EARTH OBSERVATION SYMPOSIUM (B1)
Dual Use Earth Observation (6)

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CIVIL AND MILITARY SYNERGIES: NEW OPPORTUNITIES AND CHALLENGES FOR EUROPEAN EARTH OBSERVATION MISSIONS

Abstract

The end of the Cold War has triggered a series of mechanisms that have led to the growing convergence between military and civilian uses of space technologies. Since the 1990s, Western European countries have witnessed a significant decrease of defence expenditures, on one side, and to the constant growth of the costs of developing and producing new advanced military and space technology, on the other side. Data collected by the European Commission in 2010 and released in The 2011 EU Industrial R&D Investment Scoreboard, for instance, show the defence and aerospace sector to lag behind those of Pharmaceuticals & Biotechnology, Technology Hardware & Equipment, Automobiles & parts, Software & computer services, Electronic & electrical equipment, and Chemicals to finally position itself at the seventh rank. In global terms, civilian R&D is about 10 times as large as military R&D, and most of the civilian R&D is privately funded (Brzoska, 2006). Furthermore, the intertwining of the industrial space sector with those of electronics and ICT, the changing nature of defence activities (today, armed forces increasingly used for peace building operations and disaster management), and the growing need of civil-military collaboration in the field of security, are redefining the relations between the two communities. The enormous benefits that remote-sensing satellites provide to both the military and the civilian sector, combined with the limited financial resources available and with the problem of the management of security matters, represent a drive for exploring new synergies between the two communities, at national and European level.

This paper aims at analyzing how the two sectors are approaching their reciprocal convergence in the field of remote sensing satellites, in terms of development and operational structures, customer structures, and financing structures. Opportunities and challenges are evaluated, including legal constraints influencing the convergence. Examples of existing Earth Observation satellite systems that serves both sectors are presented. The analysis reveals that civil and military synergies represent both new opportunities and challenges for European Earth observation missions.