

Research, technological development & innovation projects in which CESGA actively participated in 2008

During 2008, CESGA's activity in RTD and Innovation Projects was very intense, with notable results. In total, CESGA directed or collaborated in more than 40 proposals for regional, national, or international projects.

The achievement in 2008 of two European Union VII Framework Programme projects and the continuation of a project under the PROFIT programme are all noteworthy. In addition, the success rate of project proposals resolved this year was very high (73%). All of that was accomplished while constantly attending to the development of the projects in progress such as EGEE, e-IMRT, or int.eu.grid, in which important goals were achieved.

The GIS, e-Learning & Collaboration Tools, and Technology Transfer & e-Business departments increased their activity in projects in 2008. These departments have entered joined new project consortiums and have successfully continued work in projects in progress.

Activity regarding the creation and participation in regional, national, and international networks has been equally important. In the following pages a list of the research, technological development and innovation projects in which CESGA participated in 2008 is detailed.

AREA	PROJECTS
Computing	19
Network Comunications	4
Colaboration Tools & e-Learning	3
Geographical Information Systems	4
Technology Transfer & e-Business	4
Other	4
TOTAL	38
GRANT SOURCE	PROJECTS
European Commission	10
Spanish Goverment	7
Galician Regional Goverment	17
Industry	4
TOTAL	38
Thematic Networks, Technological Platforms	19

COMPUTING

Enabling Grid for E-SciEnce III (EGEE III)

Partners: CERN, JKU, KFKI-RMKI, CESNET, II SAS, JSI, CYFRONET, SRCE, FOM, VUB, FZK, SWITCH, CNRS, CGGV, INFN, ED, TRUST-IT, UH.HIP, CSC, SIGMA, VR-SNIC, RRC KI, GRNET, IPP BAS, UCY, TAU, ICI, IPB, TUBITAK, LIP, IFAE, TCD, STFC, DANTE, KEK, ASGC, KISTI, CNU, UNIMELB, WISCONSIN SYSTEM, RENCI, BT-IC.

Coordinator: B. Jones, CERN

Principal Researcher: I. López Cabido, CESGA

Financing: European Commission: Information Society

Technologies Programme. **Project Code:** INFSO-RI-222667

Budget: 218,000.00 € **Period:** 2008-2010

Objectives: This is the third phase of the deployment of a global GRID infrastructure accessible to researchers and businesses 24 hours a day. The objective is to provide researchers with access to important computational resources, independent of their geographical location.

Improvement of Memory Usability and Performance (HP UPC)

Partners: CESGA, UDC, USC

Coordinator: I. López Cabido, CESGA

Principal Researcher: I. López Cabido, CESGA

Financing: Research Contract (Subject to an Agreement of

Confidentiality)

Project Code: HP-001 **Budget:** 84,007.00 € **Period:** 2008-2011

Objective: To improve the usability and productivity of UPC.

Hardware Counters Use to improve Memory Performance (HP Counters)

Partners: USC, UDC, HP, and CESGA

Coordinator: C. Fernández Sánchez, CESGA

Principal Resarcher: C. Fernández Sánchez, CESGA

Financing: Research Contract (Subject to an Agreement of

Confidentiality)

Project Code: HP-002 **Budget:** 91,903.00€ Períod: 2008-2011

Objective: To improve memory performance.

EELA₂

Partners: IBBM, IFLP/UNLP-CONICET, III-LIDI / UNLP, INIFTA / UNLP-CONICET, INNOVARED (NREN), INSIBO / UNT, LINTI / UNLP, LISIDI / UNS, UBA, CBPF, CCE / USP, CEFET-RJ, FCM / UERJ, FIOCRUZ, IF / USP, IME, INCOR, INPE, LNCC, ON, RNP (NREN), SPRACE / UNESP, UFCG, UFF, UFJF, UFMS, UFRGS, UFRJ, UFSM, UnB, UNILASALLE, UNISANTOS, CEAZA-USERENA, CMM-UCHILE, PUC, REUNA, UDEC, UFRO, UTALCA, UTFSM, UVALPARAISO, UNIANDES, UNIV. ANTIOQUIA, INAMHI / INOCA, IPGP, INFN, UNAM, CIP, IGP, PUCP, SENAMHI, UNT, UPCH, USMP, U. AVEIRO, U. MINHO, U. PORTO, CRMPA (INFN third party), DOCEBO (Italy), GFI (Spain), INSA (Spain), MAAT (Spain), CESGA, CIEMAT, DGSP / CSISP, DTIS-LVG, DVA, RED.ES (NREN), SATSI, UC, UCM, UEX, UPV, ULA, USB.

Coordinator: Bernard Maréchal, CETA-CIEMAT / UFRJ (Spain/

Brazil)

Principal Researcher: I. López Cabido, CESGA

Financing: The European Commission - VII Framework

Programme

Project Code: EU-FP7-223797

Budget: 66,000.00€ **Period:** 2008-2010

Objective: To construct a grid infrastructure that is scalable and has high quality and production capacity based on the existing EELA e-infrastructure installation grid. The new grid will be capable of providing 24 hour a day access to distributed computing, storage, and network resources for an ample spectrum of applications for the European and Ibero-American research communities.

Support Technicians II

Partners: CESGA

Coordinator: C. Fernández Sánchez, CESGA

Principal Researcher: C. Fernández Sánchez, CESGA

Financing: The Ministry of Science and Innovation

Project Code: PTA2007-0375-I

Budget: 54,000.00€ **Period:** 2008-2011

Objectives: Support Technicians II, Ministry of Science and

Innovation.

Development of the Second-level (Tier-2) Spanish Centre for the processing of Particles IV

Partners: USC and CESGA

Coordinator: J. J. Saborido Silva, University of Santiago de

Compostela, USC

Principal Investigator: C. Fernández Sánchez, CESGA **Financing:** The Ministry of Science and Innovation

Project Code: FPA2007-66437-C02-02

Budget: 13,797.00 € **Period:** 2007-2010

Objective: The launching of a GRID infrastructure for CERN's

LHCb experiment.

int.eu.grid

Partners: IFCA, LIP (Portugal), Poznanskie Cen-trum uperkomputerowo Sieciowe (Poland), Fors-chungszentrum Karlsruhe (Germany), UAB, CYFRO-NET AGH (Poland), GUP (Austria), Trinity College (Ireland), II SAS (Slovak Republic), ICM

(Poland), BIFI (Spain), HLRS (Germany) and CESGA

Coordinator: J. Marco de Lucas, Instituto de Física de

Cantabria, IFCA-CSIC

Principal Researcher: C. Fernández Sánchez, CESGA Financing: The European Commission - VI PM-EU 13

Project Code: 031857 **Budget:** 114,000.00€

Period: 2006-2008

Objectives: To launch, maintain, and operate a quality GRID infrastructure in order to provide service to communities of researchers with interactive applications that have a high

computational demand.

Enabling Grid for E-SciEnce II (EGEE-II)

Partners: AGSC, BME, BT-IC, CEA, CERN, CESGA, CESNET,

CGG Services, CIEMAT, CKSC, CNES, CNR-ITB, CNRS, CRSA, CSC, CSIC, CYFRONET, DANTE, DESY, DFN, DKRZ, ELETTRA, ELSAG DATAMAT, ENEA, ETHZ(CSCS), FhG/SCAI, FOM, FZJ, FZK, GARR, Glasgow, GRNET, GSI, HEALTHGR ID, ICI, IHEP, IISAS, IMPB RAS, Imperial, INFN, IPB, IPP-BAS, ITEP, JINR, JKU, JSI, KFKI-RMKI, KIAM RAS, KISTI, KTH, LIP, MTA SZTAKI, MTW, NIIF, Oxford, PIC, PNPI, PSNC, RED.ES, RENCI, RRC KI, RUG, SARA, SINP MSU, SRCE, STFC, SWITCH, TAU, TCD, TID, Trust-IT, TUBITAKULAKBIM, UChicago, UCM, UCY, UEDIN, UH-HIP, UIB, UIBK, UKBH, ULB, UNICAL, UNILE, UNIMAN, UNINA, UNIZAR, UPV, USCUVA, UW, UWisc-Madison, VR.

Coordinator: Bob Jones, CERN

Principal Researcher: I. López Cabido, CESGA

Financing: Information Society Technologies Programme

(EU)

Project Code: INFSO-RI-031688

Budget: 182,530.00 € **Period:** 2006-2008

Objective: This is the second phase of the deployment of a global GRID infrastructure that is available to researchers and businesses 24 hours a day. The objective is to provide researchers with access to important computing resources independent of their geographic location.

Development of 2nd and 3rd level Spanish Centres (Tier-2 and Tier-3) for the processing of experimental data (Particles III)

Partners: USC and CESGA

Coordinator: J.J. Saborido Silva, Universidade de Santiago,

USC

Principal Researcher: C. Fernández Sánchez, CESGA

Financing: Ministry of Science and Innovation

Project Code: FPA2005-07761-Co2-02

Budget: 11,550.60 € **Period:** 2005-2008

Objectives: The launching of a GRID infrastructure in Spain

for the CERN-LHCd experiment.

The Consolidation and Structure of Competetive Research Units of the Galician I+D+i System (unid-inv-o8)

Partners: CESGA

Coordinator: J. García Tobío, CESGA

Principal Researcher: J. García Tobío, CESGA

Financing: Xunta de Galicia

Project Code: INCITEO8ENA704088ES

Budget: 128,295.00 €

Period: 20/10/2008-21/11/2008

Objectives: Aid for research group consolidation.

Moving CSEGA forward as a Research Centre of Excellence (NextCESGA)

Partners: CESGA

Coordinator: J. García Tobío, CESGA

Principal Researcher: J. García Tobío, CESGA

Financing: European Commission, VII Framework

Programme

Project Code: FP7-203135 **Budget:** 138,316.00 € **Period:** 2008-2009

Objectives: To produce a SWOT Analysis (Strengths, Weaknesses, Opportunities, and Threats) of CESGA and to define an Action Plan to move CESGA forward as a research centre of excellence.

BEinGRID. Business experiment for the improvement of IMRT planning (Intensity-modulated Radiotherapy) using on demand GRID services with service level agreements (SLAs)

Partners: Over 100 research groups from Universities,

Research & Technology Centres

Coordinator: Santiago Ristol, ATOS Origin **Principal Researcher:** A. Gómez Tato, CESGA

Financing: Galician Regional Government, Xunta de Galicia

Project Code: PGIDITo4CSo137030PR

Budget: 54,600.00 € **Period:** 2008-2009

Objective: The proposed business experiment is designed to integrate the solution in a GRID environment, adding a service-level agreement and security from beginning to end. These aspects will support the common components of BEinGRID, permitting possible providers to obtain more computing resources in order to confront periods of peak demand. The final objective of the project is to offer BeInEIMRT services to many European hospitals based on a pay-per-use or a flat rate payment system.

SmartLM. Grid-friendly software licensing for location independent application execution

Partners: Noesis Solutions NV, Belgium, L.M.S.-Systems BVBA, Belgium, Intes-Ingenieurgesellschaft FuerTechnische Software MBH, Germany, Gridcore AB, Sweden, L.M.S.

International NV, Belgium, Cineca Consorzio Interuniversitario, Italy, Fundación Centro Tecnologico de Supercomputación de Galicia, Spain, The 451 Group Limited, United Kingdom, Forschungszentrum Juelich GMBH, Germany,

T-Systems Solutions for Research GMBH, Germany, ANSYS Germany GMBH, Germany, LMS Numerical Technologies, Belgium, Fraunhofer-Gesellschaft Zur Foerderung der Angewandten Forschung E.V, Germany.

Coordinator: J. Martrat, ATOS

Principal Researcher: A. Gómez Tato, CESGA. **Financing:** European Commission – VII PM

Project Code: 216759 Budget: 153,323.75 € Period: 2008-2010

Objectives: SmartLM will provide a concession of generic, flexible licenses for a new virtualisation technology service oriented toward those business models through the limits of the organisation.

Finis Terrae Socio-economic Impact Study (ICTS-Impacto)

Partners: CESGA

Coordinator: J. García Tobio, CESGA

Principal Researcher: A. Gomez Tato, CESGA **Financing:** Ministry of Science and Innovation

Project Code: CAC-2007-54 **Financing:** 68,000.00 €

Period: 2007-2008

 $\textbf{Objectives:} \ This is a socio-economic analysis of the impact of$

the installation of Finis Terrae.

Qualified Electronic Signature Infrastructure – IfeC

Partners: Aldaba Servicios Profesionales, Aldaba Soluciones

y Proyectos SL, UVIGO, and CESGA

Coordinator: J.A. Castelao Boo, Aldaba Servicios

Profesionales

Principal Researcher: A. Gómez Tato, CESGA

Financing: Centre for Technological and Industrial Development (CDTI) and the Government of Galicia (Xunta de Galicia)

Project Code: FIT-360000-2007-14

Budget: 19,978.70 € **Period:** 2007-2008

Objectives: This study of the design and development of a Qualified Electronic Signature Infraestructure (IFeC), sustained on the Management of Privileges Infrastructure (PMI)

and a Time Seal Authority (TSA), permits its easy inclusion in applications that require authorisation control such as in management environments of corporate authorisations.

g-fluxo

Partners: CESGA

Coordinator: J.López Cacheiro, CESGA

Principal Researcher: J. López Cacheiro, CESGA

Financing: Regional Government of Galicia, Xunta de

Galicia

Project Code: 07\$IN001CT **Budget:** 49,220.00 € **Period:** 2007-2009

Objectives: This is a utility for the development of work flows for distributed computing that permits the use of different applications and existing computing resources at CESGA or that are accessible by way of the GRID as a unique environment.

Qualified Electronic Signature Infrastructure (ISEC)

Partners: Aldaba Servicios Profesionales, Aldaba Soluciones

y Proyectos SL, UVIGO, and CESGA

Coordinator: A. Gómez Tato, CESGA

Principal Researcher: A. Gómez Tato, CESGA

Financing: Xunta de Galicia

Project Code: 07SIN012CT

Budget: 147,338.00 €

Period: 2007-2009

A Virtual Laboratory for the National Oceanographic Remote Sensing Network (RETELAB)

Partners: USC, AZTI, ICCM, and CESGA

Coordinator: J.M. Cotos Yánez, Universidade de Santiago

(USC)

Principal Researcher: I. López Cabido, CESGA

Financing: Spanish Ministry of Science and Innovation

Project Code: ESP2006-13778-CO4

Budget: 114,950.00 € **Period:** 2006-2009

Objectives: The development of a collaborative and distributed work environment that constitutes a virtual laboratory for the development of interdisciplinary projects related to

 $ocean ographic \, remote \, sensing. \\$

Advanced Planning Systems for Radiotherapy by means of Computing Environments (e-IMRT)

Partners: CESGA, USC, and UVIGO **Coordinator:** A. Gómez Tato, CESGA

Principal Researcher: A. Gómez Tato, CESGA

Financing: Regional Government of Galicia, Xunta de

Galicia

Project Code: PGDITo5SINoo101CT

Budget: 38,775.00 € **Period:** 2005-2008

Objectives: The e-IMRT project has produced new remote services for the planning of radiotherapy treatments that require high computational capacity. The services developed include a verification system of treatment plans based on Monte Carlo techniques as well as a search service designed to search for optimal plans for a treatment.

Support technicians for R&D infrastructures. Technicians: MCYT

Partners: CESGA

Coordinator: I. López Cabido, CESGA

Principal Researcher: I. López Cabido, CESGA **Financing:** Ministerio de Ciencia e Innovación

Budget: 210,823.20 € **Period:** 2005-2008

Objectives: Grant for hiring research infrastructure support

technicians.

INGENIO MATHEMATICA (i-MATH)

Partners: Universidad de Almería, Universidad de Cádiz, Universidad de Granada, Universidad de Jaén, Universidad de Málaga, Universidad de Sevilla, Universidad de Oviedo, Universidad de Zaragoza, Universidad de Islas Baleares, Universidad de La Laguna, Universidad de Las Palmas de Gran Canaria, Universidad de Cantabria, Universidad de Castilla - La Mancha, Universidad de León, Universidad de Burgos, Universidad de Salamanca, Universidad de Valladolid, ICREA, Universidad de Barcelona, Universidad de Lleida, Universidad, Autónoma de Barcelona, Universidad Politécnica de Cataluña, Universidad de Girona, Universidad de Extremadura, Universidad de Santiago de Compostela, Universidad de A Coruña, Universidad de Vigo, Universidad de Alcalá, Universidad de Autónoma de Madrid, CSIC, INTA, Universidad Carlos III de Madrid, Universidad Complutense de Madrid, Universidad Nacional de Educación a Distancia,

Universidad Politécnica de Madrid, Universidad Rey Juan Carlos, Universidad de Murcia, Universidad de Navarra, Universidad Pública de Navarra, Universidad del País Vasco, Universidad de la Rioja, Universidad de Alicante, Universidad Jaume I de Castellón, Universidad Miguel Hernández de Elche, Universidad Politécnica de Valencia, and Universidad de Valencia.

Coordinator: M. A. López-Cerdá, Universidad de Alicante

Principal Researcher: A. Gómez Tato, CESGA **Financing:** Ministerio de Ciencia e Innovación

Project Code: CSD2006-00032

Budget: 7,500,000.00 €

Period: 2006-2011

Objectives: This Ingenio-Consolider Project is designed to quantitatively and qualitatively increase the presence of Mathematics in science, technology, and innovation.

NETWORK COMMUNICATIONS

OPERA OBERTA

Partners: USC, UVIGO, UDC, UMINHO, and CESGA.

Coordinator: Liceu de Barcelona

Principal Researcher: Spanish Ministry of Education

Period: Indefinite

Objectives: The live multicast of operas from the Liceo in Barcelona to the participating universities, to be used as edu-

cational resources.

A distributed system for the massive synthesis of interactive TV channels using real time coding in Gpus

Partners: UDC, CESGA

Coordinator: V. M. Gulías Fernández, UDC. **Principal Researcher:** López Cabido, CESGA.

Financing: Regional Government of Galicia, Xunta de

Galicia.

Project Code: (PGIDITO7TIC005105PR).

Budget: 96,002.00 € **Periodo:** 2007-2010.

Objectives: The utilisation of the processing capacities of graphic cards in order to codify multiple streams of video for network transmission.

Platform for the Analysis of Telecommunications Services - PASITO

Partners: RedIRIS, CESCA (Centre de Supercomputació de Catalunya) CESGA (Centro de Supercomputación de Galicia), CICA (Centro Informático Científico de Andalucía), I2BASK (Red Académica Vasca), Universidad del País Vasco (UPV/EHU), Fundación I2CAT, Grupo de Red del IMDEA (Instituto Madrileño de Estudios Avanzados), Universidad Autónoma de Madrid (UAM), Universidad Carlos III de Madrid (UCIII), Universidad de Granada (UGR), Universidad de Murcia (UMU), Universidad Politécnica de Cataluña (UPC), Universidad Politécnica de Madrid (UPM), Universidad Politécnica de Valencia (UPV), and Universidad de Vigo (UVIGO).

Coordinator: RedIRIS

Principal Researcher: I. López Cabido, CESGA

Financing: Ministerio de Industria, Turismo y Comercio.

Budget total: 705,000.00 €

Periodo: 2008 – 2009.

Objectives: The launching of a national communications

network for the testing of new services.

GEOGRAPHIC INFORMATION SYSTEMS

GIS Archaelogical Patrimony 2008 - GIS-Patrimo8

Partners: Xunta de Galicia and CESGA **Coordinator:** F. Landeira Vega, CESGA

Principal Researcher: F. Landeira Vega, CESGA

Financing: Regional Government of Galicia, Xunta de Galicia

Budget: 4,708.00 € **Period:** 2008

Objectives: The development of tools and technical assistance in GIS for the Archaeological Service of the office of the

Director General for Patrimony.

The generation of GIS contents for Project Terra - GIS-

TERRA

Partners: IDEGA and CESGA

Coordinator: F. Landeira Vega, CESGA

Principal Researcher: F. Landeira Vega, CESGA

Budget: 11,875.00 €

Period: 11/04/2008-19/12/2008

Objectives: The generation of GIS contents for the educational material for Project Terrra of the Galician Architects

Professional Association.

Archaeological Patrimony - GIS-Patrimo7

Partners: Xunta de Galicia, CESGA **Coordinator:** F. Landeira Vega, CESGA

Principal Researcher: F. Landeira Vega, CESGA

Financing: Xunta de Galicia

Budget: 10,930.00 € **Period:** 2007-2008

Objectives: The elaboration of the 6th phase of a geographic information system applied to the management and analysis

of cultural patrimony.

GIS-SIFI

Partners: CIS Madera and CESGA

Coordinator: X.F. Pedras Saavedra, CIS Madera **Principal Researcher:** F. Landeira Vega, CESGA

Financing: Xunta de Galicia

Project Code: PGIDITo6RF000301CT

Budget: 28,750.00 € **Period:** 2006-2009

Objectives: Elaboration of a geographic information system

for the industrial forestry sector of Galicia.

GIS analysis of environmental risks - GIS-RIESGOS M.A.

Partners: CIS Deseño e Tecnoloxía, USC, and CESGA **Coordinator:** J. Aneiros, CIS Deseño e Tecnoloxía **Principal Researcher:** F. Landeira Vega, CESGA

Financing: Xunta de Galicia

Project Code: PGDITo5TAMoo201CT

Budget: 51,260.00 € **Period:** 2005-2008

Objectives: The development of a geographic information system for the study of possible areas of impact regarding various

environmental risks.

E-LEARNING & COLLABORATION TOOLS

Standards based Intermediation System for the Search for Personalised Courses Using Semantic Technologies -

eProcura

Partners: UVIGO and CESGA

Coordinator: M. J. Rodríguez Malmierca, CESGA

Principal Researcher: M. J. Rodríguez Malmierca, CESGA

Financing: Xunta de Galicia **Project Code:** o8SINoo4CT

Budget: 109,494.95 €

Period: 2008-2011

Objectives: The design, development, and launch of an intermediation system specifically oriented toward the personalised search and localisation of courses that permits those in search of training to unveil all the offer available on the Web

and to select that which is of real interest

Application of Pedagogical Competencies and Skills for Teachers – ICTeachers

Partners: Die Berater (Coordinator), Österreichische Computer Gesellschaft (Austria), Universidade de Santiago de Compostela (Spain), Centro de Supercomputación de Galicia (Spain), Westminster Business School, University of Westminster (U.K.), VIA University College-Læreruddannelsen i Århus (Denmark), y Nyugat-magyarországi Egyetem, Információs Társadalom Oktató és Kutató Csoport (Hungary).

Coordinator: M. Röhsner. die Berater

Principal Researcher: M. J. Rodríguez Malmierca, CESGA Financing: European Commission - Lifelong Learning

Programme

Project Code: 141882-2008-LLP-AT-COMENIUS-CM

Budget: 22,792.00 € **Period:** 2008-2010

Objectives: This project is designed to improve the ICT competencies and skills that Primary and Secondary Teachers have (at a European level) for which the main goal is to promote ICT use in primary and secondary education and, as a consequence, improve the quality of teaching and learning.

Standards based e-Learning Services Integration - SUMA2

Partners: Tecsidel, CESGA, Germinus, ATOS Origin, OpenTrends, GEC, UPCNet, Inter On Line, IOL, UOC, UVIGO, and UFV.

Coordinator: P. Artiga Calvo, Tecsidel S.A

Principal Researcher: M. J. Rodríguez Malmierca, CESGA **Financing:** Spanish Ministry of Industry, Tourism and

Commerce (Plan Avanza)

Project Code: TSI-020301-2008-9

Budget: 12,887.00 € **Period:** 2008-2009

Objectives: Services of integration for e-learning based on standards. This is a strategic project of the e-learning work

group of the INES technological platform.

T-Maestro

Partners: UVIGO and CESGA

Coordinator: M.J. Rodríguez Malmierca, CESGA

Principal Researcher: M. J. Rodríguez Malmierca, CESGA Financing: Regional Government of Galicia, Xunta de

Galicia

Project Code: 07TIC02CT **Budget:** 108.054,00 € **Period:** 2007-2010

Objectives: An intelligent tutor for the production of personalised learning contents adaptable to T-learning and M-learning

on MHP and DVB-H.

Parents as family vocational adviser for children -

Partners: Academy of Management (Poland), University of Oradea (Romania), Die Berater (Aus¬tria), Training 2000 (Italy), Associació Baobab (Spain), and CESGA (Spain)

Coordinator: Academy of Management

Principal Researcher: M. J. Rodríguez Malmierca, CESGA **Financing:** European Commission, Socrates-Leonardo

Programme

Project Code: 134247-LLP-2007-1-PL-Grundtvig-GMP

Budget: 39,681.00 € Period: 2007-2009

Objectives: The application of a methodology and specific ITC tools in order to provide support to parents in their role as advisors to their children regarding work and studies.

Red Latinoamericana de Capacitacion para la Industria

Lactea - REDLECHE

Partners: USC, FEPALE y CESGA Coordinator: J.M. Dónega, USC

Principal Researcher: M. J. Rodríguez Malmierca, CESGA Financing: Collaboration Agreement with the Galician

Regional Government, Xunta de Galicia

Budget: 5,514.00 € Period: 2007-2009

Objectives: Skill building for the Latin American dairy indus-

try.

Youth Employment Support - YES

Partners: Die Berater (Austria), Local Mission Agenais and Albret (France), Glotta Nova (Slovenia), Furthter Training Centre for the Saxonian Eco-nomy (Germany), Transfer (Slovakia), Reflexion Foundation (Netherlands), Meter Silesia (Czech Republic), and CESGA (Spain).

Coordinator: Die Berater

Principal Researcher: M. J. Rodríguez Malmierca, CESGA **Financing:** European Commission, Socrates-Leonardo

Programme

Project Code: LLP-LdV/TOI/2007/AT/0003

Budget: 29,248.00 € **Period:** 2007-2009

Objectives: The design and and provision of a support system based on ICT such as specific e-learning training for SME in order to try to improve the incorporation of youth who have not finished their studies into the workplace. This will include the analysis and the evaluation of e-learning models and will adequate the ITC to this context.

Standards based e-Learning Services Integration - SUMA

 $\textbf{Partners:} \ Tecsidel, CESGA, Germinus, ATOSO rigin, Open Trends,$

GEC, UPCNet, Inter On Line, IOL, UOC, UVIGO, UFV

Coordinator: PArtiga Calvo, Tecsidel S.A

Principal Researcher: M. J. Rodríguez Malmierca, CESGA **Financing:** Spanish Ministry of Industry, Tourism, and

Commerce (Plan Avanza)

Project Code: FIT-350503-2007-8

Budget: 13,313.00 € **Period:** 2007-2008

Objectives: I integration of e-Learning services based on standards. This is a strategic project of the e-learning work group

of the INES technological platform.

E-intervention

Partners: CESGA, USC, and UVIGO **Coordinator:** A. Gómez Tato, CESGA

Principal Researcher: A. Gómez Tato, CESGA

Financing: Galician Regional Government, Xunta de Galicia

Project Code: PGIDITo5TICoo101CT

Budget: 70,000.00 € **Period:** 2006-2009

Objectives: The development of a technological platform for

at-home gerontological attention.

Flexible and creative educational environments – EFELCREN

Partners: USC (Spain), Trinity College (Ireland), Centre of Information Technology (Lithuania), Ca'Foscarti University

of Venice (Italy), Haslev Seminarium (Denmark), Euneos

Corporation (Finland), and CESGA (Spain)

Coordinator: B. Cebreiro López, USC

Principal Researcher: M. J. Rodríguez Malmierca, CESGA **Financing:** European Commission, Socrates-Comenius

Programme

Project Code: 226552-CP-1-2005-1-ES-COMENIUS-C21

Budget: 54,625.00 € **Period:** 2005-2008

Objectives: The analysis and development of training proposals for flexible and creative educational environments in primary and secondary education. This will be accomplished by the use of the new ICT and the identification of new teaching strategies. Within the project, we also contemplate the creation of e-learning materials as welll as making those resources available to teachers.

e-learning opportunities for adult patients during hospitalisation in health-care institutions - e-HOSPITAL

Partners: Die Berater (Austria), Danube University Krems (Austria), ORT (France), Training Centre of the Saxonian Economy (Germany), Academy of Humanities and Economics (Poland), USC and CESGA (Spain)

Coordinator: H Bienzle, Die Berater

Principal Researcher: M. J. Rodríguez Malmierca, CESGA **Financing:** European Commission, Socrates-Grundtvig

Programme

Project Code: 225761 - CP -1-2005-1- AT - GRUNDTVIG - G1

Budget: 42,415.00 € **Period:** 2005-2008

Objectives: The analysis of the application of e-learning techniques to adult patients hospitalised for long periods of time and to the production of guides and tools for teachers that

work in this environment.

TECHNOLOGYTRANSFER & E-BUSINESS

Improving regional policies related to innovation and the knowledge economy priority – ICHNOS PLUS

Partners: ANCITEL SARDEGNA, CESGA, VYSOCYNA, NORTH AEGEAN REGION, TARTU SCIENCE PARK, RUDA SLASKA INCUBATOR

Coordinator: P. P. Falco, Ancitel Sardegna

Principal Researcher: R. Basanta Cheda, CESGA

Financing: INTERREG

Project Code: 0415C1 - ICHNOS PLUS

Budget: 198,000.00 € **Period:** 2008-2010

Objectives: The basic objectives of ICHNOS PLUS are the optimisation of the application of this model to the three regions that are working on ICHNOS as well as the effectiveness of the transfer and deployment in other European regions.

VINDEIRA: Strategic associative action to improve the VG-CMMI software processes

Partners: SUMMA, Servicios de Ingeniería y Consultores SA, Brújula Telecom SA, AT4. Net Internet y Comunicación SL, ALTIA Consultores, Bahía Software SL, IGALIA SL, Aldaba Servicios Profesionales, LAMBDASTREAM SL, SATDATA Telecom SL, 2mares demil SL, Shylex Telecomunicaciones SL, Optare Solutions SL, Factoría de Software y Multimedia SL, and CESGA

Coordinator: R. Basanta Cheda, CESGA

Principal Researcher: R. Basanta Cheda, CESGA **Financing:** Ministerio de Industria, Turismo y Comercio

Project Code: FIT-340502-2007-10

Budget: 62,700.00 € **Period:** 2007-2008

Objectives: This is an associative strategic action orientated to technological excellence in the development of software by means of quality certification models (CMMI, SPICE).

Optimum design of the architecture of livestock exploitations' integral veterinary control system - XesveTIC

Partners: COMPUTER-3 S.L., CESGA, and AGACA **Coordinator:** C. Diaz Carrodeaguas, COMPUTER-3, S.L. **Principal Researcher:** R. Basanta Cheda, CESGA

Financing: Galician Regional Government, Xunta de Galicia

Project Code: 07MRU029E

Budget: 5,282.00 € **Period:** 2007-2009

Objectives: This is an optimum design for the architecture of an integral veterinary control system for livestock opera-

tions.

Joint Cooperatives Management - CoopTIC

Partners: Galician Association of Agrarian Cooperatives,

Computer-3 y CESGA

Coordinator: Computer-3, S.L

Principal Researcher: R. Basanta Cheda, CESGA

Financing: Galician Regional Government, Xunta de Galicia

Project Code: PGIDITo6RAGo25E

Budget: 24,000.00 € **Period:** 2006-2008

Objectives: The objective is to conduct research in order to determine the optimal design of the architecture of a system that permits product tracing for agricultural cooperatives.

VG-CMMI-SPICE

Partners: CESGA, SUMMA, Servicios de Ingeniería y Consultores S.A., Brújula Telecom S.A., AT4.Net Internet y Comunicación S.L., ALTIA Consultores S.L., BAHIA Software S.L., IGALIA S.L., ALDABA Servicios Profesionales, LAMBDASTREAM S.L., SATDATA Telecom S.L., 2MARES DEMIL S.L., SHYLEX Telecomunicaciones S.L., OPTARE Solutions S.L., and Factoría de Software e Multimedia S.L.

Coordinator: R. Basanta, CESGA.

Principal Researcher: R. Basanta, CESGA.

Financing: Spanish Ministry of Industry, Tourism, and

Commerce.

Total Budget: 670,754.00 € **Budget CESGA:** 62,802.00 €

Period: 2007 - 2009

RESEARCH NETWORKS & TECHNOLOGICAL PLATFORMS IN WHICH CESGA ACTIVELY PARTICIPATED IN 2008

CAPAP-H

High Performance Computing Network on heterogeneous parallel architectures

Members: 13 research groups from Spanish Universities and

CESGA

Coordinator: Enrique S. Quintana-Ortí, Universidad Jaime I

de Castellón

Financing: Ministerio de Ciencia e Innovación

URL: http://capap-h.uji.es/

Objectives: The objectives include the facilitation of the exchange and transfer of knowledge and experiences among the different research groups interested in CAPAP-H in a way that will promote cooperation among them. Another is to assist with the consolidation and dissemination of existing knowledge concerning CAPAP-H. A third objective is to promote the development and use of new techniques and methodologies that make CAPAP-H possible, principally along those lines in which the Partners are researching.

Another objective is to optimise and to organise individual efforts in order to identify and reach the most ambitious objectives, such as, consolidating the community that works in this environment in a way that will augment their specific weight at an international level, in order to later obtain its own identity in the European Research Space.

Another goal is to tighten the relations between the participating groups in the network as well as other public and private organisations, national or international, that collaborate in the development of publications, projects, conferences, and seminars.

CyTED-Grid

Grid Technology for Iberamerican Project of Science and Technology for Development

Members: UCM, UAB, UDELAR, UH, UNLP, UNA, UDEA, UNAM, UNSA, UMAG, ESPOL, UPV, UDC, ULA, UNEB, UOC, UFCG, UNSL, UP, USB, and CESGA

Coordinator: Francisco Tirado Fernández, Universidad Complutense de Madrid

Financing: The Iberamerican Project of Science and Technology for Development (CYTED)

URL: www.cytedgrid.org

Objectives: The creation of a human and technological infrastructure among those different Latin American groups that are potential users of GRID technology, that are dedicated to the field of computing, and that have experience in the area of scientific applications. The construction of a new GRID network as support for different applications for analysis up to the point that the available solutions are valid and the new developments that will provide the necessary functionality are proposed.

eBSN

European e-Business Support Network

Members: Over 160 Business Associations, University based research groups, Industries, Government bodies, Technology Centers throughout Europe.

Coordinator: Iordana Eleftheriadou, European Commission

Financing: European Commission

URL: http://ec.europa.eu/enterprise/e-bsn/

Objectives: eBSN was founded in order to improve cooperation and raise synergies within the European space of commercial community policy. eBSN activities focus on the creation of networks and the exchange of best practices. More concrete

objectives are listed below.

- Organise meetings of managers in order to adopt decisions in the field of business with the objective of sharing information and discussing the orientation to enlight strategic policies,
- Provide a platform for the coordination of policies among European Union members,
- Provide a "one-stop-shop" in order to obtain information about initiatives and regional, national, and European financing possibilities for SME, and
- Organise special meetings of governmental experts as a platform for sharing practical experience and to identify future challenges.

Red Española de e-Ciencia

Spanish e-Science Network

Members: ACUALSA/UAL, ADE/UJ, ARCO/UNEX, ARCOS/ UC₃M, ArTeCS/UCM, ATC/UCBIFI/UNIZAR, BSC, CESCA, CESGA, CeSViMa, CETA-UAA/CIEMAT, CETA-USE/CIEMAT, CFM/CSIC-EHU, CGG/CEIT, CICA, CIEMAT, CNB/CSIC, CNDS/ UPC, DELi/DEUSTO, DIPC/UPV, DPCS/UOC, e-CA, EEC/UNEX, ESAC-CSG/ESA, ETSF/UPV, Fi2cat, GAC/UDC, GAC/UMA, GAC/USC, GACSO/UAB, GASDS/UCM, GB/CIPF, GB/UPVLC, GCC/INTA, GCOC/UPVLC, GEA/UNEX, GFA/UGR, GFAE/USC, GFEAE/UB, GFTAE/UGR, GFTS/FATRONIK, GGC-IFIC/CSIC, GGE/UVEG, GGRID/UPNA, GHPC-CTI/CSIC, GIDS/UPM, GMA/UC, GMI/UPVLC, GMT/UPVLC, GQMA/UPVLC, GQT/ UPV, GQTC/UVEG, GRTC/US, GRV/EUVE, GRyCAP/UPVLC, GTC/UPVLC, i2BASK, I3A/UNIZAR, IFAE/UAB, IFCA-GRID/CSIC, IFISC/CSIC, IMDEA-Networks, IMDEA-Software, IRAM/UGR, ISG/UPV, LabGP/IBMCP, LMFC/UPM, LNF/CIEMAT, MICINN, MTC-LABSIS/USC, NEIKER, OEG/UPM, PIC, PRHLTG/UPVLC. PURG/UVEG, QCyCAR/UCLM, RAAP/UCLM, REBIUN, RedIRIS, RETICS/UCLM, SAVIE/UPVLC, SBG, SCompBio/CNIO, SDBG/ ESI, SGI/IZO/EHU, SPAS/UAH, TIC/CIEMAT

Coordinator: Vicente Hernández García, Universidad Politécnica de Valencia

Financing: Spanish Ministry of Science and Innovation

URL: http://www.e-ciencia.es/

Objective: The Spanish e-Science Network is designed to organise, coordinate, and move e-Science forward in Spain, as well as to constitute a tool that is complementary to projects, infrastructure programmes, and other resources within the e-Science environment. The general objectives are listed below.

- To have an e-Science infrastructure coordinated among di-

fferent institutions that facilitates user access from different areas of science to supercomputing and GRID infrastructure resources.

- -To improve Spanish participation in European e-Science proiects.
- To improve scientific excellence by means of access to e-Infrastructures.
- -To create an e-Science culture by way of training, dissemination, and promotion of the e-Science concept.
- To consolidate scientific relations with European countries, particularly with Portugal, and with other non-European countries of strategic interest for Spain.

eMOV

Spanish Platform of Wireless Communications

Members: Over 150 Industrial Companies, Professional Associations, Universities, and Research and Technology Centres.

Coordinator: Luis Jorge Romero, Telefonica

Financing: Spanish Ministry of Industry, Tourism and

Commerce, Ministry of Education and CDTI.

URL: http://www.idi.aetic.es/emov/

Objectives: The objective of the Spanish Platform of Wireless Communications (eMOV) is to contribute to the strengthening of the agents who play a role in the development of mobile and wireless systems and services. In the end, this should have the effect of improving the economic situation of the sector in terms of the creation of employment and the generation of wealth, as well as to contribute to raising productivity and well-being through the adoption of mobile systems and services in other sectors and in Spanish society as a whole.

GIS-REDIX

Geographic Information Systems Galician Research Network

Members: Laboratorio del Territorio (LaboraTe) – Universidad de Santiago de Compostela, Instituto de Biodiversidad Agraria y Desarrollo Rural (IBADER), Arquitectura de Computadores - Universidad de A Coruña, Arquitectura de Computadores - Universidad de Santiago de Compostela, VideaLab – Universidad de A Coruña, Laboratorio de Ingeniareía Cartográfica (CartoLab) – Universidad de A Coruña, Investigación Socio-espacial SIG-T-Universidad de Santiago de Compostela, Sprawl City-Universidad de A Coruña, SITGA, and CESGA.

Financing: Galician Regional Ministry of Education, Xunta

Coordinator: U. Fra Paleo, Universidad de Santiago de Compostela

URL: http://sit.usc.es/redix/index.html

Objectives: REDIX is a netwrok of research groups and organisations interested in the development, dissemination, and application of the GIS to science, technology, and research methodologies.

GRIDCHEM

Grid Computing in Chemistry

Members: Research institutions from 18 Europan states. **Coordinator:** Hans Peter Luthi, Physical Chemistry Laboratory
- ETH Zurich

Financing: COST (European Cooperation in Science and Technology)

URL: http://w3.cost.esf.org/index.php?id=189&action_
number=D37

Objectives: One objective is to facilitate the creation and utilisation of distributed computing infrastructures (Grid) in chemistry with the goal of taking chemical computational models and simulations to new frontiers of complexity and to a new time-to-solution regime. This will stimulate innovation in the creation and manipulation of chemical knowledge. The fields of application take on traditional chemistry, material science, molecular biology, and environmental chemistry. The presence of chemistry in the network will also have an impact on the development of middleware and the creation and availability of network infrastructures. The final objective is to facilitate and accelerate the transition of researchers to the computational science infrastructure of the XXI century, which should in turn make European Computational Chemistry much more competitive.

Mathematica Network - Consulting and Computing of Galicia

Members: 14 research groups in applied mathematics and computing from Galician Universities and Technology Centres.

Coordinator: Wenceslao González Manteiga, USC.

Financing: Galician Regional Ministry of Education, Xunta de Galicia

URL: http://mathematica.nodo.cesga.es/content/
view/13/27/

Objectives: Promote research and working relationships among members, as well as transfer of math and computing methods and technology to industry and administrations.

INES

Spanish Technological Platform of Software and Services

Members: 136 Spanish Telecom Companies, Industries, Business Associations, Technology Centres, and Universities.

Coordinator: Santiago Ristol, Atos Origin

Financing: Spanish Ministry of Industry, Tourism, and

Commerce

URL: www.ines.org.es

Objectives: The objective is to define a strategic research programme adapted to Spanish necessities and capacities, including proposals for unique, scientific and technologic strategic projects setting medium and long term goals.

INSME

International Small and Medium Enterprise Network

Members: Members from 5 continents: governmental bodies, international organizations, international non-profit organisations and representatives of 36 networks and their intermediaries that work in the field of innovation and the transfer of technology to PYMEs.

Coordinator: Paolo Anselmo, Italian Business Angels Network (IBAN)

Financing: OECD. UNIDO. **URL:** http://www.insme.org

Objectives: To create a permanent forum for the promotion and strengthening of multilateral dialogue between stake holders.

- -To develop "North-South" interaction and cooperation.
- To facilitate knowledge exchange and the arousal of synergies and economies of scale.
- -To indirectly support the competitiveness of the SME at local, national, and international levels.

RED-GHPC

Galician High Performance Computing Network

Members: Grupo de Antenas-Universidad de Vigo, Grupo de Arquitectura de Computadores-Universidad de A Coruña, Grupo de Arquitectura de Computadores - Universidad de Santiago de Compostela, Grupo de Física de la Atmósfera y el Océano- Universidad de Vigo, Grupo de Física no Lineal-Universidad de Santiago de Compostela, Grupo Integrado de

Ingeniería-Universidad de A Coruña, Grupo Laboratorio de Sistemas - Universidad de Santiago de Compostela, Grupo de Métodos Matemáticos y Simulación Numérica en Ingeniería y Ciencias Aplicadas-Universidad de A Coruña, Grupo de Química Teórica y Computacional-Universidad de Santiago de Compostela, Grupo de Resolución Numérica de Ecuaciones en Derivadas Parciales-Universidad de Santiago de Compostela, Centro de Investigación e Información Ambiental (CINAM), and Centro de Supercomputación de Galicia (CESGA)

Coordinator: Ramón Doallo, UDC

Financing: Galician Regional Ministry of Education, Xunta de Galicia

URL: http://ghpc.udc.es/

Objectives: The Galician Thematic network of High Performance Computing (Red G-HPC) is designed to put in contact and to propitiate collaboration among groups and research centres of the University System of Galicia (USG) and users of HPC technologies (High Performance Computing). The Red G-HPC network has two fundamental purposes:

- 1. To promote interdisciplinary research collaboration among groups integrated in the network, as well as other research groups or companies that may be interested in research and/ or in the development of technologies that require supercomputing or other HPC techniques.
- 2. The organization of training courses, conferences, seminars, or workshops that help to disseminate knowledge concerning HPC technologies.

REDOAPA

Thematic Network for Designs and Objects for Learning

Members: Universidad a Distancia de Madrid, Universidad Complutense de Madrid, Universidad de Alcalá, Universidad de Alicante, Universidad de Almería, Universidad de Barcelona, Universidad de Cádiz, Universidad de Castilla La Mancha, Universidad de Mondragón, Universidad de Murcia, Universidad de Oviedo, Universidad de Sevilla, Universidad de Valladolid, Universidad de Vigo, Universidad del País Vasco, Universidad Francisco de Vitoria, Universidad Politécnica de Madrid, Universidad Pontificia de Salamanca, Universitat Oberta de Catalunya.

Coordinator: S. Sánchez, Universidad de Alcalá de Henares

Financing: Ministry of Education and Sciene **URL:** http://www.cc.uah.es/ie/projects/redaopa/

Objectives: REDAOPA began in 2004 with the objective of continuing the annual multidisciplinary meetings that were

initiated in the SPDECE'04 symposium. The thematic network strives for permanence in order to continue the provision of support for the different aspects associated with electronic teaching and learning with an emphasis on the reutilisation of resources. Actually, aspects of interest for the network members are, among others:

- -The reusability of open educational resources,
- -The sharing of designs for learning, a step beyond that of the contents.
- -The codification and classification of theories of instructional design, and
- The creation of models of quality for digital educational resources.

RGB

Galician Bioinformatics Network

Partners: Medicina Genómica-Universidad de Santiago de Compostela, Grupo de Poblaciones Genéticas y Cyto-Genetica-Universidad de Vigo, Grupo de investigación de Sistemas Complejos-Universidad de Santiago de Compostela, Grupo de Bio-Farmacia-Universidad de Santiago de Compostela, Grupo de MathBioinfo-Universidad de Santiago de Compostela, Grupo de Red de Neuronas Artificiales y Sistemas Adaptativos-Centro de Informática Médica y Diagnóstico Radiológico-Universidad de A Coruña, CESGA

Coordinator: A. Pazos Sierra, UDC

Financing: Galician Regional Ministry of Education, Xunta

de Galicia

URL: http://rgb.cesga.es/

Objectives: The RGB is an initiative that has the objective of strutcturing and integrating research and teaching activities in Bioinformatics that take place in Galicia.

VINDEIRA

The Galician ICT Technological Platform

Members: Over 90 members from industry, ICT business associations, business angels, universities and technology centres

Coordinator: A. Rodríguez del Corral, R Cable

Financing: Regional Government of Galicia, Xunta de

Galicia.

URL: http://www.vindeira.org/

Objectives: Vindeira is defined as a meeting point for all agents associated with the ICT sector in Galicia and whose future depends in great measure on the capacity to maintain

and create competitive advantages by means of the development of research and innovation activities. The probabilities of maintaining a sustainable and prosperous ICT industry in Galicia are practially nonexistent without a strategy of innovation that is appropriate in a sector which is particularly globalised such as ICT.

The platform was born of a spirit that is open to the integration of all of agents involved in technological development and in the exploitation of the Galician ICT with a desire for continuity into the future.

NESSI

European Software and Services Initiative Network

Members: 366 members of which 81 are large ITC companies, 91 are SME, 180 are academic institutions, 22 are partners of which 18 are from industry, 3 are from the academic world, and one is from the open source community.

Coordinator: V. Pevtschin, Software AG **Financing:** European Commission **URL:** http://www.nessi-europe.com/

Objective: NESSI's is fundamentally service oriented. Many definitions of service exist in many different contexts. However, all are based on the same principle: the consumer of services is not the owner of the services and for that reason it is not necessary for them to be concerned about the aspects generally associated with property, such as infrastructure, technology, integration, and maintenance. They only have to select a service that satisfies their business needs. Businesses concentrate more and more on activities that can have competitive advantages. They are able to obtain certain support capacities as a service to specialised providers. In this context, NESSI will transform the EU economy by means of business models that are Service Oriented.

RETGALIA

Galician Technological Centre Network

Members: 21 technological centres of Galicia **Coordinator:** Javier García Tobío, CESGA

Financing: Galician Regional Government, Xunta de Galicia

URL: http://www.retgalia.org

Objective: To coordinate the Technological Centres that operate in Galicia in a way that all potentialities will be taken advantage of, thereby contributing to the achievement of total quality in the Galician system of innovation. The intention is to also support the development of specific actions for

dissemination of knowledge, information, and promotion of science and technology as well as the offering of services to businesses.

NEURONA

Galician Technological Platform Network

Members: 14 technological platforms of Galicia

Coordinator: Salustiano Mato de la Iglesia, Dirección Xeral

I+D+i, Xunta de Galicia **Financing:** Xunta de Galicia **URL:** www.redeneurona.org

Objective: The strategic objectives of Neurona are:

- To establish a meeting forum for the exchange of information and experiences among the agents associated with the Galician Technological Platforms.
- To promote and facilitate collaboration between agents of the Galician Tecnological Platforms in order to develop joint research projects.
- To create a unique institutional image of Research, Development, and Innovation in Galicia for the key sectors of the Galician economy.

Elearningeuropa.info

Members: European Union e-Learning community and stake

holders.

Coordinator: Maria José Rodríguez Malmierca (CESGA)

Financing: European Commission **URL:** http://www.elearningeuropa.info

Objective: To promote innovation in e-learning throughout

the lifetime.

PTAG

Audiovisual Industry Technology Platform

Members: The Galician Audiovisual Technological Plaform is composed of businesses that are active in strengthening RTD and innovation, universities, technology centres, and other entities committed to technological progress in the audiovisual industry of Galicia, as well as managers of policies and grant programs, and the business associations related with the sector.

Coordinator: Xunta de Galicia / Galician Audiovisual

Financing: Xunta de Galicia

URL: http://www.idea.org.es/?q=gl/node/121

Objective: The Technological Platform i +dea is an open work

forum for the Galician audiovisual industry and research entities and other organisations related to their scientific and technological progress. The strategic objectives are presented below.

- To elaborate a consensual vision of the priorities of the RTD of the sector.
- To develop a work program that will stimulate technological advancement in the sector and exploit new business opportunities
- To achieve better collaboration, coherence, and critical mass in RTD activities that are promoted for the sector.
- To insert the strategic objectives of the sector into the organisations and forums of influence regarding RTD material.