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Ethical implication of providing scientific data and services to diverse stakeholders: the case of the EPOS research infrastructure

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EPOS, the European Plate Observing System, is an ESFRI infrastructure serving the needs of the solid Earth science community as a whole. EPOS promotes the use of multidisciplinary solid Earth data to improve the understanding of physical and chemical processes controlling earthquakes, volcanic eruptions, tsunamis as well as those driving tectonics and surface dynamics. The EPOS mission is to create a single, sustainable, and distributed infrastructure that integrates the diverse European research infrastructures for solid Earth science under a common framework with the final goal of delivering a suite of domain-specific and multidisciplinary data, products, and services in one single and integrated platform.
Addressing ethics issues is a relevant challenge for any initiative, program or project dealing with scientific data and products provision, access to services for scientific purposes and communication with different stakeholders, including industry and society at large. In examining the role of EPOS on openly and freely delivering scientific data and products to diverse stakeholders including but not limited to scientists, we are looking at ethical issues associated with the use and re-use of these data and products possibly leading to a malevolent use and/or misuse of the data with implications on, for example, national security, environmental protection and risk communication. Moreover, EPOS is aware that the research promoted by the use of data delivered through its platform can have a profound influence on the environment, human health and wellbeing, economic development, and other facets of societies.
We know there is nothing intrinsically bad about openly and freely delivering scientific data, as it serves as a tool for leveraging researches leading to solutions for a responsible management of Earth's resources and mitigation of natural hazards. However, we must evaluate the effects of such a data provision and feel the obligation to adopt a responsible conduct, complying with regulations, both within the scientific community and in the broader society, exploring the implications of open provisioning of data and services, up to imposing justified constraints. This requires that contributing to the scientific data and services provision cannot be simply limited to activities fostering the access to scientific products, but must promote innovation in the form of creation of capabilities (i.e. conscious use of data) and the functioning (i.e. activities constitutive of a scientist's being) to access and use scientific products in an ethically consistent way. For all these reasons, EPOS has established a specific Working Group on ethics issues that will help to define the landscape and the strategies for managing Ethics issues associated with EPOS goals including data and services provision to diverse stakeholders.