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Re-designing the European Database of Seismogenic Faults (EDSF) for EPOS: IT design, implementation, and use-case perspectives

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The European Database of Seismogenic Faults (EDSF; doi: 10.6092/INGV.IT-SHARE-EDSF) was compiled in the framework of the EU Project SHARE and is now one of the building blocks of the Hazard & Risk pillar of the EU Project EPOS-IP (WP8, TCS Seismology). EDSF includes faults that are deemed to be capable of generating earthquakes of magnitude equal to or larger than 5.5 and aims at ensuring a homogeneous input for use in ground-shaking hazard assessment in the Euro-Mediterranean area. The database was initially conceived as a specific-purpose standalone platform. However, to tackle the challenges ahead in seismological research and meet the new perspectives offered by EPOS, EDSF needs to be revamped. We present the new IT design of EDSF aimed at making it interoperable with other seismological data products within EPOS and illustrate how its enhanced capabilities will improve hazard applications of various types and scales and foster research in active tectonics and geodynamics.