

# World Organisation of Volcano Observatories

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TTTWO meeting

Online 5 Mar 2026

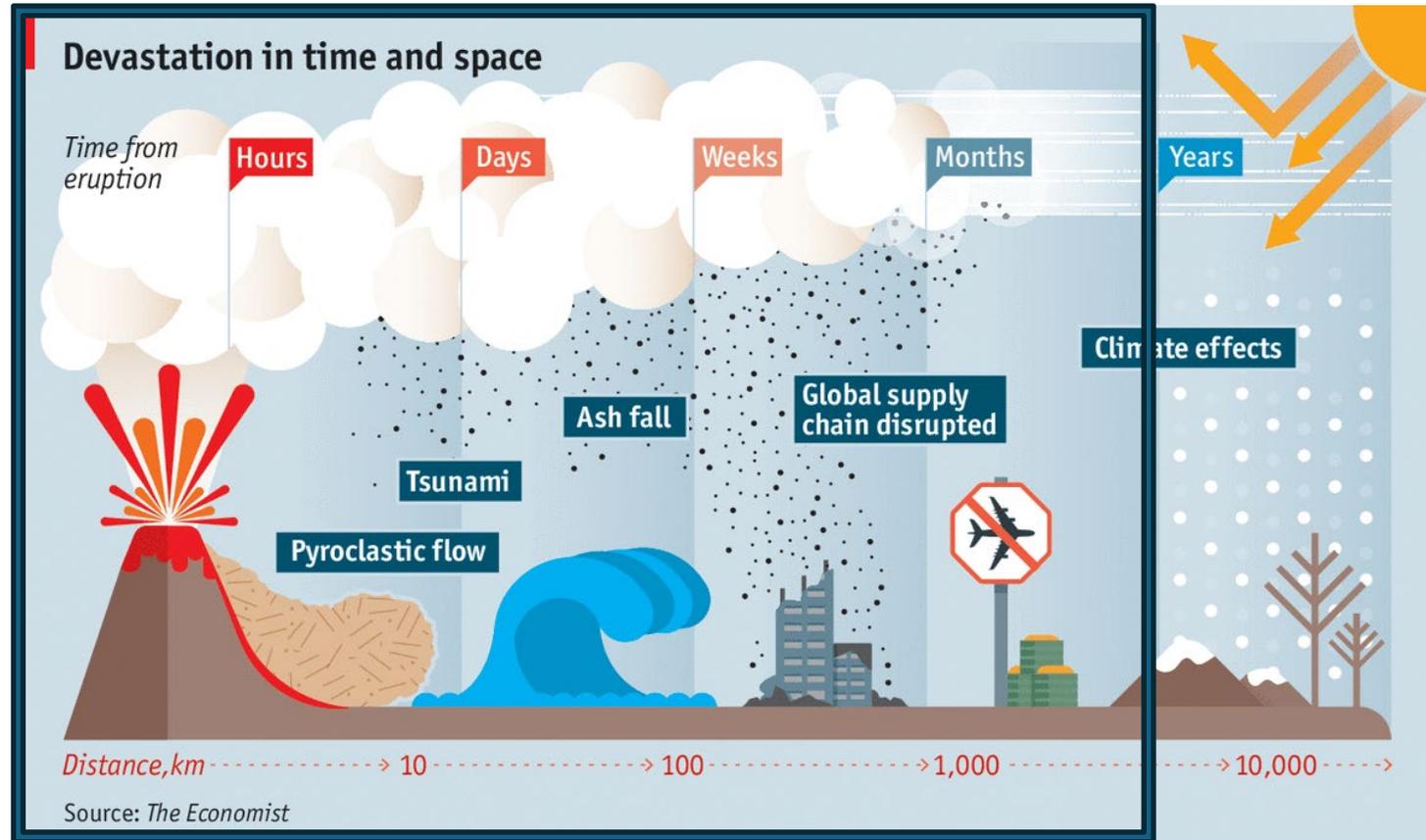
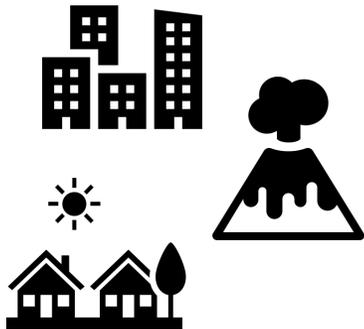


WORLD ORGANISATION OF  
VOLCANO OBSERVATORIES

# Who benefits from Volcano Monitoring?



Communities



Economist.com

Local



Regional



Global



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# Duty to our communities, government and global partners



EW4ALL initiative

Neighbouring countries

Central Government



Emergency management

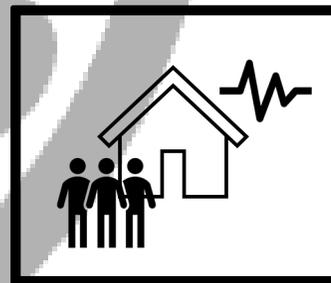
Aviation

VAAC  
ICAO  
CAA

Local authorities



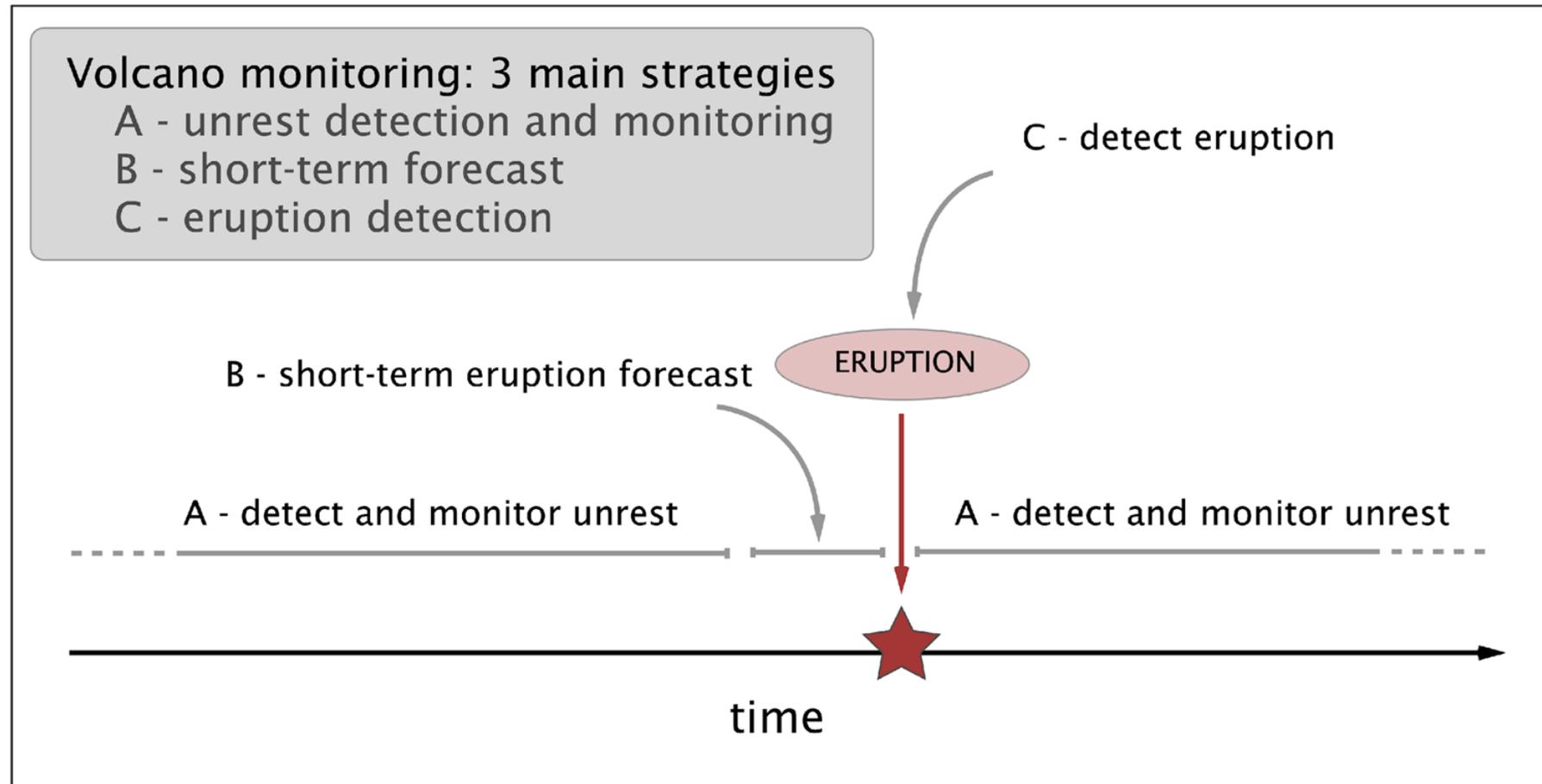
Communities



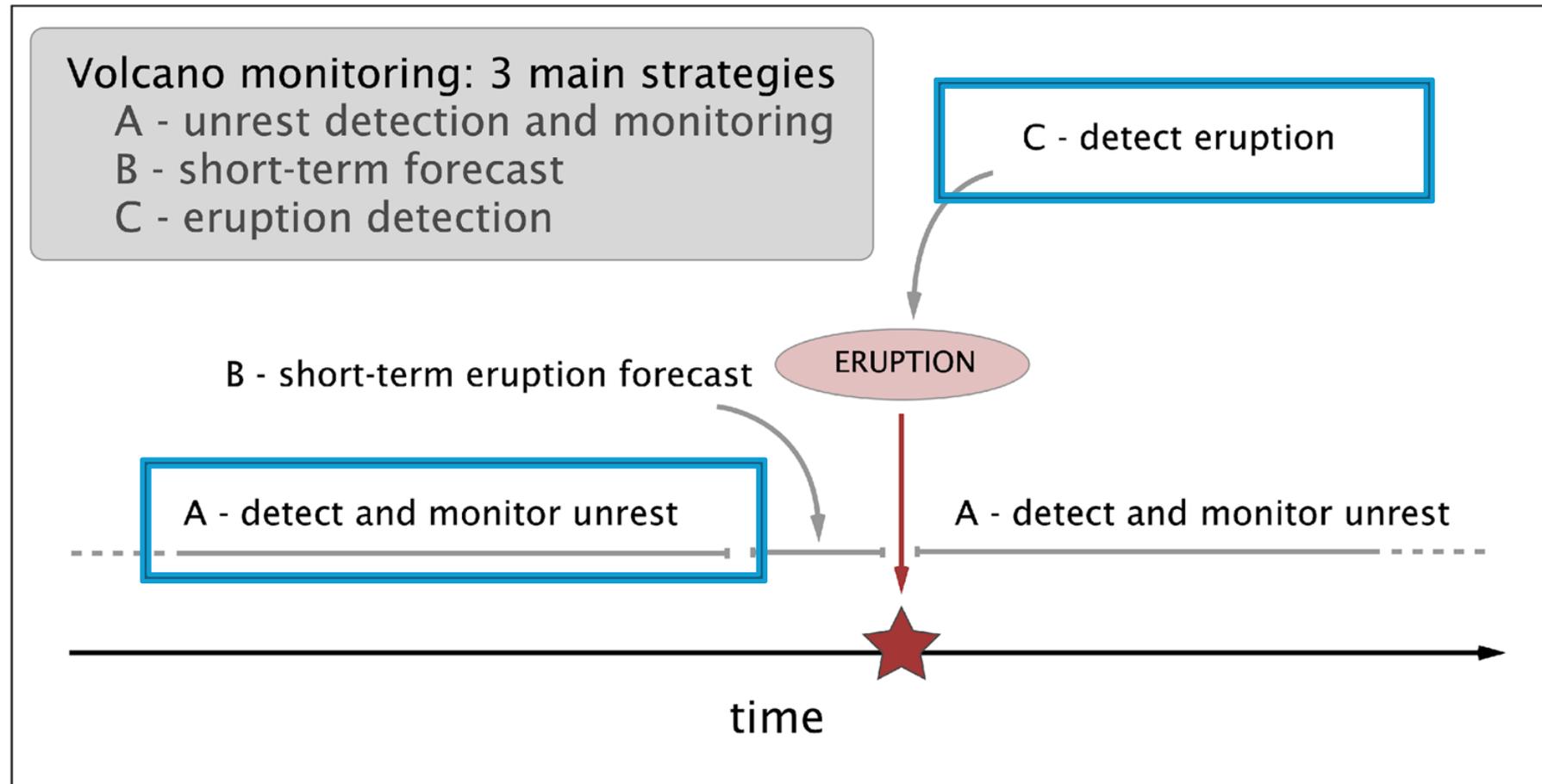
Volcano Observatories



# What is Volcano Monitoring?



# Focus on early unrest notification & rapid eruption detection and impact forecasting



Volcano vs tsunami: tsunamigenic volcanic processes can be totally subaerial



**Detection and early notification of tsunamigenic volcanic processes** cannot solely rely on aviation partners (e.g. VAAC). Instead, **leverage volcano observatories monitoring capability and science advisory processes**



# What is WOVO?



**WOVO is a IAVCEI network of – and for – volcano observatories worldwide**

The objectives of WOVO are to **connect, support, and advocate** for its members, through **three core programs**:

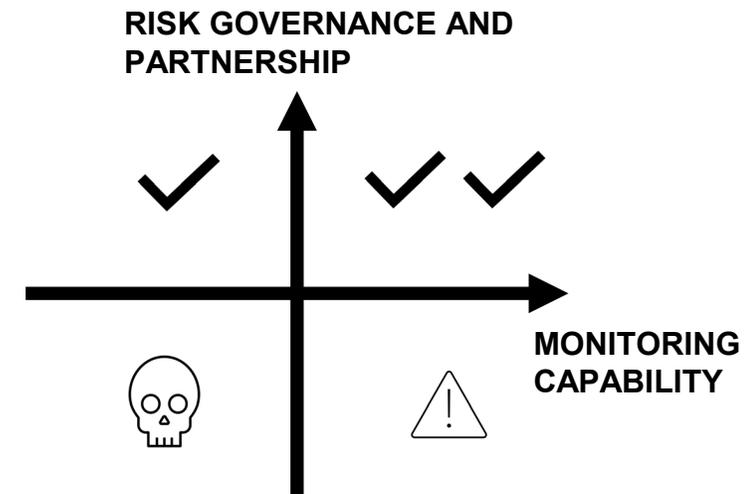
- 1. The Volcano Observatory Best Practices (VOBP)** workshops to exchange experiences and propose recommendations for optimising operational efficiency and responding effectively to volcanic eruptions and unrest.
- 2. WOVOdat**, a comprehensive global database on volcanic unrest
- 3. VAAH and Early Warning initiatives** where WOVO provides representation and advocacy for volcano observatories



# 1. **VOBP**: Volcano Observatory Best Practice workshop series



- **VOBP workshops** were first conceived to provide an international forum to VOLCANO OBSERVATORIES, to discuss their practical issues and identify internationally shared BEST PRACTICES.
- BEST PRACTICES are neither rules nor prescriptions; VOBP workshops recognise as a value the diversity in culture, education, societal background, access to resources, that characterise volcano observatories throughout the world.
- Rather, **BEST PRACTICES** represent a reference



## 2. WOVOdat: Access to Global monitoring data



- **WOVOdat** is an open-access, growing global database of volcano monitoring data, developed by the World Organization of Volcano Observatories (WOVO) under IAVCEI and currently hosted by the Earth Observatory of Singapore. It improves understanding of eruptive processes, enhances eruption forecasting, and supports risk reduction through comparative analysis of unrest patterns within and across volcanoes. WOVOdat promotes global collaboration, data sharing, and capacity building to enable transparent, timely, and evidence-based decision-making.

A screenshot of the WOVOdat website homepage. At the top left is the WOVOdat logo, which includes a globe and a volcano. To its right, the text "WOVOdat Data on Volcanic Unrest" is displayed in a large, bold, red font. Below this is a dark navigation bar with white text for "Home", "About WOVOdat", "Tools", "Database", "Contribute Data", "News &amp; Learn", and "LOGIN". A red button labeled "WOVOdat Tools Index" is on the right. A yellow banner below the navigation bar reads "Visit GVMID - Data on Volcano Monitoring Infrastructure". The main content area features a landscape image of a lake and mountains. A red overlay on the bottom right of the image contains the text "When data helps policy to address systemic risk". Two QR codes are positioned on the left and right sides of the image.

# 2. WOVOdat: Volcano Monitoring Infrastructure



- **The Global Volcano Monitoring Infrastructure Database (GVMID)**, part of WOVOdat, documents and advances ground- and space-based volcano monitoring capabilities. It provides insights into monitoring techniques, helping observatories strengthen networks and address gaps with remote sensing and new technologies. GVMID supports improved network design for better eruption anticipation and detection.

About GVMID:



Example of global assessment on  
magma migration capability:



### 3. **VAAH**: Volcanic Ash and Aviation Hazards and cross-disciplinary initiatives



## **The Volcanic Ash and Aviation Hazards (VAAH)**

Represents and advocates for observatories within the aviation and meteorological communities

Intended to facilitate and make accessible information from (to) the aviation community (ICAO)

**Strong connection with the WMO and the VAACs**



# Connect, support, and advocate for obs



COUNTRY / TERRITORY	REGION	INSTITUTION	ACRONYM	WEBSITE OR SOCIAL MEDIA
Cameroun	Africa	Institut de Recherches Géologiques et Minières	IRGM	<a href="https://www.irgm-cameroun.org/">https://www.irgm-cameroun.org/</a>
Cape Verde	Africa	Observatorio Vulcanologico de Cabo Verde, Departamento de Ciencia e Tecnologia, Universidade de Cabo Verde	OVCV	<a href="https://www.facebook.com/Observatorio-Vulcanologico-de-Cabo-Verde-OVCV-17587510244250/about/">https://www.facebook.com/Observatorio-Vulcanologico-de-Cabo-Verde-OVCV-17587510244250/about/</a>
Comoros	Africa	Observatoire Volcanologique du Karthala	OVK	<a href="http://www.cndr-comores.org/observatoires/ovk/">http://www.cndr-comores.org/observatoires/ovk/</a>
Democratic Republic of the Congo	Africa	Observatoire Volcanologique du Goma	OVG	<a href="https://www.facebook.com/ovggoma/">https://www.facebook.com/ovggoma/</a> <a href="https://ovg-rdc.cd/">https://ovg-rdc.cd/</a>
Ethiopia	Africa	Institute of Geophysics, Space Science and Astronomy	IGSSA	<a href="http://www.aau.edu.et/igssa/academics/">http://www.aau.edu.et/igssa/academics/</a>
France – La Reunion	Africa	IPGP – Observatoire	IPGP-OVPF	<a href="https://www.ipg-">https://www.ipg-</a>



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# WOVO can help by



**Being a touch-point and connector** for and with volcano observatories

For TTTWO, be a **sounding board** and offer **guidelines** on capability, efficiency and effectiveness **for cross-disciplinary early warnings efforts**

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