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Towards new online access services for the EMSO ERIC temperature and salinity data

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The European Multidisciplinary Seafloor and water column Observatory (EMSO) consists, to date, of 11 regional multiple sensor-equipped platforms distributed around Europe from the Atlantic Ocean to the Mediterranean, and the Black Sea. Each system collects multidisciplinary measurements in the water column as well as at the seafloor addressing several critical questions related to ocean health, climate change, marine ecosystems and natural hazards. EMSO is a European Research Infrastructure Consortium (ERIC) since 2016, and one of the many challenges has been to design new online services promoting marine data produced by the whole network. Here, we report on an on-going activity to compile, control and deliver quality controlled temperature and salinity data and metadata gathered through the EMSO network from the sea surface down to 4000m. As part of this effort, we work on the development of online tools for temperature and salinity data visualization and knowledge discovery based on widely used software components such as dashboards. These services aim to support the stakeholders' needs (from scientists and industries to institutions and policymakers) by providing relevant information on multidisciplinary oceanographic data. They also highlight the importance of filling the knowledge gap on the abyssal ocean by delivering useful deep long-term series necessary to assess the impact of key processes on global issues such as climate change and marine ecosystem sustainability.