



Integration of engines on a telecommunication satellite by EADS Astrium. Photo courtesy EADS / Thomas Ernsting

Representing the interests of the industry



Founded in 2002, the European Satellite Operators Association (ESOA) represents the interests of the industry with key European organisations, policy makers and other stakeholders and strives to raise awareness of the huge benefits that satellite communications can offer to all. Helen Jameson speaks to the newly-elected Chairman, Eutelsat's Giuliano Berretta, about the satellite industry in Europe.

ESOA's Space Policy Working Group mandate is to lobby to obtain an equal chance for satellite broadband services, especially in the realisation of an e-Europe.

ESOA also works to promote the role of satellite in pan-European services and to ensure that satellite services form a key component of European Space Policy by partici-

pating in relevant fora.

In addition, ESOA also works to better position satellite broadband services in relevant European Space Agency and European Commission programmes. The organisation also promotes the satellite interest in the international programmes of the European Union.



Question: The outcome of the recent meeting of European Ministers in Kourou highlighted the need to strengthen its development of new applications for satellite. Can you please begin by telling us why satellite communications and services are so vital to European development?

Giuliano Berretta: Satellite Communications & services (“satcoms”) are prevalent in every day life and will become more so with time. In addition, satcoms and satellite monitoring support both defence and security operations by providing reliable, robust, secure and where necessary rapidly deployable communications capabilities. Europe sees its future as being a knowledge-based society, which relies on information-flows to and from all regions of Europe as well as globally. Satcoms act as an infrastructure to a variety of users in Europe by providing global coverage and interconnecting users throughout the European Continent and with the rest of the world. Above all, communications satellites are the ideal solution to broadcast services providing the dissemination of large amounts of information. A high performance and flexible satellite communications infrastructure readily available to all European countries will help Europe to develop in a coherent and unified manner.

Question: What does ESOA believe that the EU must do to become a global player in the satellite sector in the coming years?

Giuliano Berretta: A number of European operators are already operating internationally, if not globally, however more needs to be done to build on this. The EU must ensure a suitable framework is in place to encourage new, long-term investment in satellite-based solutions; this includes access to spectrum, certainty in licensing rights & processes; recognition of the ITU framework and giving appropriate weight to satellite services in trade agreements. Satellite communications are ideally placed to quickly contribute to key European objectives such as closing the digital divide and digital switchover as well as contributing to a “knowledge based economy”. The EU needs to recognise where and how they can contribute and ensure real ‘technology neutrality’ by avoiding procurement situations where piecemeal terrestrial solutions are favoured over longer term, strategic investments in satellite based solutions that may be more cost effective for the European tax payer.

Question: Satellites play a huge part in our everyday lives. In addition, many programmes such as Galileo are in development and coming to fruition. Why is it that this pivotal sector is only really just becoming recognised by the European Union?

Giuliano Berretta: The early initiatives in fixed and mobile satellite communications and weather satellites were driven by inter-governmental agreements. Recent privatisations of certain intergovernmental organisations have placed the newly created entities under the jurisdiction of the EU. Weather monitoring has equally evolved, but remained the domain of governments with little scope for commercialisation and importantly largely independently of the EU. Intergovernmental agreements resulted in the formation of ESA which has historically focused on the technology behind all satellite missions for scientific and Earth observation purposes rather than the deregulated, denationalised telecommunications sector. The EU has only recently recognised the importance of for example Global Positioning capabilities as a key European infrastructure requirement and with Galileo,

Europe began to pay real attention to services from space infrastructure. With increasing focus on the environment and security, the EU recognised the need for GMES, (Global Monitoring for Environment and Security). As a result, the EU now clearly recognises the important role of Space services, as ESA had recognised the importance of the technology behind it. The EU and ESA must now take steps for the successful implementation of the European Space Policy and make full use of satellite communications and, in particular, in those areas where it is clear they are the ideal solution: e.g. the European digital divide/digital switchover but also telecommunications services complementing the forthcoming Galileo System.

Question: What will the Common Space Policy mean for the EU as a whole and why is it so important that one is developed?

Giuliano Berretta: A common European Space Policy (“ESP”) will mean that the European Union will have a competency in space considering that space does not only cover space technology, traditionally the domain of the European Space Agency, but also services and infrastructure requirements, traditionally the domain of the EU. It means also that EU Member States and ESA member states (which are different sets of members) will be able to participate in space programmes & initiatives, which may previously have been closed to them. In that sense, a common ESP will bring Europe closer in a strategic domain. The ESP provides the ideal place for a clear recognition of the benefits of all satellite applications for Europe’s citizens and it must recognise this instead of limiting itself primarily to navigation and earth observation applications.

Question: On a military level, we are seeing co-operation between EU countries and interoperability of programmes such

as Sicral, Syracuse and Skynet. To what degree do you believe there will be a reliance on satellite technology by the military? Can the military further develop their capabilities without using satellite?

Giuliano Berretta: Satellite communications are already a key component of military operations and governments rely on the robust, resilient and secure nature of satellite communications. The programmes you have mentioned are based on defined military requirements from the countries involved. These same systems are also used to provide vital communications capabilities to the United Nations. The increase in reliance by these organisations on satellite communications is inevitable and as can be seen from the US, increasing reliance is being placed on commercial satellite communications to meet growing military demand. Commercial satcoms are stepping in as military satellites struggle to meet current demand as well as being expensive and taking time to deploy. Commercial satcoms can be secured to a military grade using encryption devices on the ground and they often prove more resilient in different climates [value of other frequency bands compared with the military band]. Experience to date has shown the invaluable nature of having commercial communications satellites that can provide the military with effective solutions to rapidly changing requirements in different parts of the world, at the most economic cost to the national taxpayers.

Question: The issue of the environment is one that is close to the EU’s heart – as it is yours. Do you see satellite as being a true ‘green’ technology and therefore one that we will rely on more in the future?

Giuliano Berretta: If EU Member States really want to make a difference in this area, then they will have no choice but to make more use of satellites. A satellite in orbit is the only communications infrastructure that can operate using solar power for 15 years, and even launches are becoming ‘greener’: with the increase in multiple satellite launches and using Hydrogen and Oxygen as rocket fuels (made from water using power from hydroelectric or nuclear power plants), the waste product from which is water! Satellites are energy efficient as well as spectrally efficient. All the satellites in orbit today use less power together than one terrestrial TV mast because they take power from the sun; and there are thousands of terrestrial TV masts in Europe! The latest communications satellites can each provide up to 150 high definition TV channels whereas in the UK for instance, after switchover, all the spectrum freed up will only accommodate 14 HDTV channels! It is clear that satellites are the cheapest and most environmentally friendly solution for communications infrastructures.



Question: What steps will Europe need to take (or is already taking) in order to protect and preserve satellite spectrum with the advent of new technology such as WiMax threatening its lifeblood? How has ESOA been involved in fighting the corner for satellite services?

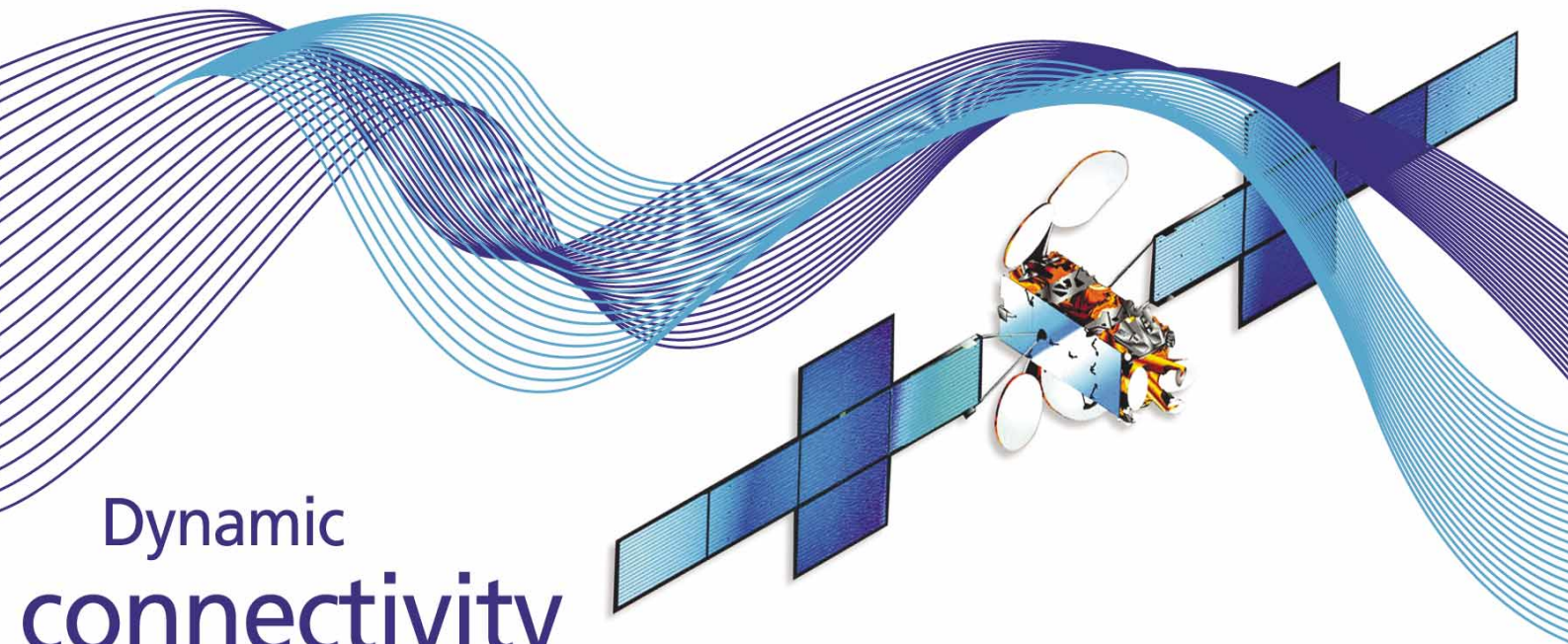
Giuliano Berretta: First of all, there must be a clear recognition of the strategic and irreplaceable nature of Spectrum. It's a finite resource and must be carefully managed. Spectrum is managed through the United Nations ITU and requires a great deal of international discussion and agreement on how spectrum should be used. The S-band spectrum, which is currently the subject of an EC process to select suitable licence holders is a prime example where the use of that spectrum by satellites was decided at UN-ITU level. With respect to the threat from WiMax, this is in another part of the Spectrum, at C-band, where many satellite uplink stations and cable TV head-ends are operating across Europe; again this is fully in line

with UN-ITU agreement. A role out of WiMax at these frequencies would compromise these services as well as set a bad precedent to the rest of the world in which C-band is used for emergency communications, mobile telephone networks and VSAT where weather conditions do not permit use of higher frequency bands. These uses must not be compromised. Moreover WiMax is not an irreplaceable or essential technology to overcome digital divide where satellite use is by far more efficient and universal in its applications. ESOA has been in communication with the EC on this issue and remains available to work with the EC and CEPT to identify a suitable solution.

Question: Finally, the world is witnessing what appears to be an increase in natural disasters. Can you tell us about the work that ESOA is involved with in terms of disaster management and recovery?

Giuliano Berretta: Many members of ESOA are engaged in providing such services to

governments and other users for such purposes. To give you some examples, ESOA members were active during high profile disasters such as the tsunami in 2005, the floods and mudslides in Mexico in 2007, the earthquake of Peru in 2007 and are also engaged in ongoing monitoring of potential emergencies such as volcanic activity in Stromboli in Italy and melting glaciers causing risks of floods for local inhabitants around the Mount Rosa Glacier. In this regard ESOA has signed an MoU with UNOSAT, the UNITAR Operational Satellite Applications Programme, to cooperate to facilitate access to satcoms for disasters and my own company Eutelsat will soon be signing an agreement to deliver on a UNOSAT-identified emergency on the monitoring of Lake Chad in Africa. My predecessor as Chairman of ESOA, Christodoulos Protopapas, CEO of HellasSat is also appointed on the ITU High-Level Panel for Emergency Telecommunications, you see ESOA is very active in this area. ■



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