## SYMPOSIUM ON INTEGRATED APPLICATIONS (B5) Tools and Technology in support of Integrated Applications (2)

Author: Mr. Erich Klock European Space Policy Institute (ESPI), Austria, erich.klock@espi.or.at

Mr. Pierluigi Mancini European Space Agency (ESA), France, Pierluigi.Mancini@esa.int

## PPP MODELS FOR THE BENEFIT OF SUSTAINABLE SPACE-BASED SERVICES – NEW FUNDING MECHANISMS FOR DEVELOPING INTEGRATED SPACE BASED APPLICATIONS

## Abstract

In recent years a number of space-related Public Private Partnerships (PPP) have been successfully initiated, for example in the field of satellite communication (e.g. Paradigm's Skynet, Alphasat, Small-GEO, and Hylas) as well as Earth observation (e.g. Rapideye, TanDEM-X). These initiatives represent a coordinated public and private European response to the increased market demand and have shown the potential of PPPs for the development of future space-based services.

The necessity to continuously interact with the finance community to highlight the benefits and risks associated with the development of space-based application markets together with the need of assessing new funding schemes are becoming an important element to hinge the space sector to economic growth.

The estimate of the potential market involving satellite-based services is many times greater than the initial costs associated with the development of the satellite infrastructure. In this context, PPPs and PFIs (Private Finance Initiative) schemes are increasingly used to develop markets and operate space based services, whether for commercial or institutional customers. ESA's Integrated Applications Promotion (IAP) programme is a newly created instrument for developing sustainable space-based services on a regional, European and global scale, in strong cooperation with end-users and relevant stakeholders. The programme aims at bringing space-based solutions to new terrestrial markets, federating new communities of users and optimising the exploitation of space assets. Integrated applications are benefiting European industrial competitiveness, while serving the needs of European societies and global communities.

This paper will include the main outcome of an ESPI workshop organised in the frame of ESA's IAP programme, dedicated on how to foster the involvement of new sources of funding for the development of space-based sustainable services. It will assess different funding mechanisms applicable to ESA's IAP programme and will seek to identify a relevant roadmap for optimising the use of financing models for future space-based services. Furthermore, the paper will aim at reviewing the lessons learned from space and non-space programmes in this respect as well as identifying and analysing the relevant economic, financing, and legal factors.