

# Rheticus® Wildfires:

actionable geoinformation service on burnt areas  
for post-fire assessment

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12<sup>th</sup> EARSeL Forest Fires SIG Workshop  
Rome - October 3<sup>rd</sup> – 4<sup>th</sup>, 2019



Since 1994...



Bari



Athens



Roma



Bari



Earth Observation



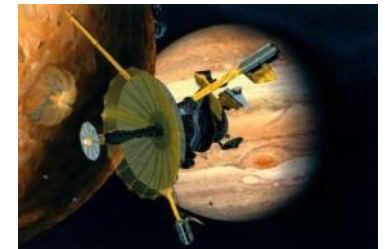
Spatial Data  
Infrastructure & GIS



Location Based  
Systems



Space Software



Premium Partner

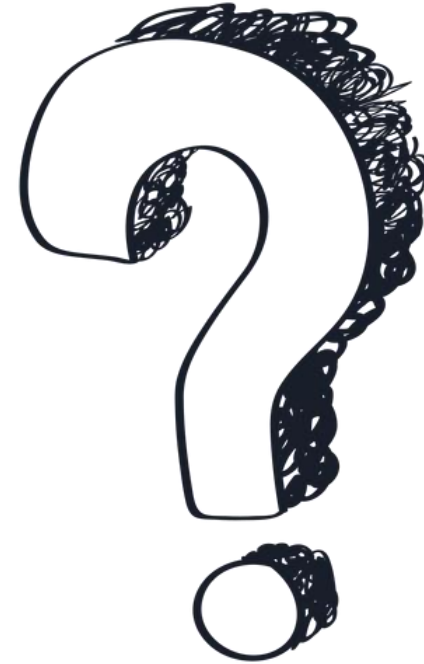


20180101-20181231

0 – 30

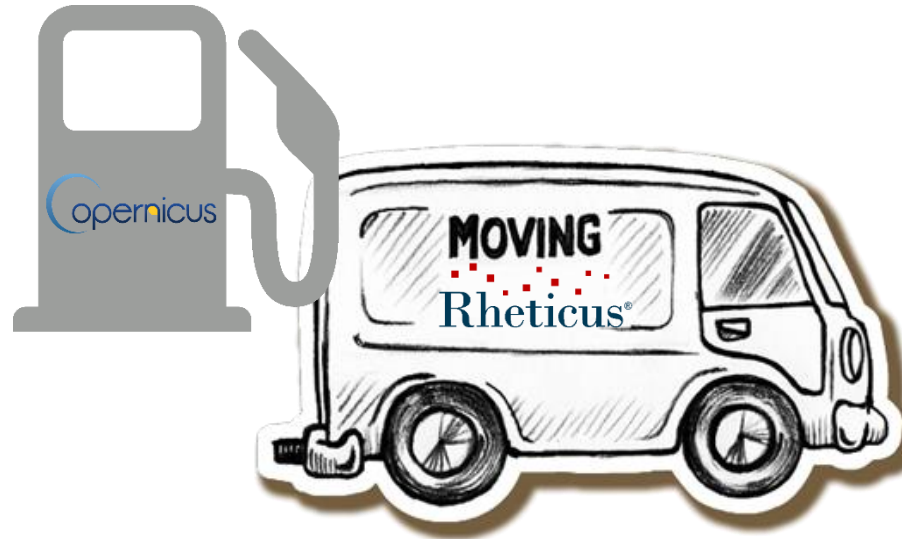
1279

800





**Monitoring  
Service On  
Request**



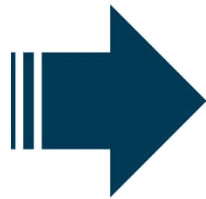
**Info-aaS**



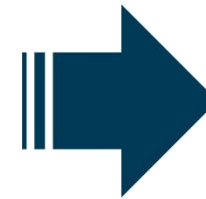
# How does Rheticus® work?



**Satellite  
Data**



**Cloud-Based & Automatic  
Processing Infrastructure**



**Info as a  
Service**

Standardisation - Subscription-based - Worldwide availability

# Service Portfolio









## Post-Processing

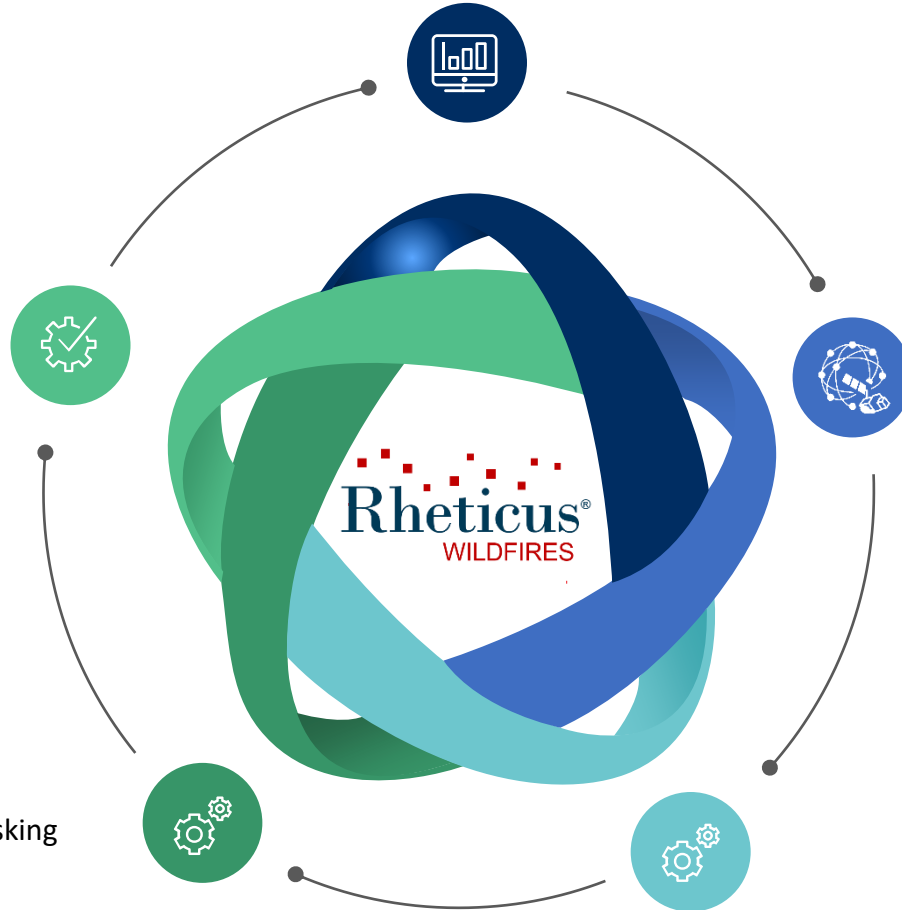
- › Spatial analysis
- › Statistics
- › Analytics

## Processing

- › Cloud detection and masking
- › Burnt area detection
- › Severity classification
- › Illegal building detection
- › Vegetation regrowth monitoring

## Output

- › Web App
- › Pre-Set Reports



## Input

- › Search & download Sentinel-2
- › Other open data sources
- › Other customer's data

## Pre-Processing

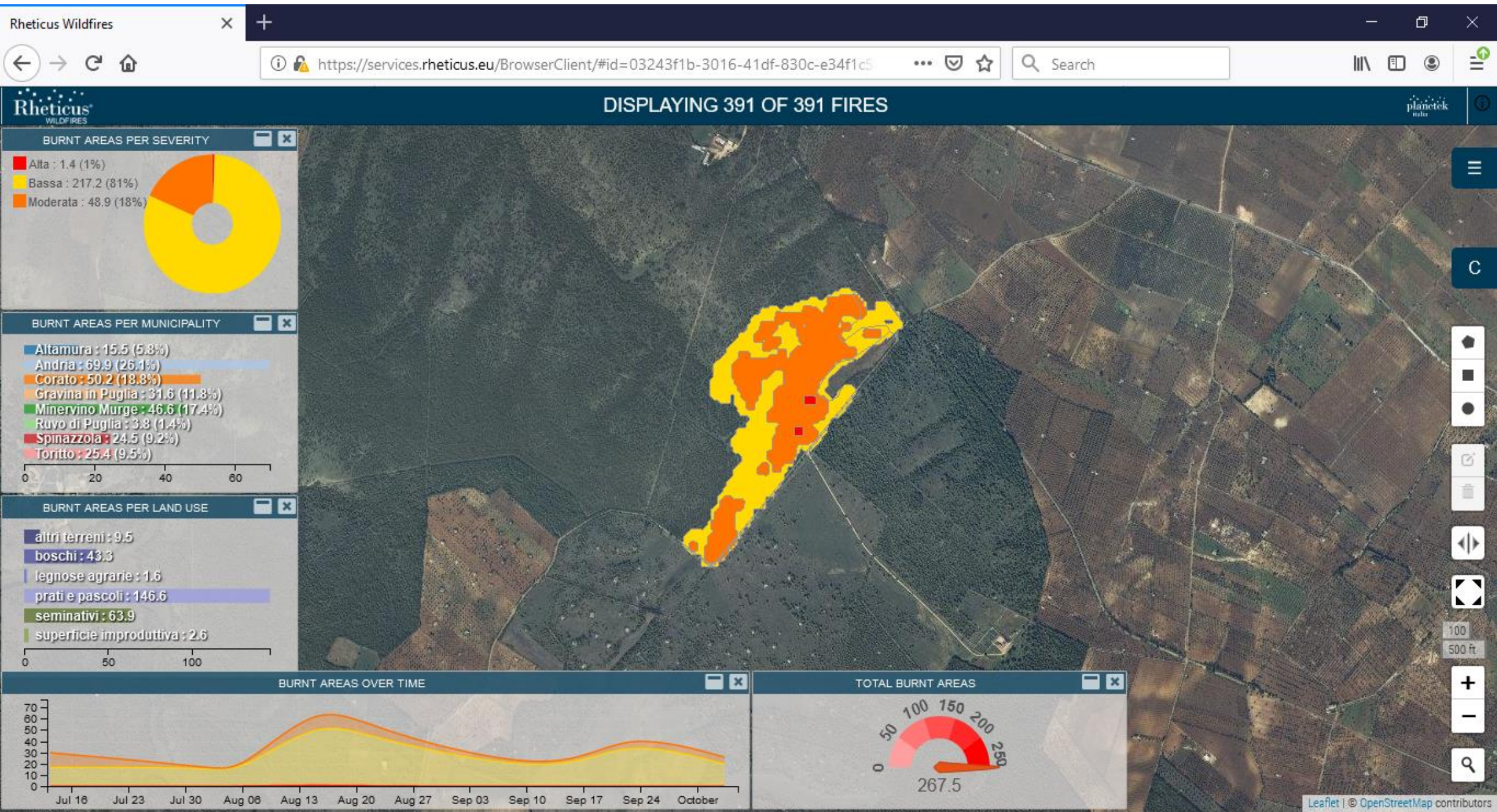
- › Atmospheric correction



# What does Rheticus® Wildfires provide end-users with?

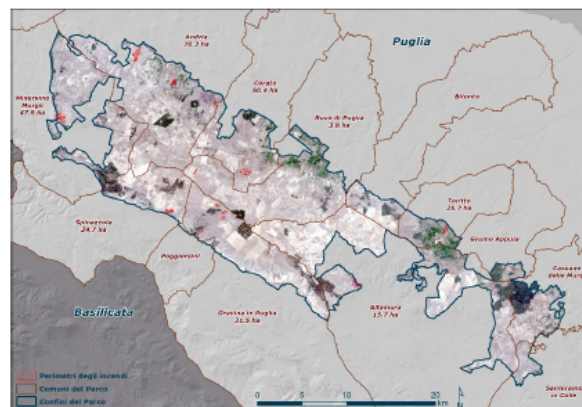
- ☐ **Burnt Area Detection and Fire Severity Classification (1/week)**
- ☐ **Detection of potentially illegal building activities within past official burnt areas (4/year)**
- ☐ **Monitoring of vegetation regrowth within burnt areas (1/year)**



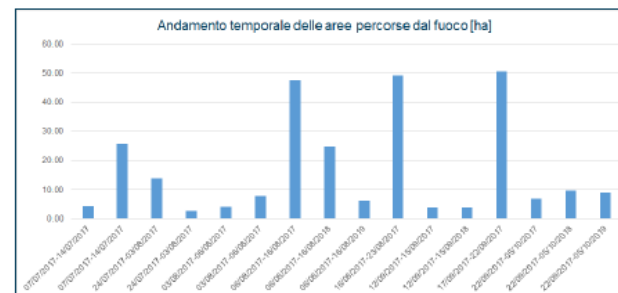




### Dati di sintesi del servizio

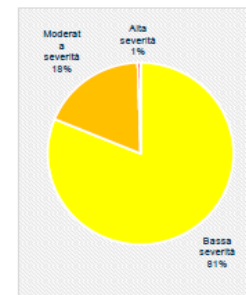


ID Incendio	Periodo	Area [ha]
ID1	07/07/2017-14/07/2017	4.40
ID2	07/07/2017-14/07/2017	25.70
ID3	24/07/2017-03/08/2017	13.90
ID4	24/07/2017-03/08/2017	2.60
ID5	03/08/2017-06/08/2017	4.0
ID6	03/08/2017-06/08/2017	7.8
ID7	06/08/2017-16/08/2017	47.6
ID8	06/08/2017-16/08/2018	24.7
ID9	06/08/2017-16/08/2019	6.0
ID10	16/08/2017-23/08/2017	49.4
ID11	12/09/2017-15/09/2017	3.8
ID12	12/09/2017-15/09/2018	3.9
ID13	17/09/2017-22/09/2017	50.4
ID14	22/09/2017-05/10/2017	6.8
ID15	22/09/2017-05/10/2018	9.7
ID16	22/09/2017-05/10/2019	9.0
<b>Totale</b>		<b>269.7</b>



Superficie percorsa dal fuoco per classe di severità [ha]	
Bassa severità	219.0
Moderata severità	49.3
Alta severità	1.4
<b>Totale</b>	<b>269.7</b>

Superfici percorse dal fuoco per Comune [ha]	
Altamura	15.7
Andria	70.3
Corato	50.4
Gravina di Puglia	31.5
Minervino Murge	47.6
Ruvo di Puglia	3.8
Spinazzola	24.7
Toritto	25.7
<b>Totale</b>	<b>269.7</b>





# Who is it for?

- ❑ Governmental authorities in charge of policy and decision making
- ❑ National to local governmental institutions in charge of environmental monitoring and reporting
- ❑ National to local park entities



# Pilot service run in 2017



- ❑ 07/07 – 15/10: 270 ha of burnt areas
- ❑ 16 wildfires, and 3 fires affecting over 50 ha each
- ❑ Most affected municipalities: Andria, Corato and Minervino Murge
- ❑ Most affected LC types: pasture (132 ha), arable land (44 ha)
- ❑ Woods: at least 35 ha, and 1 ha classified at high severity



**IL RESTAURO FORESTALE DELLE AREE PERCORSE DA INCENDIO:  
UN APPROCCIO METODOLOGICO PER LA STIMA DEL DANNO E  
L'INDIVIDUAZIONE DEGLI INTERVENTI POSSIBILI**

**IL CASO STUDIO DELLE AREE FORESTALI COLPITE DALL'INCENDIO DEL MORRONE  
DEL 19 AGOSTO - 12 SETTEMBRE 2017**

*T. Andrisano, F. Contu, B. Schirone*

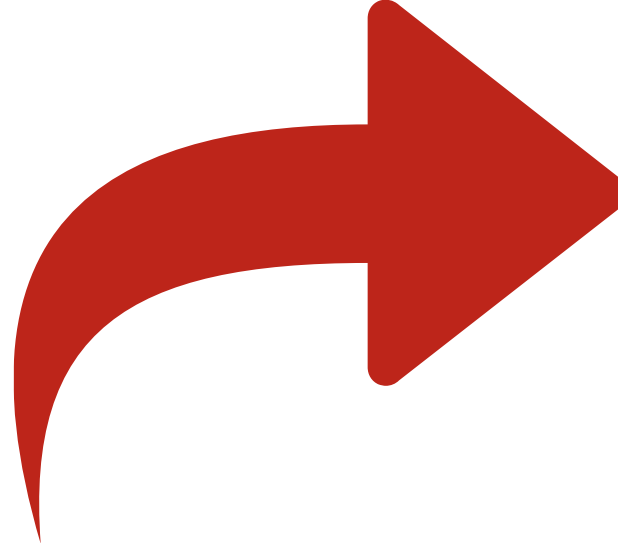
*Società Italiana Restauro Forestale*

Viterbo, 30 novembre 2017



# Let's keep in touch

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