

Please find hereafter a contribution from Eutelsat for the consultation on Community guidelines for the application of State Aid to Broadband Networks.

Best regards

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 **eutelsat**  
communications via satellite

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Eutelsat is one of the world's three leading satellite operators. It provides TV broadcasting and contribution, fixed and mobile telecommunications services and broadband services to users over the entire European continent, as well as the Middle East, Africa, India and significant parts of Asia and the Americas.

With respect to the above-mentioned consultation, Eutelsat would like to make the following submissions.

1. As a private company, which has to consider the value and potential returns on its investment, Eutelsat is the first satellite operator who has privately invested in a dedicated satellite for broadband connectivity for Europe, KA-SAT. The major motivation for this was the following:
  - a. Since the success of the broadcasting business for satellite operators, it was known that the reach of satellites in terms of their ability to cover ALL users anywhere on the globe, whether on mountains, on islands, in villages or in other remote areas was undeniable. It was known that satellites could provide a universality of service and that too, without the need for any “upgrades” of infrastructure.

- b. The notion of using signals transmitted from space to reach everyone for the purpose of broadband connectivity can be justified on the exact same basis and it is clear that Europe still faces a significant (in terms of users) Digital Divide. Therefore this investment was definitely worth looking into from a satellite operator's perspective.
  - c. In order to make a worthwhile investment in a new product, any business needs to find and focus on its core competency. In the case of satellites, this refers to exploiting the reach / coverage of the signals. Therefore while other communications technologies are necessarily forced to be selective in their choice of where to sell services, satellite operators are trying to sell them anywhere and everywhere. In terms of being selected by potential users, often the following factors are considered: location and whether they have an alternative and ease of access.
  - d. Of increasing relevance is the importance of energy consumption and excessive radiation levels. One satellite can cover all of Europe. Once launched [1], it transmits for the next 15 years, using solar energy. In terms of radiation levels, given the distance of 36,000km from space to earth, the electronic communications signals arriving on earth can be measured in picowatts.
2. Above some of the motivations behind Eutelsat's investment decision into the "broadband" satellite KA-SAT, which will be launched in the second half of 2010, have been described. The upfront investment amounts to about 350 million euros, including insurance, launch, ground and IT infrastructure, and gateway costs. Eutelsat has been willing to take the commercial risk, given the needs of users in Europe's numerous white spots both for traditional broadband and next generation broadband, in view of the satellite ability to serve them immediately.
  3. Eutelsat already provides broadband services using existing satellites. By the end of 2010, Eutelsat will be able connect one million extra users with the new KA-SAT satellite.
  4. Also relevant to Eutelsat's investment was the fact that KA-SAT represents a great step forward in technology in terms of the capacity of the satellite. The new satellite will enable satellite broadband performance to improve by at least three to five times what it can provide today (typically from 3.6 Mbps in downstream and 384 kbps in upstream provided by the present Tooway™ service to at least 10 Mbps in downstream and 1024 kbps in upstream). More bandwidth-intensive applications will also be possible, beyond just traditional and basic broadband. So while present discussions revolve around how to bring anything or NGA to white spots, satellite goes far in effectively "killing two birds with one stone", especially when one considers what users typically demand when presented with the opportunity to choose from more options (video streaming applications). Eutelsat is on its way to commercialising KA-SAT services already now, well before
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launch. Further investment in advanced broadband satellites (possibly with further technology step) could also be considered in the mid-term.

5. Another aspect relating to this new generation of satellites is the fact that increased capacity may further reduce subscription prices. Already today, subscription models for satellite broadband already are competitive with other land-based alternatives. The only difference is that accessing satellite broadband requires a terminal, a satellite dish and its installation which today are deemed expensive for single users (around 500 euro for Tooway™) unless they are reasonably wealthy. A public investment to cover this one-off access cost completes the equation and enables immediate access to broadband. The private sector has already rolled out the costly satellite infrastructure, providing total coverage. The users will pay for their own subscriptions. The public sector investment is a small factor in the equation. Further it does not go to the investors in the network, rather it goes to local SMEs, which will be called upon to make installations, provide helpdesk support and upgrades over time. Yet further, contrary to investment in land-based technologies intended to provide services in an area of “potential” users, public funds for satellite broadband are only spent for those users with needs or the wish to be connected (no risk of wasting public resources). They merely feed the gap between existing signals and the user.
6. Eutelsat also wishes to note its experience with certain regions which Eutelsat have been award a contracts from, mainly through public bids: some regions have invested in satellite as an inexpensive temporary solution, with the plan to switch to ADSL when this would have been available in a couple of years. It should not go unnoticed that numerous promises or speculative statements of “when” an ADSL or other land-based solution will become available cannot be relied upon. In the case referred to, our contracts have been renewed generally for another year. This also demonstrates the flexibility of the satellite solution.
7. Finally it has to be stated that satellite solutions have to date not been given sufficient consideration. Noting the advantages listed in the above text, satellite operators believe that they contribute uniquely to certain public sector objectives. By way of example, the enormous public investment into upgrading terrestrial TV networks when digital transmissions are already given everywhere by satellite and now even available in high definition, the situation would appear somewhat bizarre. Satellite operators do not wish to be “ignored” in the same way again for broadband services. Eutelsat can clearly contribute to public sector objectives of connecting white spots in a way no other technology can, and in doing so, it does not deny the role for land-based networks to contribute as well and it consider that the best solution will be based on combination of technologies. Eutelsat believes that with a few clarifications, the Guidelines will play an important role in ensuring a fair and balanced approach to enable all technologies to contribute.

Based on the above Eutelsat believe that the following recommendations for the Guidelines are appropriate:

- (a) Recognition of the ability of satellites to provide broadband services does not irrespective of the density of a specific area and the location of the user. Even a

sole isolated user can be served at the same cost as a user in a populated area. Consequently, the Commission should not consider un-served areas or low-density areas as disincentives for service provisioning because this statement does not apply to satellite networks. On the contrary, satellite operators can quickly and efficiently connect isolated users with an initial investment to cover equipment costs.

- (b) Inclusion of purchase and installation of satellite ground equipment (dishes and terminals) in the section on Existence of State Aid (this would also assist in improving the understanding of Member States who do not always appreciate that this ground equipment is eligible). The “Council Regulation amending Regulation (EC) No 1698/2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and Regulation (EC) No 1290/2005 on the financing of the common agricultural policy” states in Annex III that “[...] *enabling access to broadband infrastructure including [...] ground equipment (e.g. [...] satellite-based or combination of technologies)*” are among the operations on which Community contribution can be spent on to serve the “priority” on “broadband infrastructure in rural areas”.
- (c) Recognition of satellites as “existing infrastructure” in white spots in the section with the Commission’s evaluation criteria. This informs Member States that satellite is an option – it is known that many of them do not even think or know that it is.
- (d) Recognition that for clear “white spots” where there is nothing else available at all, satellite does often present the “best economic offer”. This is justifiable using the Commission’s own principles such as an investment should be appropriate, it should constitute gap-funding and should respond to the lowest amount of investment requested.
- (e) Recognition under the section on NGAs that Member States should be cautious when speculating about (i) when connectivity will become available and about (ii) promised speed rates. When a solution will arrive in a given area is something we have addressed above. Concerning speed rates, we have also noted above that it will be the applications demanded and provided, and not speed, that will impact in the first instance user choice and take-up. Satellite presents a realistic solution that immediately addresses all needs, from “basic” broadband to “essential” NGA while remaining a flexible solution whose resources can easily be reassigned as needed.

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2[1] There are numerous perceptions about satellite launches: it should be noted that a launch is equivalent to one evenings transatlantic flights in terms of CO2 emissions; overall today there are only around 300 or so communications satellites in orbit. Further of the 1100 UHF transmitters, which provide the current analogue terrestrial TV service in the UK, the 50 most powerful require 54MW of electricity – resulting in 250,000 tons of CO2 per annum. The carbon emissions from a satellite are zero. Source: UK Case for Space Summary Report, Oct 2006.

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