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PIANO NAZIONALE
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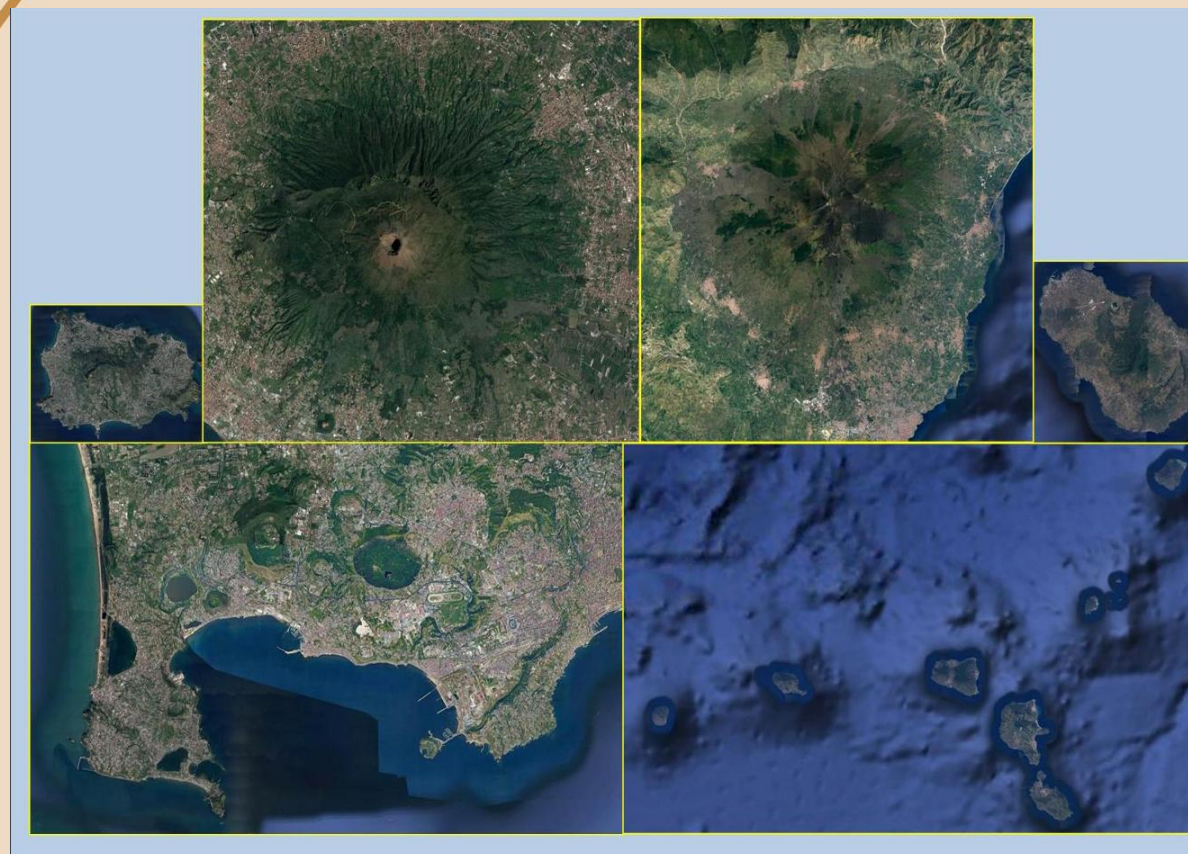


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WP 2 - **SOME** Coordinator Massimo Orazi

STRENGTHENING
VOLCANIC
MONITORING
NETWORK

Assigned Budget: 5 M€





WP2 Contest of Actions

Continuous Challenge

to improve volcanic systems knowledge,
to contribute to the safety of civil population and society



A continuous effort

to improve quality, quantity and tipology of volcanic geophysical and geochemical parameters,
to keep the monitoring infrastructures updated (in HW, SW, DAQ, Data Centres, Data Storage)



Outcome

- Better assessing of state of volcanoes,
- Improving resilience and risk mitigation for civil community
- New level of readiness for volcano monitoring IR according the requests of scientific community
- Much more research



WP2 Areas of Actions

- **Action 1: Campania Volcanoes (Vesuvius, Campi Flegrei, Ischia)**
OU5 (INGV, Osservatorio Vesuviano) – Ref. S. Guardato
- **Action 2: Etna volcano**
OU4 (INGV, Osservatorio Etneo) – Ref. S. Alparone
- **Action 3: Sicily's volcanic islands (Eolie and Pantelleria)**
OU4 (INGV, Osservatorio Etneo) – Ref. S. Di Prima



WP2 Main Action:

Strengthening of Volcano Monitoring Infrastructures For

Campania Volcanoes, Etna Volcano, Eolie and Pantelleria volcanoes

These monitoring IR (and relative actions) may be classified in:

- Seismic networks and systems;
- Geophysical and Geodetic observation networks and systems;
- Volcanological and multidisciplinary observation networks and systems;
- Surveillance and data acquisition systems.

Including, for each one, their

- Civil infrastructures



WP2 IR Action Description: Seismic networks and systems

- Update, upgrade e acquisitions seismic instruments in existent seismic stations (Velocimetric, accelerometric and infrasonic sensors, digitizers);
- New seismic stations for mobile networks (for emergency purposes, field experiments, etc.)
- New surface and new borehole installations;
- New civil infrastructures



Etna + Eolie & Pantelleria



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WP2 IR Action Description:

Geophysical and Geodetic observation networks and systems

Update, upgrade e new acquisitions instruments and software

Upgrade on GNSS and Tiltmetric permanent networks

Instruments acquisition for a GNSS mobile network

DAS acquisition for strain measurement on optical fibre cables

GNSS wheater add-on station acquisition

Long base tiltmeter

New civil infrastructures



Etna + Eolie & Pantelleria + Campania Volcanoes



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WP2 IR Action Description:

Volcanological and multidisciplinary observation networks and systems;

Acquisition of several instruments for volcanological and geochemical observations:

Mobile LIDAR, Network Cameras, Radar Doppler, FTIR, Gravimeter

New civil infrastructures



Etna + Eolie & Pantelleria + Campania Volcanoes

Submarine multidisciplinary observatories and first submarine geochemical monitoring network deployment



Campania Volcanoes (Campi Flegrei, Secca Fumosa)



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WP2 IR Action Description: Surveillance and data acquisition systems.

Data Centres upgrade and update

Energy Supply upgrade and increase

New Surveillance room data visualization

New civil infrastructures



Etna + **Eolie & Pantelleria** + **Campania Volcanoes**



OE Surveillance Centre + **OV Surveillance Centre**



WP2 Fixed Term Personnel

- **Campania Volcanoes (Vesuvius, Campi Flegrei, Ischia)**
3 CTER for a total of 72PM
(3 electronic technician)
- **Action 2: Etna volcano**
3 CTER for a total of 72PM
(2 electronic technician+ 1 Computer technician)
- **Action 3: Sicily's volcanic islands (Eolie and Pantelleria)**
1 CTER for a total of 24PM
(1 electronic technician)



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WP2 Budgets

ACTION	FT Personnel	Scientific Instr. (VAT incl.)	Civil Infrastr. (VAT incl.)	Indirect costs (VAT Incl.)	TOTALS
Campania	€ 279.700,93	€ 1.361.570,72	€ 93.457,94	€ 121.431,07	€ 1.856.160,66
Etna	€ 279.700,93	€ 1.747.520,41	€ 186.915,88	€ 154.989,62	€ 2.369.126,84
Eolie + Pant.	€ 93.233,64	€ 542.011,68	€ 88.785,05	€ 50.682,13	€ 774.712,50
TOTALS	€ 652,635,50	€ 3.651.102,81	€ 369.158,87	€ 327.102,82	€ 5.000.000,00



WP2 Deliverables and Intermediate Objectives

TITLE	Costs	Cumulative Costs	Bimester	Description
D2.1 IO2.1	€ 2,0M	€ 2,0M	4	Report on Instrument deliveries : instruments availability (i.e. stand alone instruments, mobile network instruments, etc.)
D2.2 IO2.2	€ 1,5M	€ 3,5M	6	Report on Civil Infrastructures Realization : It is a condition enabling instrument, HW and SW deployment or installation.
D2.3 IO2.3	€ 1,0M	€ 4,5M	9	Report on Instruments, HW, SW installations : he installations represent the full “operativity” of all the instruments, HW or SW dedicated to the IR networks.
D2.4 IO2.4	€ 0,5M	€ 5,0M	15	Report on Data Production/Data Acquisition : the new instruments acquired within this WP will produce data in continuous or discrete time.



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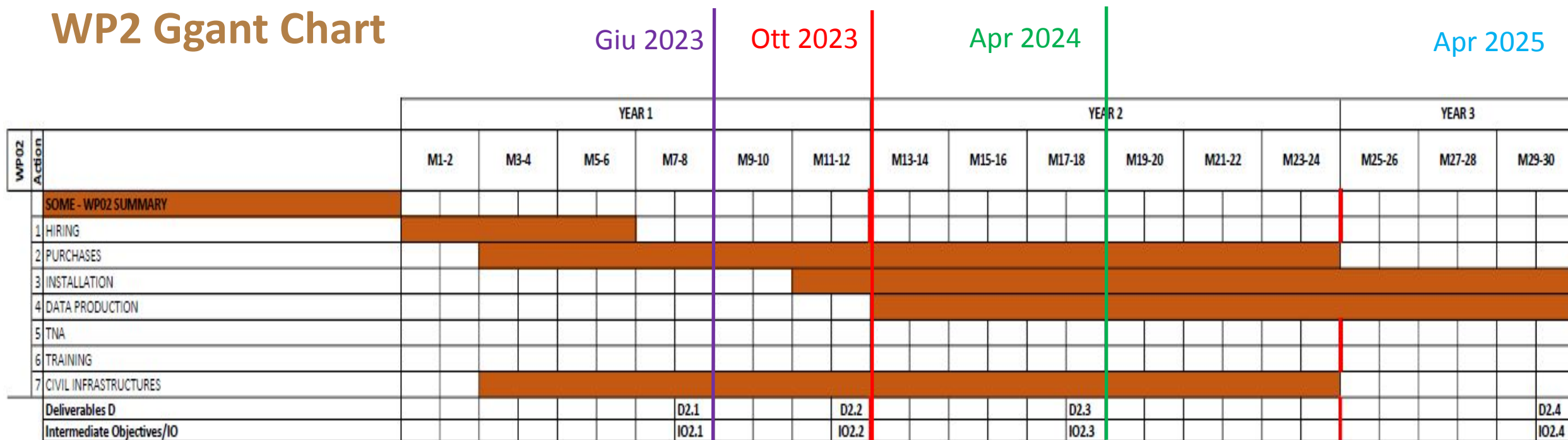


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WP2 Ggant Chart



2 MIn € Report sulla Disponibilità degli Strumenti

3.5 MIn € Report sulla Realizzazione delle Infrastrutture Civili

4.5 MIn € Report sulla Installazione della Strumentazione, HW, SW

5 MIn € Report sulla Produzione ed Acquisizione dei Dati



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WP2 other IR project interactions and synergies

