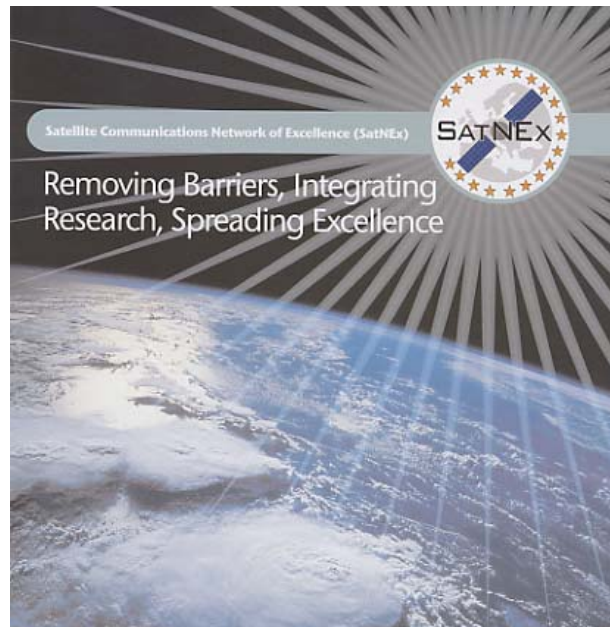


EU Project – 6th IST FP6

Satellite Communications Network of Excellence

SatNEx



Project status

Beginning: January 2004

End: December 2005

Introduction

SatNEx is a newly established, pan-European Network of Excellence (NoE) funded under the European Union's Framework Programme 6 Information Society Technologies Thematic Area.

NoEs are designed to strengthen scientific and technological excellence on a particular research topic by networking together the critical mass of resources. Within this context, SatNEx, coordinated by the German Aerospace Centre (DLR) and supported by the European Commission, brings together twenty-one of Europe's foremost universities and research institutions in satellite communications under a single collaborative umbrella. The pan-European nature of the Network draws on expertise from across the European Research Area, with representatives from Austria, France, Germany, Greece, Hungary, Italy, Slovenia, Spain and the UK.

SatNEx aims at establishing a long-lasting, durable integration of European research in satellite communications and to develop a common base of knowledge. Advancing European research in satellite communications is a central objective of SatNEx. To achieve this, the SatNEx partners have established a Joint Programme of Activities (JPA) that addresses the research, as well as the integration and training needs of the European Union.

Goals

- Establish a long lasting durable integration of European research in satellite communications
- Overcome fragmentation in European Satcom research.
- Promote collaboration and personnel exchange among research centres involved in the Project.
- Help the creation of an European community for satellite communication research and knowledge spreading in this field

Scope

The philosophy underlying the SatNEx approach consists in the selection of focused actions within the broad framework composed of Joint Programme of Activities (JPA), structured into three main streams (Integrating Activities, Jointly Executed Research and Spreading of Excellence), in order to capitalise on the breadth and depth of expertise that are present within the Network of Excellence and to make sure that the integration is effective and durable.

Outcome

- **Integration**
 - Removing Barriers to Integration
 - Collective Research Portfolio
 - Networking Means for Integration and Dissemination
 - Common Experimental Satellite Platform
 - Personnel Exchange
- **Jointly Executed Research**
 - Research Strategy and Visions
 - High Altitude Platform Systems
 - Network Performance and Protocols
 - Routing, Traffic Engineering and On-board Switching
 - Network Security and Network Management
 - Channel Modelling and Propagation
 - Flexible Waveforms
 - IP QoS and Radio Resource Management
- **Spreading of Excellence**
 - Training
 - Dissemination and Knowledge Transfer
 - Participation in Standardization Activities

Partners

- Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany
- Aristotle University of Thessaloniki, Greece
- University of Bradford, UK
- Budapest University of Technology and Economics, Hungary
- Centre National d'Etudes Spatiales (CNES), France
- Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), Italy
- Fraunhofer Gesellschaft zur Förderung der Angewandten Forschung e.V., Germany
- Groupe des Ecoles des Télécommunications (GET/ENST), France
- Institute of Communication and Computer Systems of NTUA (ICCS), Greece
- National Observatory of Athens, Greece
- Istituto di Scienze e Tecnologia dell'Informazione "Alessandro Faedo" (ISTI), Italy
- Jozef Stefan Institute, Slovenia
- Rheinisch-Westfälische Technische Hochschule Aachen, Germany
- Office National d'Etudes et de Recherches Aérospatiales (ONERA-TéSA), France
- Technische Universität Graz, Austria
- Universidad Carlos III de Madrid, Spain
- The University of Surrey, UK
- University of Aberdeen
- Università di Bologna, Italy
- Università Degli Studi Di Roma "Tor Vergata", Italy
- Universidad De Vigo, Spain
- Universitat Autònoma de Barcelona, Spain

CNIT Research Teams

University of Genoa Research Unit / University of Florence Research Unit / University of Catania Research Unit / University of Turin Research Unit / University of Siena Research Unit

Main Tasks Structure

- **WP 1000: Integrating Activities** addresses the need to bring together the Network's researchers, the research tools and test-beds and to implement a satellite-based communication and collaboration platform.
 - Research Coordination; Integrated Research Tools and Testbeds; Communication Platform; Personnel Exchange; Knowledge Management.
- **WP 2000: Jointly Executed Research** covers visions and joint research strategies, as well as research topics in networks and radio interface, supported by system studies and research trials.
 - Research Strategy and Visions; System Studies; Networking; Access; Research Trials.
- **WP 3000: Spreading of Excellence** provides opportunities for training, disseminates information, performs knowledge transfer and supports standardisation activities.
 - Training; Dissemination; Standardisation and Regulation.
- **WP 4000: NoE Management**
 - Overall Coordination of Joint Activities; Project Administration and Control.