



## **ESOA General Comments on the European Space Policy and Research and Development Policy in the field of Satellite Telecommunications**

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The European Satellite Operators Association (ESOA), a non-profit organisation based in Brussels, Belgium, represents the views of European satellite operators. ESOA has been established to ensure that communication satellite services remain a key component of European space policy; the organization reflects the views of satellite operators on critical political, regulatory and commercial matters both in Europe and on the international level.

ESOA is currently contributing to the elaboration of the European Space Policy by the European Commission and European Space Agency, and is following closely the related process of setting up a work-plan of research and development activities needed to support such a European Policy.

On these issues ESOA takes the general views outlined below.

### **THE ROLE OF SATELLITE TELECOMMUNICATIONS SERVICES**

Satellite services represented 46,4% of total satellite industry revenues in 2001 and are estimated at 52,2% of total satellite industry revenues in 2002 (2001-2002 Satellite Industry Indicators – Futron Corporation-). Cumulated yearly revenues of top 10 Fixed Satellite Service operators amount to over 6 billion Euro (Euroconsult 2002).

The above figures show that satellite telecommunications services are an essential part of space industry and cannot be neglected when building a European Policy on Space. On the contrary, we believe satellite communications have a primary role to play in the development of the information society and in bridging the digital divide thanks to their capability to provide cost-effective services to less-densely populated areas.

A European Space Policy contributing to the success of European satellite operators and service providers in fulfilling their role in the Information Society will generate manifold benefits by contributing to:

- Providing access to information for European citizens on a wide-spread democratic basis
- Creating highly skilled jobs in the satellite telecommunications field
- Generating turn over in the satellite manufacturing industry and in the satellite launch industry to provide the necessary in-orbit capacity to fulfil demand

For the above reasons, we believe satellite telecommunications should be in a high priority ranking when setting up a European Space Policy and defining the associated programmatic actions to implement such a policy.

Unfortunately, observing the market trends of commercial satellite telecommunications services during the last twelve to eighteen months does not bring to an encouraging picture. The reason for this is that today we have an excess of offer compared to the demand, for already operating satellites, and great concerns are on commercial exploitation of satellites ordered or in the production pipeline. Therefore, it is vital that the European Space Policy strongly addresses the development and pervasive adoption of services knowing that an inversion of the current trend can only be obtained by revitalizing and developing the market and improving services capability.

In the following we provide ideas about the priority areas in which European efforts should be concentrated to pave the way for European satellite operators and service providers success.

### **SPECTRUM AND FREQUENCIES ISSUES**

A key regulatory principle flowing from the inherent pan-European nature of satellite-based services is the pivotal role of harmonisation. This has implications on the whole regulatory landscape – from operational networks and services licensing to access to spectrum rights and the need to adopt consistent rules on the putting into service of individual radio apparatus. A lack of harmonisation in these and related respects operates as a disincentive to the development of new and innovative satellite-based delivery services.

The divergent approaches being taken across the Union to the licensing and regulation of radio spectrum fuels particular concern amongst all European Operators.

We believe it is essential that a European Space Policy fully recognises on the one hand the relevance of this issue and on the other hand the specificity of satellites services and translate that into a number of measures, like for instance support for blanket licensing, aimed at promoting a harmonised regulatory regime throughout the Member States.

### **MARKET ACCESS**

European satellite operators find significant barriers to market access when deploying their networks and services in specific countries. Such barriers are mainly present in countries outside Europe and oblige very often operators to undertake cumbersome negotiation procedure, on a case by case, with every national Administration involved.

Due to the inherent trans-national nature of satellite services, this represents a main hurdle to a cost effective service deployment and basically translates either in an additional financial burden for the end user or even in a service access preclusion tout-court.

This kind of occurrence often takes place in countries where large shares of the population already have limited access to communications with negative impacts both on the business outlook for the operator and on the development perspectives for the concerned country.

ESOA believes this is a main issue facing the development of satellite services to be taken into account into the European Space Policy.

### **SATELLITE PLATFORMS**

ESOA's Board recently underlined the requirement of the satellite operators to see a range of platforms available for procurement from European suppliers. Up to now, it would appear that a larger range of platform sizes 'off-the-shelf' has been available from US manufacturers than from European

industry. European industry could be in a better position to engage in delivering timely, cost-effective solutions, by means of market oriented developments.

ESOA consequently believes that assurance of the industrial capability to assure availability of components for platforms and payloads relevant to small, medium sized and large satellites should be a priority in European Space Policy, giving attention also to reliability and equipment industrialisation aspects. The policy of industry to reuse certain equipment developed for scientific missions in building telecommunications satellites should not create overcomplexity in design with a consequent potential impact on reliability and suitability for our satellite missions.

We want to stress therefore that there is a need in our view to ensure a degree of European support to maintaining a viable reliable modern range of satellite delivery capabilities capitalising upon an industrial approach for standard equipments, and this does not necessarily require just the development of advanced technological solutions to enable us (or industry) to meet the expectations of its customers.

Concerning the commercialisation of satellite multimedia applications ESOA would like to encourage the exploration and development of more possibilities to deliver such services ranging from cost-effective modestly sized satellites or 'piggy-back' payload solutions in the shorter-term to large dedicated platforms in the longer-term.

### **GROUND USER SEGMENT**

The widespread use of digital technology and the MPEG standard for digital satellite broadcasting have given rise to tremendous potential for a much wider range of services and applications. These already extend to interactive services using terrestrial means for the return channel, and there is now considerable emphasis being placed on the deployment of satellite interactive services both in the Ka- and Ku-bands. In this context, there are in our view three main impediments to the rapid expansion of such services in the medium-term.

Firstly, current industrial capability in Europe for low-cost mass production of satellite interactive terminals seems rather restricted. There is the need for multi-sourcing of terminals and interoperability in order to realize the potential that satellites are capable of offering. Clearly the deployment of broadband services, including high-speed Internet access, is essential to the fulfilment of the vision for the European e-society and the economics of terminal deployment are key to the success of satellite in being able to provide consumers with such access independent of location and terrestrial infrastructure.

Secondly, although ESOA recognizes the need to simplify and optimize the DVB-RCS standard in order to reach more reliable and cheaper terminals, this might not be sufficient if we want satellite broadband services to reach the consumer market. In order to hit this market, this will require having in a very short time, one or two years, low-cost interactive terminals (in the order of 200-300Euros).

Thirdly, although ESOA fully recognises the competitive distinctions between the plans of the different operators, we also consider that there is an effort required into studying future generation interactive satellite systems which will mean consideration also for example, of on-board processing elements, as well as multi-spot beams and also standardisation of advanced system hardware and modulation and coding techniques for the terminals themselves.

### **APPLICATIONS AND SERVICES**

The development of multimedia satellite mission will need to be supported by a truly successful development of multimedia satellite services such as tele-medicine, collaborative work, distance

learning, business to business advanced services, along side the ordinary high speed Internet access services. All stakeholders shall thus aim at developing and promoting such satellite-based services. These multicasting applications together with traditional broadcasting and unicasting satellite applications will then justify the use of larger and more flexible spacecraft capacity.

In conclusion, our members believe that whilst there are a number of uncertainties about the actual true course of the future market for specific satellite designs, there are many actions to be taken at European level in order to ensure that industry remains responsive to the demands of the market mainly through the development of an harmonised regulatory regime, the removal of market access barriers, the development of reliable satellite components and equipment and affordable associated ground terminal equipment, and the development and promotion of next generation satellite services.

ESOA would be pleased to provide any further comments or details on these issues upon request.