



Open Science as a Knowledge Transfer strategy

Ivo Grigorov (1) and Suenje Dalmeier-Thiessen (2)

(1) Danish Technical University, DTU Aqua, Research Secretariat, Charlottenlund, Denmark (ivgr@aqu.dtu.dk), (2) European Organization for Nuclear Research (CERN), Geneva 23, Switzerland CH-1211

Beyond providing basic understanding of how our Blue Planet functions, flows and breathes, the collection of Earth & Marine Research disciplines are of major service to most of today's Societal Challenges: from Food Security and Sustainable Resource Management, to Renewable Energies, Climate Mitigation & Ecosystem Services and Hazards.

Natural Resources are a key commodity in the long-term strategy of the EU Innovation Union(1), and better understanding of the natural process governing them, as well as science-based management are seen as a key area for stimulating future economic growth. Such potential places responsibility on research project managers to devise innovative methods to ensure effective transfer of new research to public and private sector users, and society at large.

Open Science is about removing all barriers to full sphere basic research knowledge and outputs, not just the publishable part of research but also the data, the software code, and failed experiments. The concept is central to EU's Responsible Research and Innovation philosophy(2), and removing barriers to basic research measurably contributes to the EU's Blue Growth Agenda(3). Despite the potential of the internet age to deliver on that promise, only 50% of today's basic research is freely available(4).

The talk will demonstrate how and why Open Science can be a first, passive but effective strategy for any research project to transfer knowledge to society by allowing access and discoverability to the full sphere of new knowledge, not just the published outputs.

Apart from contributing to economic growth, Open Science can also optimize collaboration, within academia, assist with better engagement of citizen scientists into the research process and co-creation of solutions to societal challenges, as well as providing a solid ground for more sophisticated communication strategies and Ocean/Earth Literacy initiatives targeting policy makers and the public at large.

(1)EC Digital Agenda & Access to Knowledge <http://ec.europa.eu/digital-agenda/en/open-access-scientific-knowledge-0>

(2)Responsible Research and Innovation for Societal Challenges
http://ec.europa.eu/research/science-society/document_library/pdf_06/responsible-research-and-innovation-leaflet_en.pdf

(3)Houghton, J., Swan, A., Brown, S., 2011. Access to research and technical information in Denmark [WWW Document]. URL http://www.deff.dk/uploads/media/Access_to_Research_and_Technical_Information_in_Denmark.pdf

(4)Proportion of OA Peer-Reviewed Papers at the European & World Levels 2004-2011, EC Report
http://www.science-metrix.com/pdf/SM_EC_OA_Availability_2004-2011.pdf