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International cooperation in using space for sustainable development: The "Space2030" agenda (1)

Author: Ms. Giulia Costella
Caribou Digital UK, United Kingdom, giulia@cariboudigital.net

LEVERAGING SATELLITE IMAGERY FOR GLOBAL CHALLENGES: COLLABORATIVE APPROACHES AND IMPLEMENTATION CHALLENGES

Abstract

Governments, NGOs, and the private sector require access to high-quality information to make informed decisions on a number of global challenges. From climate change and conflict to disaster management and healthcare, many countries and particularly lower-income countries, lack the situational data that is needed to make decisions, or find that data is incomplete, out-of-date, or too expensive to collect. Within this context, policy development and investment is all the more difficult, and the ability to meet sustainability and development objectives seems all the more challenging. Within this context, however, academia, industry and NGOs, are developing innovative solutions that capitalise on ever-increasing volumes of satellite imagery and higher processing capabilities. By leveraging the huge public sector investments into data, including through initiatives such as Europe's Copernicus, the private sector and civil society can bring innovative data analytics and cutting-edge research to address these global challenges. Hundreds of satellite applications are designed and developed to meet the decision-making needs of a wide range of stakeholders, particularly for the national governments that are responsible for delivering the UN Sustainable Development Goals agenda. Caribou Space's recent report into the use of satellite applications for humanitarian purposes found that 43% of the 500 satellite applications we identified were developed by the private sector and a further 22% were developed by non-governmental organisations. There is clearly a high level of international, cross-sector collaboration already underway. Analysis into the intended users of over 500 satellite applications suggested that over 40% of them were targeting end users from within government agencies. Many were funded or part-funded by donor or space agency-led initiatives such as the UK Space Agency's International Partnerships Programme, ESA's EO for Sustainable Development (EO4SD) initiative and NASA's SERVIR. This type of cooperation is helping to bring more satellite applications to government stakeholders who might not otherwise have access to this type of data and decision-support information. However, it also brings its own challenges. Suppliers need to design tools that are appropriate, affordable and adoptable by users that may not have the required technical capability or infrastructure, or indeed the long-term budget to put these applications into use. This type of international collaboration must therefore be considered carefully to ensure that the needs and incentives of each party are aligned.