

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

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BUSINESS POTENTIAL OF EARTH OBSERVATION DATA APPLIED TO THE RENEWABLE
ENERGY INDUSTRY

Abstract

Earth Observation data has been feeding the creation and development of several markets due to the value that is generated from its analysis. There are a number of Earth Observation (EO) data markets in the downstream domain such as defense, agriculture, energy, and others. These industries might in some cases acquire raw data and do their own data analytics. In other cases, the data acquired is previously filtered by criteria defined by the user and analysis on the filtered data is provided to the customer. It was selected for further study the Renewable Energy market (wind, hydropower and solar) due to its growth prospects (annual growth of 25% in 2020). Earth observation data has been of great value to this industry as from the data it is possible to aid in the selection of the best location for offshore and onshore energy farms, to predict weather conditions and best access window for crews to perform operations, besides allowing the control of structures and identification of damages. The present article aims to open the door to ways of maximizing the potential to generate wealth from currently available Earth Observation data concerning the Renewable Energy industry. To do that, the additional challenges (e.g., existing competition, fast time to market, etc.) that are presented to the usage of the aforementioned data on the aforementioned industry will be identified, whether they are due to data analysis capability, satellite revisiting period and area of coverage, or other reasons. It will also be outlined how a service that is adequate to the final user might be created. This way European Newcomers, or any other type of companies in general, will be able to find a clear roadmap of the obstacles and challenges of the Renewable Energy industry. This article will provide a description and analysis of the current barriers to the development of this type of business, as well as the barriers to enter the market, which are essential pieces of information for any company trying to get on the market, or trying to establish a strong position on it. The barriers mentioned above can be international competition, captive markets, and political or strategic barriers, among others. The clear identification of the currently existing barriers is an essential step to develop mechanisms in the European ecosystem that will allow companies to develop faster and be more efficient.