

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

Author: Mr. Christopher Oligschlager
European Association of Remote Sensing Companies, Belgium

ASSESSING THE SOCIAL, ECONOMIC AND ENVIRONMENTAL BENEFITS DERIVED FROM
EARTH OBSERVATION-BASED SERVICES ALONG A VALUE CHAIN: A USE-CASE DRIVEN
APPROACH

Abstract

For my participation at the IAC congress (symposium B1, session 5), I will prepare a paper describing and explaining the benefits of satellite applications on Earth in general and analysing the societal, economic and environmental benefits of using Earth observation-based services or products in specific. However instead of applying well-known macroeconomic approaches as employed by many other studies before (such as the Copernicus Market Report), my methodology rests on a microeconomic, use-case driven approach whereby I analyse the specific benefits derived from using a specific EO-based service or product. The SEBS (Sentinels Benefits Study) approach does not only analyse and trace the benefits generated at the primary user level through using the EO service/product, but goes further and assesses the economic value generated and passed on along a value chain derived from satellite data. The great advantage of this approach is that the benefits of using Earth observation-based services becomes more tangible and comprehensible for not only expert communities, but also potential primary users of the service who are often uncertain about adopting new technologies into their operations.

Following the explanation of the methodology, I would like to give a practical example. In this specific case, I will present a use case in which the application WatchITgrow will be analysed, an EO-based application that serves as a decision support tool for potato farmers in Belgium. I will present the application and how it specifically benefits and supports farmers in their daily operations through more effective decisions by for instance saving inputs such as fertilisers and pesticides, more targeted irrigation, saving time through less field scouting, creating a level playing field between farmers and the processing industry, and social benefits by bringing the farmers' community closer together. I will also point out how the use of the WatchITgrow platform has a profound impact on the value chain, i.e. the potato sector such as potato traders, the processing industry and its agronomists as well as the support industry (packaging, peeling, etc.) who not only benefit from higher yields thanks to the farmers' use of the application, but can use the application themselves in order to make their operations more effective.