



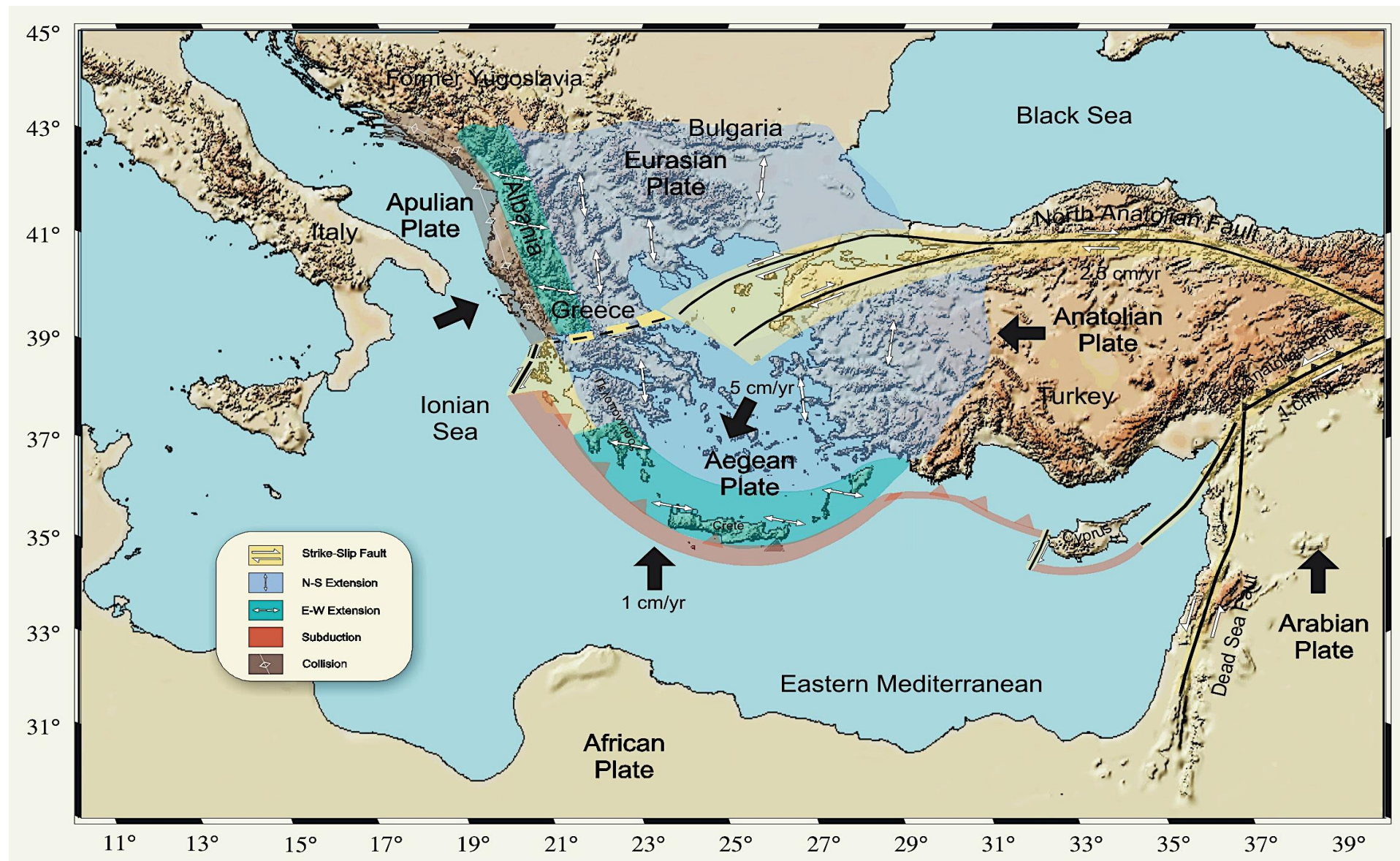
Earthquake Resilient Schools

EReS

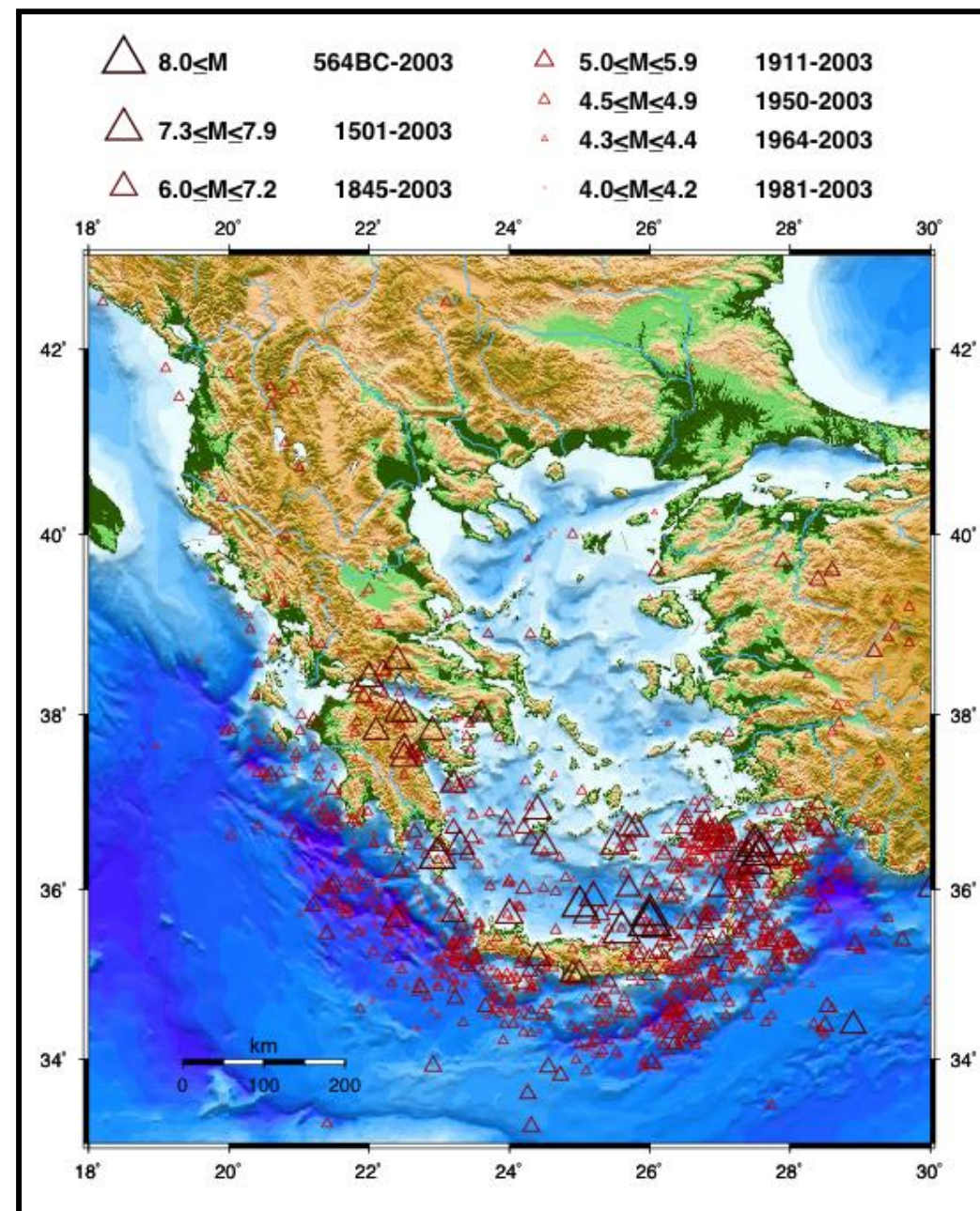
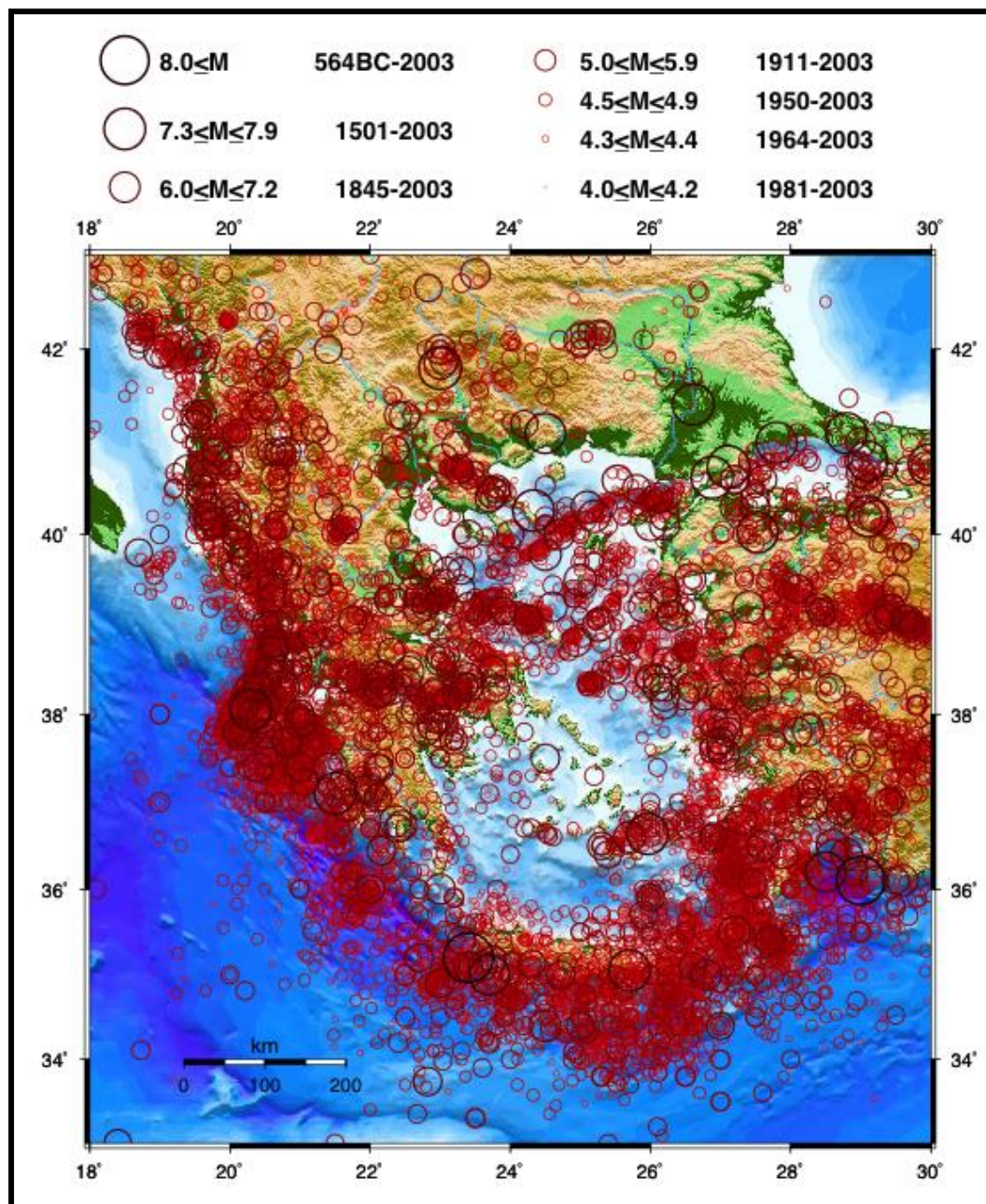
Nikos Theodoulidis
Seismology PhD. - Research Director



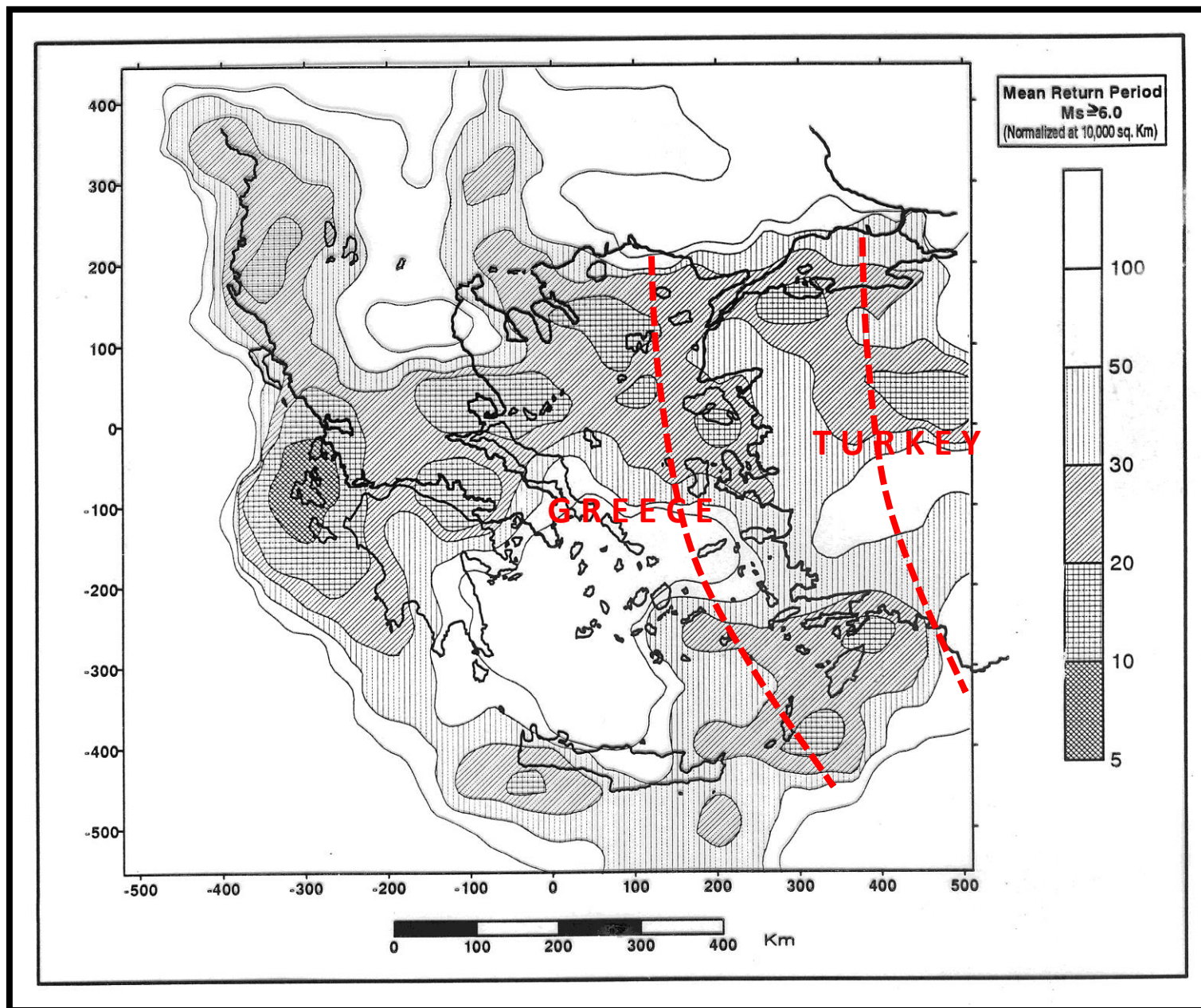
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Simplified map of the Aegean Sea and the surrounding area showing the large plates involved in the active tectonics. Black arrows indicate the motion of the plates relative to Eurasia. The small white arrows indicate the direction of internal deformation (extension) over the greater Aegean area (*Papazachos et al. 1998*).



(Papazachos and Papazachou 1997)



(Hatzidimitriou et al. 1994)

New generation accelerometers (>2010-2013)



FREE-FIELD:

120 continuous streaming &
80 triggering threshold

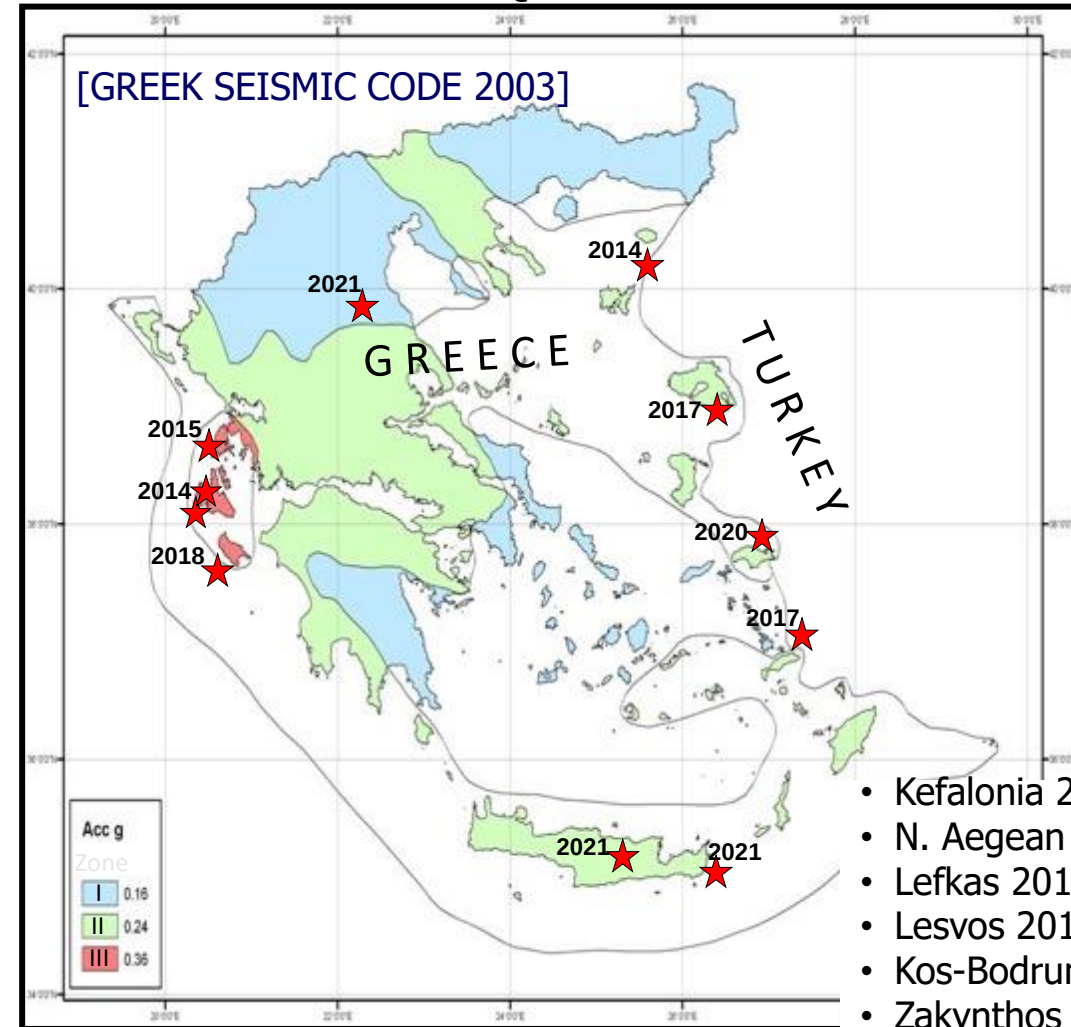
IN BOREHOLES:

10 continuous streaming

ON CONSTRUCTIONS:

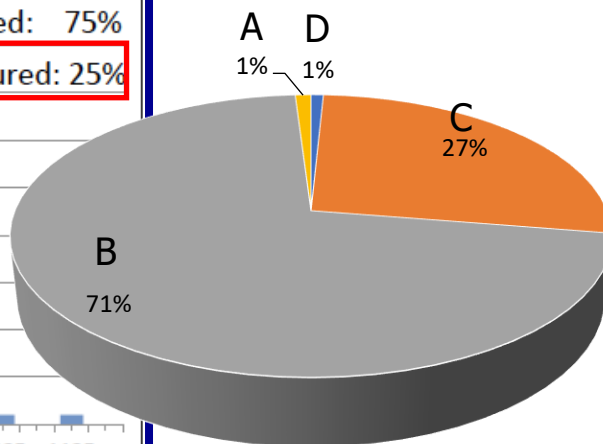
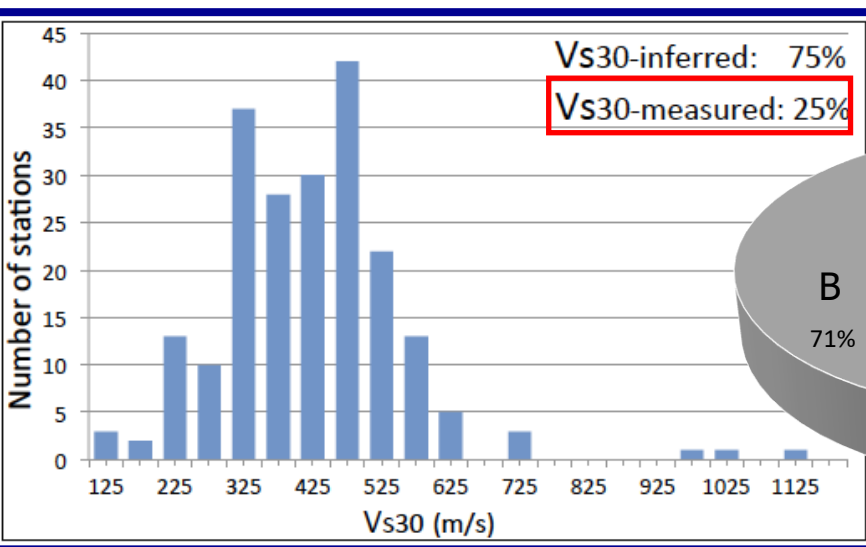
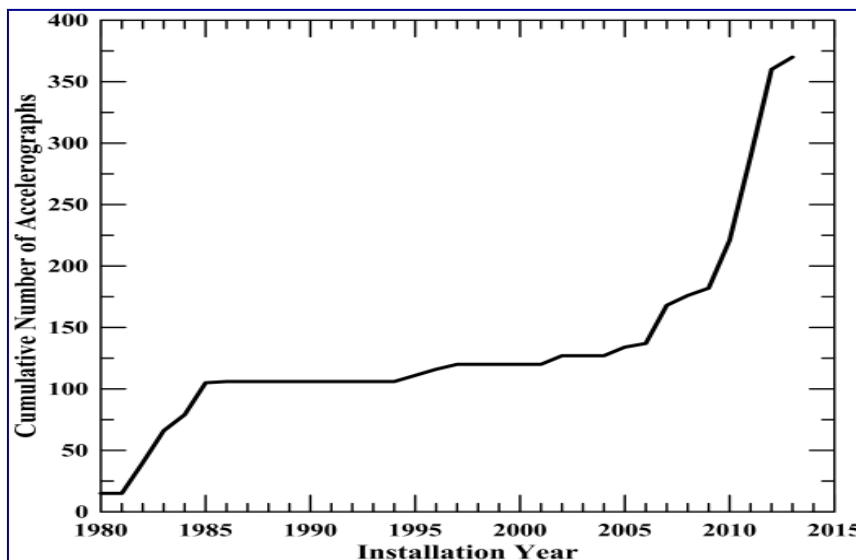
72 uniaxial accelerimeters

RECENT EARTHQUAKES 2014 -2021

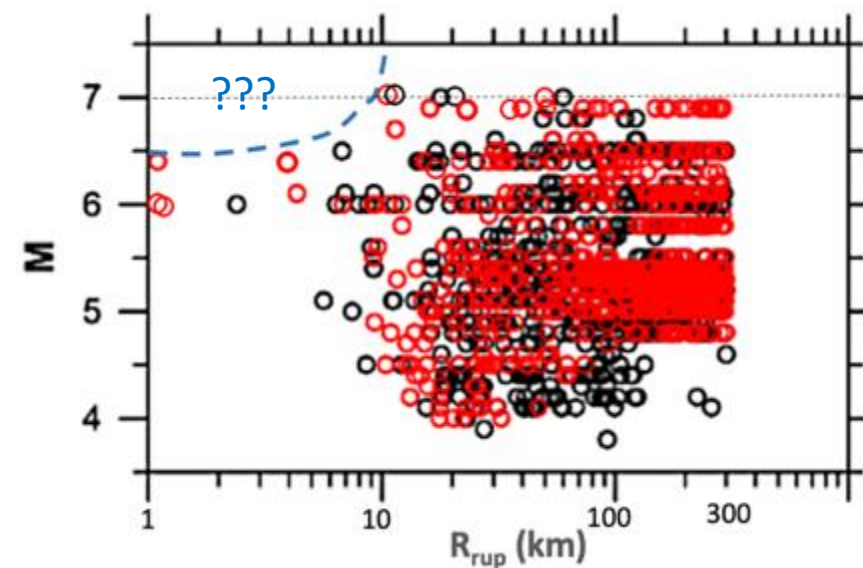
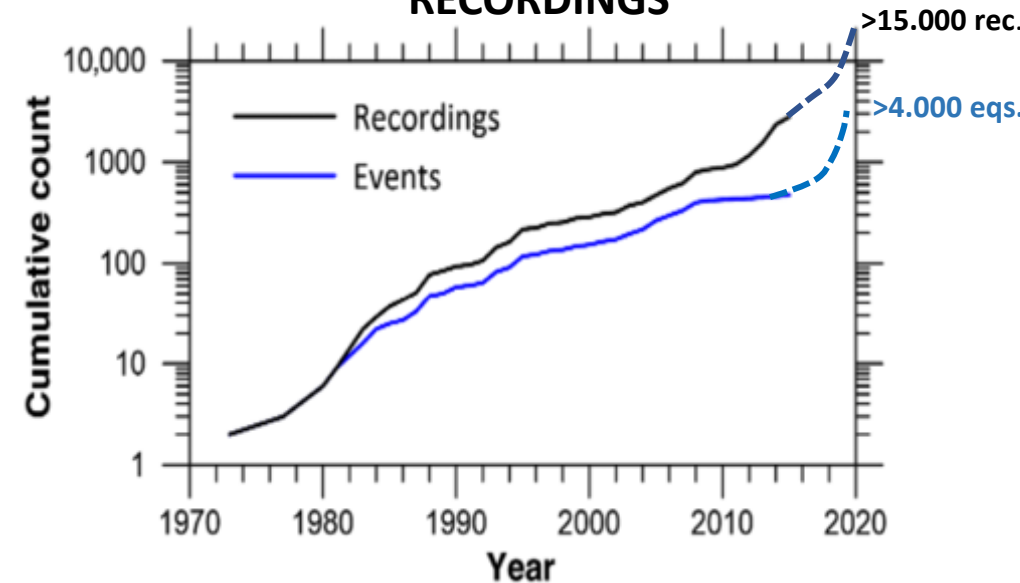


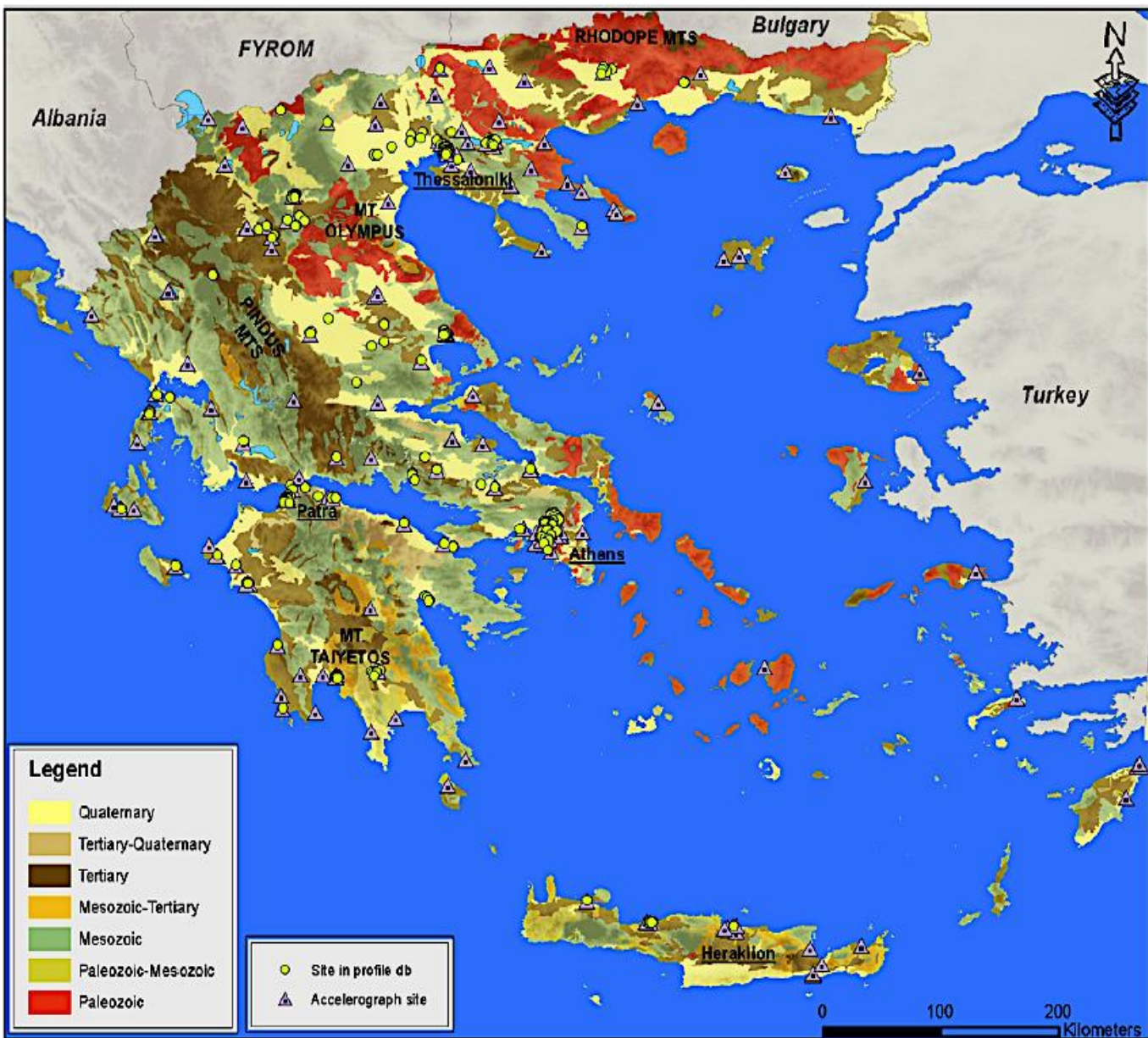
- Kefalonia 2014(M6.1&6.0)
- N. Aegean 2014(M6.9)
- Lefkas 2015(M6.4)
- Lesbos 2017(M6.3)
- Kos-Bodrum 2017(6.6)
- Zakynthos 2018(M6.8)
- Samos 2020(M7.0)
- Thessaly 2021(M6.3)
- Arkalochori 2021(M6.0)
- Zakros 2021(M6.2)

ACCELEROMETERS

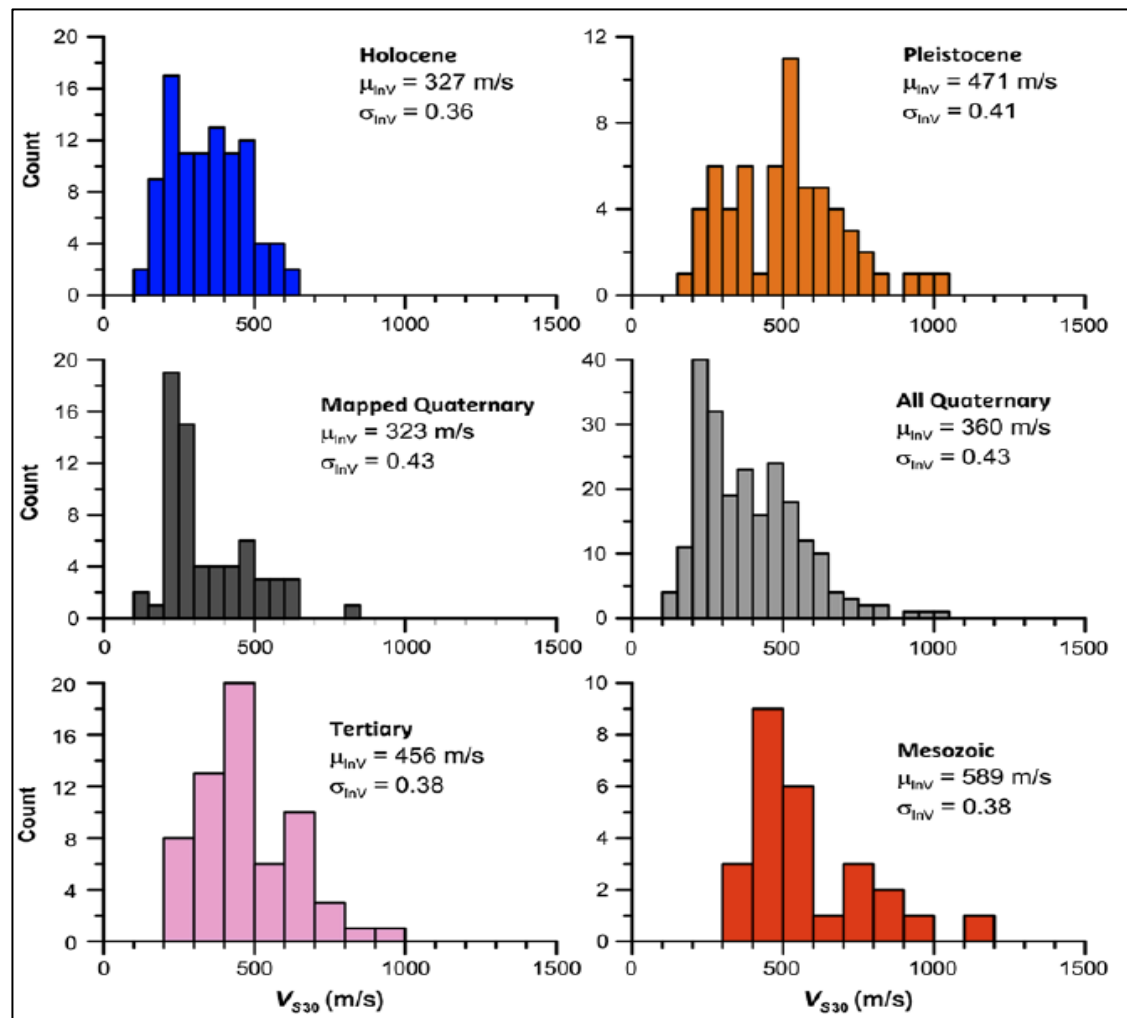


RECORDINGS

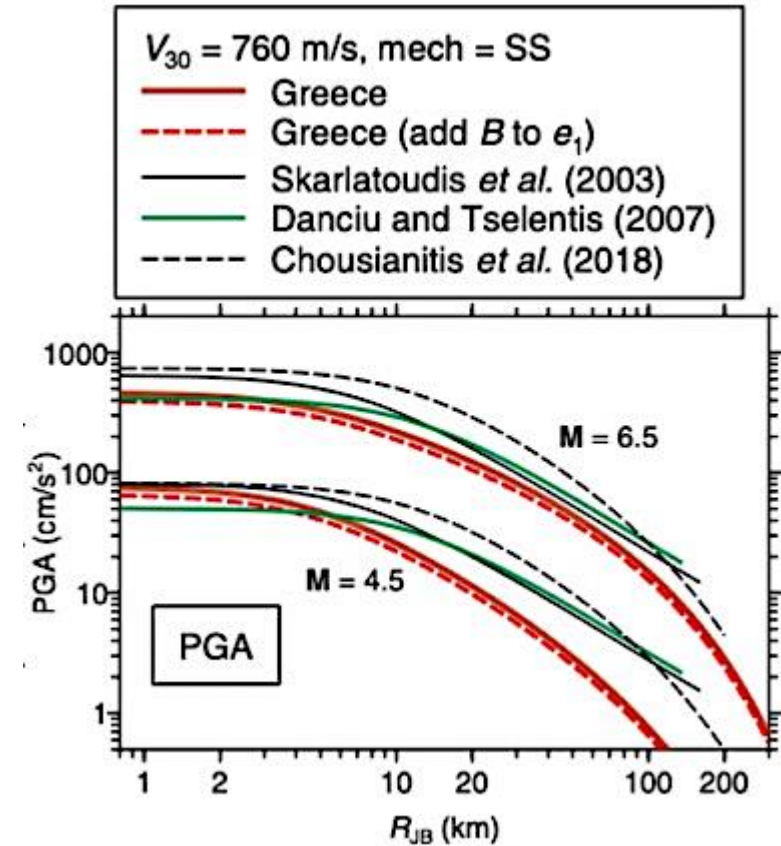
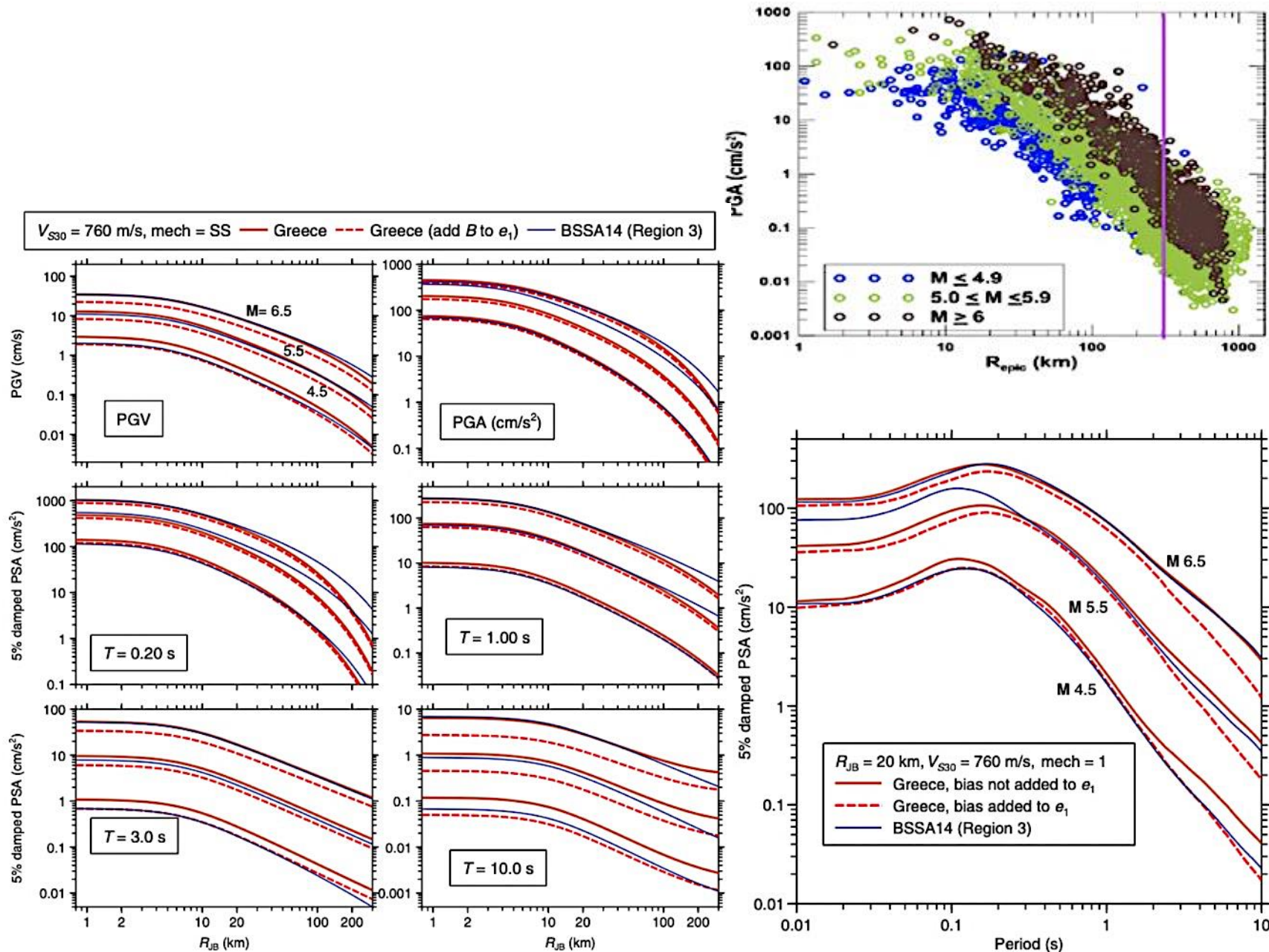




AVERAGE SHEAR WAVE VELOCITY V_{s30} & GEOLOGIC FORMATION AGE



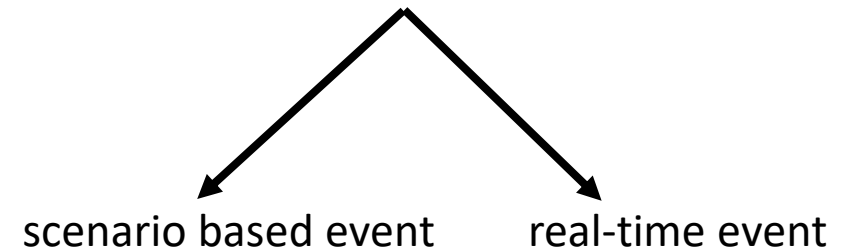
CONTRIBUTION OF NEW DATA – GMPes



(Boore *et al.* 2021)



Free-filed instrumentation of 31 school buildings of the Thessaloniki municipality



EU Funded project



Project funded by
EUROPEAN UNION



Common borders. Common solutions.



INTERNATIONAL
HELLENIC
UNIVERSITY

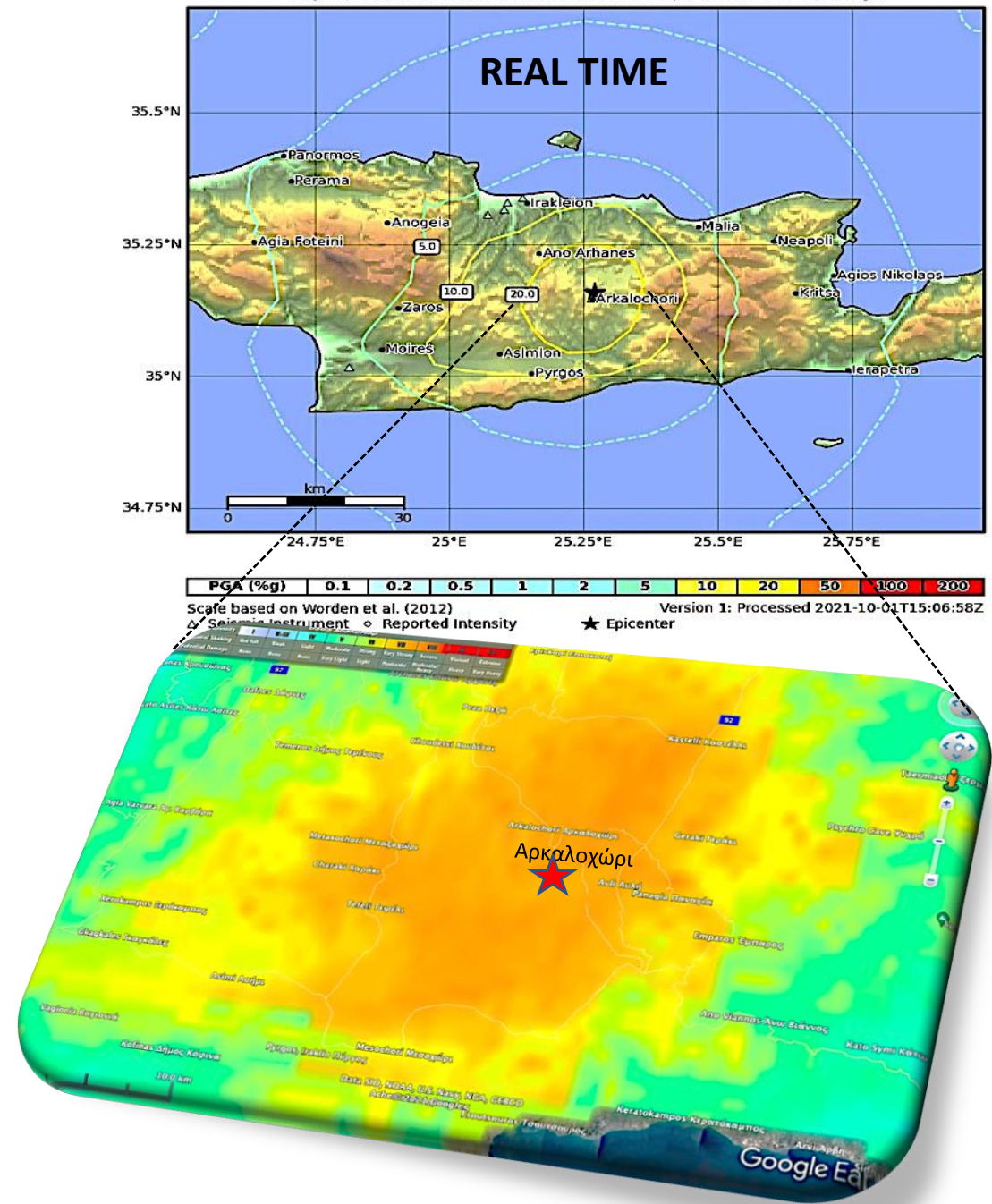
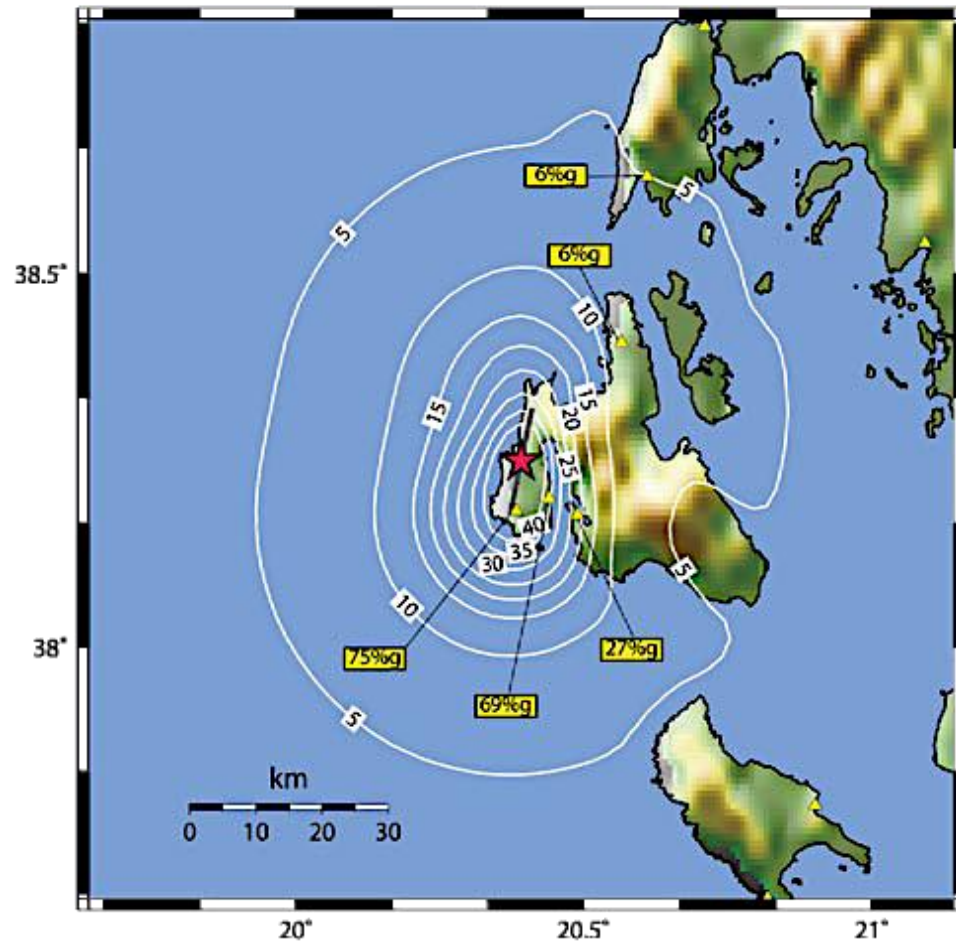


<http://shakemaps.itsak.gr>

SCENARIO

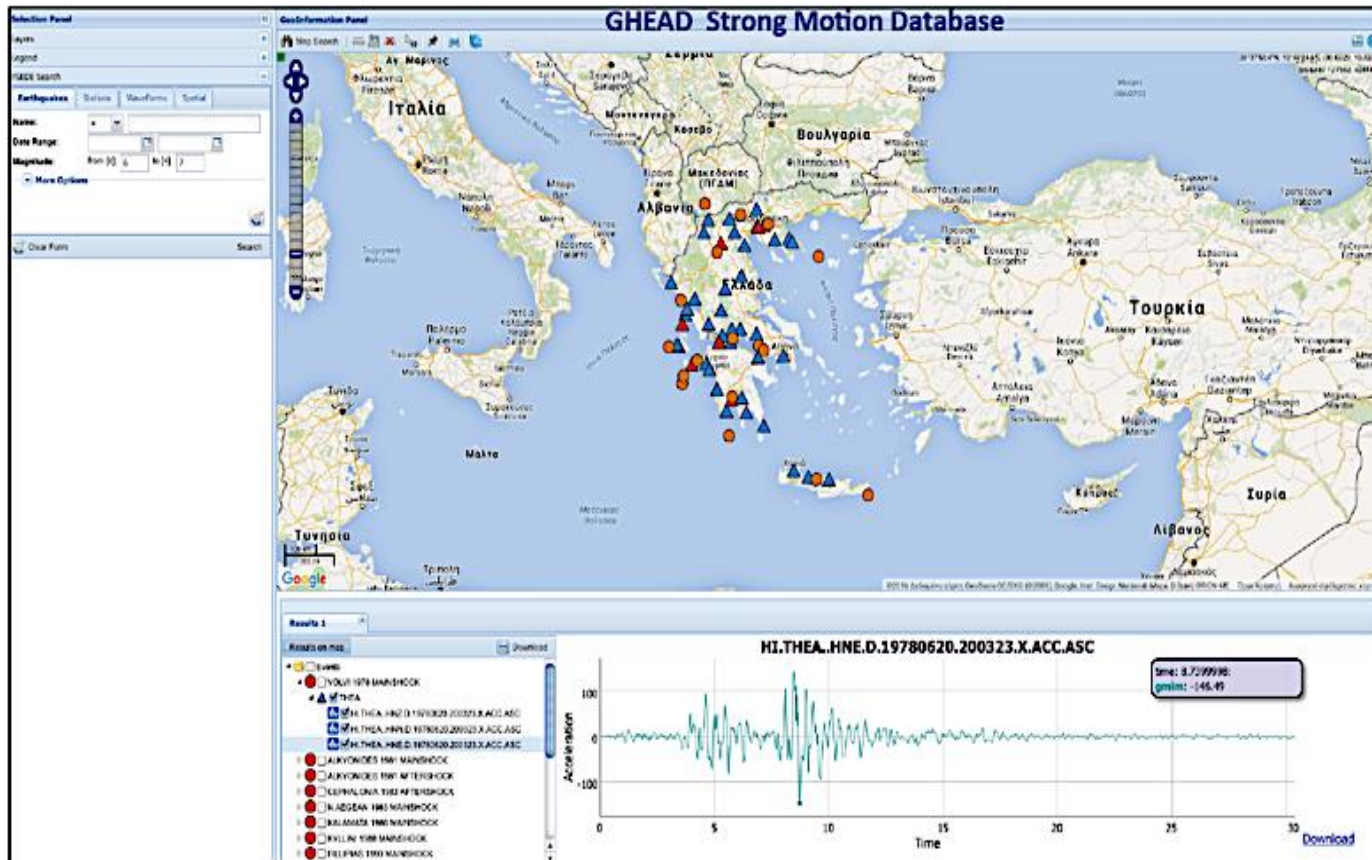
ITSAK Peak Accel. Map (in %g) : Greece

FEB 3 2014 03:08:45 AM GMT M 6.0 N38.25 E20.39 Depth: 9.4km ID:nomafaultcimv

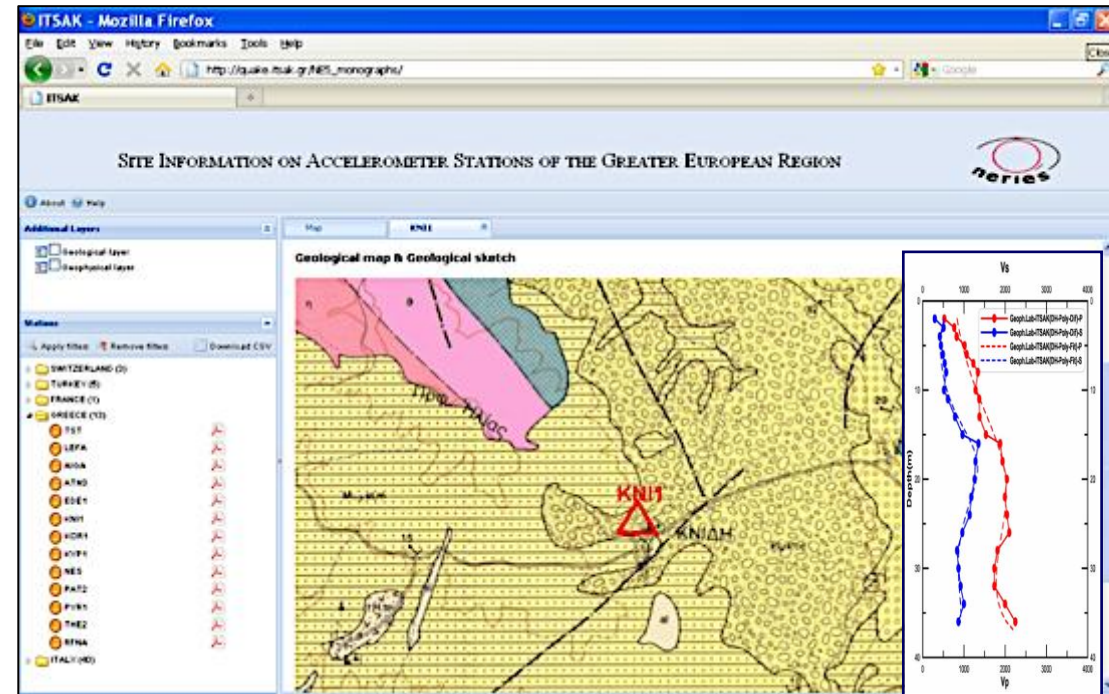


<http://ghead.itsak.gr>

ΔΕΔΟΜΕΝΑ



ΜΕΤΑ-ΔΕΔΟΜΕΝΑ



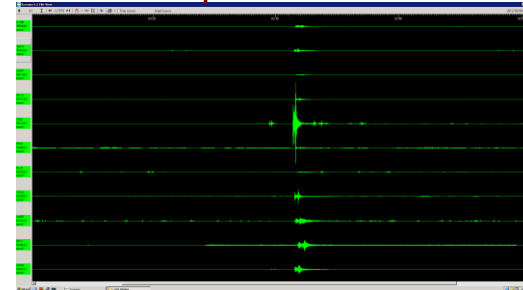
Institute of Engineering Seismology & Earthquake Engineering Infrastructure



Laboratory devices



Computer center



Earthquake Resilient Schools

EReS- ITSAK Research Team

- Theodoulidis Nikos, Dr. Seismologist, Research Director, ITSAK
- Margaris Basil, Dr. Seismologist, Research Director, ITSAK
- Morfidis Kostas, Dr. Structural Engineer, Ass. Researcher, ITSAK
- Papanikolaou Vassilis, Dr. Structural Engineer, Assoc. Professor, Civil Engineering Dept., Aristotle Univ. Thessaloniki
- Kourou Asimina, Dr. Geologist, EPPO
- Konstantinidou Kiriaki, MSc IT, ITSAK
- 1 technician (to be recruited – open call)
- 2 young researchers (to be recruited – open call)