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Space Economy: Valuing the Uses (3)

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NEW VISION FOR THE VALUE OF SPACE USE

**Abstract**

Why does humanity go to space? Is there a fundamental economic value for space endeavours? The paper will review briefly the past and present uses of space. It will show that three fundamental and perennial values can be derived from the past space experiences: adding transparency to the world, securing ubiquitous connections to the information networks and space being also a unique “open” test-bed for new global demonstrations/services prior to the possible deployment of corresponding ground infrastructures. It will show also that to exploit massively these added values of space, with the potential to develop an economic sector comparable to the uses of the other non permanently habitable media, ie air and high oceans, three new enabling steps are necessary and possible.

- Collaborative space: up to now the dominant model in space is a single spacecraft, delivering its service to ground in full autonomy. The emerged concept of several spacecrafts communicating together, assisting each other to deliver a more efficient and complete service to earth offers the possibility to modify drastically the economic model. A new deal can be implemented between public implication and private enterprises: publicly funded physical infrastructures (eg mother satellites) can be installed in space. They will serve private spacecrafts that would fly in formation around the mother satellite. They will be provided by these publicly funded infrastructures with telecom, energy and guidance services. The entrepreneurial satellites, benefiting of these services would thus be extremely simplified, making their access to space more affordable and more agile.

- Digital Space: It will be shown that the interactions between the booming digital technologies and space has huge potential, provided spacecrafts serve this digital world with adapted services (such as real time and internet compatible services)

- Energetic space: following the information resources, energy will be travelling soon through space via mass free electromagnetic beams. This will enhance in particular collaborative space capacities but also will contribute to space physical securitization, basis to any regular use of space.

Valuing the use of space needs space industry to quit the cradle of its infancy. To do so, understanding the undisputable perennial value of space, providing the services that the market needs and finding the way to enlarge drastically the community for which space is accessible are the steps proposed here. The path envisioned is not guaranteed and it will be the playfield of pioneers, not the one for followers.