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Cost Action ES1401 TIDES: looking into time-dependent changes of the Earth's properties using seismology

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Seismology is undergoing a revolution, as it is starting to use the full-length records of seismic events and background ambient noise to go beyond still-life snapshots of the interior of the Earth, and look into time-dependent changes of its properties. Data availability has grown dramatically with the expansion of seismographic networks and data centres, so as to enable much more detailed and accurate analyses. COST Action TIDES (TIme DEpendent Seismology) aims at structuring the EU seismological community to enable development of data-intensive, time-dependent techniques for monitoring Earth natural processes (e.g., earthquakes, volcanic eruptions, landslides, glacial earthquakes) as well as anthropogenic processes (oil, gas & geothermal reservoirs, mines, engineering works). TIDES networks European laboratories in Academia and Industry with complementary skills and organises a series of workshops and advanced schools to train the next generation of scientists. TIDES facilitates the exploitation of massive data sets collected by European observational infrastructures - coordinated through the ESFRI EPOS - through the use of high-performance computing facilities. TIDES will strengthen Europe's role in a critical field for natural hazards and natural resource management.