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Models for Successfully Applying Space Technology Beyond Its Original Intent (2)

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A SURVEY ON THE CAPACITIES OF THE ITALIAN SPACE SECTOR TO PRODUCE
TECHNOLOGY TRANSFERS INTO SPACE RELATED AND SPACE ENABLED BUSINESS

Abstract

In 2013-14 a study was conducted on economic and technological data from the statistical Panel of firms registered in ASI's (Italian Space Agency) Distretto Virtuale (DV) web portal, to investigate the sector's capacity to transfer space technology into business operations, in both areas of "space related" and "space enabled". It is based on a significant Panel representing 90% of the sector. This work describes the study's report of a growing activity in these fields estimated 5-10% per year. This definition's declination includes a closer layer of activities (space related) where space technologies are ongoing even if their integration is not absolutely necessary, as is the case with communication and localization services in urban areas (digital tv, car sharing networks that can also rely on terrestrial wideband, cellphone networks, etc.); but also another, more interesting, further layer of activities (space enabled) where space technologies are only the extreme trigger of their development, which ensues independently. As to the latter, a detailed list of cases is offered of operational space tech transfers into supermaterials (fashion brand accessories, car bodies, semiconductors), aeronautics hardware (radars and integrated software, emergency floaters), medical scanning devices and applications, environmental monitoring services, telemetric systems for sport events. It appears that space has a wide innovative potential for its top quality and performance standards. Or, alternatively, how the extreme space environment challenge put on hw and sw, strenghtens competitiveness for terrestrial uses. Another important finding is that the firms having transfer capacity are also those, by space standards, better performing in terms of production/productivity and employment. Therefore public policies should encourage their respective sectors toward this model and enhance their global results.