

Data & Products

Data will be available from the Solid Earth science disciplines which each community deals with, such as seismology, volcanology, geology and surface dynamics, geodesy, geomagnetism, analytical and experimental laboratory research, rock physics and petrology, satellite information. To enable this, advanced ICT and e-IR methodologies are being developed and will be employed.

Available data will be quality controlled according to the appropriate standards as defined by each of the disciplinary data providers, although some data due to its very nature, such as “real-time” data, may be supplied in the format in which it is received by EPOS.

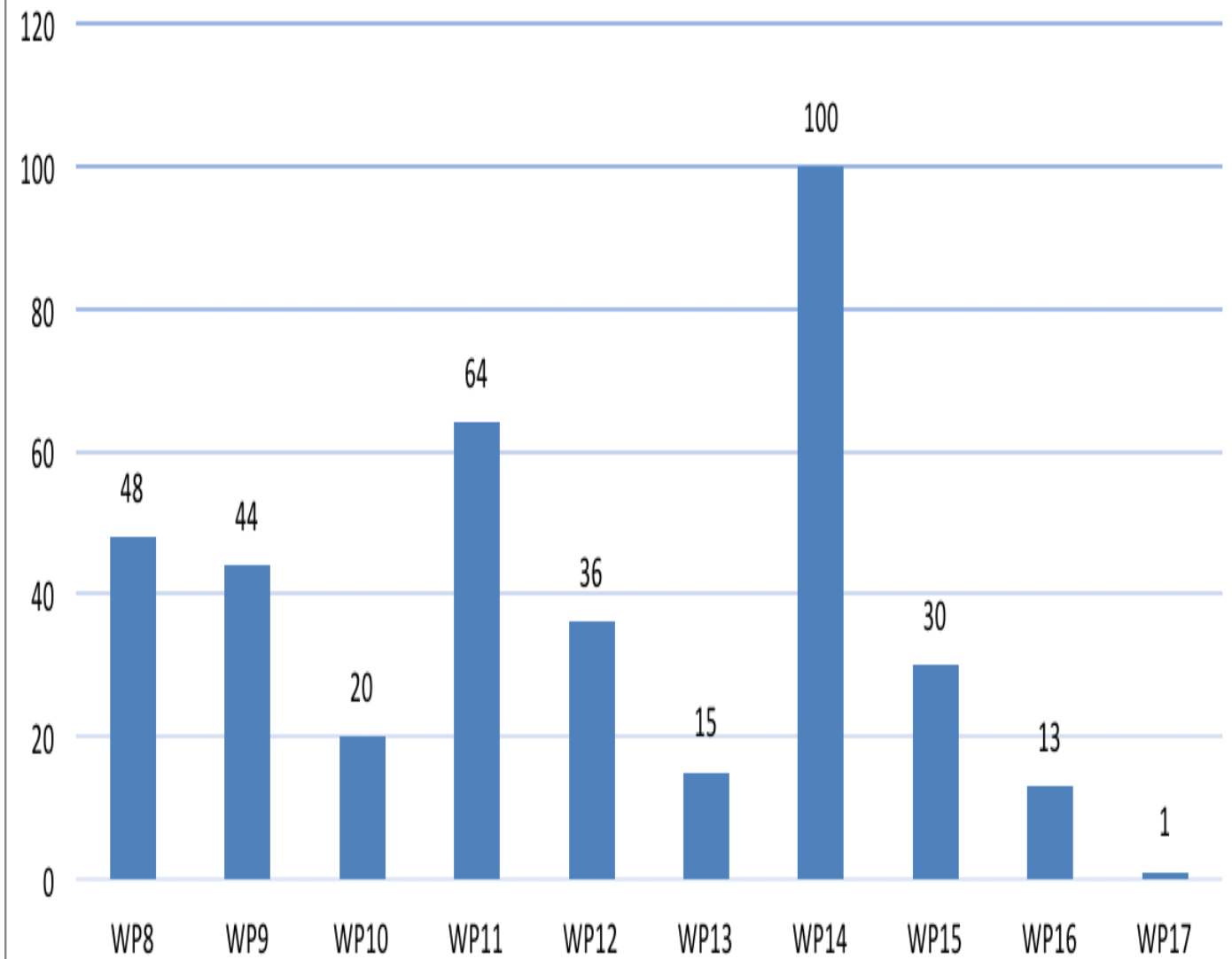
In order to facilitate the integration among the communities, data had been categorized in the following levels:

- **Level 0:** raw data, or basic data (example: seismograms, accelerograms, time series)
- **Level 1:** data products coming from nearly automated procedures (earthquake locations, magnitudes, focal mechanism, shakemaps)
- **Level 2:** data products resulting by scientists' investigations (crustal models, strain maps, earthquake source models, etc)
- **Level 3:** integrated data products coming from complex analyses or community shared products (hazards maps, catalogue of active faults, etc)

As a part of the requirements and use cases (RUC) collection from the Thematic Core Services (TCS) Work Packages (WPs), a specific list was prepared to include all data, data product, software and services (DDSS). This DDSS Master Table is used as a mechanism to update the RUC information as well as providing a mechanism for accessing more detailed IT technical information for the development of the Integrated Core Services (ICS) Central Hub (ICS-C). The DDSS Master Table is also used for extracting the level of maturity of the various DDSS elements in each TCS as well as providing a summary of the status of the TCS preparations for the ICS integration and interoperability. The current version of the DDSS Master Table (as of 20 March 2018) consists of 371 DDSS elements (Fig.1) from which 43 were declared by TCSs as top-priority DDSS elements and access to them is provided via 75 web-services. By the end of 2017, 66 web-services were implemented at ICS level. As of 20 March 2018, 89 web-services are implemented and searchable at ICS system. These are distributed over nine TCS WPs, covering 47 DDSS elements. 173 DDSS elements are still to be implemented. By M36 (October 2018), 80 additional DDSS elements will be included in the top-priority list, and by M48 (October 2019), another 87 DDSS elements will be added. Simultaneously, new tools are being developed for the TCS-ICS integration process, and the new implementations will continue during 2018-2019.

Number of DDSS elements in TCS WPs

(March 2018)



WP8: Seismology; **WP9:** Near Fault Observatories; **WP10:** GNSS Data and Products; **WP11:** Volcano Observations; **WP12:** Satellite data; **WP13:** Geomagnetic Observations; **WP14:** Anthropogenic Hazards; **WP15:** Geological Information and Modeling; **WP16:** Multi-scale Laboratories; **WP17:** Geo-Energy Test Beds for Low Carbon Energy.