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EPOS: from conception to implementation

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EPOS is a pan-European research infrastructure (RI) aimed at integrating data, data products, services and software (DDSS) for solid Earth science generated and provided by monitoring networks, observing systems and facilities belonging to European countries. EPOS has been designed with the vision of creating a pan-European infrastructure for solid Earth science to provide virtual access to data and services as well as physical access to facilities. This vision has been shared by several national and international initiatives and by persons who dedicated time, efforts and resources to this challenge. Torild van Eck was one of them. He dedicated his professional life to foster this vision for seismology and solid Earth sciences.

The EPOS mission has been defined coherently with this vision. The EPOS mission is to integrate the diverse and advanced European Research Infrastructures for solid Earth science relying on new e-science opportunities to monitor and unravel the dynamic and complex Earth System. To accomplish its mission, EPOS is engaging different stakeholders, not limited to scientists, to allow the Earth sciences to open new horizons in our understanding of the planet and in contributing to prepare society for geo-hazards. The seismological community was engaged in EPOS since its conception phase and Orfeus played a key role in designing the EPOS architecture, which is essential to conceive the long-term integration plan.

EPOS is presently in its implementation phase further extending its pan-European dimension. The EPOS Implementation Phase builds on the achievements of the successful EPOS Preparatory Phase project and consists of two key activities: the legal establishment of the EPOS-ERIC and the EPOS IP project. The research infrastructures (RIs) that EPOS is coordinating include: i) distributed geophysical observing systems (seismological and geodetic networks); ii) local observatories (including geomagnetic, near-fault and volcano observatories); iii) analytical and experimental laboratories; iv) integrated satellite data and geological information services; v) new services for natural and anthropogenic hazards; vi) access to geo-energy test beds.

Here I present the activities planned for the implementation phase focusing on thematic and integrated services and on their interoperability. I am going to present the progress of EPOS in order to recognize Torild's contribution and continue his mission. Torild committed himself to serve the seismological community, to allow other scientists performing high-quality research fostering new discoveries for Earth sciences. EPOS is successfully progressing also thanks to the effective contribution of European seismologists and associated organizations.