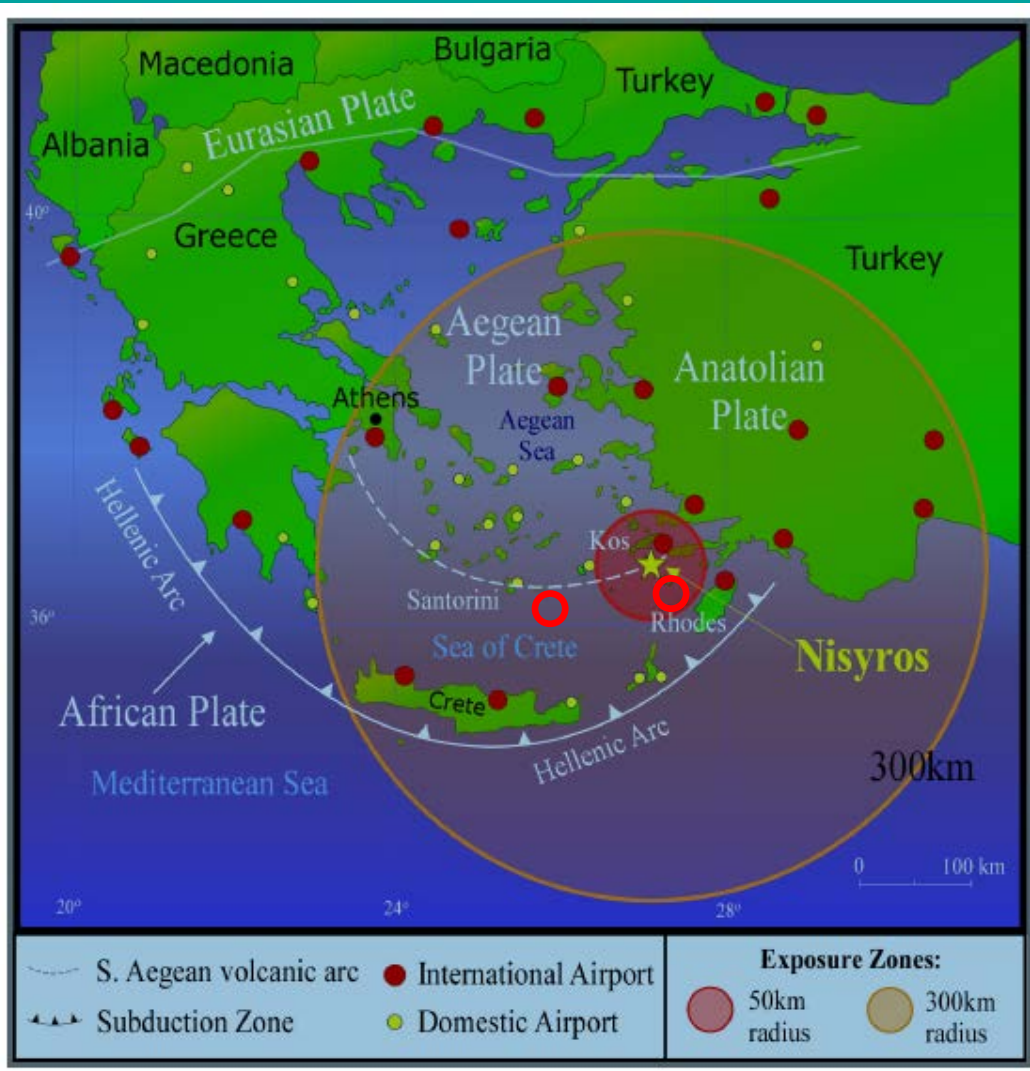


# GREVOLCAN networks

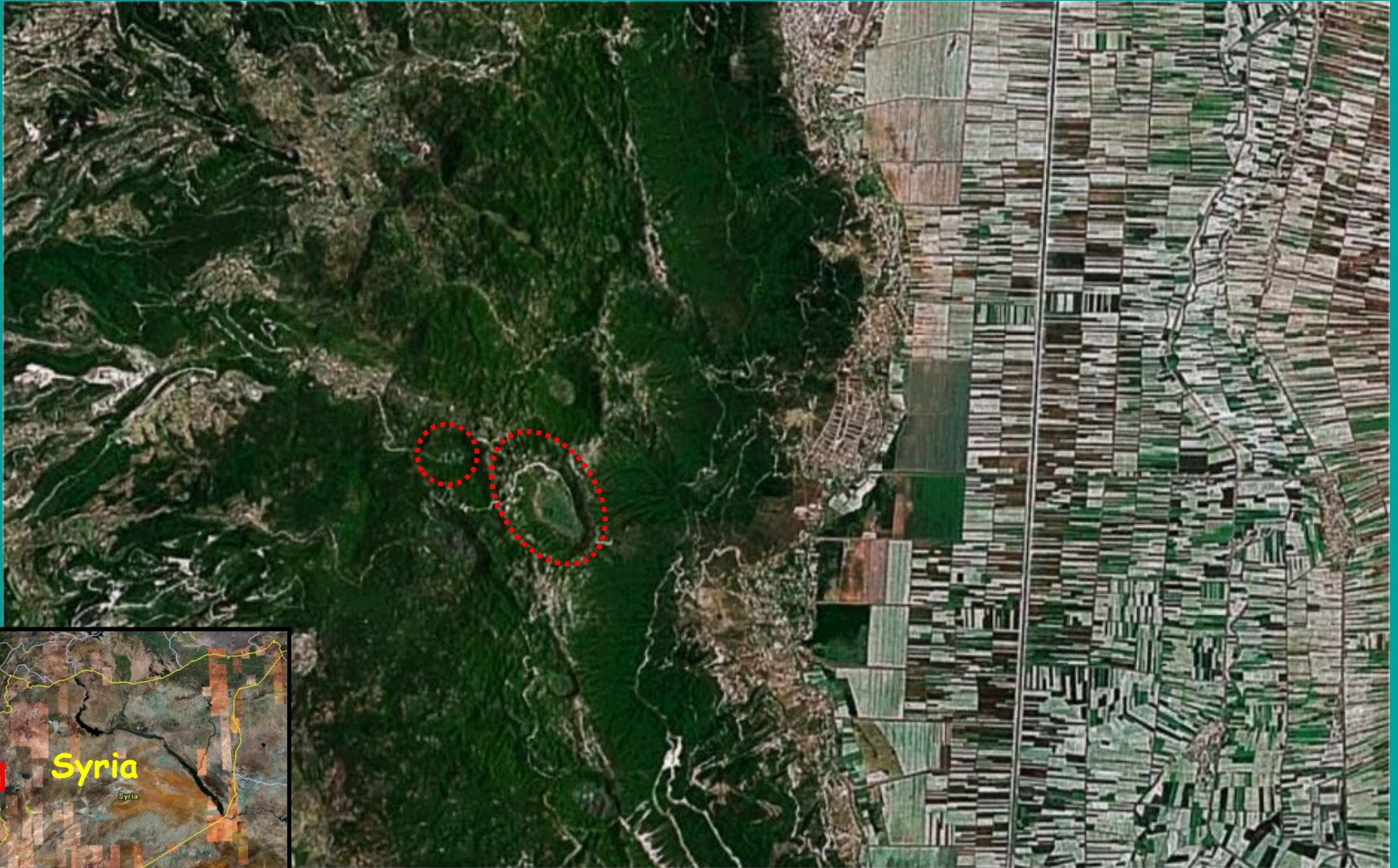
Jan Mrlina, Institute of Geophysics CAS, Prague



Greek volcanic islands

Nisyros  
Thera

# Gravity investigations of volcanic craters – Coastal Mts., Syria





Pity - we don't have this in Central Europe ☹️

or is it a good luck ? 😊



## History 5

# Mytina , W Bohemia



## Question:

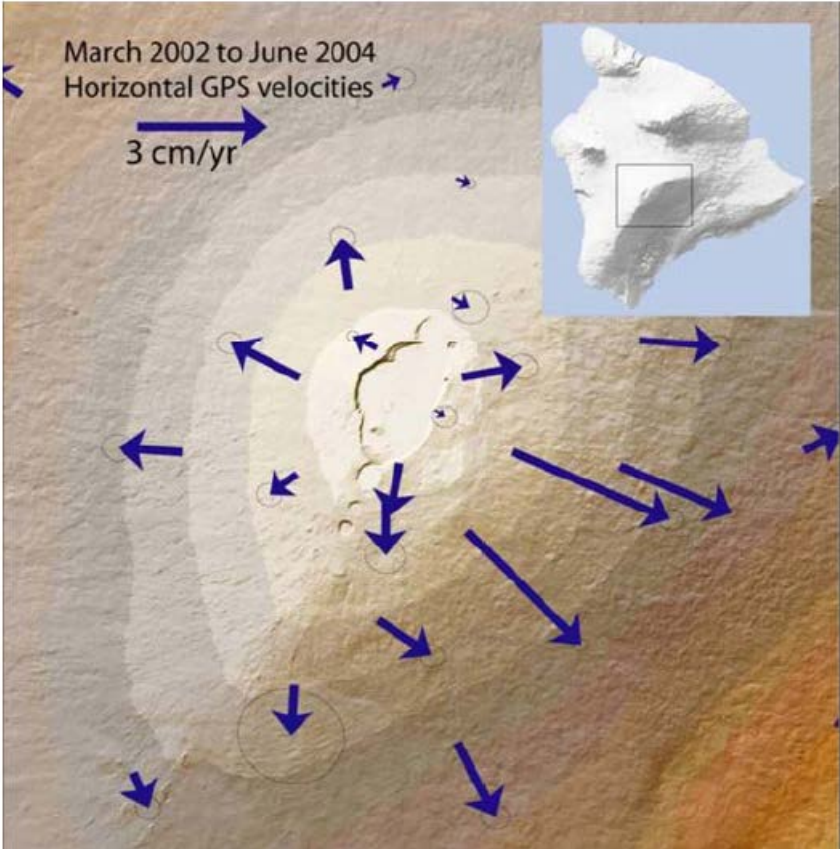
Are such volcanoes dead, sleeping,  
or getting ready for attack ?

When/Where ???

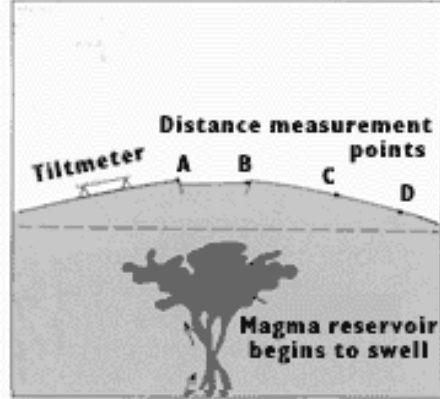
**MONITORING !!!**

Geophysics – seismology, microgravity, tiltmeters,  
GNSS, InSAR, laser scanning, . . .

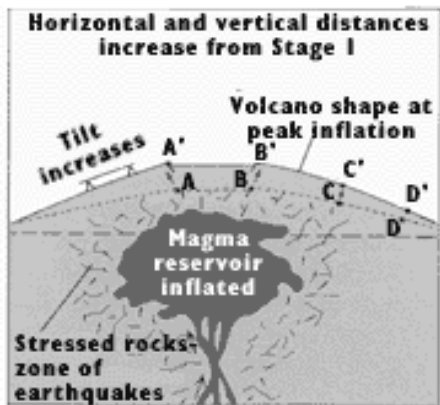
# Mauna Loa, Hawaii



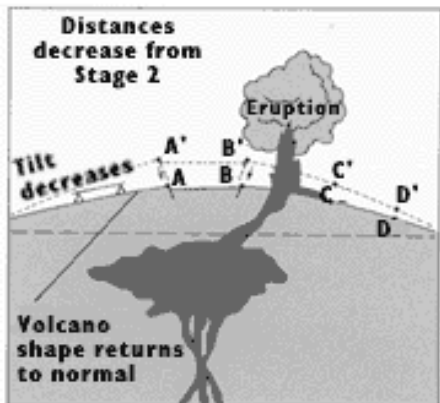
(after USGS)



**STAGE 1  
INFLATION BEGINS**



**STAGE 2  
INFLATION AT PEAK**



**STAGE 3  
ERUPTION-DEFLATION**

# Surface displacement

- 3 commonly observed stages in the course of a typical Hawaiian eruption.

(modified from illustration by John D. Unger in *Earthquake Information Bulletin*, 1974, v. 6, p. 7.)

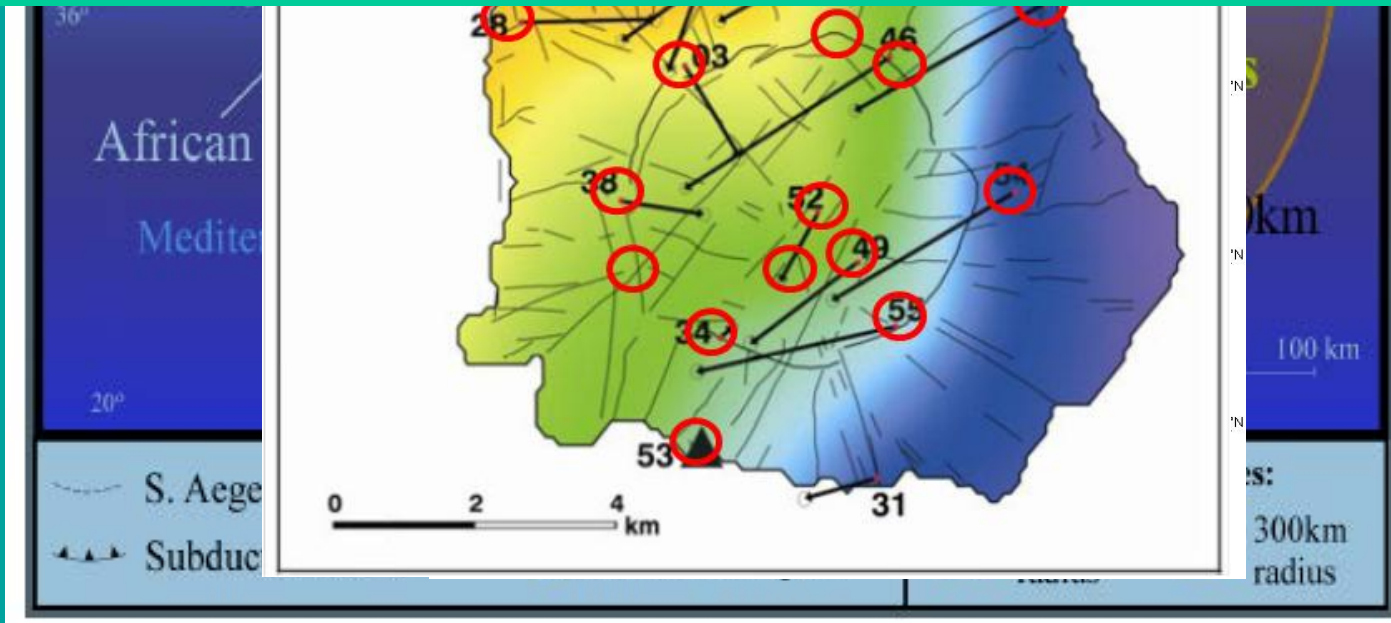
**Network 1: Nisyros - Kos**



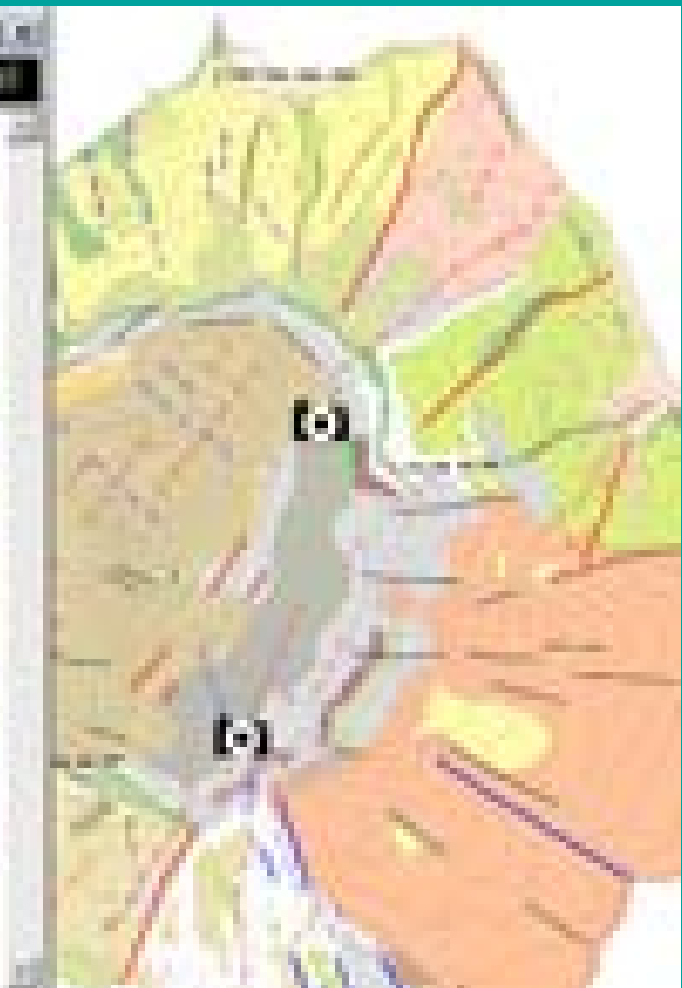
We developed the network from 7 to 20  
gravity observation sites

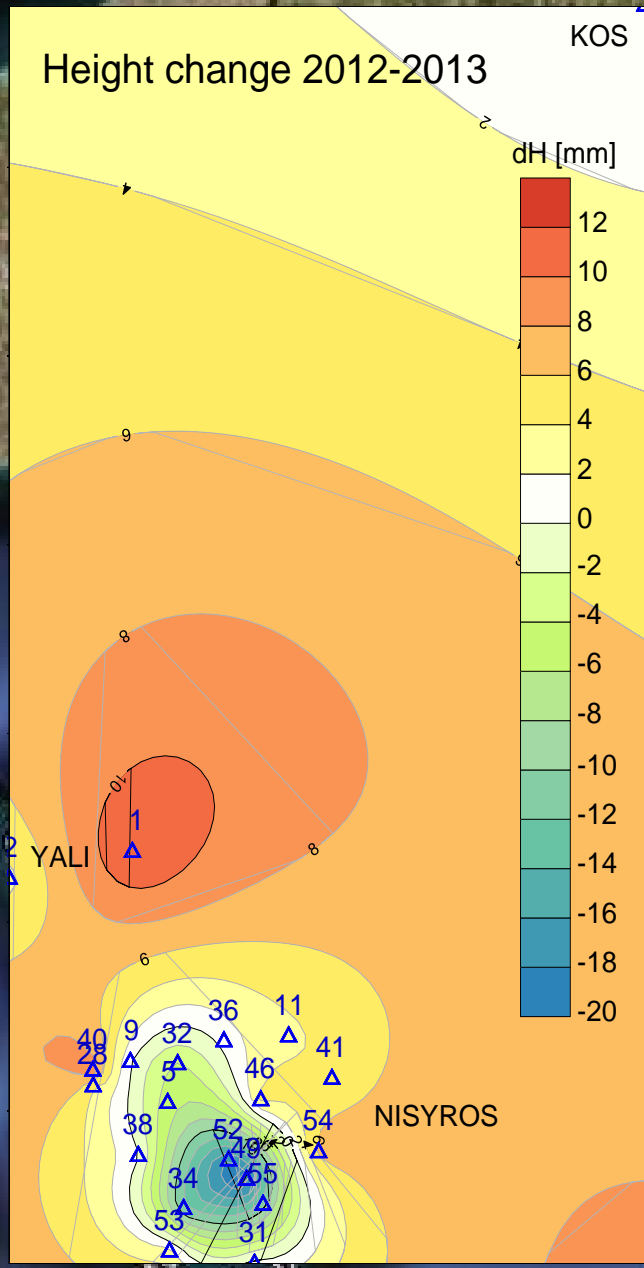
Our campaigns: 2013 - 2016

Our plan: complex evaluation after 2017 campaign,  
install possibly permanent gravimeter

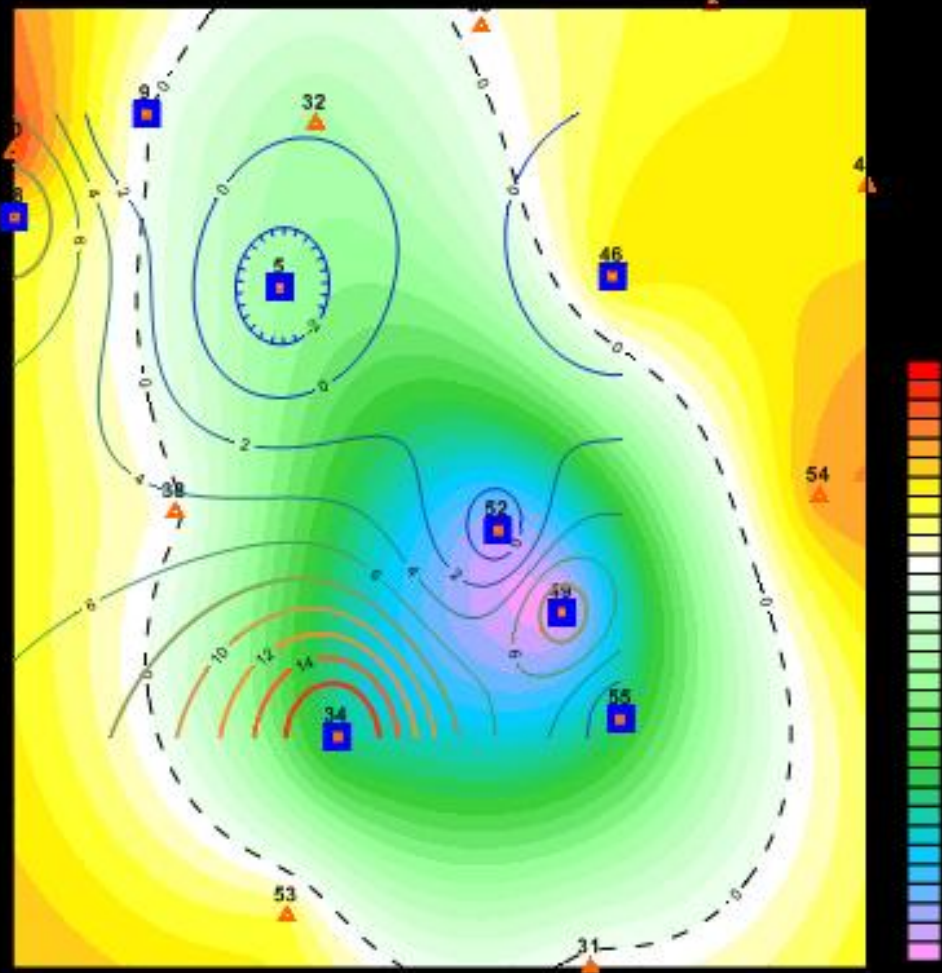








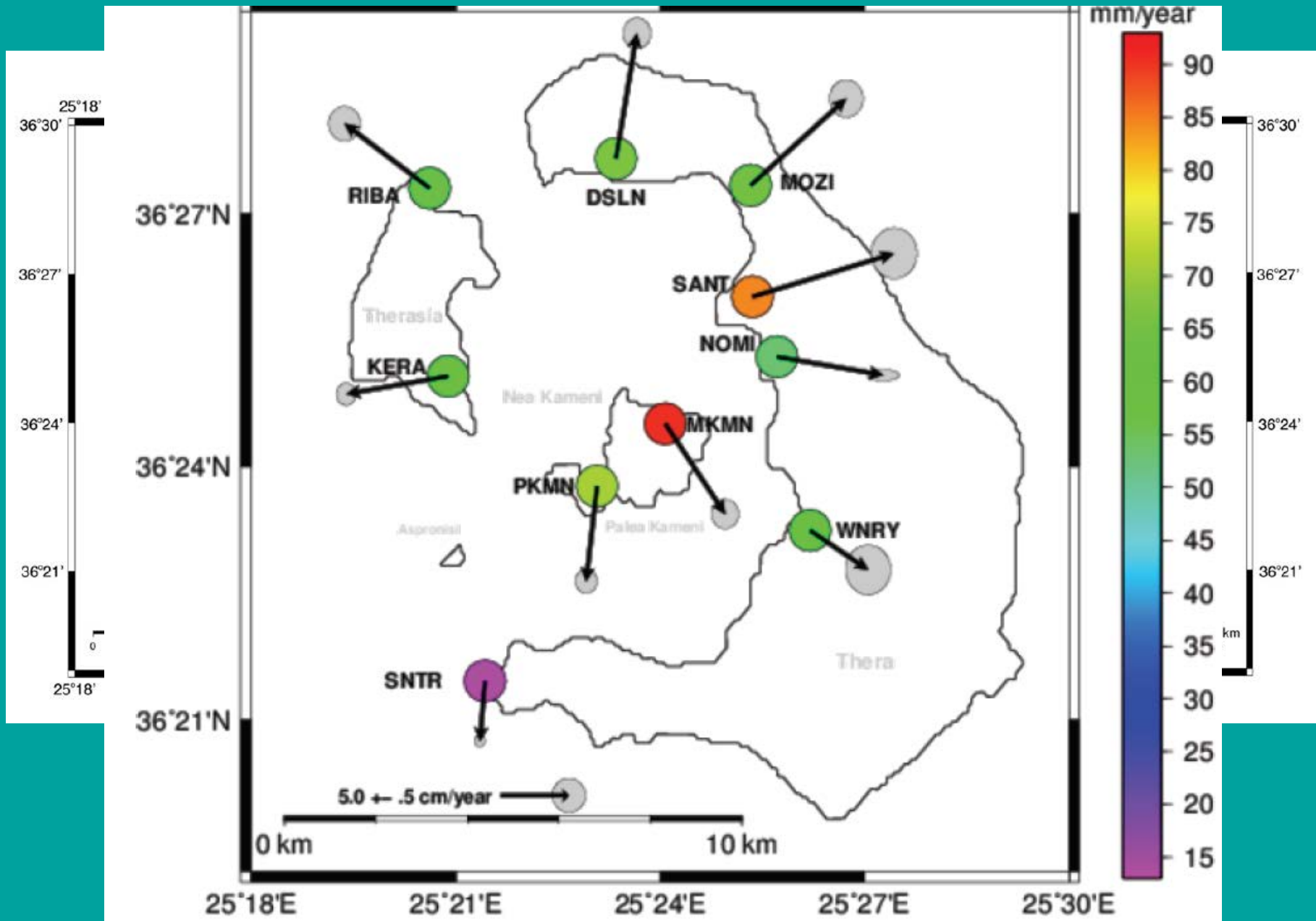
GPS observations - cooperation with Capodistrian University of Athens

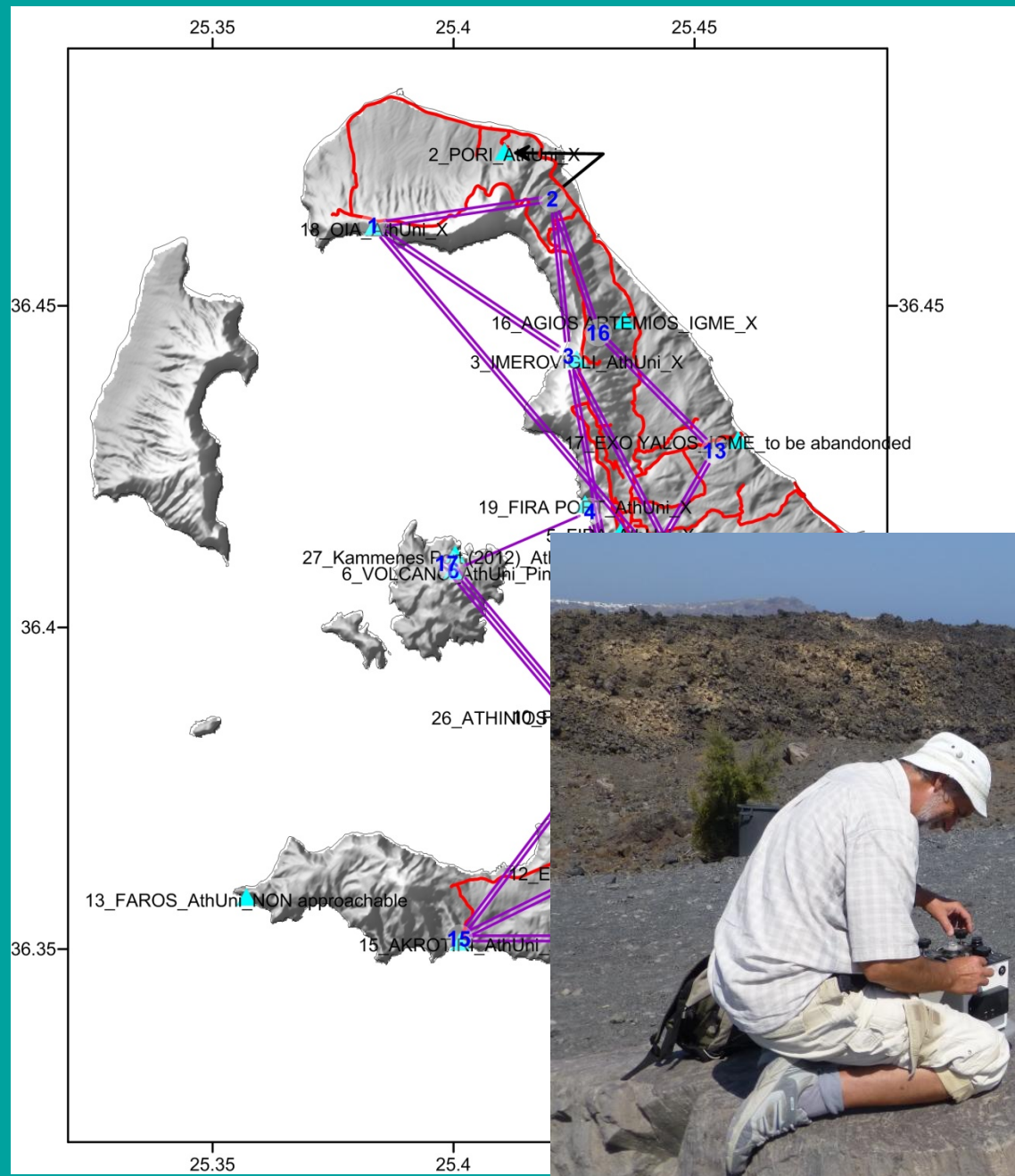


# Some gravity/GNSS observation sites



Network 2: T h e r a







We developed the network from 17 to 22  
gravity observation sites

Our campaigns: 2013, 2015

Our plan: complex evaluation after 2017 campaign