

30th IAA SYMPOSIUM ON SPACE AND SOCIETY (E5)
Is Space R&D Truly Fostering A Better World For Our Future? (2)

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VALUE GENERATION THROUGH PUBLIC PROCUREMENT OF INNOVATIVE EARTH
OBSERVATION APPLICATIONS: SERVICE-DOMINANT LOGIC PERSPECTIVE

Abstract

Service-dominant logic in marketing research provides a framework for understanding how economic value is co-created in service ecosystems. The value is co-created through the integration of resources and application of competences of multiple actors connected by institutions. Knowledge resources are central in value generation processes. Institutional arrangements refer to interrelated sets of institutions that facilitate coordination of activities in value-co-creating service ecosystems.

Earth Observation (EO) downstream markets are still emerging. Nascent markets are characterized by incomplete value proposals, uncertain customers, and ambiguous business models. Governments can galvanize nascent markets by applying demand-side economic policy instruments such as public procurement of innovative services (PPI). A continuum of institutional arrangements are available to decision-makers for implementing PPI. PPI can take place at national and supranational level, or combinations thereof in multi-level governance. In case of direct PPI, the procuring authority is also the end-user of the service. Often the procuring authority is involved in the procurement but on behalf of other actors, i.e. needs to be served are located outside the procuring authority (catalytic PPI).

Qualitative research was conducted to explore differences between the direct PPI and catalytic PPI modes regarding knowledge resource integration practices. The research design was a multiple case study. The unit of analysis was a procurement contract; concluded between Eastern European EO companies and either European Space Agency (ESA, embodying catalytic PPI at supranational level) or national level procurement authorities (direct PPI, respectively) to develop innovative EO applications. The qualitative data was collected through semi-structured interviews with responsible contract officers in the companies. The primary data were triangulated with multiple sources of secondary archival data, such as tender documents and tender offers to increase validity of findings.

The knowledge resources of procuring authorities and the companies in the sample were heterogeneous and unevenly distributed. ESA staff possesses superior technical knowledge and good general understanding of the EO downstream market. However, the transfer of technical knowledge from ESA to the companies remained limited due to low intensity of interaction between the parties. National level procurement authorities had a clear understanding of their needs but also inflated expectations to the performance of EO services. The preliminary findings call for integrated use of ESA and national level procurement contracts as an optimal institutional architecture for value generation in case of EO applications. Improved understanding of interplay between value generation and institutional arrangements enables to leverage innovation impacts from space RD.