Solar Power Aircraft Will Make Broadband Available To All

December 23 2004

An international project is developing new technology that can be installed into high altitude platforms - such as solar powered aircraft or airships - to make Broadband Internet access available to remote areas and moving trains.

With the help of 3.1 million euros from the EU's Framework Programme, the CAPANINA project brings together 13 partners from across Europe and Japan and is named after the restaurant in Italy where initial discussions were held. It will develop the equipment to operate from aircraft or airships operating as 'High Altitude Platforms' (HAPs) that are permanently located in the sky. Placing these HAPs at an altitude of 20 kilometers - well above the flight path of normal aeroplanes but below satellites - will provide a cheaper and more efficient solution than those currently available, as they do not require underground cabling or masts.

"The HAPs technology is an interesting potential solution for delivering Broadband Internet to rural, suburban and other hard-to-reach areas", says Peter Walters, FP6UK National Contact Point for IST. "Demand for fast communication is increasing all over the world, and this technology offers an innovative way of delivering broadband inexpensively to people at home, in the office, and on the move.

"The opportunities offered by HAPs are exciting as they could deliver broadband connections which are 2,000 times faster than a traditional modem and 200 times faster than today's 'wired' ADSL broadband.

HAPs are also easier to maintain than satellites as they can be periodically brought back to earth for upgrades and maintenance."

The project partners hope to achieve the first objective of CAPANINA - to deliver broadband connections to rural areas across Europe - within the next four years.
Then they will look at delivering Broadband to moving trains using 'smart' antenna systems, that link with access points on the train. This will give passengers high-speed Internet connections from 'Wi-Fi' enabled lap-tops.

"This project shows how, with the support of Framework Funding, European Research and Development can be at the forefront of technology innovation", says Paul Leeks, Project Director for FP6UK. "The development of these high altitude platforms offers an exciting and innovative solution to the likely communications problems of the future. They have more capacity, provide quicker and cheaper connections and have little impact on the environment."

Source: Glasgows