

SPACE ACTING FOR DECARBONISATION (SA4D)

European Space Agency (ESA) in connection with the generic programme line ARTES 4.0 Business Applications - Space Solutions (BASS)

Scope of Project

There is an unprecedented need to achieve sustainable, green and inclusive economic growth to meet the challenge of decarbonising our economies. Various actors, including governments, companies and other organisations, have started to adopt emission reduction targets to achieve this goal.

There is an urgent need to establish space as a key pillar to contribute to the decarbonisation challenge facing society. Telespazio Belgium wants to demonstrate that space applications have significant untapped potential to support the green transition and wants to help industries and society accelerate towards zero net emissions while ensuring socio-economic growth.

Study

It will help to understand the opportunities for space systems upstream (improved/new mission concept), downstream (space-based products/services), and/or the integration of new technical developments such as AI, IoT, Digital Twins for SatCom, SatEO and SatNav in support of decarbonisation and guide the next steps on the most relevant priorities and topics to be addressed.

It will provide context and the most urgent actions to be taken in the context of the Green Value and Sustainable Mobility Opportunity.

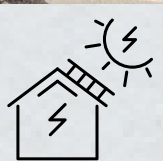
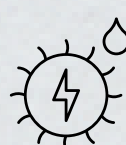
Areas of Application

The study aims to engage the main greenhouse gas generating sectors in terms of user groups and their decarbonisation needs. It wants to identify the main investments planned in the sectors to support the green transition and the actors involved.

The **energy and utilities, buildings, industry and food production** sectors will be analysed in detail.

The study aims to engage the main greenhouse gas generating sectors in terms of user groups and their decarbonisation needs. It wants to identify the main investments planned in the sectors to support the green transition and the actors involved.

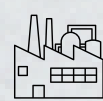
The communities currently targeted by the study will be invited to a workshop in April to gather and discuss requirements for decarbonisation.



Energy and Utilities



Buildings



Industry and Food Production

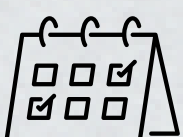
Workshop



In April, we will organise a workshop that will aim to capture the needs and requirements of companies in each specific sector to support their transition to more sustainable and low-carbon practices.



The workshop will feature presentations and discussions with company representatives and experts in the field to identify challenges and opportunities for decarbonisation, and to learn about technologies and tools available to support the transition.



Workshop Goals

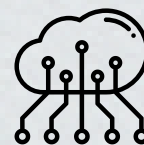
Our first objective is to realise a workshop on decarbonisation through satellite data on the topics of food production, buildings, energy and utilities with the aim of capturing the needs and requirements of companies from each specific sector.

We believe we need:

Active Company Participation: it is important that representative companies from each sector are present at the workshop to provide information on their needs and requirements for decarbonisation.



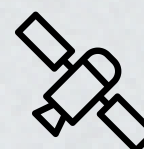
Data and information on current practices: companies could provide information on their current production practices and their progress in decarbonisation, which can be used as a starting point to identify opportunities for further improvements.



Invite industry experts: Participate in the workshop to provide an overview and understanding of decarbonisation through data



Access to satellite data: We will provide access to relevant satellite data for each sector, which can be used to support discussion and analysis of opportunities for decarbonisation.



In summary, we would like to realising a workshop on decarbonisation with the aim of illustrating, together with participants from different sectors, the main problems and needs on sustainability and how to address them by exploiting space technologies.

Food Production

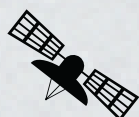
In the food production sector, we would like to invite all companies in the following categories to actively participate:



All companies involved in the agricultural supply chain will be able to participate in the drafting of requirements and needs to combat decarbonisation and greenwashing. With the aim of fostering a carbon farming policy that becomes a business strategy



Logisticam companies can express their needs and can stimulate technological innovation. The support of spatial data and the realisation of integrated models between manufacturers and industries.



All space companies interested in Food Production. We invite studies, projects and ideas that use satellite data or systems to promote decarbonisation.



We invite all companies involved in Food Production and committed to the process of Decarbonisation.



We look forward to the involvement of all companies developing new technologies with the aim of reducing the impact of production on the Environment. IOT, SW and HW tools.

Buildings - Energy and Utilities

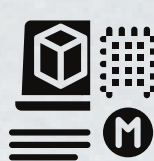
We would like to invite all companies belonging to the following categories to actively participate:



All companies involved in decarbonisation of buildings and energy production. They are invited to describe their needs, describe their commitment to decarbonisation and describe their expectations from satellite data.



Companies involved in data collection, implementation of services and products related to new construction, building sustainability and energy and waste management.



Companies with expertise in the areas of Manufacturing, Use of new technologies such as BIM, and Spatial and Georeferenced Data Management.

