

EARTH OBSERVATION SYMPOSIUM (B1)
Improving Earth Observation thru Data Sharing (6)

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GMES SPACE COMPONENT DATA ACCESS AND ITS ROLE IN COORDINATED
ENVIRONMENTAL INFORMATION SUPPLY

Abstract

In the last thousand years, man's behaviour has significantly modified many natural processes, undermining their secular equilibrium and as a consequence, increasing their power. The frequency, strength, and location of hazards such as storms, floods, droughts, earthquakes, volcanic eruptions and wildfires etc. are closely connected to longer periods of global change, whether due to natural variations or human-induced changes. Nowadays environmental information is of crucial importance. It helps to understand how our planet and its climate are changing, the role played by human activities in these changes and how these will influence our daily lives. Due to diverse geo-climatic conditions, prevalent in different parts of the globe, different types of natural/man made disasters strike both developed and developing countries, according to the vulnerability of the area, causing enormous destruction, producing negative impacts on national economies and significant psycho-social effects and social dislocations. In general the well-being and security of future generations are more than ever dependent on everyone's actions and on the decisions being made today on environmental policies. To take the right actions, decision makers, businesses and citizens must be provided with reliable and up-to-date information on how our planet and its climate are changing. All depends on accurate information delivered in time to make a difference. ESA is leading a federation of Earth observation missions named GMES (Global Monitoring for Environment and Security) Space Component which has the objective to provide this non-stop information. GMES is continuously evolving and it consists in a complex set of systems which collects data from multiple sources (Earth observation satellites and in-situ sensors such as ground stations, airborne and sea-borne sensors), processes these data and provides users (GMES Service Projects) with reliable and up-to-date information through dedicated services. Six thematic areas have been developed: marine, land, atmosphere, emergency, security and climate change. In this light and as part of the GMES Space Component, the Earth Observation Data Access Portfolio (EO-DAP), describes the European coordinated approach for supplying satellite data to eligible users as well as the datasets and the conditions (e.g. ordering mechanisms, delivery timeliness, etc) under which these data are accessible. The GMES Space Component Data Access (GSCDA) is the interface for accessing the EO products. The paper aims to show how the system implements, through dedicated services, a coordinated data access, in order to facilitate environmental investigations leading to a more complete understanding of human impact on the ecosystem.