

# Satellite multimedia for mobile 'phones'

**ESA's Telecommunications Department is supporting the development of technology needed for satellite systems to broadcast digital multimedia content such as video, television programmes, radio, and data to mobile telephones and vehicle-borne receivers.**

The development of mobile video services through satellites will provide content providers and operators with alternative or complementary solutions to terrestrial based networks and will bring the benefit of the universal coverage and broadcasting that satellites can provide.

High-power satellites in geostationary orbit have the ability to broadcast to large coverage areas and reach huge numbers of users. The proposed system will employ a mixture of satellites and Earth-based repeaters. Satellites ensure global coverage and repeaters make it possible to receive the signals inside buildings.

The system will be able to be integrated into modern mobile telephone and vehicle-mounted receiver designs at very low cost, making it ideal for the mass-market.

ESA is supporting European industry and satellite operators as they open up this important market sector by partially funding the development and qualification of important components and subsystems. ESA Telecom's existing satellite infrastructure has also been made available for feasibility testing.

ESA's technology support for this application area is being provided under several elements of its Advanced Research in Telecommunications Systems (ARTES) programme.

SES Global and Eutelsat Communications are jointly investing in the first European satellite infrastructure for S-band broadcasting of video, radio and data to mobile devices. In view of the innovative nature of this market, SES and Eutelsat have joined forces, forming a joint venture company which will operate and commercialise the S-band payload on Eutelsat's W2A satellite.

Eutelsat has commissioned the W2A satellite from Thales Alenia Space for launch in early 2009. W2A will operate in a geostationary orbit at 10 degrees east, carrying a state-of-the-art payload optimised for a broad range of business applications and transmitting in the 2 to 4 GHz band (S-band).

S-band, which is a new frequency band for both SES and Eutelsat, provides a set of frequencies optimised for supporting a wireless distribution network for the delivery of video and other services to mobile devices, including phones, personal digital assistants, laptop computers and vehicle-mounted receivers.

Source: European Space Agency

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