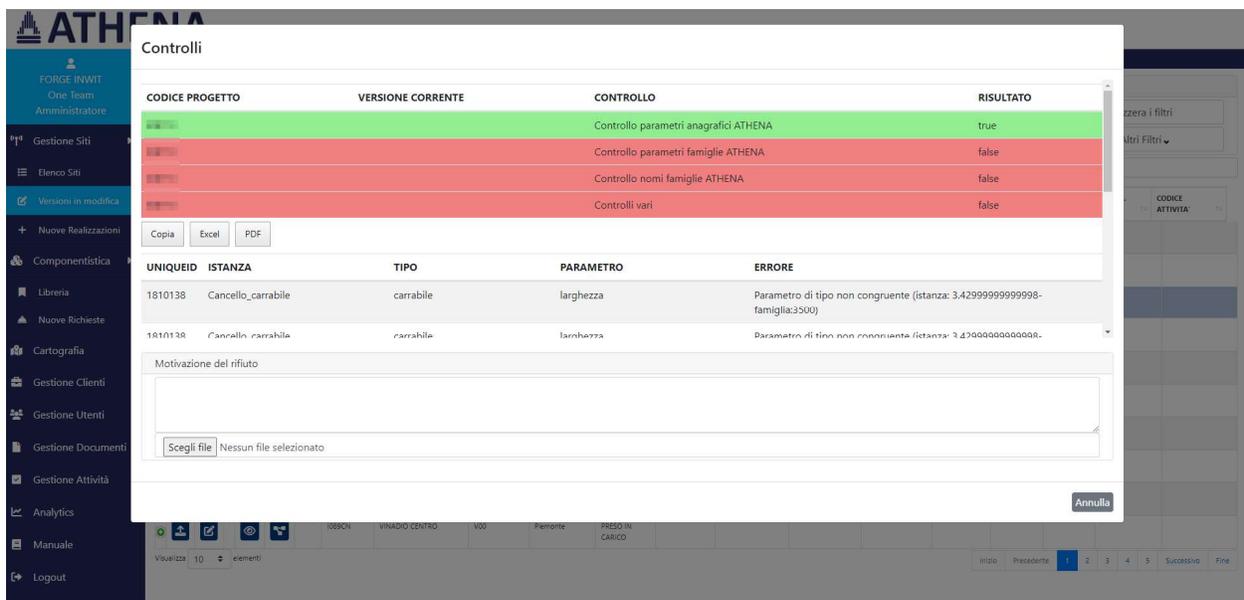
© OpenStreetMap contributors.

## Evaluate a system which automatically checks the consistency of projects according to BIM standard libraries

The new INWIT BIM standard incorporate and maximized all the old features in terms of objects, modelling and data in order to support modeling and database standardization.

Athena database is composed of all the information present in the families and, in general, in the models.

To ensure that the informative goodness of the models is not compromised, and that therefore incorrect information is not introduced into the database when the model is uploaded on the platform an informative consistency check is carried out and all the instances present in the model are analyzed in terms of parameters, localization, etc.



The screenshot shows the 'ATHENA' software interface with a 'Controlli' (Checks) window open. The window contains a table of checks and a detailed error message for a specific instance.

CODICE PROGETTO	VERSIONE CORRENTE	CONTROLLO	RISULTATO
		Controllo parametri anagrafici ATHENA	true
		Controllo parametri famiglie ATHENA	false
		Controllo nomi famiglie ATHENA	false
		Controlli vari	false

UNIQUEID	ISTANZA	TIPO	PARAMETRO	ERRORE
1810138	Cannello_carrabile	carrabile	larghezza	Parametro di tipo non congruente (istanza: 3.4299999999999998- famiglia:3500)
1810138	Cannello_carrabile	carrabile	larghezza	Parametro di tipo non congruente (istanza: 3.4300000000000002-

Motivazione del rifiuto

Scegli file Nessun file selezionato

## Improve asset management planning and maintenance operations execution

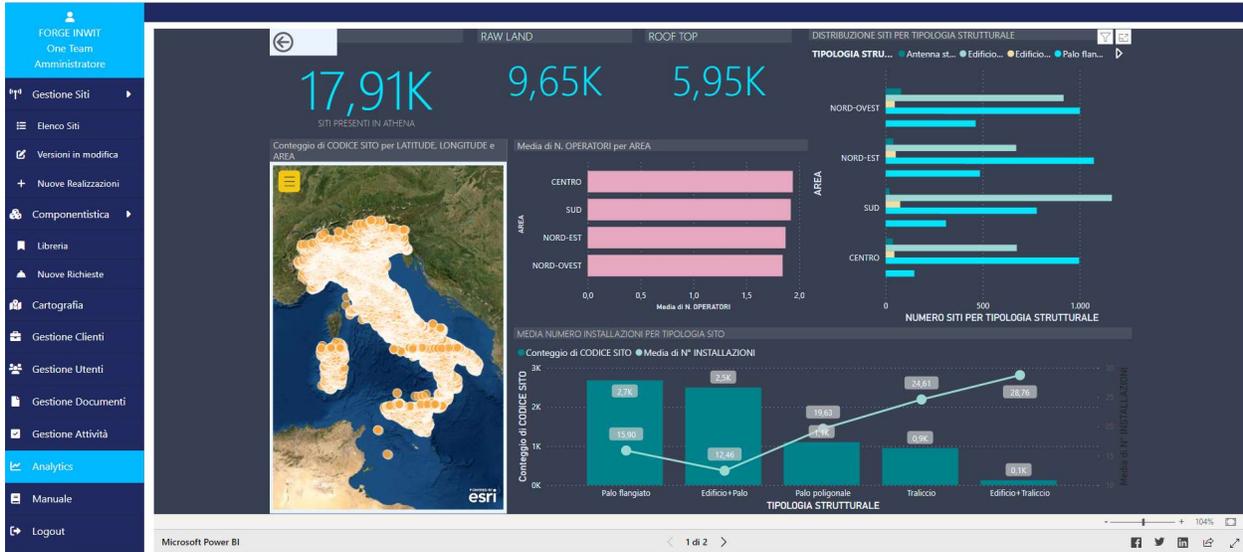
All infrastructures are modelled with the same components (families) and that enable us to have a unique informative database always updated.

In our processes we use a risk rate indicator related to different towers' factors, such as location, geometry, maintenance status and so on, that help us to map towers' vulnerability.

Have an executive level of detail within the models, made with standard components, allows us to integrate the data obtained from them with risk indicators. So, with BIM models we can update the algorithm any time we've an upgrade and have the new indicator's value calculated automatically. That gave us the chance to switch from a scheduled round robin maintenance

model to a predictive one, reducing dramatically the number of site inspections.

## ATHENA



## ATHENA

The interface shows a detailed view of a site with the following data:

Codice	Codice	Nome	Nome	Tipo	Cliente
Area	Region	Lazio		Provincia	ROMA
Gruppo	Antenna	Famiglia	Antenna_Kathrein	Città	Città
				Tipo Famiglia	729245
				Tipo Apparat	Outdoor

Additional details shown in the interface include a map, a 3D model of the site structure, and a data table with filters.

## Identify how a platform for data retrieval may reduce disruption risks

Connecting Athena with our Business Process Manager platform we are able to create a link between the changes that are made on the model and those required in the field.

We have a single model for each site (22.000), in which are stored any changes made over time on the infrastructure with phases method.

So, whenever is made a request for changes from Telco Operator, the model is locked for him and no one can make any change. Thanks to this, we reduce the risk of disruption and also have the right timeline of events in the model and database.