

EGU22-7246

<https://doi.org/10.5194/egusphere-egu22-7246>

EGU General Assembly 2022

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## Status and Implementation of the AdriaArray Seismic Network

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With the advent of plate tectonics in the last century, our understanding of the geological evolution of the Earth system improved essentially. The internal deformation and evolution of tectonic plates remain however poorly understood. This holds in particular for the Central Mediterranean: The formerly much larger Adriatic plate is recently consumed in tectonically active belts spanning at its western margin from Sicily, over the Apennines to the Alps and at its eastern margin from the Hellenides, Dinarides towards the Alps. High seismicity along these belts indicates ongoing lithospheric deformation. It has been shown that data acquired by dense, regional networks like AlpArray provide crucial information on seismically active faults as well as on the structure and deformation of the lithosphere. The Adriatic Plate and in particular its eastern margin have however not been covered by a homogeneous seismic network yet.

Here we report on the status and preparation of AdriaArray – a seismic experiment to cover the Adriatic Plate and its actively deforming margins by a dense broad-band seismic network. Within the AdriaArray region, currently about 950 permanent broad-band stations are operated by more than 40 institutions. Data of 90% of these stations are currently available via EIDA. In addition to the existing stations, 385 temporary stations from 18 mobile pools are to be deployed in the region to achieve a coverage with an average station distance of about 50 – 55 km. The experiment will be based on intense cooperation between network operators, ORFEUS, and interested research groups. Altogether, more than 50 institutions will participate in the AdriaArray experiment. We will introduce the time schedule, participating institutions, mobile station pools, maps of suggested temporary station distribution with station coverage and main points of the agreed Memorandum of Collaboration. The AdriaArray experiment will lead to a significant improvement of our understanding of the geodynamic causes of plate deformation and associated geohazards.