

Aratos Technologies S.A. RTD Interests

- **Added Value Downstream Services for GMES**

Geospatial products and services created by GMES are of key importance to economic return, providing part of the base of the knowledge-driven economy. According to Space Call Work Programme Aratos Technologies S.A. *downstream services* are positioned between the multi-purpose *core services* and a specific group of user clients, and take full benefit of the wide range of core services by making an extended use of adequate products made available by these. Aratos Technologies S.A. portfolio expands to the five GMES core services for land, marine, emergency response, atmosphere and security.

- **Integration of different Satellite Technologies and terrestrial wireless technologies for deployment of communication in disaster cases.**

When drawing the picture of the future ubiquitous broadband/broadcast converged network, one comes easily to the conclusion that wireless networks are an essential part of it. In particular if ubiquity is an issue satellite will be the unique alternative as well as being one of the critical alternatives in broadcast.

Terrestrial alternatives also play a significant role as a delivery way of broadcast services. It is also very well known that the majority of the cities are covered by wired alternatives such as xDSL or cable for broadband purposes. However, in disaster cases there are no other alternatives than satellite if broadband is required. What if we take the advantages of both, terrestrial and satellite and define an interoperable and converged system? That is just what Aratos Technologies S.A. proposes in a very innovative approach not only for fixed services but also for mobile services as there is an important way to share synergies between both systems.

- **Service Oriented Architectures driven for crisis management situations**

The realization of such a scenario can be based on satellite and wireless networking technologies. More precisely, Earth Observation techniques combined with GIS applications and fused with related data can provide efficient remote surveillance of the target. Moreover, the personal digital support systems can also be based on wireless technologies for robust and secure interconnection for emergency management. Furthermore, the collaboration of satellite and wireless based communication may act a valuable ally during the recovery plan for the efficient remote crisis assessment and management. Finally, the suggested scheme can be integrated with GIS-based application, fused with Earth Observation techniques in order to provide rapid evaluation.

○ **Interoperability and interconnection of the data processing and delivery systems**

To facilitate efficient acquisition and exploitation by both service providers and users, Aratos Technologies S.A. activities, according to Space Call Work Programme will have to include R&D for:

- improved accessibility to long-term data archives, implementation of meta-data standards, actions to facilitate information retrieval and dissemination;
- improved accessibility to in-situ systems;
- adoption of open standards for data documentation, data models and services;
- integration of tools and services allowing anybody to query, view access and exchange the information held by distributed public and private bodies;
- establishment of a data policy and appropriate security framework.

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