

IAF EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Applications, Societal Challenges and Economic Benefits (5)

Author: Ms. Miraslava Kazlouskaya
Space Generation Advisory Council (SGAC), Belarus, miraslava.kazlouskaya@spacegeneration.org

Dr. Andrei Bocin-Dumitriu
Stichting dotSPACE, The Netherlands, andrei.bocin-dumitriu@groundstation.space

Mrs. Linda van Duivenbode
Stichting dotSPACE, The Netherlands, linda.van.duivenbode@groundstation.space

Dr. Evangelos Spyarakos
University of Stirling, United Kingdom, evangelos.spyarakos@stir.ac.uk

Dr. Tiit Kutser
University of Tartu, Estonia, tiit.kutser@ut.ee

Prof. Nikolaos Georgantzis
France, nick.georgantzis@gmail.com

Prof. Lara Agnoli
France, lara.agnoli@bsb-education.com

Dr. Carmen Cillero
Spain, carmen.cillero@3edata.es

EUROPEAN AND INTERNATIONAL POLICY DRIVERS IN WATER SCENARIOS FOR
COPERNICUS EXPLOITATION

Abstract

Hydrology-related activities are provided by all six Copernicus Services. However, the European Commission discovered that this method makes it difficult to gain a full picture of the global water cycle. As a result, the consortium "Water Scenarios for Copernicus Exploitation" (Water-ForCE) proposed creating a Roadmap for Copernicus water services. The Roadmap will provide a user- and stakeholder-driven concept for water services by examining the growing demands, as well as the possibilities given by existing and anticipated capabilities. To understand this, the project assesses whether operational services can satisfy current policy objectives. As a result, the paper identifies the indicators contained in policy and law for monitoring, reporting, and assessing the adoption of Earth Observation (EO) services, as well as the barriers to their implementation. The paper examines policies from two perspectives: first, from the perspective of space policy and how it drives Copernicus implementation in public domains such as water; and second, from the perspective of specific documentation from the water, agriculture, and environment sectors to see how they can drive Copernicus uptake for monitoring efficient water use, its quality and quantity. The research looks into European Union (EU) laws as well as international treaties, United Nations instruments, and World Bank strategies. The paper concludes that water concerns are well represented in EU policy in general, although EO data as a tool of monitoring is included in just a few water-related policy instruments. Simultaneously, in other sectors that are inextricably intertwined with water consumption, new EU rules are being designed to take into account the availability of satellite imagery, which considerably adds to monitoring efforts. Notably, present water instruments supporting the use of space technology are mainly non-binding and do not necessitate government compliance. As a result, a new approach is required, as it is currently difficult for diverse user communities to identify relevant Copernicus services to effectively use them for socio-economic benefits. Therefore, it is advised to

specify in further regulations the outcomes that must be accomplished while leaving states free to decide how to incorporate these objectives into national laws. This will not stifle innovation by prescribing stringent monitoring systems, but will instead outline the intended results.