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The Demand Side of the Space Economic Equation: Understanding and Evaluating the Changing Market  
Dynamics in Space Activities (3)

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IS THE MARKET OF SATELLITE EARTH IMAGERY CAPABLE OF SUPPORTING NEW  
INVESTMENTS AND LAUNCHES UNDER PROJECT FINANCING MODELS ?

**Abstract**

From such a question many articulated considerations derive, with the aim of defining a series of positive notions toward the development of new commercial space system, catering to the supply of Earth Imagery. It is in fact known that the public budgets constraints, and the “big ticket” already spent, i.e. in Europe on Copernicus, don’t leave room for much imagination, at least in the short–medium term, regarding new significant investment. But the market of satellite Earth Imagery, in its various treatments and applications, seems capable of supporting privately promoted initiatives, adopting a “project financing” model. That is certifying returns from a finally diversified and widespread market, as the main guarantee of a “risk allocation” package supporting financial and equity private subscriptions toward such projects. The study deals firstly with experiences of the past like the German-Canadian Rapid Eye constellation, launched in 2008 with pool financing and now at the verge of its return curve. Secondly, attention is given to the main existing clients of satellite Earth imagery, by type of technical source, treatment applications, refresh degree, requisites and prices: from mining and oil corporation, to agro-industrial groups, to the security and environmental protection entities, to transport, natural tourism and the military. Moreover, we deal with the integration solutions of the abovesaid, if in case, with support services that shift the axle of the activities toward the “space related” area, that is one not crucially depending on the availability of space data (yet capable of justifying and remunerating the space investment) such as in situ sensors (agro mapping, marine surveillance, meteorology), or the “big data” networks with their logical connection paradigms. The connection with knowledge networks is very important and a paramount current example is the free availability of Copernicus Sentinel data according to the EU INSPIRE Directive, as well as the heterogeneous Linked Open Data via their Semantic Web protocols. Finally, come the recent experiences and especially the project financing elements underpinning Google/Planet Lab Skybox programme with its ongoing launch increase of small satellites into low orbits. The main challenge in fact is in filling a market slot for small satellites dedicated to limited areas and catering to specific demand targets (hyperspectral sources for instance), which exists significantly worldwide in non “space faring” countries, also thanks to the noteworthy decrease of launch costs and system in - orbit management and operation.