

The role of space technologies in territorial management

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ABSTRACT

Territorial planning is still a field where space technologies do not enter easily and are not used extensively. However, in recent years earth observation, geopositioning, and satellite communications have evolved to a stage where they are not anymore a privilege only a few can afford, but they have effectively become extremely competitive with the traditional tools supporting urban and regional planning. In some cases, they're irreplaceable and provide services unthinkable until a few years ago. Some, such as Digital Elevation Models, topographic surveys and aerial views of the intervention sites have been eased and became standard operations. Others, such as acquiring and comparing images from a specific date in the past, geopositioning or collaborative planning using data sharing to and from virtually any place on the planet would not be possible at all without space technologies. This paper explores the usefulness of Space in urban and regional development and planning, and the reasons why its use is still not generalised in some fields. The presentation associated with the paper uses mainly images to show results of many real applications such as sealing maps, urban growth, land use change, subsidence maps, low to very-high resolution images, lava flow path prediction, World Heritage monitoring, traffic management, oil spills and river pollution monitoring, greenhouse gases measurement, digital elevation models, 3D fly-throughs and locationbased services.