

**CHAPTER 2.6. TRANSPORT, ENERGY, TELECOMMUNICATIONS, ENVIRONMENT AND RESEARCH, DEVELOPMENT AND INNOVATIONS**

**Progresses on „Information society development”, objectives 67 and 68 of Chapter 2.6 of the Report on implementation of Action Plan EU/Moldova 2005-2007**

Updated on 07.02.2008

Provision of Action Plan RM-EU	Level of implementation and undertaken measures
<b><i>(67) Accelerate progress in electronic communications policy and regulations</i></b>	
Adoption of national policy on the development of the sector	<p>National policy on telecommunication was adopted at the end of 2001 and its main goal of to liberalize the telecommunications market, creation of the modern infrastructure, integration of Moldovan telecommunications into the European and global telecommunication system. An update of <i>National Policy on telecommunications development</i> started with the adoption by the Parliament of a new “<b>Law on electronic communications</b>”, on November 15<sup>th</sup>, 2007 (law no. 241-XVI). It should be adopted in a new redaction within three months after the promulgation of new Law on electronic communications.</p> <p>The Law on electronic communications is a fundamental one for functioning and development of electronic communications area in the Republic of Moldova. It was elaborated by an experts group consisted by the representatives of the Ministry of Information Development, National Agency for Regulation of Telecommunications and Informatics, representatives of field operators and of civil society. During the elaboration of this law, in charged experts studied the experience from other advanced countries in this area, the WTO and ITU recommendations, took into consideration the provisions of national legal framework and the requirements of national legislation regarding the</p>

	<p>harmonization of draft laws with the <i>acquis communautaire</i>.</p> <p>The law establishes the main activity conditions and rules in the area of electronic communications, the general policy and strategy framework on development, with clear division of responsibilities and obligations, general regulation framework of activities on networks and electronic communications services by setting the functions and objectives of the authority of electronic communications regulation, rights and obligations of the state, persons and legal entities during the creation, administration, utilization and maintaining of electronic communications networks, providing to the beneficiaries modern and at a reasonable electronic communication services, as well as to guarantee free access to public electronic communications services of a certain quality level and at reasonable prices. At the final stage of preparation of the draft law, it was passed for expertise to the European Commission and Council of Europe. The recommendations, proposals and objections were analyzed and considered by the specialised parliamentary committee.</p>
<p>Adoption of a comprehensive regulatory framework including licensing, access and interconnection, numbering, cost-orientation of tariffs, Universal Service and users rights, privacy protection and data security.</p>	<p>In order to guarantee the protection of users rights, confidentiality and security of the data, on February 15<sup>th</sup>, 2007 the “<b><i>Law on personal data protection</i></b>” was adopted. It was promulgated on July 20<sup>th</sup> 2007, entering into force on July 27<sup>th</sup>. This law was elaborated by the Ministry of Information Development experts and was passed for independent expertises, inclusively to the Council of Europe experts.</p> <p>The Law regulates the personal data protection process and covers all aspects of its processing, following the structure of European standards in the field, and namely: European Convention on “Protection of persons in automated processing of personal data” (Convention 108 of the Council of Europe) and the Directive 95/46/EC of the European Parliament and Council of October 24<sup>th</sup>, 1995 on data protection in automated processing of personal data and free movement of these data.</p> <p>To guarantee personal data protection of the citizens, according to the provisions of this law, a <b><i>National Centre for protection of personal data</i></b> is in the process of creation as an independent and affiliated to the Parliament body. It will act in impartial manner conditions and will present an annual report on its activity to the President, Parliament and Government.</p> <p>Adoption and adjustment of a comprehensive regulatory framework in the field of electronic communications and realization of actions and measures included in Action Plan EU-Moldova also foresee: <i>ensuring of separate access to local loop; universal service; supply of reference interconnection; rules on tariffs; notification regime; identification of operators with significant power on relevant markets; rules on separated accounting and separation of costs; implementation</i></p>

	<p><i>of calculation model of LRIC type costs.</i> Realisation of these actions is determined by the promulgation of new Law on electronic communications and it refers to the area of activity of National Agency for Regulation in Telecommunications and Informatics.</p>
<p>Effective implementation of the market liberalization, started on 1<sup>st</sup> January 2004 including support of a fully competitive environment.</p>	<p>According to the provisions of Law on telecommunications (art.43), the telecommunication market in the Republic of Moldova is <i>de jure</i> liberalized, starting from 1<sup>st</sup> of January 2004. Beginning with the adoption of a new Law on electronic communication, the process of market liberalization in this area will strengthen.</p> <p>The goal of efficient implementation of liberalization of telecommunication and information market is to ensure a high concurrence necessary for increase the competitiveness products and services, to bring a wide spectrum of services for consumers, to offer more attractive prices and to raise the quality of rendered services. Now, the liberalization process is relevant to regulation functions and it is a condition of the competition development, this process being along with the implementation of regulation reform. The regulations change by time and are adapted to the market situations an globalization, new technologies, Internet development, etc. At this stage, Republic of Moldova faces the necessity to adopt a new regulation framework and adjustments, the process being almost completed.</p>
<p>Ensure the independence, increase the powers and improve the efficiency of the National Agency for Regulation in Telecommunications and Informatics (NARTI) by providing additional human and financial resources and increasing the enforcement powers.</p>	<p>National Agency for Regulation in Telecommunications and Informatics, according to the art.8, p.1 of the Law on telecommunications, is an independent of operators, producers and Government public authority, with some exceptions.</p> <p>Adoption of the new Law on electronic communications, strictly according to the EU regulatory framework in the field of electronic communications, and its implementation will offer to the Agency necessary levers, rights and power to implement necessary regulations and to embody its decisions.</p>
<p>Reinforce the commercial capabilities of Moldtelecom in the future competitive environment.</p>	<p>J.S.C. „Moldtelecom”, acting in the capacity of national fixed telephony operator in the Republic of Moldova, administrates a complex phone network consisted by 41 branches, located in all administrative units centres. At the end of 2007, the total number of fixed telephone subscribers of the enterprise reached the number of 1 million 50 thousands, creating the telephone density of more than 30%.</p> <p>The enterprise continues the implementation of new diverse services on video telephony, video conference, IP-telephony, data transport, Internet access, etc. The 2006 was marked by the implementation of a wide range of projects designated to diversify the company rendered services.</p>

The project of mobile telephony in CDMA 2000 1x standard was launched in March 2007 under the commercial brand Unite. Launching of this product is included in the Strategy of company's products diversifying taking into consideration the tendencies of migration of the fixed vocal telephony clients to the mobile telephony. By the end of 2007 was reached the level of 50 thousands mobile telephony subscribers. Also, through CDMA EV-DO network are supplying services of high speed mobile data transport, which allows the access of Internet services at the speed of 2,4 Mbps in Chisinau and during the 2008 - also in all district's centres.

J.S.C. "Moldtelecom" has implemented successfully in the public telecommunication network the CDMA 2000 1X standard (local fixed radio access in 450 MHz range). More than 60.000 users were already registered at the end of 2007.

A new billing system was launched. It encloses all offered services by J.S.C. "Moldtelecom" and will afford sufficient tools to prepare and to launch different offers, tariff plans and bonuses. Through this will be guaranteed a high commercial flexibility of the Company comparing to other market operators. The first segment of new billing system is already functioning and serves the mobile telephony network of enterprise. The billing system for Internet services is also in the process of upgrading, that will allow raising the quality of rendered Internet services.

In 2006 the J.S.C. "Moldtelecom" implemented the DWDM technology in interurban optical fibre network, which allowed to rise the data transport speed up to 2,5 Gbps with the possibilities to increase its speed. Due to this action, the main network has been prepared for the increasing of number capacity and diversifying of services based on IP protocol: broadband Internet, television, radio, video on request, games, etc.

For these purposes the technology IP MPLS was implemented, which allows aggregation of these services with traditional voice services and transport to final client.

Later, on launching the DWDM and IP/MPLS network, J.S. "Moldtelecom" made possible the migration of its fixed telephony network, data transport network to a network of new generation (NGN), based on Internet protocol. Due to this, new clients of fixed telephony are connected to NGN network, and traditional infrastructure of fixed telephony will be gradually changed with another one based on Internet protocol.

Among the basic priorities of J.S.C. "Moldtelecom" is the development of ADSL services. For the implementation of these services it is intensively developed the optical fibre network, which connects rural localities with the J.S.C. "Moldtelecom" interurban optical fibre network. Now MaxDSL services are available in Chisinau, all district administrative centres and a number of rural

localities, and more than 27.000 clients are connected to this service.

In 2007, J.S.C. “Moldtelecom” launched the connection of residential blocks to optical fibre broadband network (FTTB). At the end of 2007 were connected more than 80 of blocs, and during 2008 are planned the scale connection of such Buildings in Chisinau. FTTB connection will allow the Company to launch a set of new services, such as VoIP, higher speed of navigation, IPTV, inclusively high resolution television, video telephony, etc.

Rebalancing tariffs on traditional fixed telephony services is in the process of implementation. It is on the second stage, from the total of four. The delay of the last stage implementation of tariffs revision is defined by social reasons and low population incomes.

In order to implement separate accounting and separation of prices on rendered services, at this stage have been realizing the following measures:

- The separate accounting of CDMA network costs in relations with other “Moldtelecom” networks;
- The mobile telephony budget for 2007 year separated from traditional fixed telephony at the chapters “Incomes” and “Expenditures”;
- The separate accounting of the staff engaged in mobile telephony services rendering;
- The separate accounting of different payments such as wages, social and medical contributions, etc. related to the staff of mobile and fixed telephony;
- The separate accounting of expenditures of postal/bank services, commercial expenditures, etc., relating to mobile telephony;
- The separate accounting of transfers for traffic interconnection of the mobile telephony services, inclusive for the internal traffic between mobile telephony and fixed telephony services;
- Indirect expenditures, such as electric energy consumed by CDMA equipment, fixed tools wear, expenditures for insurance of equipments, indirect expenditures for staff, etc., were attributed according to the average number of mobile and CDMA fixed telephony subscribers;
- In the accounting programme “Universal Accounting” were opened separated sub-accounts of evidence for traditional mobile and fixed telephony expenditures. Also, by Decision nr. 828/15.08.2006, directors of departments and services of J.S. “Moldtelecom”, in the invoices, accounts and collective papers presented for processing to the Financial Department are

	<p>obliged to indicate also the assigned expenditures sub-accounts.</p> <ul style="list-style-type: none"> <li>• A separate settlement account for mobile telephony operations was opened, where will be accumulated the receipts from mobile telephony services and will be made the payments for mobile telephony necessities.</li> </ul> <p>By implementing these measures, the J.S.C. “Moldtelecom” can guarantee a high level of transparency of its mobile telephony operations and of incomes and expenditures relating to mobile telephony. At the same time, the Company intends to implement a system of separate accounting which will include all services rendered by Society.</p>
<p><b><i>(68) Accelerate progress in the development of Information Society services and in the integration of Moldova into the IST research programme</i></b></p>	
<p>Further implement the national policy and strategy for the Information Society and provide sufficient funds for its implementation</p>	<p>National Strategy on building Informational Society „e-Moldova” and the Action Plan for its implementation were adopted by the Government Decision no. 255 on March 9, 2005. The main goal of these documents is to provide the large use of informational and communicational technologies, which will have a considerable effect on the growth and development of national economy and on its administrative capacities. Elaboration of the Strategy and of the Action Plan „e-Moldova” was realized with the support of the UNDP within its project „Informational Society technologies for development”. Action Plan „e-Moldova” is concentrated on the realization of a wide range of measures in following areas: e-government, e-economy, e-education, e-science, e-culture and e-health.</p> <p>The functioning of the Action Plan „e-Moldova” implementation mechanism is a realisable task only in the case of establishing of an efficient financial mechanism. In this order, the Ministry of Informational Development, in common with the Ministry of Finances and the Ministry of Economy and Trade, have elaborated the Regulatory Act on Action Plan “e-Moldova” implementation mechanism, which was adopted by the Government Decision no. 27, on January 6<sup>th</sup>, 2006. At the same time, in all central and local public administration bodies have been elaborated individual plans and have been designated decision-making officials, responsible for the implementation of this Strategy and use of new informational and communicational technologies in the activity of respective public bodies as well as in the managed areas.</p> <p>Starting from 2007 the State Budget provides financial resources for the implementation of this Strategy - about 17 mln. lei per year. In order to absorb these funds and realise in short perspectives</p>

	<p>“e-Moldova” AP provisions, in June 2007, Government approved an intermediate set of primordial actions, monitoring their implementation at the end of the year. This practice will be repeated in 2008 year too.</p>
<p>Promote the widespread use of the new technologies by business and administration, in particular in the health and the education sectors (e-commerce, e-government, e-health, e-learning), via the provision of advanced infrastructures, the development of content and the introduction of pilot projects</p>	<p>In this order, By the Ministry of Information Development have been implemented or are in the advanced stage of implementation a series of actions directed to promotion of new technologies wide us in business, administration, healthcare and education as follows:</p> <ul style="list-style-type: none"> <li>- The <b><i>Law on electronic document and digital signature</i></b>, which is in concordance with the Directive 1999/93/EC, was adopted on July 15, 2004. The Regulatory Act on application of digital signature and electronic document by public authorities was adopted by the Government decision no. 320 on March 28, 2006. In order to create conditions for the implementation of this law, in July 2006 was created the Certification Centre of Superior Level (Root certification authority for electronic identity management). Certification Centre of public keys for public institutions became functional starting with August 2006. Other public or private certification centres of electronic identification keys for different categories of users as citizens, economical entities, other public or private institutions, could be opened freely.</li> <li>- The <b><i>Law on e-commerce</i></b> was adopted on July 22, 2004. A series of normative-regulatory acts on this field of activity are under elaboration within the Ministry of Economy and Commerce.</li> <li>- In December 2005, a study of business processes and appreciation of the necessities in ICT use in public administration bodies was realised by the active support of the UNDP project <b><i>“Implementation of e-government dimension of National Strategy on technologies of IS for development”</i></b>. Following this activity, a technical audit and a set of recommendations for re-engineering business-processes and use of IT in public administration bodies were presented.</li> <li>- The process of data collection on the indicators of the Informational Society development in the Republic of Moldova was improved accordingly to the European practices starting the end of 2005.</li> <li>- In May 2006 was adopted the Government Decision no.562 regarding <b><i>creation of national informational automatic systems and resources</i></b>. Following this decision, on 6<sup>th</sup> of September 2006 was adopted the <b><i>Conception of automated informational system “The register of resources and state informational systems”</i></b>.</li> </ul>

- On June 19<sup>th</sup> 2006 was adopted Governmental Decision no. 668 **regarding the official web sites of public administration authorities** and *Regulation on the procedure and requirements to the content of the public authorities' official web pages*
- On June 28<sup>th</sup> 2006, by the Governmental Decision no. 733, was adopted the **“Conception of e-Government”**. For its realisation a complex of measures is realised on the bases different interdepartmental programmes. The major step in this direction is preparation of the Governmental portal model, which will be used as a platform for the electronic public services development. Beneficiary of such services should be business community, citizens and other public institutions.
- In order to implement the information systems in electoral processes, the Ministry of Informational Development, in a common activity with the Central Electoral Commission, elaborated the **Concept of informational automated system „Elections”** and business requirements for the **“State register of electors”**.
- Information Technologies in education is the main priority of Presidential/National programme “SALT” (eng.-“jump”). So far, one of the common realisations in this direction of the Ministry of Informational Developments and the Ministry of Education was the elaboration of the Concept of **Information System for Education**. It contains four sub-systems: (i) “Ministry of Education informational resources”, (ii) “ME telecommunication network”, (iii) “ICT implementation in educational process”, (iv) “Teachers and managers staff training”. The implementation measures in all of these 4 directions started.
- **Connection to the Internet of all pre-university institutions**, started with a Moldtelecom engagement to provide a free connection to the Internet to all 1.749 schools across the country. At this stage, there are also 139 institutions connected to the Internet via ADSL connection, 242 institutions are connected to MaxDSL services (210 of which schools and 32 district directorates on education). At this stage, exists already technical possibility to offer broadband connection to other 531 institutions, but this process is stopped by lack of financial resources. In pre-university institutions are registered 980 informatics' laboratories with more than 13.400 computers. The number of pupils to one computer at this stage is about 40 in schools, and about 10 – in universities;

	<ul style="list-style-type: none"> <li>- On 21 June 2007, was adopted the Law nr. 138-XVI <i>on scientific-technological parks and innovation incubators</i>, with a special accent on the role and importance of the information and communication technologies. It offers a series of facilities for the development, inclusive fiscal and custom's benefits;</li> <li>- The projects for medical and pharmaceutical resources' digitalisation under implementation are the Automatic informational systems "<i>Medicine's State Nomenclature</i>" and "<i>Register of obligatory medical assurance policies</i>" in Hincesti district;</li> <li>- In order to guarantee security and confidentiality of the medical information transmission and to simplify the communication between medical institutions connected to the network a MedNet Centre was created. This network includes medical institutions from Chisinau and administrative districts, merging all sub-networks of hospitals and medical education institutions. Its mission is to become a leader in promotion and development of the informational infrastructure in this area, developing national network on medical information exchange;</li> <li>- A very important solution for promoting the principles of Information Society Development is "<i>Informational Technologies Week in Moldova</i>", organised by the Ministry of Informational Development, Academy of Sciences of Moldova and IT community entities. This event become traditional being organised annually in April. It includes: International scientific-practical conference BIT+, with a main objective to hold public discussions on development in e-government, e-business, e-democracy, e-education, e-science, etc.; International specialized exhibition «COMINFO Moldova» - which is the main IT solutions' exhibition in Moldova; National competition for the best web page created in Moldova and for Moldova - "WEBTOP 2006", Republican School Olympiad on Informatics, etc.</li> </ul>
<p>Improve the use of Internet and online services by the citizens via public computer training programmes</p>	<p>The growth of Internet usage and development of on-line services are influenced by the diversity and accessibility of <i>Public access points (PAP)</i> network. Creation of PAPs in all localities of the country is realized using different ways and methods. A part of PAPs are created on the basis of Ministry of Informational Development territorial subdivisions and of the Ministry of Justice informational centers. A network of 130 PAPs located mainly in public libraries was created by SOROS Foundation Moldova. Under the umbrella of TACIS Moldova project "Support of small and medium enterprises in the Moldavian rural zone" was created a network of Business' contact points, which at the same time, are available for offering the access to global network to citizens. A</p>

considerable movement in this direction is opening and development of private PAPs, which are created on commercial base and are offering entire range of IT services in majority of localities of the country. At the same time the possibilities of more active implication in the process of development of PAPs network of local public authorities, using the premises of schools, public libraries, postal offices and others operators' capacities are studied.

It's forecast that the level of Internet usage will growth considerable in parallel with the diversification of electronic services and in special mode of electronic services of IIInd level (interactive).

For the period of 2008-2010 a package of actions are scheduled in order to prepare gradual implementation of information systems for providing 12 main electronic public services for citizens and 8 services for business area, in line with European practice of rendering of main 20 eGov services.

At present stage, according to the Government Decision no. 668, on ***official sites of public administration authorities in Internet***, all public institutions are offering electronic services of first level of complexity, covering the necessities on obtaining information and access to legislation.

An important step in the preparation of rendering electronic services of second level of complexity (*downloading forms, forms processing, including electronic authentication, implementation of electronic documents circulation' system, etc.*) is under implementation. This is a common action realised with UNDP Moldova and provides creation of the informational system "e-Declaration". The system is destined for on-line interaction between taxes' payers and the Main State Tax Inspectorate. This system, after its implementation, should become a model for developing of similar systems to render other electronic services by public institutions. Also, in this order, should be mentioned the preparation of necessary conditions for public acquisitions' realization by electronic auctions.

The service of Main State Tax Inspectorate proposes already a wide list of documents which can be downloaded on its official page [www.fisc.md](http://www.fisc.md), on property tax, value-added tax, income tax, private tax, natural resources, road taxes, local taxes, dividends, etc.

Ministry of Information Development offers from his official page [www.mdi.gov.md](http://www.mdi.gov.md) the possibility of requesting on line different electronic forms, in particularly on civil state services, extract forms

	<p>and requests on State register of enterprises and organizations, documents fill for individual enterprises' registration and reservation of firm's name. These possibilities indicate of a 2d and 3d complexity level in public services rendering by electronic means, which are under development and promotional process.</p> <p>For stimulation of the electronic payments systems' expansion in the financial-bank' system (client-bank systems, card's payments systems, etc.), Moldavian National Bank elaborated and approved the Regulatory Act on using of banking services on distance' systems by authorized banks on the Republic of Moldova territory in their relation with their clients, which established general rules on rights and duties of the sides and the requirements for using and delivering of the banking services on distance' systems of e-banking type. At this stage, commercial banks deliver on the bank services' market 14 systems of pc-banking, 9 - internet-banking, 2- phone-banking, 1- mobile-banking, 1- ATM-banking type.</p> <p>In order to promote vocational training in the information and communication technologies a series of projects on different segments were launched. During 2006 an experts group from MID, UNDP, MEYS and Academy of Public Administration collaborated on preparation of IT vocational training process for civil servants at the Academy of Public Administration. Thereby <b><i>Methodological norms of education and certification of public servants in the area of ICT use</i></b> were elaborated, as well as the subsidiary documents necessary for initiating this process, namely: curriculum, manuals, framework requirements for training and certification centres, etc. The instruction process have started in 2007.</p> <p>The Centre on information and communication technologies in education trained informatics' teachers from 559 educational institutions, at the same time 493 teachers being certificated as local trainers too. During 2007 about 800 teachers and schools' managers had the opportunity to get trained on ICT use in education.</p> <p>The technical documentation for sub-system „ ICT implementation in education” was elaborated and approved. Also, 15 pilot institutions were set up, where educational soft for 4 school subjects (mathematics, physic, chemistry and biology) are under implementation, and during 2007-2008 school year is planned its installation in about 150 theoretical lyceums.</p>
Adopt a specific plan to promote the	The national contact point on participation in European Union Framework Programmes in the field

<p>participation of Moldova in the IST part of the 6th Framework Programme</p>	<p>of Research and Technology Development is the Academy of Sciences of the Republic of Moldova.</p> <p>The specialized institutions subordinated to MID studied the possibility of application for European financial support by means of FP6, but researches in line with necessary participation conditions, for given period, were not realized.</p> <p>Taking into consideration the launch of FP7 after January 1st 2007, MID participates actively on mediatisation company of these offered possibilities, and realizes an internal evaluation of application possibilities for subordinated institutions.</p>
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