

28th IAA SYMPOSIUM ON SPACE AND SOCIETY (E5)  
Models for Successfully Applying Space Technology Beyond Its Original Intent (2)

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THE CATALOGUE OF ESA ACTIVITIES SUPPORTING THE UN SUSTAINABLE DEVELOPMENT  
GOALS

**Abstract**

Space programmes and activities are supporting since decades challenges on Earth. "Space" is a valuable tool to be combined with Earth assets, and space programmes are more and more indispensable. The traditional approach is via the traditional space "domains": Earth observation, Telecommunications, Navigation, Human Spaceflight, Launchers... as it is the way, at least at the European Space Agency (ESA), the programmes are financed and managed. And Technology is a domain, with some own financing, still mainly a transversal one, in support for all the programmes, and complemented by Incubation Centres and Technology Transfer activities with a large portfolio of technologies available for transfer.

In September 2015, it was decided to develop the knowledge and understanding on how space projects, first the ESA ones, then to be extended to other agencies or providers, were supporting and could support in the future the UN 17 Sustainable Development Goals (SDG) that were just adopted. The approach that is followed by ESA includes building a "catalogue" of those programmes and activities that can support at least one SDG (many programmes can indeed support several). A first version was published on the web end November 2016 and it has been refined to extend it to more examples.

The original approach that was followed is that all relevant projects and activities are included, of course those concerning traditional services and applications, but also the ones involving directly technologies. Technology is here considered just as any other programme contributing to support SDG. Space technologies are also at the service of the Earth challenges and Sustainable Development and taking them into account gives more opportunities to maximise the use of space programmes and bring solutions.

What has been complex in the exercise was to define a single structure to present all the activities, whether it is a service, an application, the use of data or a technology, with a common set of parameters to characterise them and help the "user" identify what is relevant to him. The pertinent element being then the SDG or an indicator within a SDG, not the type of solution space can bring.

The concept of the ESA catalogue supporting the UN 17 Sustainable Development Goals will be presented and examples will be given, taken from the technology field, to illustrate how it has been built and can be used.