



Project Report

Project Number: 288279	Project Acronym: PICTURE	Project Title: Policy dialogue in ICT to an Upper level for Reinforced EU-EECA Cooperation
----------------------------------	------------------------------------	--

Instrument: SUPPORT ACTION	Thematic Priority International collaboration
--------------------------------------	---

Title Updated ICT RTD Fact Sheet about Georgia
--

Start date of project: December, 1st 2011	Duration: 30 months
---	-------------------------------

Organization name of lead contractor for this report: Georgian Research and Educational Networking Association (GRENA)	Document version: V1.0
--	----------------------------------

Dissemination level (Project co-funded by the European Commission within the Seventh Framework Programme)		
PU	Public	X
PP	Restricted to other programme participants (including the Commission)	
RE	Restricted to a group defined by the consortium (including the Commission)	
CO	Confidential, only for members of the consortium (including the Commission)	

Authors (organizations) : Mr. Givi Kochoradze (GRENA)

Abstract : This document is an updated fact sheet about Research and Development in Information and Communications Technology in Georgia. The original document had been created under EXTEND project.
--

The Republic of GEORGIA

Research and Development in Information and Communication Technologies

GEOGRAPHICAL LOCATION: Georgia situated at the juncture of Eastern Europe and Western Asia

AREA: 69,700 km²

POPULATION: 4.436 million people

CAPITAL: Tbilisi

BORDERING COUNTRIES/REGIONS: Black Sea / Russia / Turkey/ Armenia / Azerbaijan.

Research and Development (R&D) is coordinated by Georgian National Science Foundation and carried out by Georgian state and private universities, high education schools, research institutes of the former Academy of Sciences of Georgia, and private companies, SMEs, NGOs in the field of ICT (especially in telecommunication area), which are mainly working as a service and provider companies.

According to the reforms conducted in the country in 2004 Department of S&T was reorganized in Georgian National Science Foundation (GNSF) and the function of financial support of science was delegated to this new structure. From 2010 GNSF transformed into Shota Rustaveli National Science Foundation. From the Georgian Academy of Sciences remained only Presidium of Sciences. The scientific sectors were abolished at all state universities and at present academic position combine the research activity as well. Three stage degrees of bachelor, master and doctor were adopted.

All scientific institutions and universities moved on grant system (which is periodically being organized by GNSF on the competitive bases). At present the process of joining of scientific institutions with universities was completed. Several years ago Georgian National Communications Commission - GNCC was created, which has the consultative structure.

For stable and secure Communication among the governmental bodies Georgian government has launched Georgian Governmental Network (GGN project) that has started in November 2006. The modern technologies based GGN provides the development of IP protocol-supported, integrated and protected VPN type of computer network all over the Georgia that enables the online interconnection of governmental bodies, exchange of any type of digital data between central and regional agencies, considerably decreasing the communication costs of state authorities, allowing the use of high-speed, as well as that of the ordinary internet access at affordable rates. The GGN is the first and the most prominent step towards implementation of electronic governance in Georgia.

Main ICT R&D Institutions

Institute of Cybernetics www.cybernet.ge <ul style="list-style-type: none"> • Department of Mathematical Cybernetics; • Department of Stochastic Analysis and Mathematical Modelling; • Department of the Applied Pattern Recognize Systems; • Department of Biocybernetic Systems; • Department of the Computer Engineering Elements and Nanomaterials; • Department of Coherent and Quantum Optics; • Laboratory of the Information Holographic Recording and Processing; • Department of the Optically controlled Anisotropic Systems. 	Main Achievements <ul style="list-style-type: none"> • Elaboration of the methods of modeling and prediction of stochastic processes; • LCD technologies (Researches in this area have been awarded by Frederic Ives medal); • Pacemaker activity in neuron, dolphin and bat sonar modeling (granted by USA naval researches); • Creation of the laser canceroscope.
Muskhelishvili Institute of Computational Mathematics www.compmath.ge <ul style="list-style-type: none"> • Department of Computational Methods • Department of Operations Research and Discrete Problems • Department of Programming and Informatics 	Main Achievements <ul style="list-style-type: none"> • Application of information and code theory to conflictology. • Elaboration of cryptograph systems; • Effectively realizable computational algorithms for some classes of problems • Elaboration of new models of continuous and discrete problems of operational calculus and their application to various fields of economics;
Institute of Control Systems http://www.ics.org.ge <ul style="list-style-type: none"> • Optimal problem management • Lingual and speech systems • Information transfer • Machine intelligence 	Main Achievements Complex information processing, quant computations.
Georgian Technical University www.tgu.ge <ul style="list-style-type: none"> • Faculty of Informatics and Control Systems 	Main Achievements Creation of LMS systems, Moodle open sou community-based tools for learning, etc.

Some ICT Priorities

- High Performance Computing and Networking;
- Operations research and discrete mathematics;
- Stochastic processes and applied statistics;
- Research focuses on new technologies in decision-making (on the basis of fuzzy logics);

- Cryptograph systems, methods of numerical solution of technical problems (e.g. plane and spatial elasticity theory, shell theory, quantum field theory);
- Maximum inequalities for rearrangements; applications to functional analysis and scheduling theory;
- Generalized random elements and stochastic integrals in infinite dimensions, and best approximation and characterization of inner product spaces;
- Quantum computations; automated systems of pattern recognition;
- Photo-physical effects in photonics and quantum optics;
- Optical and photo-electrical properties of nano-structures, and optical chemistry, etc.

Cooperation

Projects supported by EC and European organizations:

- Deer Leap project (Ministry of Education & Sciences of Georgia);
- IncoNet EECA project (GNSF – Georgian National Science Foundation);
- e-Infrastructure for regional e-Science (SEE-GRID-SCI) project (GRENA);
- Black Sea Interconnection project (EC project was implemented by GRENA);
- IDEALIST 2011, IDEALIST 2014 projects (ICARTI).

Projects supported by TACIS:

- Development of e-Societies in South Caucasus (was carried out by TSU);
- European studies project (was carried out by GRENA and TSU);
- “Creation of effective model of science administration, review of EU experience and elaboration of recommendations for science policy” (GNSF and the Ministry of E&S of Georgia).

ENPI Twinning projects:

- Promote the strengthening of E-Governance in Georgia (Ministry of Justice of Georgia);
- Capacity Enhancement for Implementing the Bologna Action Lines in Georgia (Ministry of E&S of Georgia)

NATO projects:

- Virtual Silk Highway (GRENA);
- Networking infrastructure project EAP.NIG (GRENA).