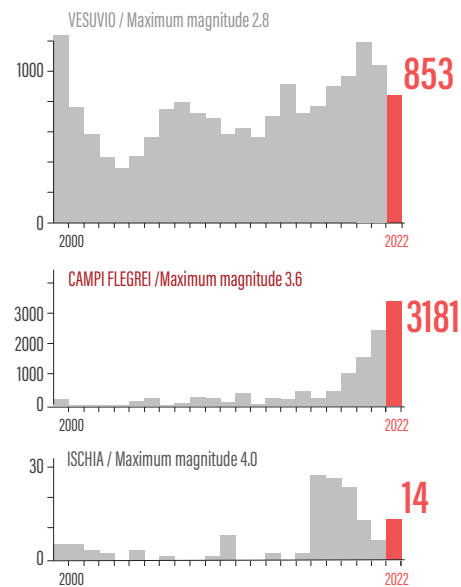


**MONITORING NETWORKS** At the Osservatorio Vesuviano the monitoring activity is aimed at observing the state of Vesuvius, Campi Flegrei, Ischia and Stromboli islands. The Neapolitan volcanoes are currently dormant and, in particular **Vesuvius** and **Campi Flegrei**, are among **the highest risk volcanoes in the world** due to their eruptive style, mainly explosive, and the presence around big urbanized areas. Instrumental networks record **seismic signals, geodetic and geochemical data**. Ground deformations are monitored by GNSS networks, tidal and tiltmetric networks.

## MONITORING

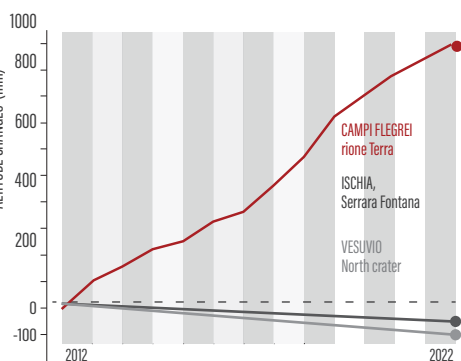
### MONITORED VOLCANIC AREAS

#### Catalogued seismic events



#### Ground deformations (GNSS data)

The GNSS data reported in the graph below refer to significant stations recording the ground deformations in progress. For **Vesuvius** a subsidence is observed in the upper part of the volcano. Even in **Ischia** the soil is subsiding, especially in the southern and central part part of the island. For the **Campi Flegrei** the ground is rising from 2005, with maximum deformation in



In the Neapolitan area seismic events in a volcanic area with a **magnitude equal to or greater than the thresholds defined for each volcano** are communicated to the **Department of Civil**



Even seismic swarms and seismic events below the predefined thresholds and in any case warned by citizens, as well as **landslides, anomalous degassing and rumbles** are communicated to the civil protection bodies.

Within a few minutes, a **provisional estimate** of the epicenter, magnitude and depth of the seismic event is provided. **Within 30 minutes**, the shift workers of the Monitoring Room, after having carefully analyzed all the available data, communicate **the (revised) magnitude, depth and geographical coordinates of the seismic event** to the **DPC** and other competent institutions.

## SURVEILLANCE AND COMMUNICATION

### PEOPLE, ROLES AND ACTIVITIES

The Vesuvian Observatory is the oldest volcanological observatory of the world.

**1841** FOUNDATION YEAR



The **Monitoring Room** is controlled 24 hours a day, 365 days a year, by personnel engaged in surveillance shifts. **2 shift workers** alternate according to three daily shifts and are assisted by **4 different specialized figures on-call available 24/7**: 1 seismologist, 1 volcanologist, 1 system engineer and 1 technical services employee.

**54** PEOPLE ENGAGED IN SURVEILLANCE SHIFTS

**2190** SURVEILLANCE SHIFTS / YEAR

The data recorded by the monitoring networks are collected in monthly and weekly **bulletins** for each volcanic area in relation to its state of activity.

In **2022**

**53** WEEKLY BULLETINS / YEAR

**36** MONTHLY BULLETINS / YEAR