

What is GARR?

www.garr.it/ilGARR

The mission

Consortium GARR plans and operates the national high-speed telecommunication network for University and Scientific Research.

All Academic and major Scientific organizations in Italy connect to the GARR network.

The Consortium GARR institutional mandate includes the following:

- to implement and operate the national high-speed telecommunication network for University and Scientific Research, and to interconnect to other NRENs in Europe and worldwide, as well as with the Global Internet;
- to provide the user community with network operation and application services;
- to facilitate cooperation in the field of research through the exploitation of leading-edge e-Infrastructures, both at a national and international level;
- to disseminate advanced knowledge about network infrastructure, and to stimulate the exchange of technical know how within the user community.

What is Consortium GARR

Consortium GARR is a non-profit organization constituted under the aegis of the MIUR (Ministry of Education and Scientific Research).

The founding Members are:

- CNR (National Research Council) ,
- ENEA (Organization for the New Technologies, the Energy and the Environment),
- Fondazione CRUI (Conference of Italian University Chancellors),
- INFN (National Institute of Nuclear Physics).

The GARR Network

The **GARR network** infrastructure covers the whole national territory in a widespread way and its backbone is based on leading-edge optical circuits and technologies.

The broadband access fully supports innovative applications such as Grids, Telemedicine, e-Learning, Multimedia, Highenergies Physics, Radioastronomy.

It is interconnected with all European and worldwide Research Networks and supports collaboration among national and international research activities.

From the second half of 2009, the current infrastructure will be gradually replaced by **GARR-X**, the next-generation, multi-service network that will dramatically enhance global performances.

 Consortium
GARR

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International connectivity projects

As an integrating part of its mission, Consortium GARR participates to a number of initiatives aiming at improving international Research and Education connectivity, as well as the broadband access to specific, and often unique, facilities.

Examples include the *ALICE2*, *AugerAccess*, *ORIENT*, *EUMEDCONNECT2*, and *EVASO* projects.

R&D projects

Consortium GARR supports cooperation in Research and Education, and actively promotes technology innovation, thanks to the constant development and testing of new network services and protocols.

GARR collaborates with major R&E networking organizations, such as DANTE, TERENA, Internet2, IETF.

It also takes part in several R&D project, both at a national and international level. Among ongoing projects, it is worth mentioning the *GÉANT3*, *EGEE3* and *FEDERICA* projects, co-funded by **European Commission** within the [6th and 7th Framework Programme for Research and Technological Development](#) (FP6 and FP7), and aiming at widening and innovating the existing European e-Infrastructures.

At the **national level**, GARR encourages and convenes working groups open to the user's contribution, whose aim is to study, test and develop new services, architectures and tools.

Thus, pilot services can be tested by the user community, and afterwards enter the production gear. Furthermore, GARR Working Groups often offer expert advice and disseminate their knowledge to the Research and Education user community.

Currently, the working groups cover the following research areas: Netcast, Secure eMail, Authentication and Authorization, VoIP and Grid Computing.



Framework Programme for Research and Technological Development

The Framework Programme is the main instrument of the European Union for the financing of scientific and industrial research in Europe.

<http://cordis.europa.eu>



Further information on Consortium GARR and its activities can be found at:

<http://www.garr.it>