



# HEALTHWARE

Standard and Interoperable satellite solution to deploy HEALTH care services over Wide AREA

## TELECOMMUNICATION IN SERVICE OF MEDICINE

Healthcare today makes extensive use of information and communication technologies and (secured) broadband networks are often used to exchange medical information like reports and X-ray images. Furthermore care can be extended to mobile patients and to the patient's homes by using telemonitoring and teleconferencing facilities. The collaboration between health professionals is improved by teleconsulting and related services. In addition teaching of students and further education of health professionals benefit from real-time transmission of medical interventions and results.

Real-time teleconsulting, diagnosis from a remote location and the transmission of clinical data and multimedia medical content are particularly needed when the access to medical services is difficult like in geographically dispersed locations. This is the starting point for the HEALTHWARE project. The project validates and promotes the use of a light and cost effective satellite technology (DVB-RCS – combining the DVB-S norm for TV broadcast with an efficient return link) in areas lacking sufficient terrestrial telecommunication for interactive applications based on videoconferencing, like staff meetings, tele-expertise, teleconsultation and medical training.

The main objective is to demonstrate the added-value of satellite communications for a better delivery of healthcare for example in the fields of chronic respiratory diseases, oncology and cardiology. The use of DVB-RCS technology and the availability of performing and adapted e-health applications offer remote areas with increased connectivity and interactivity, and improve the comfort of patients and efficiency of medical staff.

## HEALTHWARE PILOT APPLICATIONS ARE SUPPORTING MEDICAL STAFF AND PATIENTS

- In Cyprus, acutely injured patients seen in the Larnaca General Hospital often have to be transferred to the Nicosia New General Hospital which is better staffed and equipped for serious injuries. HEALTHWARE has enabled teleconsultation and now transfers are needed in more limited cases.
- In Greece medical staff working in isolated rural primary care centres can join Continuous Medical Education courses via HEALTHWARE satellite links.
- In the Czech Republic, lectures and interactive sessions with students and young radiologists located in remote sites, sharing the content of university knowledge database are realised.
- In Poland, a district hospital gets a second opinion for pulmonology cases by sending patients' radiology images to experts in a university hospital by videoconferencing.
- In the UK, cancer patients in one hospital are treated based on the second opinion obtained from a specialist from another administrative area, to which data cannot not be securely transmitted without the HEALTHWARE satellite link.
- In France, HEALTHWARE supports the coordination of emergency rescues ("Plan Rouge") and training of Fire Brigade medical staffs; teleconsultation for psychiatric patients in a given isolated town; and videoconferencing in support of general practitioners.
- In Italy, a group of patients are monitored and video-teleconsulted at home.



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## LIST OF PARTNERS

- Thales Alenia Space France, France
- Eutelsat, France
- D'Appolonia, Italy
- C2 Team, UK
- Telemedecine Technologies, France
- Forth, Greece
- CNES, France
- Telespazio, Italy
- Thales Alenia Space Espana, Spain
- United Bristol Healthcare NHS Trust, UK
- Medes, France
- CHU Toulouse, France
- Total Care Network, Greece
- Telbios, Italy
- Ehtel, Belgium
- Jagiellonian University, Poland
- Masarykova Univerzita v Brne, Czech Republic
- University of Cyprus, Cyprus
- Remifor, France
- CardioExpress, Greece

## COORDINATOR

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## PROJECT INFORMATION

HEALTHWARE: Standard and Interoperable satellite solution to deploy HEALTH care services over Wide AREa Integrated Project  
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