

IAF EARTH OBSERVATION SYMPOSIUM (B1)
Interactive Presentations - IAF EARTH OBSERVATION SYMPOSIUM (IP)

Author: Dr. Antonio Manzoni
Scuola Superiore Sant'Anna, Italy

Prof. Mariagrazia Alabrese
Scuola Superiore Sant'Anna, Italy

EARTH OBSERVATION TECHNOLOGIES, AGRICULTURE AND CLIMATE IN THE EU: WHAT
ARE THE LEGAL AND SOCIO-POLITICAL CHALLENGES?

Abstract

It appears that the future of European agriculture will rely more and more on digital technologies and innovation, such as precision farming, blockchain, artificial intelligence, just to list a few. Among these, Earth Observation Technologies (EOTs) has been acquiring an increasing preponderant role in supporting the EU policy-maker activity regarding the regulation of the agri-food sector and the implementation of essential aspects of the CAP. Indeed, among other things, EOTs assist the policy-maker in the monitoring and control of land parcels to determine the payment for farmers, and even to investigate potential criminal activities committed on the territory and which can cause trans-national spillovers, and support operator to assess the health status of crops and the risk of potential threats (diseases, floods, etc.). Furthermore, EOTs provide an essential instrument to monitor climate change aspects and to inform the relative policies. In the context of the new Common Agricultural Policy (CAP) 2023-2027 reform, the transition to a performance-based model, oriented to quantify a set of common indicators to demonstrate the achievements realised, represents a further scope for the development of services and requirements based on EOTs. However, despite its enormous potential, the role of remote sensing technologies in the implementation and monitoring of the CAP, and in the agricultural and environmental sector in general, still constitutes quite an unexplored field by the academic research. Relatedly, the issues related to the ownership, sharing, and access of agricultural data (ag-data) - which are the main outputs of remote sensing activities - do entail a wide array of challenges, too. Most notably, there is very little literature that tackles the legal and socio-political aspects of this subject in a systematic manner, probably due to its complexity and its ongoing changes. Thus, this contribution is precisely intended to provide an overview of the main legal and socio-political aspects related to the use of EOTs in the EU agricultural sector, with a specific focus on the CAP, its climatic commitments, and the debated topic of agricultural data. To this end, the presentation will first provide an historical overview of the EU regulatory framework on EOTs utilization in the agricultural sector, with a focus on the recently-launched CAP 2023-2027. Secondly, the contribution will highlight the main legal and socio-political issues related to this topic, with a focus on the emerging issues on agricultural data.