



By Gerry Oberst

European Space Research Funding

Europe funds a substantial number of space-related research projects, with the vast bulk of money in recent years directed to the Galileo navigation satellite system and to the Global Monitoring for Environment and Security (GMES) program. A recently published report on European Union-funding shows a substantial number of projects for different satellite applications, but the funding remains largely devoted to Galileo and the GMES.

The European Union sponsors large research and development funding programs in several-year batches. The just-completed Sixth Framework Program (FP6) in principle covered activities from 2002 to 2006. The Seventh Framework Program covers 2007 to 2013. This is not to say that all the FP6 projects were completed in 2006, nor are all FP7 projects up and running as of 2007. In FP6, space became one of the priorities for research, with an overall budget of 235 million euros (\$360 million), and in FP7, the budget was increased to 1.4 billion euros (\$2.2 billion).

The Galileo system has moved far beyond the research stage — as of mid-2007 the European public sector had already funded more than 2.5 billion (\$3.9 billion) for the navigation system; but even so, another 400 million euros (\$622 million) from the FP7 program will go to Galileo, with funding from other public sources bringing the total to 3.4 billion (\$5.3 billion) for the period 2007 to 2013. There likely is some overlap between the GMES and Galileo projects, because the FP7 general description says that 85 percent of its funding will be devoted to GMES.

A European Commission report on space research, “Developing applications for the benefit of the citizens,” describes diverse projects funded for GMES, telecommunication and transportation spread over 42 research projects (excluding Galileo projects). Of those projects, 32 are for GMES and 10 are for satellite telecommunication. There is an additional support action to upgrade the European spaceport in French Guiana to permit use of the Soyuz launcher. This last item represents 5 million euros (\$7.7 million) of European Union money and does not look like research, but it is lumped together with the other FP6 projects.

The general description of FP6 funding for satellite telecommunication says it is designed to assist with emergency communication, support

broadband communication in less favored regions, and also assist telemedicine and tele-education. Navigation-related projects sneak into this category as satellite telecommunications also support data distribution for GMES and Galileo.

One very modest FP6 project that lasted only a year supported demonstration projects in southern region of Africa. A two-year project, Net-Added (New Technologies to Avoid Digital Division in e-Divided areas), targets e-learning in North and Central Africa as well other rural community services. An even larger four-year project, Rural Wings, installed satellite e-learning terminals in 128 pilot sites in 13 European countries. The FP6 tele-education project, Broadband Access Satellite Enabled Education, extended tele-training over satellite and terrestrial networks to about 500 people in Greece. The Healthcare project demonstrates the added-value of satellite communications for providing healthcare in at least seven European countries.

From a more generic direction, another project, Sat-Mac (Satellite Telecommunication Market Assessment and Cost Benefit), set up an 18-month year study to analyze the evolution of satellite telecommunication up to 2030 and propose directions for future research projects.

Among the more expensive projects, the Mobile Wideband Global Link System, subsidized broadband applications directed to users on aircraft, trains and vessels with 6.6 million euros (\$10.3 million). The road transport sector pulled down 5.4 million euros (\$8.4 million) for the Sat-coms in Support of Transport on European Roads project. This project seemed to be another tool to demonstrate Galileo applications even though it is listed along with telecommunications. The FP6 brochure also slipped in a 5-million euro (\$7.8 million) project, Telecommunications Advanced Networks for GMES Operations, under the telecommunication category, although it clearly is another funding source for the space observation crowd.

The general picture that emerges from the FP6 program is that Europe is supporting numerous satellite-related research projects, and some small part of that funding is devoted to telecommunications projects. It would not be stretching the point to observe, however, that the vast bulk of the research funding is for Earth observation and navigation and likely will be for years to come under FP7. ▣

Gerry Oberst is a partner in the Hogan & Hartson Brussels office.