

CNR activities within the ICT sector: international relationships

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Italian National Research Council (CNR): organisation

- Founded in 1923 (the first President was Vito Volterra)
- Headquarter and main directive boards in Rome
Research Institutes all around Italy
- RE-ORGANISATION (law n.19 of 30 January 1999):
 - Merging of 326 Institutes into 108
 - Creation of new experimental Institutes
- Personnel
 - 7.377 permanent staff (at the end of 2000)
 - >10.000 overall staff

The CNR major scientific areas

Following the CNR re-organisation, completed at the end of July 2001, the 108 new Institutes were grouped into the following scientific areas:

- Basic sciences (area 1)
- Life sciences (area 2)
- Earth and environment sciences (area 3)
- Social and humanistic sciences (area 4)
- **Technological, engineering and information sciences (area 5)**

Italian National Research Council (CNR): revenues and expenditures

- Total revenues in 2000 744 M€
- Expenditure for Technological,
Engineering and Information
Sciences 82 M€

CNR areas performance indicators

Scientific area	Number of bodies	Staff costs (L/mill)	Research funds	Self-funding %	Number of EU contracts	UE mean yearly contribution % (ITL/mill)	Total publications
Basic sciences (Area 1)	28	146,354	106,575	31	121	14.844	6.464
Life sciences (Area 2)	33	154,824	155,468	42	140	13.199	5.143
Earth and environment sciences (Area 3)	11	73,353	61,098	34	109	8.858	2.832
Social and humanistic sciences (Area 4)	18	38,258	18,181	16	19	704	1.423
Technological, engineering and information sciences (Area 5)	18	77,481	64,452	34	84	19.858	2.970
TOTAL	108	490,270	405,774	35	473	57.958	18.832

CNR's Institutes dealing with information and communication technologies ⁽¹⁾

Institute	Full name	Area
ISTC Roma	Istituto di Scienze e Tecnologie della Cognizione	Life sciences
IAC Roma	Istituto per le Applicazioni del Calcolo 'Mauro Picone'	Basic sciences
ICIB Napoli	Istituto di Cibernetica "Eduardo Cianiello"	Basic sciences
IMATI Pavia	Istituto di Matematica Applicata e Tecnologie Informatiche	Basic Sciences
IFAC Firenze	Istituto di Fisica Applicata 'Nello Carrara'	Basic sciences
IMM Catania	Istituto di Microelettronica e Microsistemi	Basic sciences
IRA Bologna	Istituto di Radioastronomia	Basic sciences
ILC Pisa	Istituto di Linguistica Computazionale	Social and humanistic sciences
ITTIG Firenze	Istituto di Teoria e Tecniche dell'Informazione Giuridica	Social and humanistic sciences

CNR's Institutes dealing with information and communication technologies (2)

Institute	Full name	Area
IASI Roma	Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti"	Technological, engineering and information sciences
ICAR Cosenza	Istituto di Calcolo e Reti ad Alte Prestazioni	Technological, engineering and information sciences
IEIIT Torino	Istituto di Elettronica e di Ingegneria dell'Informazione e delle Telecomunicazioni	Technological, engineering and information sciences
IIT Pisa	Istituto di Informatica e Telematica	Technological, engineering and information sciences
ISSIA Bari	Istituto di Studi sui Sistemi Intelligenti per l'Automazione	Technological, engineering and information sciences
ISTI Pisa	Istituto di Scienza e Tecnologie dell'Informazione "Alessandro Faedo"	Technological, engineering and information sciences
ITD Genova	Istituto per le Tecnologie Didattiche	Technological, engineering and information sciences
ITIA Milano	Istituto di Tecnologie Industriali e Automazione	Technological, engineering and information sciences

Italian National Research Council (CNR): ICT activities

- Networks
 - wireless
 - wired
 - new protocols
- Network and Data security
- Secure electronic transactions
- Web development
- Virtual computing

The Institute of Informatics and Telematics (IIT-CNR) activities ⁽¹⁾

The CNR area 5 includes the Institute of Informatics and Telematics, which was established in March 2002 by merging the Institute of Telematic Application (IAT) and the Institute of Computational Mathematics (IMC). The IIT-CNR is headed by Prof. Franco Denoth.

The Institute is particularly devoted to Information Society and deals with research, transfer and training in the field of information and communication technologies and computational sciences. IIT distinguishes itself for excellent development skills, as well as for organising training activities in the ICT sector at international level and for exceptional self-funding capacities.

Furthermore, IIT-CNR is in charge of the management for all the EU countries of the registration and management of domain names under ccTLD "it".

The Institute of Informatics and Telematics (IIT-CNR) activities ⁽²⁾

At international level, the Institute did and does take part in many research projects launched and co-funded by international organisation such as the EU (IST programme), ESF, NATO, UNESCO, Italian Ministry of Foreign Affairs.

The Institute sits also on many international scientific boards, such as:

- DIMATIA (Discrete Mathematics, Theoretical IT and Application Centre of Charles University, Prague)*
- ISOC (Internet Society)*
- RIPE (Reseaux IP Européennes)*
- ICANN (Internet Corporation for Assigned Names and Numbers)*
- CENTR (Council of European TLD Registries)*
- IST Committee of the EU FP*

CNR's participation in ICT international activities ⁽¹⁾

At international level, the CNR participates in information and communication technologies activities through the following means:

- *participation in projects launched or funded by international, intergovernmental and non-governmental agencies, as part of co-ordinate or strategic development plans;*
- *board's bilateral relations network, leading to bilateral agreements and conventions with foreign scientific counterparts;*
- *EU projects, mainly those within the RTD Framework programmes;*
- *researcher mobility plans;*
- *bilateral seminars: in particular in the United States, where there are no general agreements between CNR and Federal Research Agencies, the bilateral workshops proposed by CNR have aroused interest with some Federal Scientific Agencies, such as NASA and NSF.*

CNR's participation in ICT international activities (2)

- Participation in international scientific organisations (72 co-operation agreements with scientific NGOs)
- Participation in European Union programmes (518 projects received EU funds in 1998, 89 coordinated by CNR Institutes; 56 projects in the IST field during the V FP). This activity is supported by:
 - Department of International Relations in Rome
 - CNR office in Brussels
 - Mediterranean Office in Naples to promote research activities in the Mediterranean basin with particular regard to EU MEDA funds

Two examples of IST projects led by CNR in partnership with USA organisations ⁽¹⁾

Project	ECHO (European Chronicles on-line) IST-1999-11994 Lenght: 30 months (1 February 2000 - 31 July 2002)
CNR Institute Co-ordinator	Institute for Information Processing (IEI), that, after the CNR re-organisations, became Institute of Information Sciences and Technologies "Alessandro Faedo" (ISTI)
Partners	F – Institut National de l'Audiovisuel; D – TECHMATH AG; NL – Stichting; Nederlands Audiovisueel Archief; I – Istituto Luce SpA; USA – Carnegie Mellon University; CH – Memoriav; CH – Eurospider Information Technology AG; I – Istituto Trentino di Cultura; F – CNRS/Centre National de la Recherche Scientifique, IDFSud – LIMSI; D – Universität Mannheim; UK – MediaSite Europe Ltd; NL – University of Tewnte
Descr.	The ECHO participating Institutions have unique collections of documentary films dating from the beginning of the century until the sixties. These collections are very precious since they document different aspects (social, cultural, political, economic) of life in four European countries during this period of time. The aim of the project is to develop a long term reusable software infrastructure providing Web-based access to its film collection, and to set up and run an ECHO digital library service. The project will integrate state-of-the-art existing technologies, such as the informedia technology (developed by Carnegie Mellon University) and the media-archive technology (developed by Tecmath), and will extend them to support new advanced services (semi-automatic metadata extraction and acquisition, integration of non-English speech recognizers for the purpose of indexing, searching and retrieval, cross-language retrieval capabilities, automatic film summary creation, privacy and billing systems).

Two examples of IST projects led by CNR in partnership with USA organisations ⁽²⁾

Project	CLEF (Cross-Language Evaluation Forum) IST-2000-31002 Lenght: 30 months (1 October 2001 - 31 March 2004)
CNR Institute Co-ordinator	Institute for Information Processing (IEI), that, after the CNR re-organisations, became Institute of Information Sciences and Technologies “Alessandro Faedo” (ISTI)
Partners	ES - Fundacion Universidad Empresa; F - European Language Resources Distribution Agency SARL; USA - National Institute of Standards and Technology; CH - Eurospider Information Technology Ag; D - Informationszentrum Sozialwissenschaften der Arbeitsgemeinschaft Sozialwissenschaftlicher Institute E.V.
Descr.	The project aims at supporting multilingual information access to European digital libraries by providing a platform for the evaluation of monolingual and cross-language information retrieval systems. The technical infrastructure will include an evaluation protocol and metrics and a test bed of multilingual training and testing data. Two evaluation campaigns will be organised and the results will be analysed and discussed at annual workshops. Collaborative links will be established with similar systems evaluation initiatives in the US and Asia, working on other sets of languages. The end product will be test-suites of multilingual data that can be used by system developers for benchmarking purposes. The goal is to assist European cross-language system development in order to guarantee its competitiveness on the global market.

Web references:

- WWW.MIUR.IT
- WWW.CORDIS.LU/ITALY
- WWW.MININNOVAZIONE.IT/FSI
- WWW.COMUNICAZIONI.IT
- WWW.CNR.IT
- WWW.IIT.CNR.IT
- WWW.CNIT.IT
- WWW.CONSORZIO-CINI.IT

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Thanks for your attention