

**INTERSESSIONAL PANEL OF THE UNITED NATIONS COMMISSION  
ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)**

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**Contribution by Belgium**

to the CSTD 2019-2020 priority theme on “Exploring space technologies for sustainable development and the benefits of international research collaboration in this context

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**Priority Theme 2: “Exploring space technologies for sustainable development and the benefits of international research collaboration in this context”**

1. Can you give examples of projects/policies in your country aimed at using space technologies for sustainable development? What are the main challenges confronted while trying to implement these projects/policies in your country or region?

The “Space Research and Applications” directorate of the Belgian Federal Science Policy Office (BELSPO) is responsible for managing Belgium’s space programme on a daily basis.

Belgium has been active in the space sector for the past thirty years and was at the origin of the foundation of the European Space Agency (ESA). BELSPO has a yearly budget of about EUR 200 million for space activities, of which more than 80% is allocated for ESA programmes. Through its commitment, the directorate manages all the space programs, i.e. space sciences, earth observation, navigation, telecommunications, international space station, exploration, launchers, technology and science programs.

Real international recognition of the Belgium expertise in the Earth Observation domain started with Belgium’s involvement in the SPOT VEGETATION program in the mid 90ties. The SPOT VEGETATION program is the starting point of a European Earth monitoring system that was developed jointly by France, the European Commission, Belgium, Italy and Sweden. The SPOT VEGETATION program delivered from 2001 onwards free of charge datasets to the entire user community, and so became the real precursor for the nowadays EC COPERNICUS program, with its free, full and open access to the Copernicus Sentinel Data.

Belgium is also known for the development and delivery of ESA’s first small satellite: the PROBA satellite. PROBA 1 was launched in October 2001, PROBA 2 in November 2009, and PROBA V in May 2013. PROBA V was built as the gap-filler between SPOT VEGETATION and the EC Sentinel satellites, for securing a continuous global daily vegetation monitoring.

BELSPO is also managing its national programme “Support To Exploitation and Research in Earth Observation” (STEREO). This programme offers to Belgian universities, public scientific institutions and non-profit research institutions opportunities and tools for the development of an expertise in Earth observation and a maximized scientific use of satellite and airborne data. Over the years different sustainable development projects have been supported and continue to be supported. More information can be found via <https://eo.belspo.be/en/search/node/sustainable%20development>

Also at the regional level earth observation receives specific attention. VITO (Flanders) was contracted in 1998 by BELSPO and the SPOT VEGETATION program as the overall system administrator and coordinator of the production entity. In this function, VITO still today operates the centralized image processing and archiving facilities at its premises in Mol (Belgium) (<http://www.vito-eodata.be/>). VITO operates also the TERRA SCOPE platform for BELSPO (<https://terrascope.be>), a free and user-friendly platform to access satellite data and derived information to the Belgian users.

VITO has in particular cooperation with the FAO on water productivity (Water Productivity Open-Access Portal (WaPOR)) and the Agricultural Stress Index System (ASIS). VITO also invests in capacity building training programs for African countries for the understanding and analysis of this complex data.

2. Can you provide examples of policies/projects/initiatives aimed at promoting international research collaboration in the area of space technologies for sustainable development? What are the main challenges confronted in implementing these projects?

SKYWIN, the Walloon competitiveness cluster, VRI, the non-profit organization of Flemish companies, research centres and educational institutions with activities in space, and the Flemish aerospace cluster FLAG (Flemish Aerospace Group) bring together large companies, SMEs, universities, high schools and research centers with a view to implement industrial projects.

3. What are the actions that the international community, including the CSTD, can take to leverage the potential of space technologies for sustainable development, including through international research collaboration in this context? Can you give any success stories in this regard from your country or region?

It is important to continue to develop an appropriate range of support measures to encourage innovation in the space sector, which are adapted to our national strategies and the specific characteristics of our national innovation systems.

New financing models need to be developed in cooperation with the private sector and specific innovation partnerships need to be established.

We are happy to refer to the example of the Earth Observation project cited above: this has been a driver for international cooperation on tangible and observable results.

4. Could you suggest some contact persons of the nodal agency responsible for projects/policies, related space technologies for sustainable development and international research collaboration in this context as well as any experts (from academia, private sector, civil society or government) dealing with projects in this area? We might contact them directly for further inputs or invite some of them as speakers for the CSTD inter-sessional panel and annual session.

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5. Do you have any documentation, references, or reports on the specific examples on the priority theme in your country or region?

VARIO, the Flemish Advisory Council for Innovation and Enterprise has published its report on "FLANDERS' SPACE: EEN STRATEGIE VOOR DE VLAAMSE RUIMTEVAARTECONOMIE. FEBRUARI 2018 ([https://www.vario.be/sites/default/files/documents/180217\\_Flanders%27space.pdf](https://www.vario.be/sites/default/files/documents/180217_Flanders%27space.pdf)).