VERCE

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Virtual Earthquake & seismology Research Community in Europe e-science environment

ABOUT THE PROJECT

⬡ Earthquake and seismology research addresses both fundamental problems in understanding the Earth's internal wave sources and properties, and augment applications to societal concerns about natural hazards, energy resources, environmental changes, and national security.

⬡ VERCE aims at developing **a data-intensive e-science environment** to enable innovative data analysis and data modelling methods that can fully exploit the increasing wealth of open data generated by the observational and monitoring systems of the seismology community around the world, and guarantee optimal operation and design of these high-cost systems.

⬡ The strategy of VERCE is built upon **a service-oriented architecture** and a data-intensive platform delivering services, workflow tools, and software as a service, and integrating the distributed European public data and computing infrastructures (GRID, HPC and CLOUD) with private resources and the European integrated data archives of the seismology community.

VERCE is a major contribution to the e-science environment of the European Plate Observing System (EPOS), the ESFRI initiative of the solid Earth community.

INTERNATIONAL ASPECT

seismology research
partnership

European project
scientific gateway

⬡ **Strategic synergies with related European projects in seismology:** the ERC projects WHISPER, WAVETOMO; the ITN project QUEST; the research infrastructures projects NERA, SHARE, REAKT.

⬡ Through **KNMI-ORFEUS & EMSC**—the 2 seismological European NPOs in seismology like **IRIS, Earthscope** in the US; **JAMSTEC and NIED** in Japan.

⬡ **With European multi-disciplinary infrastructure projects** such as EUDAT and ENVRI, and with the European data and computing infrastructures: EGI and PRACE.

⬡ Through **EPOS**, VERCE is involved in bilateral collaborations with the US National Science Foundation through the new COPEUS and i-CORDI initiatives.

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The VERCE project is a large scale international study that shall be implemented by a consortium embracing 10 partering teams from 5 EU countries.

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