Paper ID: 71582
oral

35th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
International cooperation in using space for sustainable development: The "Space2030" agenda (1)

Author: Ms. Giulia Costella
Caribou Digital UK, United Kingdom

SPACE FOR THE SUSTAINABLE DEVELOPMENT GOALS: WHY SPACE? WHY NOW? AND WHAT NEXT?

Abstract

Earth observation, satellite communications, and navigation systems, are being applied to society's greatest, global challenges. Governments, NGOs, and the private sector require access to high quality information to make informed decisions to address these global issues, but in many countries there is a lack of data or it is incomplete, out-of-date, or expensive to collect. Conversely, satellite applications can offer these decision makers data that is quick to access, affordable, repeatable, and covers the globe. Multiple factors have converged, and the time has come for satellite applications to be adopted as a mainstream tool for addressing global issues. Public good satellite constellations such as Europe's Copernicus and the US's GPS provide free and open access data. Computing costs have continued to fall and parallel advances in cloud platforms, data science and machine learning have reduced the costs and complexity to access and process satellite data. Lastly, thanks to strong advocates such as the European Space Agency (with Global Development Assistance) and the UK Space Agency (with International Partnership Programme), a wealth of satellite applications have been developed and rolled out to address global issues. The advantages of speed, affordability and coverage that are offered by satellite technologies mean that they are often the best - if not the only - way of addressing these huge global issues. This represents a huge opportunity for the satellite services industry to develop applications that can be adopted by governments, policy makers, investors and private enterprise all over the world. However, despite much progress in recent years with product demonstrations and pilot projects, uptake of satellite technologies remains low across developing economies and many industry players are not actively pursuing these commercial opportunities. A coordinated effort is needed to address the remaining barriers to greater use of space technologies to tackle the Sustainable Development Goals: a) Data availability - Higher resolution, and timely data would complement the wealth of free and open-access data offered by public actors; b) User awareness - Low awareness of satellite applications, their uses, and their relative value; c) Fostering innovation - Providing catalytic funding and nurturing local talent in developing economies; d) Evidence of impact - There is nascent but not widespread evidence on the development benefits of using satellite applications; f) Ethics and privacy - The many advantages of satellite applications, including coverage and speed, also carry risks in terms of ethics and privacy.