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Contribution of Space Activities to Solving Global Societal Issues (2)

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SPACE SUPPORTING REGIONAL CHALLENGES: THE EXAMPLE OF THE "5 A" (ARCTIC,
ANTARCTIC, ALPS, ATLANTIC, AFRICA)

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 space "domains": Earth observation, Telecommunications, Navigation, Human Spaceflight, Launchers... as it is the way, at least at ESA, the programmes are financed and managed. For a potential user on the ground, this approach helps to understand the main characteristics of a programme, how one given domain can help, however it does not give the overall view from a user point of view of all what he can get from space.

The second possible approach is to address the themes that correspond to societal challenges: energy, health, education, food, water, economic growth, life below water... and a good model is the one of the UN 17 Sustainable Development Goals. Some elements concerning this approach will be presented as introduction with the catalogue ESA published end 2016. It can support in particular specific policies addressing those challenges.

A third approach that will be detailed is linked to regional areas with set of policies a State can define in order to support its economic development or the ones it supports. The two cases, and even a mix of the two cases, are embedded in the "5 A" approach.

Concerning the Atlantic and the Alps, the main interest is for the Member States whose territory is fully or in part located in those regions, and targeting economic development of the zone with full benefit from space assets. Concerning the Polar regions (Arctic and Antarctic), there is both an interest from the "local" Member States who live or work there, and a more global interest from many others that have activities in the area or wish to understand the climate change and how the area is evolving, and impacting and being impacted by what happens elsewhere on Earth. Concerning Africa, the aim is to improve and develop support our Member States give to the continent and have an overall understanding of the needs across it.

The approach towards the regional challenges faced by those specific regions, taken as models and adaptable to other regions, will be explicated and examples of how space support the policies will be shown.