

IAA Study Group Status Report

Responsible Commission: Commission 4

Study Number and Title: SG 4.24, Title: Disseminating knowledge and experiences of satellite applications to improve global cooperation and help societies around the world

Short Study Description (repeat from Study Group Proposal):

Applications centred on satellite technology have enormous potential to create a positive social and economic impact worldwide. Satcoms, satellite navigation, earth observation, and other space technologies can offer accurate global positioning, detailed mapping, environmental insights and robust communication in remote regions. Satellite applications can add value to services in many sectors, tracking goods being transported across seas, improving disaster preparedness and response, and predicting the spread of diseases.

Space applications can improve lives in developing nations, transitioning economies and developed countries; it is for this reason that sharing knowledge and experiences about applications across borders is so important. This working group aims to collect and disseminate expertise about satellite applications to ensure that benefits of space technologies are maximised. This study group will bring together a multi-disciplinary team to generate innovative ideas and solutions based on satellite applications. The aim is to create new programmes and technology demonstrators by focusing on the needs of end users in different geographical areas.

Integrated Applications concerns with the development, implementation and pilot operation of applications of space systems that combine data from different types of satellites, such as telecommunications, Earth observation and navigation, with terrestrial capabilities.

The Applications offer solutions to problems that range from improving and securing transport systems to developing emergency and disaster management systems. They are not pushing any particular technology, but respond to users' needs, addressing a number of themes. Users and stakeholders are brought together within the space industry and service provider organisations, assisting in development of the necessary technical solutions and feeding back the experience into the development of future space systems.

Space companies, ranging from startups to big corporations providing services in different sectors including agriculture, farming, mining, and fishing, among others, have realized that knowledge is the key. Finding the right path from data to information to knowledge is not always easy in a world where we tend to be rather overwhelmed with information. Even with small quantities of data it can be challenging to understand the data in a way that it can be useful.

Space Applications addresses this challenge by federating large volumes of heterogeneous data in meaningful ways and by providing natural ways for users to interface and interact with the data. The two main orientations are semantic interaction with large volumes of data and Long Term Data Preservation, ensuring the data we do have is not lost and remains usable.

Progress in past six months:

The progress consisted in selecting target sectors to be investigated and for each of them an analysis of the space data that can be used, the methodologies already in use, has started. In particular, the progress has covered the following:

- scanning the global space application environment

- scoping potential themes of mutual interest
- selecting target sectors to be investigated: water, energy, health and agriculture
- analyzing the space data and methods that can be used within the scope of the investigation

A first draft with recommendations is in preparation.

Website Study Information update: (please give any update regarding Study Group Membership, documents, Study Plan and Schedule):

New members were added following the successful GLAC2018 Conference in May 2018

Issues requiring resolution? (recommend approach):

none

Product Deliveries on Schedule? (If modified explain rationale):

Study Team Member Changes? (List any Study Team Members that you wish to discontinue, and provide names plus contact coordinates of any Members you wish to add on the second page of this Study Update form.) Note: Complete contact information including email, tel. and fax must be provided for all additions. Only Members with complete contact information will be listed and receive formal appointment letters from the IAA Secretariat.)

Name of person providing Study Group Status (Study Group Chair or Co-Chair):

Roberta Mugellesi Dow

Status Report Date: September 11, 2018

Study Team Membership Changes

Effectivity Date: September 10, 2018

Discontinue:

Add:

Liz Barrow, liz.barrow@esa.int

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