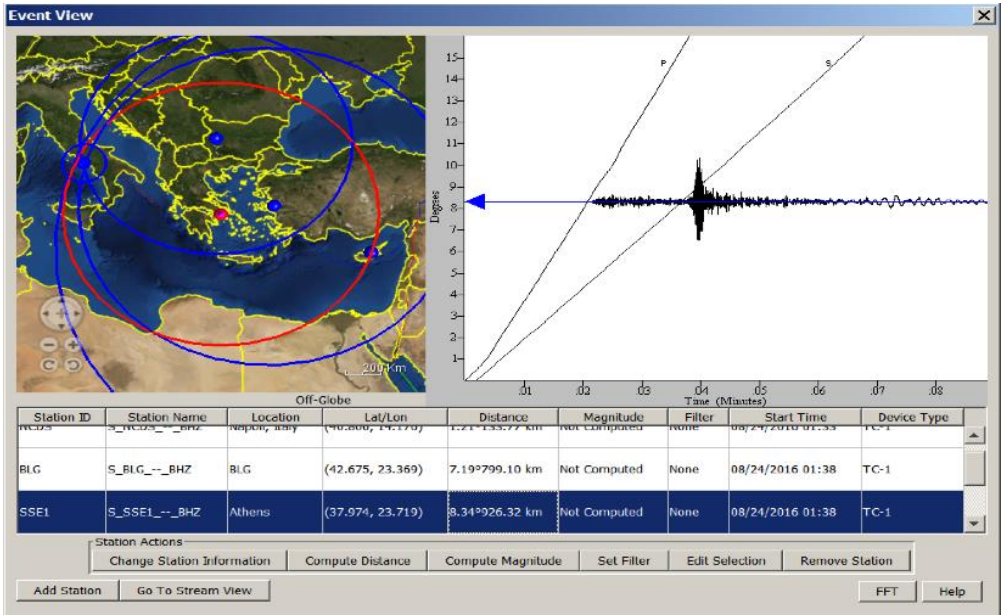
Schools Study Earthquakes

Why?

The specific accelerator focuses on the study of a physical phenomenon with great **societal impact** and proposes pedagogical practices based on inquiry-based methods that are more effective in science education. The objective of this combination is on one hand to increase children's and student's interest in science, on how science is made and how it affects **everyday life**, and on the other to stimulate **teacher motivation** on up-taking innovative teaching methods, subjects and practices to enrich and renew the science curriculum.

The key

The key is to provide increased opportunities for **cooperation and collaboration** between schools across European countries (mainly countries of the European South that experiencing seismic activity) and encourage relationships between stakeholders of both **formal and informal education** by establishing a **network of schools** that will study **real data**, do **real analysis** of real seismic activity in real time and will present their results to their communities.



About SSE

The accelerator engages students in **employing real-problem solving skills**, **handling and studying situations**, and participating in **meaningful and motivating** science inquiry activities.

The RRI component of the project lies in the fact that students deal with **real seismic data** that they have acquired themselves while they have to **communicate** their findings to the local communities.

Surveys in the field demonstrate that the general public is not well informed on the necessary measures that have to be applied to minimize the impact of the natural phenomenon.

A complicated geophysical phenomenon like the earthquake is possible to be studied in the classroom with the use of a simple instrument and results can be obtained with the combination of data from the collaborating schools.

FEEL

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How do earthquakes affect society?

The earthquake hazard poses the most serious intermediate term risk to the health, safety, and economic viability of many parts of Southern Europe and throughout the world. Recent earthquakes demonstrated the risks to modern industrial societies from such cataclysmic events, affecting everything from massive loss of life, infrastructure damage, and financial instability. Much larger earthquakes can be expected to occur adjacent to many metropolitan regions in Europe.

Practical Benefit to Society:

- Identify and validate possible local and regional precursors to earthquakes
- Refine global maps of natural hazards to support mitigation strategies
- Enable rapid response to seismic disasters worldwide

Monitoring local earthquakes

IMAGINE

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Build your own seismograph and develop a netwokr of school seismographs

In this activity, students learn how a seismograph measures the shaking of the earth during an earthquake.

A typical seismograph has a pen attached to a heavy weight. The weight is free to swing back and forth, or to bounce up and down on a spring. The pen touches a rotating cylinder of paper, so that the pen draws a line as the cylinder rotates.

If the ground does not move, the pen draws a smooth straight line. But when the ground moves, the cylinder moves along with it. The heavy weight, on the other hand, has a lot of inertia and stays still. The result is that the pen draws a zigzag line on the shaking cylinder.

The stronger the shaking, the sharper the zigzags. This zigzag picture made on the paper roll is called a seismogram.

Check related activities from a national contest in Greece: http://seismografos.ea.gr/ergasies21017

CREATE

- Network of schools.
- School Contest “Build your own seismograph.
- European Student Science Parliament.
- Research on earthquake awareness and earthquake protection for students and parents.

SHARE

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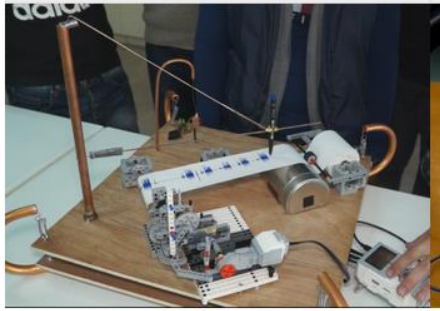	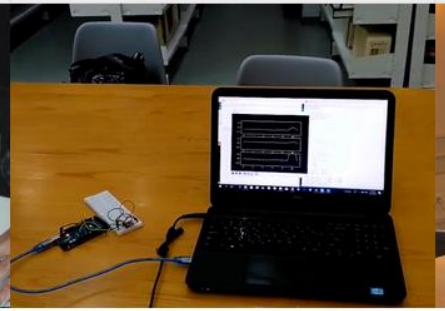	
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	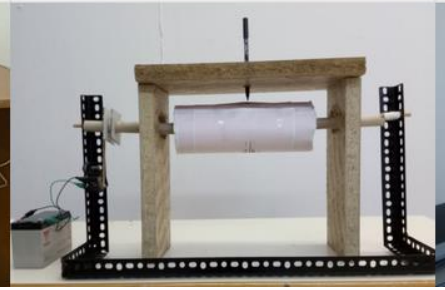	

SHARE

SHARE

Seismoving

SHE NEVER STOPS

Questions?

Remarks?

Interest in applying the accelerator?

How? Why?