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For a facilitated access for Local and Regional Authorities to the benefits of Satellite Information and Services

BENEFITS OF SATELLITES FOR REGIONS: *Budapest* uses a satellite-based early warning system to detect *ragweed allergy risk*; the province of *Alsace* uses satellite information and services to monitor and prevent *deforestation*; the *Canary Islands* support *fishery activities in the Atlantic* to reduce fuel use, increase yield, and protect biodiversity, with the help of satellite information and services; *Lombardy* hosts numerous solutions using satellite communications to enable 'clean' real-time monitoring & management of renewable energy plants; *Venice* uses satellite information and services to ensure the *environmental protection* of the city etc.

Many regions do not yet profit from the benefits from satellite information and services

Satellite information and services¹ can contribute to tackle urgent local and regional societal, environmental and economical challenges (see box above). However, most regions are not yet able to profit from the benefits of satellite information and services because of difficulties with their operational implementation. **The main cause is the lack of a mechanism enabling the coordinated transition of the services from the research and development phase to sustainable operational phase.** The following recommendations, developed by European regions within the framework of Eurisy's Local and Regional Authorities Programme, in cooperation with the Assembly of European Regions, address these shortcomings.

It is necessary to make efficient use of public investment in research and development by supporting the transition of the results into the final operational service/product

Innovative technologies run through a development cycle consisting of three phases: research and development, preoperational phase and operational phase, where the product/service is market-driven. In the area of satellite information and services, service providers are currently supported during the research and development phase, e.g. by the European Commission's 7th Framework Programme for Research and Technological Development or some elements of the ESA ARTES programme. Beside that, it is also possible for local and regional authorities to be involved as users in the preoperational phase of the services and to receive support from European structural funds. Once operational, the use of the product is regulated by the market. However, **innovation too often does not materialise into a product available to potential users due to the lack of support required to move the innovative result of research and development into a sustainable, operational product.** The difficulty lies therefore in the transition from the research and development phase to the market-driven operational phase. **Tools exist for enabling this transition.** When it comes to local and regional authorities and the use of satellite information and services, the existing regional structural funds can help to bridge the gap. However, **this requires a coordination mechanism between the Framework Programme and the Structural Funds.**

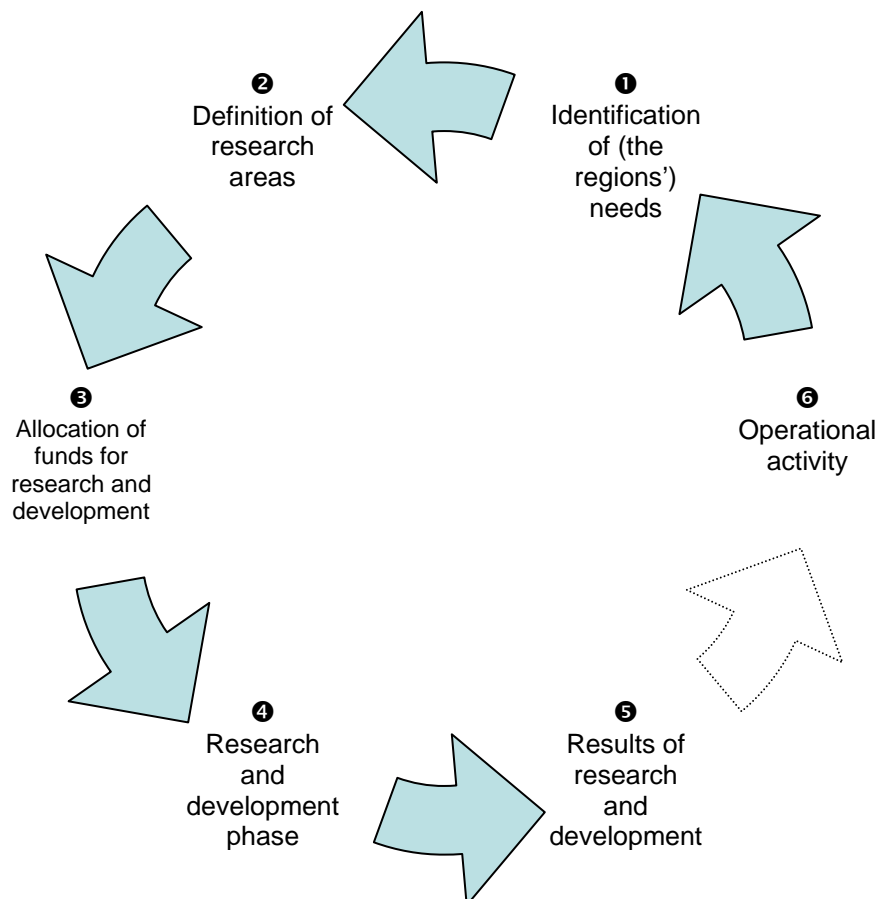
Recommendations for a coherent policy to facilitate access for local and regional authorities to the benefits of satellite information and services:

1. TO PLAN THE SUPPORT TO LOCAL AND REGIONAL AUTHORITIES (AS FINAL USER) FROM THE START OF EACH PROJECT IN THE 7TH FRAMEWORK PROGRAMME
 - Service providers can already count on the financial assistance provided by the 7th Framework Programme to develop satellite information and services during the research and development phase. However, a **functioning transition requires integrating the paradigm of sustainable operational use of the service from the beginning of the project.**

¹ A value-added service resulting from the transformation of satellite data by the service chain (from satellite operators to service providers) into ready-to-use information by an end user, who uses it to take decisions and to manage operational activities (e.g. traffic and pollution management, infrastructure development etc.)

2. TO ACTIVELY PROMOTE THE USE OF EUROPEAN REGIONAL POLICY FUNDS TO REGIONS USING SATELLITE INFORMATION AND SERVICES THROUGH THE 7TH FRAMEWORK PROGRAMME

- **The region's requirements as final users are paramount.** Therefore, users should be involved from the beginning in projects aiming at developing operational services. This implies that the priority for financial support should be shifted from the service providers to the final users. This would **contribute to ensuring the sustainability of the services by guaranteeing a better transition** from the demonstration to the operational, user-driven phase.
- The European Commission has already set up a broad framework of funding possibilities for regions requiring to receive financial support to use innovative technologies such as, among others, satellite information and services: the structural funds (European Regional Development Fund and the Cohesion Fund) which support projects, such as the INTERREG programmes and the partnership network Regions for Economic Change, which are not yet fully exploited by regions. However, **to ensure the efficient use of the high public investments in research and development of space applications, European decision-makers should consider taking a more proactive approach** in promoting the advantages of using existing financial support possibilities for the use of satellite information and services to the regions. This would be a **decisive step to increase the transition of the results of the research and development phase into tangible operational products and services.** At the moment, the satellite services development cycle (see diagramme below) seems to be open where the transition from the research and development results to operational use of final services is insufficient).



3. TO BUILD A COORDINATION MECHANISM BETWEEN THE 7TH FRAMEWORK PROGRAMME AND EUROPEAN REGIONAL POLICY FUNDS

- **To ensure continuous use of new satellite information and services technology** by Local and Regional Authorities, financial **support must be coordinated between the 7th Framework Programme** (Cooperation Programme: Space) **and the European Regional Policy Funds.** This continuity is necessary to guarantee full exploitation of the benefits of satellite information and services and their contribution to the achievement of each of the three key regional policy objectives: Convergence, Regional Competitiveness and Employment as well as European Territorial Cooperation.

- **The link between the support provided by the 7th Framework Programme** (supporting service providers) **and European regional policy funding** (supporting users) **has to be incorporated into the overall project design from the beginning** of the research and development activity, in order to ensure the transition from the research and development phase to the preoperational phase and finally to the market-driven use of sustainable operational services. The full lifetime of the project, including the different planned sources of public support (7th Framework Programme, regional funds), shall be defined since the beginning of the research and development activity and a clear plan for the transfer of responsibility from service providers to local and regional authorities between the research and development phase and the operational phase shall also be defined. **This implies that responsible staff at the European Commission and its agencies work together towards a cooperative call for proposals**, with grants for the service providers and European regional policy funds supporting the local and regional authorities during the preoperational phase.

Rationale:

During Eurisy's 5-year programme dedicated to facilitate the access of local and regional authorities to the benefits of satellite applications, several conferences and workshops have been organised with local and regional authorities and service providers, who jointly came to the following conclusions:

1. **Satellite information and services offer a vast variety of innovative solutions** to local and regional authorities for coping with socio-economic and environmental challenges, both at decision-making level and at concrete operational level.
2. **Satellite information and services** provide **added-value** in synergy with other technologies.
3. **Local and regional authorities are in a perfect position to benefit from satellite information and services** since they are close to the needs of the citizens and in view of their increasing role in European multi level governance.
4. However, the **potential of satellite information and services remains up to today relatively under-exploited** by decision-makers on local and regional level and operational managers. There is an obvious lack of awareness of local and regional authorities on the usefulness of satellite information and services which needs to be significantly reduced. But most important, the **cost/benefit of using satellite information and services is insufficiently quantified** to encourage local and regional authorities to use these tools. Furthermore, it has to be ensured that informed decisions on the choice of the optimum technology to deliver on the objective is made without imposing artificial constraints such as 'technology neutrality'.
5. During the original research and development pilot project phase, the service comes to local and regional authorities free of charge as it is financed by the 7th Framework Programme funds via the service provider. With the end of this phase and of the free delivery of the service, the **final user sees the service cost increase drastically** if he wishes to continue using the service, while the cost/benefit gain remains uncertain until the service is ripe for market.
6. During this transition phase, or pre-operational phase, it becomes **essential to establish a service** rather than to demonstrate technical feasibility. This means that the project focus has to shift from the service providers to the operational constraints of the users. The local and regional authorities, as final users, therefore should take the lead in the project.
7. As indicated, many relevant examples of successful use of satellite information and services by local and regional authorities, i.e. **sound business cases, have been demonstrated**. This means that the market can take over the use of satellite information and services which have been developed during research and development and preoperational phases by local and regional authorities and service providers.
8. The very **high European upfront investment in space infrastructure** must be **capitalised** on for European society by **improving the use of satellite information and services**.

EURISY'S ROLE AND PROGRAMME

Eurisy is a Non Profit Organisation aiming to promoting the benefits of space for European society. Its members include over 40 governmental space offices/agencies, international organisations, research institutions and private business involved in space-related activities.

Eurisy's mission consists in providing a framework to structure the dialogue between the space community and society, raising awareness among decision-makers, civil society and users, of the strategic importance of space for sustainable economic, environmental and social development policies. Eurisy therefore acts as a facilitator by offering an active dialogue with users and decision makers, a forum for open, free debates and a thrust for collaboration.

Eurisy undertakes a five-year programme aiming at providing a forum to representatives from European regions and cities through a cycle of conferences and workshops to assess new services based on space applications, share their practices, challenges and issues, meet with services providers and institutions and propose evolution for the future services, based on their own requirements.