# **REFLECTIONS ON NATIONAL ICT STRATEGIES IN ALBANIA**

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#### Abstract

National ICT Strategies in Albania are drafted under the pressure of international agendas and visions of individual political leaders, without a common political consensus. This is reflected in the way strategies are drafted and implemented. Two strategic documents are adopted by different governments. The first one failed to be implemented due to lack of political interest. Part of the second draft, while not formally approved, are in implementation following political objectives of government. A considerable progress is done already. The process in its totality shows signs of lack of harmonization and sustainability.

### Introduction

In a global political climate of promoting ICT for development and democracy, compilation of national strategies seem to be a precondition for collaboration with many international actors, even in case that its need is not felt by local policy-makers. The role of ICT in developing and democratic processes is widely discussed by many researchers and a contradictory opinion on ICT's role and impact seems to prevail [Frasheri 2002].

ICT emerged in a developed world and globalization processes exported it in developing countries. As result ICT becomes a kind of "inevitable luxury", and at the same time it creates a feeling of "cargo cult" – people begin to think that simply by using computers problems will be solved [Harris 1998][Kransberg 1991]. It requires lot of efforts for people to learn that it is not true, as it happened with Stability Pact structures when at least discovered that it is not possible to solve institutional problems simply by using computers [ESEE 2003].

While developed and developing worlds collide, we see the impact of difference of rationalities [Avgerou 2000] when living habits and means and technologies of one world are somehow "alien" imported into the other. Even in case of useful technologies as ICT, the difference of rationalities makes their deployment processes and their impact in one place different from the other. In particular, in developed countries we see that political visions on ICT are too much dependent on individual visions of some leader. As result there is missing of continuity in deployment processes and the development phenomenon is similar with a "Brownian movement", with high cost for the country.

#### National ICT Strategy of 2003

In a context of pressure from outside, in 2003 Albanian government accepted and approved the strategy draft prepared by international actors in collaboration with local experts. In 2005 the new government, being enthusiast on ICT, decided to revise this draft and at the same time strengthened the measures for its implementation.

The first draft was compiled by a team of foreign and local experts from different institutions, funded by international donors. The first draft was presented in a national conference, afterwards different sections of the document were discussed in details in separate sessions for main topics –governance, education, business etc. The improved draft was approved by government at beginning of 2003 and one of ministers was charged with its implementation. Together with the draft of strategy, three other

documents were prepared: e-readiness of the country, development indicators, and the roadmap for implementation of the strategy.

Strategy of 2003 [ICT Strategy 2003] has 92 A4 pages and is published in both Albanian and English as book and a CD. It was well structured, clearly separating priorities, objectives and actions. It is divided in five chapters covering main sectors:

- Government as Promoter, Legislator and User of ICT
- Use of ICT for Education, Research, Health and Social Services
- Building Infrastructure needed for an Open Information Society
- Accelerating Economic Growth in the Private Sector
- Ensuring Relevance of ICT Strategy within a Regional and European Context

For each sector specific goals and necessary actions are described. The document is accompanied by two other documents: an E-readiness Assessment and a Roadmap. The Roadmap simply presents sectors, goals and actions as a table, with some recommendations about deadlines in time. While the E-readiness Assessment was the most problematic document difficult to be compiled. Organizations collecting statistical data in Albania had no specific information on ICT; even the number of computers was evaluated based on small surveys and unreliable data from other sources. One of conclusions of the strategy itself was the need for collection of ICT related data, a goal still not achieved in satisfactory level.

Implementation of the strategy failed. Strategy implied creation of a consultative body for the government, with representatives of different communities. This body was created but composed by some of ministers – ministers serving as consultants of council of ministers (!). Actions defined in the roadmap were not seriously followed, probably except the creation of a government metropolitan network and some Internet services, always with the funding of international actors. A minister without portfolio was charged with the implementation of the strategy as an extra task, practically neglected. It was clear that government had other priorities instead of ICT; and all was done quite formally as response to the external climate.

#### National ICT Strategy of 2007

In 2005 the new government decided to revise the strategy. For a long time its leaders were sensitive about ICT. The ministry covering telecommunications was charged with the task of revising the strategy. Some international organizations and foreign experts invited to help for this purpose. Differently from the first time, experts from other local institutions were not involved and no public consultancy organized.

In 2007 the relevant ministry informed with an official letter other institutions about the existence of the draft in its web site and inviting for comments. Until mid 2008 there is no sign for a formal approval of this second draft. Nevertheless, many of its ideas are already in implementation process, and probably the hurry on its implementation may be a problem by itself.

The new strategic document of 2005-2007 [ICT Strategy 2007] has only 54 A4 pages published in the website of the relevant ministry. The new strategy was not based in the critics of the first one but drafted from the scratch and it is more government-oriented. It offers also some evaluation of the costs for its implementation.

The draft has five chapters organized by thematic:

- General Overview
- Vision, Priorities and Objectives

- Policies
- Requested Resources
- Accountability, Monitoring and Assessment

First chapter includes a general description of ICT situation in the country, playing the role of Ereadiness Assessment covering main sectors: ICT indicators; ICT regulation; e-commerce; egovernment; education and research; local governance, employment, and ESEE obligations.

Visions, priorities, objectives and policies, despite their repeating formulation, match more or less with the sectors explicitly mentioned in the first chapter. In this draft concepts are confused with each other, the same words are periphrased for priorities, objectives and policies. Some objectives are fuzzy, ambiguous or even unrealistic. There are mentioned: monitoring of ICT; public relations; promotion of ICT; regulatory environment; modern government; e-commerce and concurrency; human capacities; education and research; health care; juridical system; and digital content.

Requirements for resources presents in a table an evaluation of financial resources requested for the implementation of the strategy; and a description of running projects in different institutions of public administration.

The last chapter includes several tables with definitions, indicators, and a roadmap for implementation of the strategy.

Introduction of ICT and Internet in schools takes a particular place in the strategies of government. It is mentioned in the strategy draft, and at the same time a special master-plan is prepared, aiming to complete with labs and Internet connectivity all schools of the country within 2008.

#### **Comparing two Strategies**

It is possible to match somehow of both strategies. In a synthetic mode both strategies are compared in the following table.

No.	ICT STRATEGY GOALS 2003 - ICT STRATEGY PLAN 2003	ICT STRATEGY GOALS 2007 - ICT STRATEGY PLAN 2007
1	<ul> <li>Pro -Active, Well-Coordinated National ICT</li> <li>Policies</li> <li>Action plan, Coordination and Follow-up of ICT strategy</li> </ul>	<ul> <li>Awareness campaign in communication media</li> <li>Information for decision-makers, understanding profits from ICT, getting support</li> </ul>
2	<ul> <li>Creation of ICT-Supportive Legislative</li> <li>Environment</li> <li>Development of e-legislation and regulatory mechanisms</li> </ul>	<ul> <li>Wide and modern regulatory system</li> <li>Laws for information, e-commerce, IPR, juridical capacities, regulatory organs, define by law what is ICT</li> </ul>
3	<ul> <li>Effective, Transparent, Responsive</li> <li>Government and Public Services</li> <li>E-government services, interactive websites, local governance, promotion and training</li> </ul>	<ul> <li>Policies for modern civil services</li> <li>Strengthening of juridical system</li> <li>E-gov services, transparency, accountability, implementation of eSEE programme, government portal, efficiency for the law court</li> </ul>
4	<ul> <li>Basic Computer Literacy and ICT Education for all</li> <li>Basic computer literacy, certification, ICT in non ICT subjects, general awareness</li> </ul>	<ul> <li>Increase of human capacities</li> <li>Improvement of teaching, Albanian Internet, concurency in informatical economy, elemination of unemployment, increase of research and its connection with main flow of science and technology, investments in technology</li> </ul>

5	<ul> <li>Cadre of Advanced ICT Specialists Education and Research in ICT</li> <li>Certification of higher level ICT education, ICT in universities, vocational training</li> </ul>	
6	<ul><li>ICT in Health and Social Services</li><li>ICT health and social services, end-user devices for medical and social care, training</li></ul>	<ul> <li>Computerization of public healthcare system</li> <li>Improvement of healthcare using ICT, computerization, management systems, insurances, services on line, telemedicine</li> </ul>
7	<ul> <li>Supporting Development of Locally Relevant Content and Applications</li> <li>Internet content and web portals, software accessibility</li> </ul>	<ul> <li>Community connectivity for services country- wide</li> <li>Public services in all country, participation in economic social political cultural life, empower local communities, decentralization</li> <li>Preparation od digital content for Albanian Internet</li> <li>Incentives for online information and services, increase of information providers with address ending in ".al"</li> </ul>
8	<ul> <li>Creation of a competitive, liberalized</li> <li>telecommunications sector</li> <li>Privatization, competitive market,</li> <li>independent regulatory authority, 3rd</li> <li>generation mobile, incentives for new</li> <li>players</li> </ul>	Regulatory environment for opportunities, public relations for ICT lead by government - Deregulation of frequencies, competitiveness, connectivity for all, national base support network, telephonic
9	<ul> <li>Development of the ICT Sector as a</li> <li>Production Sector</li> <li>Favorable climate for the high-tech sector, permanent business forum, technology parks and business incubators, education, training</li> </ul>	services, objects of connectivity of communities in all the country, decrease of connectivity costs, expansion of government network. ICT in private sector and agriculture, blooming bussiness sector.
10	<ul> <li>Inexpensive, fast and secure ICT infrastructure throughout Albania</li> <li>Country wide infrastructure, Academic Networks, government network, Internet in schools, public access points, advanced technologies</li> </ul>	<ul> <li>Development of ICT infrastructure of high speed</li> <li>Information and services for all, national cohesion, connection of Albanian base network with the Internet of EU and region, collaboration to increase necessary regional base technologies to profit from scale economy of the region</li> </ul>
11	<ul><li>Supporting Electronic Business</li><li>Business trade portal, Affordability of equipment, Public-Private, Training</li></ul>	<ul> <li>Competitiveness of private usiness</li> <li>Strengthen ICT industry, private-public, associations with foreign companies, foreign investments and know-how transfer, incentives for R&amp;D, e-agriculture, online procurements</li> </ul>
12	Active participation in SEE regional Initiatives - Participation in e-SEE Europe and regional	Implementation of eSEE and bSEE recommendations - Unique informatics space for SEE,

	projects	innovation and investments in research and education, information society for all
13	Active participation in EU Initiatives - eEurope+ and CEEC strategies, Participation in ICT funding of EC	<ul> <li>Tools for regional and eSEE/bSEE</li> <li>collaboration</li> <li>Collaboration for regional network and SEE</li> <li>activities, empowering SEE, EU integration</li> <li>and interoperability</li> </ul>
14	<ul> <li>Monitoring of Albanian ICT Development in Regional and European Context</li> <li>Scenarios, indicators, roadmap, objectives, outputs, quantitative statistics of ICT</li> </ul>	<ul> <li>Status analysis and monitoring of ICT</li> <li>Needs and conditions, comparative indicators, priorities and needs</li> </ul>

As seen in the table, despite reformulation, principles remain the same in both strategic drafts. Differences in the second draft are more related with concrete visions of actual political leaders.

#### **Implementation of Strategic Objectives**

Implementation of strategic goals is going on for a long time, even before drafting a formal strategy. Formal strategic goals are a mirror of actual world-wide actual and perspective development. The role of the strategy would be to coordinate actions in order to lead in a stable, harmonized and sustainable nation-wide system.

Projects for implementation of ICT systems, independently from strategic documents, include:

- Partial liberalization of telecommunications market
- Expansion of mobile telephony country-wide
- Private Internet providers in major urban centers
- Banking systems in private banks, and beginning of Internet banking services
- Specific management systems in certain private companies
- Laboratories and Internet connectivity in some schools
- Local networks and scientific applications in universities
- Local networks in part of public administration, including some metropolitan connections and Internet services
- Information systems in critical sectors as central taxes, customs offices and police.

The strategy document of 2003 was formally approved but no concrete steps were undertaken by government. The document of 2007 is still not formally approved, but government is working to implement ICT in critical sectors. Government projects with important ICT components are funded with about 64 million €UR mainly from international donors (data based on the draft strategy of 2007):

- Deepening the liberalization of telecommunications market, including completion of privatization of incumbent fixed operator
- Legislation for electronic services in public procurement, electronic certificates, electronic payments, and electronic surveillance.
- Creation of National Agency for Information Society and National Center for Registration of Businesses
- Deployment of the site for electronic public procurement
- Launch of online services to help tax payment from businesses
- Adoption of Automated SYstem for Customs Data (ASYCUDA) in customs.

- New electronic civil status registry
- Preparation for smart identity cards and deployment of electronic certificates
- Planning of reorganization of address system in urban centers
- Remote access to the database of Ministry of Justice arranged for other high level institutions.

Special attention is given to introduction of ICT in schools, aiming the whole pre-university education system in the country. The initiative is formalized in a master-plan [E-schools 2006]. The objective is to introduce ICT and Internet in all schools of the country, in a period of three years terminating at the end of 2008. Funding for this project is about 25 million U\$D. Management of the project is done by foreign experts working in premises of Ministry of Education and Science and the work is going on. There are 2,125 schools with about 590,000 students and 33,000 teachers in the whole country, 70% of territory is mountainous. Attention is shown for training of teachers. Also notebooks and projectors are procured for high schools as mobile laboratories for different disciplines. Improvement of curricula is ongoing.

Specialized on ICT departments from University of Tirana and Polytechnic University of Tirana are involved in regional SEE initiatives for development of academic networking and grid technologies through participation in SEEREN (www.seeren.org) and SEE-GRID (www.see-grid.eu) funded by European Commission. Nevertheless, critical situation is in the university system – there is yet no national research and education network. This network is one of objectives of a project funded by Italian government. After several years of stalling, in 2007 the project was ratified by both parliaments and actually a PIU is working in Ministry of Education and Science to create the inter-university services center as a legal entity dependent from this ministry, which will play the role of ANA – Academic Network of Albania. The creation of national academic backbone will be the first task for the center. Unclear remains the question of connectivity with GEANT; despite the fact that a project (SEELIGHT) is proposed for the countries of the region, government has not concluded yet the participation in this project that requires 20% of local co-funding.

At last, in framework of government programme for research and development, a number of ICToriented projects are realized from universities departments. In framework of 2007-2009 programme the ALBGRID project is running, lead by Faculty of Information Technology of Polytechnic University of Tirana. The objective is improvement of grid infrastructure, dissemination and applications. This local project is complementary with the FP7 running project SEE-GRID-SCI (<u>www.see-grid-sci.eu</u>). While SEE-GRID-SCI focuses in development of applications through regional collaboration in areas as seismology, meteorology and environment, other FP7 planned projects focus on the harmonization of national research programmes and strategies in the SEE area.

## Conclusions

Pushing aside difficulties, all these actions promise a good step forward, match with international political agendas and initiatives, but the reality is more problematic.

In the direction of e-governance, undertaken actions mainly support the e-bureaucracy [Nowicka 2007], which is not "better governance" by default [Heeks 2004]. Harmonization between different projects remains problematic, as well as creation of different executive entities due to lack of qualified people in public administration. There is lack of collaboration with academic institutions.

Prices of ICT equipment are decreased significantly, but not telecommunication prices. Nevertheless usage of PCs and Internet is increasing rapidly. Businesses are forced to use ICT in order to participate in public procurement and download tax obligations. Part of businesses are using internet banking services.

Mega-project for introduction of ICT in schools remains problematic considering the sustainability of created labs and continuity of Internet connections. It is necessary to see in terrain the impact of measures government is planning for this purpose.

Situation in high education and research seems more problematic for many reasons. Missing of national academic network is one of problems, and considerable parts of university departments do not have institutional Internet connection. This makes difficult for all researchers to communicate effectively with their homologues abroad; and in particular main ICT projects as SEE-GRID & ALBGRID which require qualitative connectivity.

The crucial problem seems to be lack of harmonization and sustainability. Society is making steps forward, but its path seems not a straight one, slowing down the overall progress and spending lot of efforts, while there is no time to lose and resources to waste.

#### References

- 1. Avgerou C. (2000) "Recognising Alternative Rationalities in the Deployment of Information Systems". The Electronic Journal of Information Systems in Developing Countries (EJISDC), vol. 3, 2000. http://www.ejisdc.org/
- 2. E-schools (2006). "Master-plan for E-schools Programme in Albania". Ministry of Education Science. //www.mash.gov.al/sistemi\_i\_informacionit/TIK/e\_schools\_MP\_v-6\_Albanian.htm
- 3. ESEE (2003). "eSEEurope Common Guidelines". Eighth eSEE Working Group Meeting Bled, Slovenia, 2003. //www.stabilitypact.org/e-see/eSEE%20Common%20Guidelines.pdf
- 4. Frasheri N. (2002) "Critical view of e-governance challenges for developing countries". IFIP WG9.4 Work Conference ICT and Development, May 2002, Bangalore India
- Harris, R. (1998). "Information Technology The New Cargo Cult?"; Information Technology in Developing Countries - Newsletter of the International Federation and Information Processing (IFIP) Working Group 9.4; Volume 8 (1) January 1998
- 6. Heeks R., (2004). "eGovernment for Development Information Exchange". http://www.egov4dev.org/
- 7. ICT Strategy (2003). "National Information and Communication Technologies Strategy". http://www.pad.gov.al/Content/e-Gov/StrategjiaTIK/ICTD\_Strategy.pdf
- 8. ICT Strategy (2007). "Project-proposal for the Inter-Sectorial Strategy on Information and Communication Tehenologies and Telecommunications". Ministry of Public Works, Transport and Telecommunications of Albania. http://www.mpptt.gov.al/Strategjia.doc
- 9. Kransberg M. (1991), "IT as Revolution". In Computers in the Human Context, ed. T. Forester, MIT Press
- 10. Nowicka, Paulina. (2007). "Internet and local government in Poland". http://www.dsp.unito.it/download/summer\_paper\_novicka.pdf/e-bureaucracy.pdf