

# WP11 – PHYSICAL ACCESS TO RIs

*ENVRiplus mult-disciplinary test platforms*

## ETNA-INGV (EPOS)

*Geographical localisation - RI associated*

*Installations/Facilities*



INGV Main  
building



Montagnola facility



ENVRI WEEK – 16-20 November 2015 – Prague, Czech Republic

plus  
ENVRI





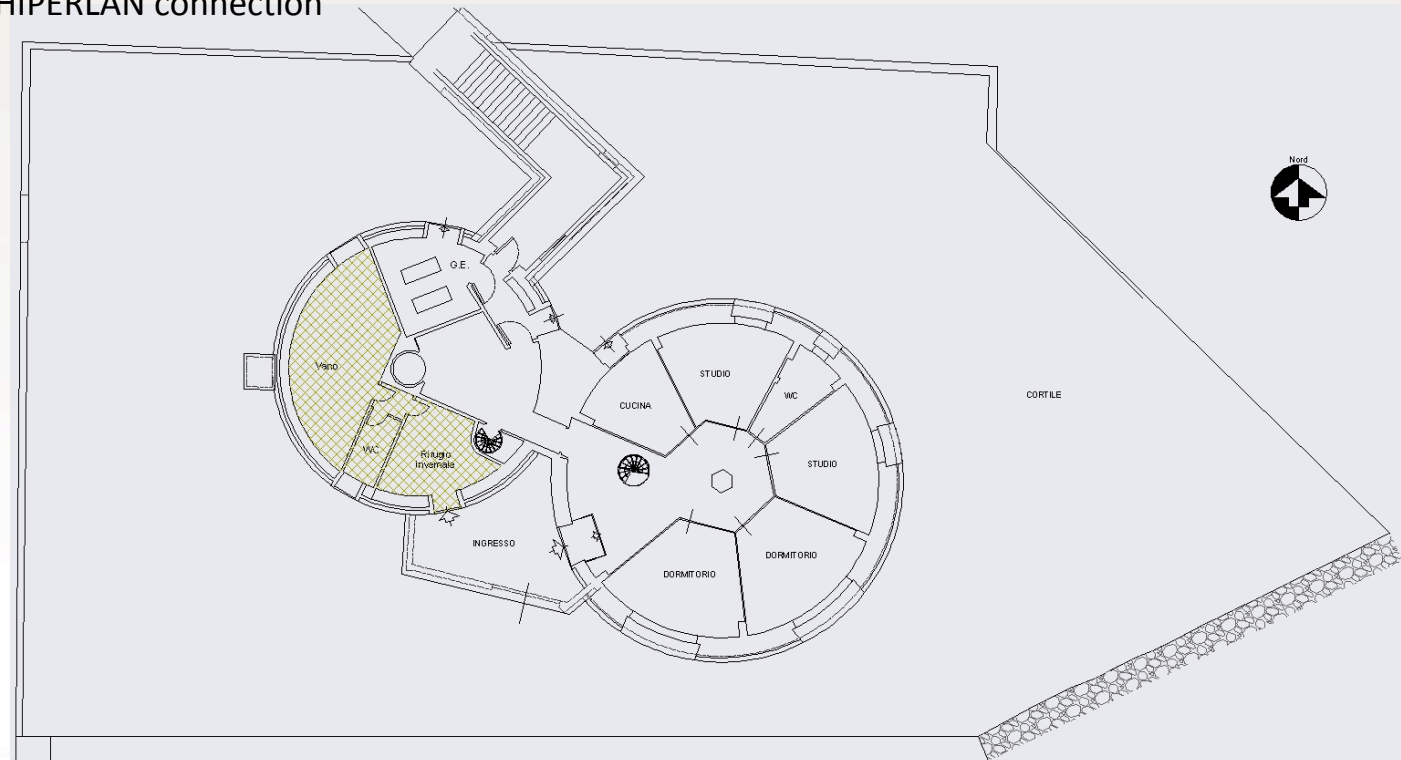
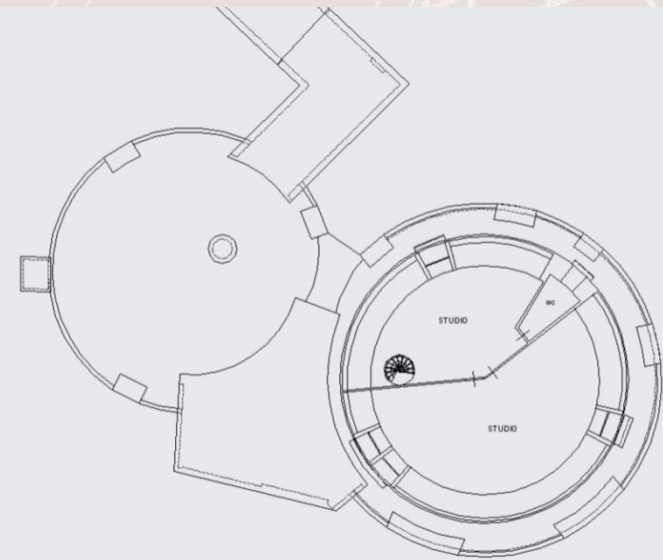
Environmental Research  
Infrastructures Providing Shared  
Solutions for Science and Society

Foto Alfio Amantia

## “Pizzi Deneri” Observatory Facilities

- N° 8/10 beds in two rooms
- n° 1 Kitchen (incl. oven, fridge, etc.)
- N° 2 restrooms
- N° 4 rooms for offices
- N° 1 workshop
- N° 1 warehouse
- N° 2 electric generators (20 Kw)
- N° 1 solar panels plant (3 Kw) with buffer battery
- N° 1 hot-water heading (diesel)
- underground water container (not drinkable)
- underground diesel tank
- Internet access through HIPERLAN connection

**TNA activities  
foreseen only in  
summer time**



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## ETNA-INGV (EPOS)

*Relevant research area and expertise:*

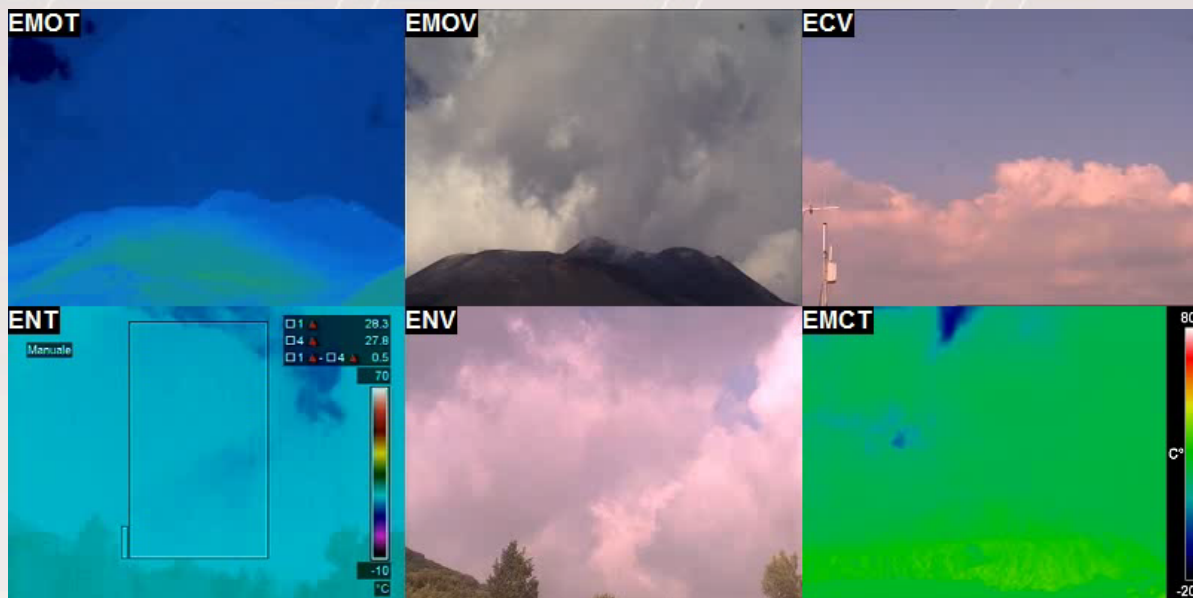
- Volcano monitoring and research: *INGV is a top level institutions for both activities (first worldwide in the ISI-Thomson volcanologic rank; manages two Supersites which merge in-situ and space based data sets);*
- Examples: *monitoring and modelling of volcanic clouds and lava flows; geochemical, seismic, ground deformations monitoring.*

*Why is the station unique in each RI domain represented:*

- *Mt. Etna was included in the UNESCO World Heritage List for its volcanic activity and important terrestrial ecosystems;*
- *Mt. Etna is one of the 16 Decades IAVCEI volcanoes (international natural laboratories for the volcanologic community)*
- *INGV offers Earth Science facilities suitable also for environmental monitoring*
- *Mt. Etna is a Natural Park, close to the Catania University and Int. Airport*

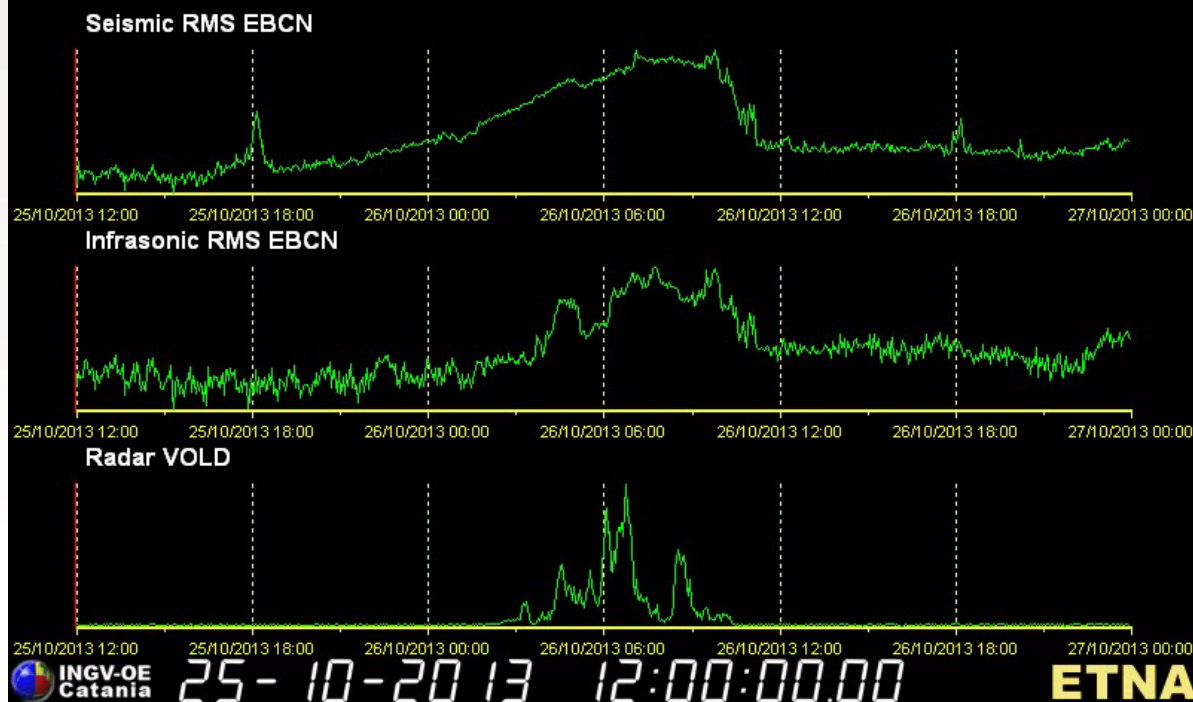






The October 26,  
2013 Mt. Etna  
Paroxysm: the  
movie.

**NOVENA group: Numerical Organization of data Video Elaborations and Acquisition**  
This video can **only** be used for monitoring purposes.



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## ETNA-INGV (EPOS)

*Brief (main) instruments accessible*

1. *LIDAR (suitable for measuring aerosol, including volcanic ash);*
2. *SO<sub>2</sub> FLAME network (10 UV scanning spectrometers for measuring SO<sub>2</sub> flux);*
3. *FTIR (chemical composition of gas by IR spectrometer; @ “la Montagnola”);*
4. *Radon network (BARASOL multi sensors BMC2; suitable for fieldworks);*
5. *Magnetometer (GSM-19 Overhauser magnetometer; suitable for fieldworks);*
6. *Gravimeter (spring-based relative Burris Gravity Meter™ SN B68; for fieldworks);*
7. *CAMSIZER® (Retsch) (lab instrument for particle size distribution measures);*
8. *Stereoscopic Zoom Microscope (Nikon SMZ1500);*
9. *Mobile multiparametric system (mobile system which integrates a digitizer with velocimeter, accelerometer, radiometer, infrasound microphone or GPS).*



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## ETNA-INGV (EPOS)

### *Past experience in TNA?*

- *INGV-OE receives tens of applications each year for accessing to its research facilities (Pizzi Deneri Observatory, laboratories, instruments, data sets) for carrying out experiments or fieldworks in the frame of national/international projects or training activities.*
- *Nevertheless, these accesses are not managed as TNA activity, according to EC rules.*

### *Expectations from ENVRI+TNA: potential cross-domain studies*

- *Interactions between the volcanic activity and atmosphere, biosphere or marine system.*

