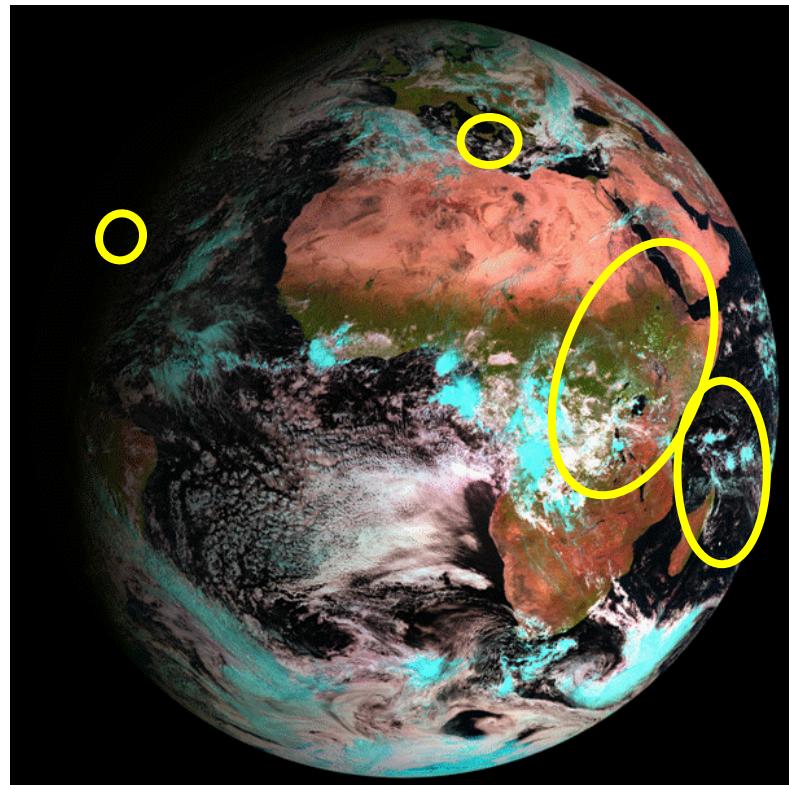
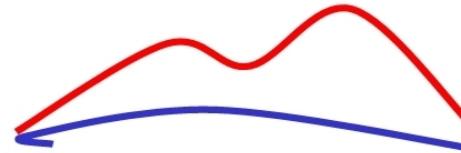


# European Volcano Observatory Space Services

Funded in the FP7 2<sup>nd</sup> call Space with G.A. 242535 CP

**EVOSS**



**Location map – The Region of Interest (the METEOSAT full disk).**  
Main focus is on the areas including volcanoes that have undergone at least one eruptive episode, or a major unrest in the last 20 years (in yellow) in Europe, Africa and the Caribbean

Focussed on the higher end of volcano dynamics (**from sustained unrest to eruption**), scaled on major crises experienced 1995-2010 at Soufriere Hills, 2002 at Nyiragongo, 2003 at Karthala, 2007 at Piton de la Fournaise

EVOSS was conceived to act in **Supra-regional operations theatres**, encompassing spatially scattered, long lasting crises (months to years);

In EVOSS, **very-high temporal resolution is given priority** over high spatial resolution, a methodological breakthrough in real-time monitoring operations

**Sustainability of data provision has priority:** the cost of space-borne data is increasingly non-compatible with the real duration of major unrest cycles, spanning from months to years, or even decades at explosive volcanoes.

Development of ‘intelligent’ business models are expected to assist in **designing sustainability**

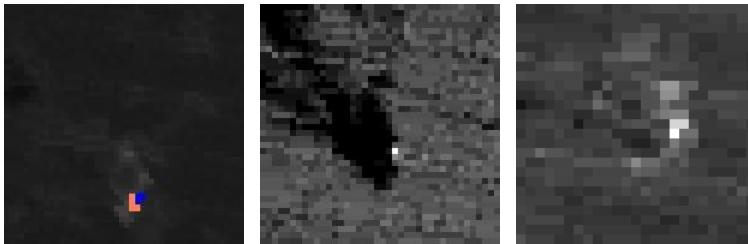
**EVOSS builds on** the achievements of ESA’s Data User Element project **GlobVolcano**, due for completion in 2010



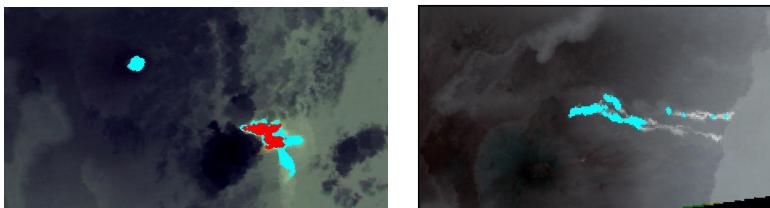
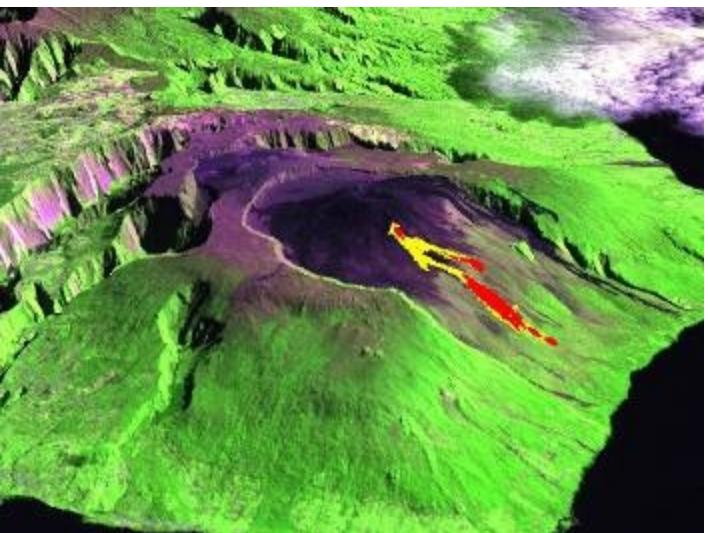
## Most recent eruptions in the Region of Interest

France	<b>Piton de la Fournaise</b> (2010), Mt. Pelée (1929), Soufrière de Guadeloupe (1976)
Greece	Santorini (1950), Nisyros (1888)
Italy	<b>Etna</b> (2008), <b>Stromboli</b> (2007), Vesuvius (1944), Pantelleria (1891), Vulcano (1890), Phlegrean Fields (1538), Ischia (1302), Lipari (580)
Portugal	Capelinhos (1957), San Jorge (1907), Sete Cidades (1880), <b>Terceira</b> (1999-2000 and 1867), Pico (1720), Furnas (1630), Agua de Pau (1563)
Spain	Lanzarote (1824), Teide (1909), Cumbre Vieja (1971)
UK	<b>Michael</b> (ongoing), <b>Soufriere Hills</b> (ongoing), Tristan de Cunha (1962)

Cameroon	<b>Mt.Cameroon</b> (2000)
Comoros	<b>Karthala</b> (2007)
Congo	<b>Nyamuragira</b> (2006), <b>Nyiragongo</b> (ongoing), Visoke (1951)
Djibouti	Ardoukôba (1978)
Equatorial Guinea	Santa Isabel (1923)
Eritrea	Dubbi (1861)
Ethiopia	Alayta (1915), <b>Dabbahu</b> (2005), <b>Dalaffilla</b> (2008), Dallol (1926), Dama Ali (1631), Fentale (1820), Kone (1820), <b>Manda Hararo</b> (2007), <b>Erta'Ale</b> (ongoing), Manda-Inakir (1928)
Kenya	South Island (1888), The Barrier (1921),
Tanzania	Kieyo (1810), Mount Meru (1910), <b>Ol Doinyo Lengai</b> (ongoing)
Yemen	<b>Jebel at Tair</b> (2008), Jebel Zubair (1824)



**Soufriere Hills,  
Montserrat  
EVOSS leader test-site for  
explosive volcanism**



Active flow 2007

Cooling flow 2005

20070330 19:15	20070330 19:30	20070330 20:00	20070330 20:15	20070330 20:30	20070330 21:00
Er = 0 m <sup>3</sup> /s	Er = 0 m <sup>3</sup> /s	Er = 1.18 m /s	Er = 1.91 m /s	Er = 2.63 m /s	Er = 3.31 m /s

**Piton de la Fournaise, Réunion Island  
EVOSS leader test-site for effusive volcanism**

Quantitative onset of the 2007 flow observed with geostationary MSG-2 (SEVIRI)



# The Partnership

## Partners

Institut de Physique du Globe de Paris	(coord.)	France
Belgisch Instituut voor Ruimte-Aëronomie		Belgium
Booz & Co. Italia		Italy
NERC – British Geological Survey		United Kingdom
Carlo Gavazzi Space		Italy
Deutsche Zentrum für Luft und Raumfahrt		Germany
Koninklijk Nederlands Meteorologisch Instituut		The Netherlands
IES Consulting		Italy
Science [&] Technology		The Netherlands
Tele-Rilevamento Europa		Italy
TerraspHERE		The Netherlands
Université Libre de Bruxelles		Belgium
Centro Ricerche Progetto San Marco – Università Roma I		Italy

## End-Users

- Volcanic Ash Advisory Centre (VAAC), Toulouse, France
- Centre d'Etude et Recherche de Djibouti (CERD), Arta, Djibouti
- Geological Survey of Tanzania (GST), Dodoma, Tanzania
- Goma Volcano Observatory (OVG/CRSN), Goma, Congo
- Karthala Volcano Observatory (OVK/CNDRS), Moroni, Comoros
- Addis Ababa Science Faculty (Geophysical Observatory), Ethiopia
- Seismic Research Centre, University of the West Indies
- Montserrat Volcano Observatory

## EVOSS work breakdown structure

