ePoland - The Strategy on the Development of the Information Society in Poland for the years 2004-2006

MINISTRY OF SCIENTIFIC RESEARCH AND INFORMATION TECHNOLOGY

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INTRODUCTION

When the potential of emerging technologies in the areas of telecommunication, IT and digital media is considered and in the context of awareness of the social objectives of the Republic of Poland within the framework of impending European integration, it is clear that the government of Poland is currently facing major challenges regarding the implementation of a consequent and coordinated national strategy for computerisation which will embrace those ares of economic and social life which are key to future growth and development.

The national strategy for computerisation charts a path for the future development, taking as its guide the directions already implemented by the European Union. This document will be supplemented by detailed action plans, containing both specific and comprehensive solutions to key issues.

The level of computerisation is a core metric of the national and social development. The efficient computerisation may help to reduce the distance between Poland and the EU countries.

The national strategy for computerisation defines those areas in which the prevailing social, economic and political conditions both demand and promise a successful implementation of planned projects.

These areas include:
- **common availability of electronic content and services,**
- **development of diverse and valuable content and services available via the Internet,**
- **common ability to utilise computer and communication systems.**

Twelve key actions have been defined within the above three areas. Among them the following were selected as critical for the computerisation of Poland in the next three years:
- **broadband Internet access in every school,**

- **the "Gateway to Poland" (an integrated platform of public administration services available to a knowledge-based society),**

- **Polish content on the Internet,**

- **a commonly available IT education.**

Key performance indicators and their desired target values have been specified for all projects. Framework action plans have been developed and responsible entities identified.

CONTEXT

The development of telecommunication and information technologies (hereafter referred to as information and telecommunication technologies) has been compared to the fundamental civilisational revolutions – the agricultural and industrial revolutions - which have changed the face of the world.[1] It is impossible to precisely calculate the impact of new information technologies on society and the economy, or on economic development in particular. It is obvious, however, that the former plays a decisive role in the position of a given state on the global market for products and services, including knowledge-based services.

Information and communication technologies influence societies in the following areas:

Multimedia communication between any global location reduces the distance between partners, e.g. between content or service providers and their customers.

Availability of all written information opens a path to that information for the general public and improves efficiency of access to data (for example such as may be needed in the course of work or economic interactions.)

Information processing, that is the generation of new information, with added value when compared to the original data, brings about a new quality of decision support.

Elimination of human involvement in tasks which do not require intelligent or creative input increases work efficiency.

Ability to implement surveillance of any complicated process, e.g. road traffic, migration, enables better coordination, helps to curb undesirable activities (e.g. dumping of hazardous waste, car theft) and to limit operating costs (e.g. by increasing road capacity).

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[1] See A. Toffler, *The Third Wave*.

The use of information and telecommunication technologies in specific social and business applications may result in significant benefits:

- Quantitative, such as:

    - reduction of costs associated with business activity;

    - savings realized by the state (society), resulting from better process control and optimisation;

- Qualitative, such as:

    - citizen satisfaction with better access to traditional services;

    - possibilities of providing and receiving new services;

    - the ability to increase knowledge and improve skills, and to pursue personal development irrespectively of social and geographic position;

    - participation in social political life, elimination of social stratification, and even the restoration of direct democracy.

Many governments have recognized this potential and realised that its full realisation requires significant changes in the legal environment, redefinition of the state's role in the development of communication infrastructure and involvement of the public administration in the use of new technologies.[2] This resulted in activities commonly referred to as *computerisation*, aimed at the development of conditions required by the *information society*.

> *In the information society (1) a significant percentage of national revenue comes from the sales of services related to collection, processing, storing and providing information or electronic communication, (2) "traditional" industries owe their competitive edge to effective mechanisms used to obtain, process or store information and to provide communication, (3) digital technologies increase citizens' comfort, enabling effective delivery of services or even the delivery of new services (4) audiovisual media belong to a wider, integrated telecommunication and information sector, and provide access to the open, global system of information, culture and entertainment, becoming a growing sector of economy.*

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[2] The most important change in this area is the liberalisation of the telecommunications market commenced in the 1970's in the United States and in the 1980's in Europe, resulting in the liquidation of monopolies (state-owned with the exception of the US) and implementation of a new concept of market regulation.

POLAND
IN THE EU
The **European Union** is currently implementing computerisation within the context of the eEurope initiative, defined by two *Action Plans:* 2002 and 2005. The first plan specified eleven tasks required to achieve three major objectives. The second assumed that some tasks (e.g. these related to the Internet access) were accomplished and defined priorities for further actions. The service became the focal point of the *eEurope 2005* Action Plan. Thus the user was placed in the limelight. Previously too much emphasis had been placed on technology, forgetting that technology exists not for itself alone, but to satisfy the needs of citizens.

> *"Already in November 1999, the European Commission put forward its eEurope initiative precisely to manage the transition to the information society, both within the Union and in the candidate countries of Central and Eastern Europe. eEurope aims to ensure that everyone in the European Union - every citizen, every school, every company, every administration - has access to the new information and communication technologies and exploits those technologies. That means, for example, using the Internet for a host of everyday activities, services and products such as education, government, health, culture and entertainment.*
>
> *Thus eEurope is not only about making the European industry more competitive: it is also about ensuring that all European citizens, especially those with special needs, have access to modern communications technologies in order to improve their quality of life. They must have direct and interactive online access to knowledge, education, training, government, health services, culture and entertainment, financial services and much more. In today's society, the Internet access has become a fundamental right for all citizens and responsible governments have a duty to provide that access."[3]*

Because of the European aspirations and pending the EU accession, the computerisation of Poland should make use of the methods and experience of the Union countries. In particular it should aim at targets and actions specified in the *eEurope 2002 Action Plan*, taking also into account the priorities laid out in the *eEurope 2005 Action Plan* (that is focusing on the delivery of value to the user), and the specific aspects of Poland, including in particular the delay in the development of the Internet access infrastructure. The Strategy on the Development of the Information Society conforms to objectives set in both Action Plans, while maintaining the proportion between the development of Poland and the EU countries. The Strategy fulfils the provisions of the National Development Plan (NPR - Narodowy Plan Rozwoju) and of the Community Support Framework

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[3] *Towards a knowledge-based Europe. The European Union and the information society*, European Commission 2002.

(PWW - Podstawy Wsparcia Wspólnoty), which assign significant funds to the development of the information society. The information society was accepted as a horizontal policy in the EU structural funds 2002-2006 programming period. Activities related to national computerisation are listed mainly in three operational programmes:

- Sectoral Operational Programme – Improvement of Competitiveness of the Enterprises (SPO WKP);
- Sectoral Operational Programme – Development of Human Resources (SPO RZL);
- Integrated Regional Operational Programme (ZPORR).

We should strive to make use of all funds allocated to the development of information society under the NPR. The integration with the European Union will enable full participation in the European programmes supporting the development and application of the information and communication technologies.

VISION FOR THE DEVELOPMENT OF INFORMATION TECHNOLOGY IN POLAND

Considering the present state of the information technology, the key challenge for Poland in the next three years is:

OBJECTIVE

The development of a competitive knowledge-based economy, and the improvement of the quality of life of citizens by efficient implementation of the information technology in the areas of:

A.   COMMON ACCESS TO ELECTRONIC CONTENT AND SERVICES

B.   DEVELOPMENT OF VALUABLE CONTENT AND SERVICES ACCESSIBLE VIA THE INTERNET,

C.   ABILITY TO USE THEM

There is a gap between Poland and both candidate and the EU Member Countries in the area of the development and implementation of the information and communication technologies. This is confirmed by the comparisons of the following indicators:

- Telephony and computer penetration – picture 1 and 2;
- Availability of electronic government services – picture 3;
- Internet penetration in EU candidate countries – picture 4;
- Internet penetration by households – picture 5

PENETRATION OF FIXED AND MOBILE TELEPHONY IN SELECTED EUROPEAN COUNTRIES in percents of population, 2002

Source: ITU, EMC

Picture 1

Fixed Telephony

Mobile Telephony

9
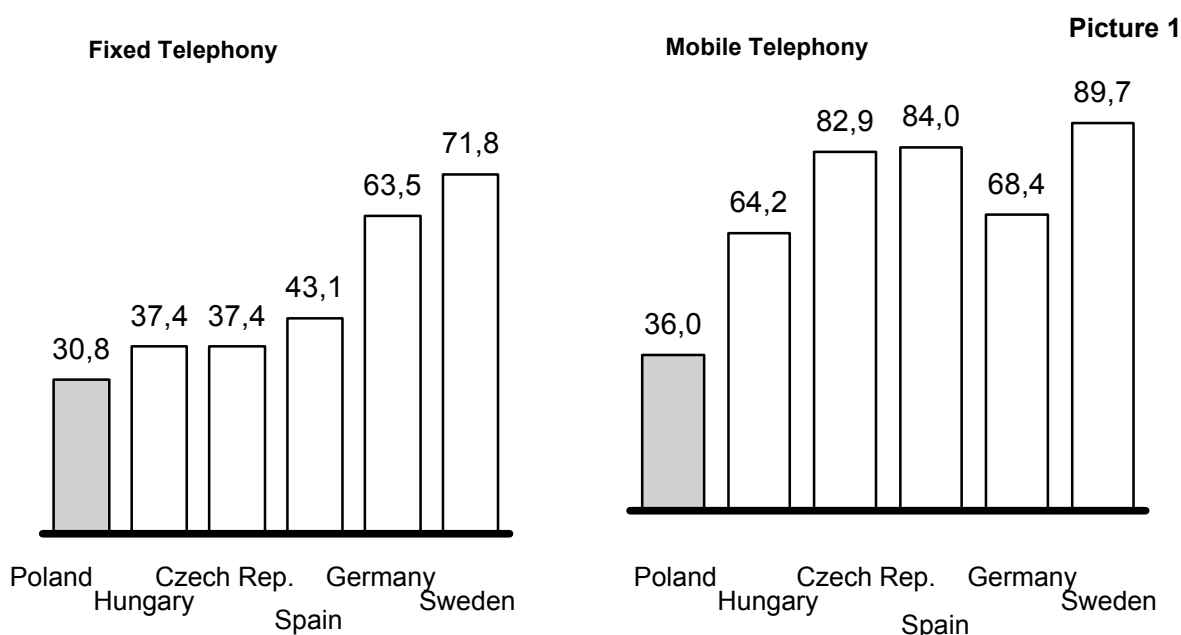
**PENETRATION OF COMPUTERS IN SELECTED EUROPEAN COUNTRIES
as a percent of population, 2002**

Picture 2

	8	10	12	14	34	51
	Poland	Hungary	Czech Rep.	Spain	Germany	Sweden
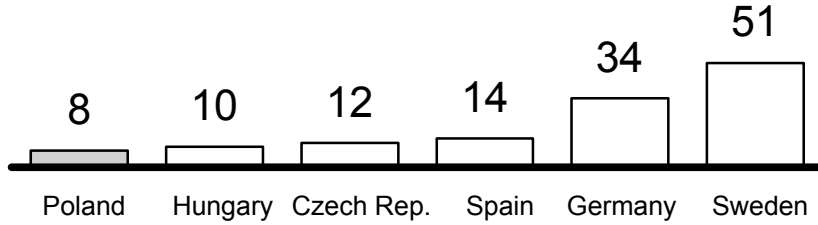
Source: ITU

**LEVEL OF ELECTRONIC DELIVERY OF PUBLIC SERVICES IN POLAND AND EU MEMBER
COUNTRIES, in percents, 2002**

Picture 3

15	19	23	37	38	39	39	40	40	49	50	50	51	59	61	63	66	68
LUX	PL	BE	NL	ICE	IT	GR	DE	AUS	FR	UK	SP	PT	DK	SE	NO	FIN	IRE
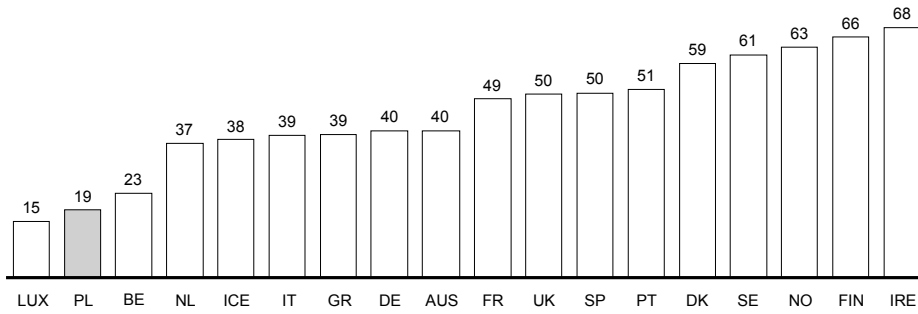
Source: Cap Gemini Ernst & Young

**PENETRATION OF INTERNET USERS IN EU CANDIDATE COUNTRIES
in percents, 2003**

Picture 4
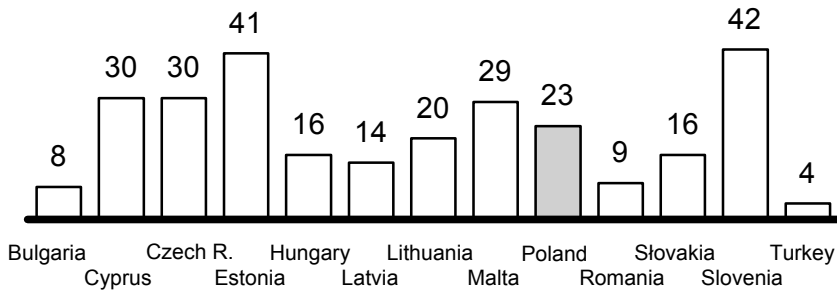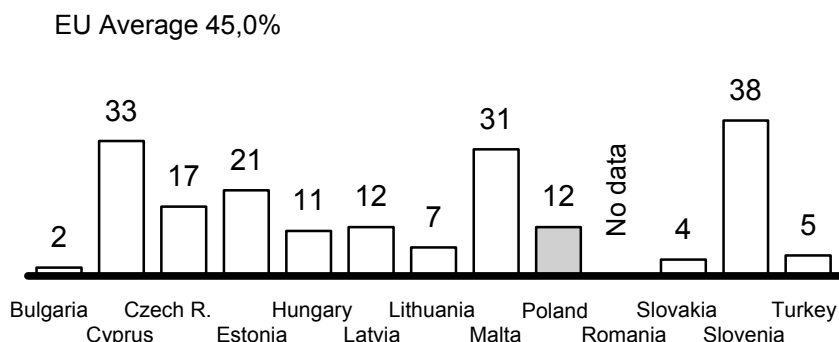
8	30	30	41	16	14	20	29	23	9	16	42	4
Bulgaria		Czech R.		Hungary		Lithuania		Poland		Słovakia		Turkey
	Cyprus		Estonia		Latvia		Malta		Romania		Slovenia	

Source: The Third Report on Market for Telecoms Services in the Accession and Candidate Countries, prepared by IBM at the order of THE EU
Commission, published on 16 June 2003. State as of 31 January 2003.

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**PENETRATION OF INTERNET ACCESS PER HOUSEHOLD
IN EU CANDIDATE COUNTRIES
in percents, 2003**

EU Average 45,0%

Source: The Third Report on Market for Telecoms Services in the Accession and Candidate Countries, prepared by IBM at the order of THE
EU Commission, published on 16 June 2003. State as of 31 January 2003

Our social and European aspirations require us to take decisive actions to **bridge the gap** between Poland and even the least developed EU Member Countries and the Candidate Countries. Next we should strive to reach the **average European level,** and in some areas we should attempt to join the **European and world leaders**.

ACCESS   Common **access** means that most citizens and companies have technical ability to use the offered content and services. In practice this means **common, safe and broadband Internet access**. Our goal should be to make the Internet residential access as common as water or power supply. Considering limitations resulting from the income level **in Poland**, **the actions should initially focus on** the easier Internet access **in all schools, administration and public Internet access points**, both those maintained by the administration and commercial points.

Access means to electronic content and services include computer, cable TV, digital TV, UMTS telephony and R-LAN networks.

> *Common availability requires first of all physical installation of a subscriber line, to be performed within an acceptable time after an order has been placed. In most cases this means efficient installation of a telephone line. The broadband access may be provided via the same telephone line, providing that a telecom operator has prepared the exchange and will make the line available to other interested operators.*
>
> *Another aspect of common availability is price, which should not form a barrier to most users. In case of electronically provided services, access to the Internet is cheap when it enables reception of service at comparable or lower cost than*

with traditional delivery. It must be cost-effective to the user to submit their tax filling via the Internet.

Besides the line, the Internet access requires the possession or ability to use a terminal (e.g. a computer, digital TV-set, or UMTS phone). Therefore the common access requires a computer to be present in every household, just as at present a television set or a refrigerator.

Prior to this, the Internet must be available in every school, including after class. Furthermore administration offices should maintain access points, available at least for administration-related matters. The commercial Internet access in Internet cafes, railway stations, post offices and malls should be priced attractively for as wide a consumer group as possible.

CONTENT

The requirement of **content** existence means that what is offered by the Internet must have real value for a potential user, from simple pieces of information to services which require interaction between the consumer and the provider.

The European Union has declared the priority of the following services:
- **public administration services** provided electronically (*e-government*);
- **telemedicine** (*e-health*);
- **distance learning** (*e-learning*), and
- **electronic commerce** (*e-commerce, e-business*).

In Poland the priority is given to public administration services and to the development of the valuable Internet content. The electronic delivery of documents to the ZUS (Social Insurance Institution) and customs offices and valuable local initiatives like Gateway to Malopolska (Wrota Malopolski) provide a good starting point for the further developments in this area.

Among public administration services special attention should be given to **public procurement**. Examples of other countries[4], which implemented similar projects point to a significant potential for budget savings. For example, the promotion of the electronic public procurement will make this form more popular among commercial companies, supporting the strategy objective: improvement of competitiveness of the Polish economy and of citizens' quality of life.

Another public administration service, has become especially important after the Copenhagen summit, is the **support for obtaining the European Union funds[5]**. The Act on Electronic Signature provided a legal basis for wider use of electronic communication in administrative matters and in business. The use and promotion

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[4] E.g. the Italian central administration reduced the value of public spending in 2000 – 2002 by 30%, including 75% in cell phone calls, 30% in copy services, 25% in computer hardware and 35% in printers.

[5] Education and formal assistance in the preparation of applications is meant.

of this form of communication in relations between citizens and administration offices should increase its popularity in other relations as well e.g. between customers and companies.

It is also important to support the Internet services and content most required by those who start their own businesses, who run them, and who decide thereafter to liquidate them.

The demand for the **telemedicine and distance learning** is likely to be very high. These two areas may prove beneficial especially to village and small town inhabitants, improving their employment perspectives and quality of life.

Significant benefits may be obtained even today by **publication - and possibilites also of reworking - of content** already existing within the information resources of Poland. Such resources include all information which may be translated and placed on the Internet **to promote Poland** both among potential investors and among tourists.

> *Internet content may take the form of simple information e.g. tourist or pricing, or be provided automatically in response to a question asked e.g. selection of the best localisation for an industrial facility, in relation to the costs of connection to utilities and the distance to a road.*

> *Examples of public administration services include secure submission of tax documents (filling and transmitting PIT, CIT & VAT forms), of identity card, passport, driver's license or other license applications, or participation in a tender which is less time-consuming and error-prone than a paper-based process due to automation, transparency and the use of a company credibility register.*

> *Telemedicine means in its simplest form the possibility of electronic transmission of patient files (e.g. of x-ray examination results). An example of advanced services may be medical consultation obtained by videoconferencing.*

ABILITY   The third area of the development of the information society is the **ability** to utilise the available offers, which requires both adequate computer skills (computer literacy), and overcoming of a mental barrier, accepting the Internet as a convenient and safe tool which facilitates the business of daily life.
First, every secondary school graduate in Poland should be able to work with a computer and the Internet and should be aware of the advantages of electronic communication. The second priority is to make **teleworking** a real tool for better employability. In this case use of a computer coupled with proper

training may provide additional chances for the employment and professional development.

Ability to use the Internet resources in private and professional life should be acquired while still at school, just as the ability to use written sources, encyclopaedias and dictionaries or traditional library catalogues is currently thus acquired.

Computer literacy is the ability to use a computer, including the Internet. Specific criteria may be used to more tightly define the concept of computer literacy:

- *ability to write a letter in a word editor and to print it out;*

- *ability to receive and to send e-mail;*

- *ability to use the Internet browser, including ability to search the Internet resources.*

Besides convenience, time and money savings, the ability to use the Internet may become a path to social integration. For example teleworking opens up employment opportunities and may become a source of income to those who are unable to work in a traditional way: the disabled, child rearing persons or those who cannot relocate.

Distance reduction provided by the Internet may, at least partially, bridge the gap in access to knowledge, culture and services between privileged large cities and the towns and villages. Enabling learning, studying, and occupational education of adults could help to break the poverty cycle.

AREAS AND PRIORITIES IN THE DEVELOPMENT OF THE INFORMATION SOCIETY IN POLAND

In order to realise this vision, specific projects must be completed, realising the objective, and focusing on the three areas of the above described vision.

AREA A | **PROVIDING ALL CITIZENS AND COMPANIES WITH AFFORDABLE BROADBAND AND SECURE INTERNET ACCESS**

Action with the highest priority in the next three years:

A1 ***Broadband Internet for schools*** – providing all schools with the broadband Internet access, including the funds for its utilisation during classes and extracurricular activities

Other priority actions:

A2 ***Broadband Internet in Public Administration*** – providing public administration units with the broadband Internet access, enabling them to provide public services by electronic means

A3 ***Access Infrastructure*** – development of the telecommunication infrastructure and stimulation of wider access to the Internet, including broadband, as well as publicly available access points in every commune.

A4 ***Information and Communication Infrastructure for Scientific Research*** – the development of academic computer networks

A5 ***Network Security*** – security improvement and building confidence in the electronic communication

Action	Expected result	Deadline
A1 Broadband Internet for schools	Number of computers with the Internet access sufficient for IT classes, during which 1 computer is used by a maximum of 2 pupils. During extended curriculum classes in secondary school every student should have the access to one computer	1st half of 2006
	Each classroom at school has the broadband Internet access	2nd half of 2006
A2 Broadband Internet in public administration	Each public administration unit has the broadband Internet access	2nd half of 2005
A3 Access Infrastructure	Implementation of the IPv6 Internet Protocol	2nd half of 2006[6]
	10% of households with the broadband Internet access	2nd half of 2005
	Penetration of computers at 30% level	2nd half of 2005
	Costs of the Internet access not more than 10% higher than in the Czech Republic and Hungary (taking into consideration purchasing power differences)	2nd half of 2004
	Each town and commune office makes the Gateway to Poland publicly available	1st half of 2005
A4 Communication infrastructure for scientific research	PIONIER project completed	2nd half of 2005
A5 Internet Security	Regulations complementing the act on computerisation of operations of some entities performing public tasks and guidelines for information security policies for administration branches and industries, conforming to the EU standards have been developed and have come into force.	2004
	Projects belonging to SPO WKP, SPO RZL, ZPORR and technical support include to a large extent provisions related to network security	2006

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[6] The deadline for the implementation results from specific provisions of the eEurope 2005 and from the announcement from the Commission to the Council of the European Union and from the PE *Next Generation Internet – priorities for action in migrating to the new Internet protocol IPv6.*

AREA B

DEVELOPMENT OF DIVERSE AND VALUABLE CONTENT AND SERVICES AVAILABLE VIA THE INTERNET AND DIGITAL AUDIOVISUAL MEDIA

Actions with the highest priority in the next three years:

B1 *Gateway to Poland* – increased efficiency of the public administration, accomplished by the relocation of public services, including public procurement, to an electronic platform

B2 *Poland's Gateway to Europe* – improved effectiveness of Poland in obtaining financing from European pre-accession funds, and following accession, from the Cohesion Fund and structural funds, as well as from the European programmes, and IT support for processes: identification of objectives suitable for effective financing, their selection, project management and monitoring

B3 *Central Administration Databases* – rationalisation of the maintenance of public administration databases, e.g. those related to citizens' records, tax-payers, cars, convicts

B4 *Polish Content on the Internet* – promotion of artistic activity and adaptation of the available content, including widely understood public information, for the publication on the Internet, realized among other channels via the Public Information Bulletin and the Polish Internet Library. Support for the translation of content which may be beneficial to the promotion of Poland, as well as support for the Internet activity of public and private radio and TV broadcasters and print media, with rich informational and programming offers, which will significantly enhance the Polish content on the Internet when made available in electronic form

Other priority actions:

B5 *Distant Learning* – support for programmes intended to provide the equal access to education to young people, irrespective of their background, and for adult education programmes, intended to reduce unemployment, to assist in the change of profession and in the improvement of professional skills

B6 *Telemedicine* – support for the use of the electronic communication to increase the effectiveness of health services by better utilisation of distributed resources and equalizing the quality of services in different areas of Poland

B7 *Electronic Commerce* – support for the e-commerce development and removing barriers to common use of electronic communications in the economy

B8 **Digital Terrestrial Radio and TV Broadcasting** – acceptance of a digital conversion strategy for terrestrial radio and TV broadcasting and commencing its implementation

Standardisation is one of the methods used to remove obstacles to the electronic communication.

Standardisation may be applied to three aspects of communications:

- *Data formats – the analogy of different alphabets elucidates this concept: to understand texts written in the Russian alphabet one must first know the letters of this alphabet, and only then does knowledge of the meaning of words, grammar, phraseology and historical and cultural context comes into play. In the area of the information technology this part of the standardisation is effected by standards applicable to character encoding, compression and file formats;*

- *Communicated content – ability to express the same content in many forms may cause difficulties in communication, especially if interpretation of this content is performed by a machine. Content standardisation must ensure unequivocal interpretation. This part of standardisation is provided by metadata and dictionaries;*

- *Communication mechanisms – an analogy from everyday life is the agreement of parties to conduct business communication by fax (rather than by mail). Standard mechanisms of electronic communication are protocols, that is the standardisation of communication mechanisms. One key aspect of mechanisms used for the communication is security.*

Action	Expected result	Deadline
B1 Gateway to Poland	Basic public administration services are provided electronically on an average European level	2nd half of 2005
	Potential effectiveness of public administration increased by 40%	2nd half of 2005
	Purchasing of central administration offices is consolidated and orders are placed electronically (electronic catalogues and auctions)[7]	2nd half of 2004
B2 Poland's Gateway to Europe	Poland absorbs a significant part (at least 70%) of pre-accession and the EU funds available to it	2004-2006
B3 Central databases and registers of public administration	All central databases function in accordance with the data model and communication standards assumed in the Gateway to Poland	2nd half of 2005
B4 Polish content on the Internet	Over 6,000 items published in the Polish Internet Library; organisational and financial resources enable enlarging of content by at least 5,000 items annually[8]	2nd half of 2003
	Internet Archives – access to catalogues describing archived items, with ability to view selected digitised content of the Polish archives (the access to most important documents in digital form, including the access to photographic collections)	Continuous work
	Museums on the Internet (the electronic access to pictures of museum annexes) and the catalogue of important historic buildings on the Internet	2nd half of 2006
	All public administration units publish information in the BIP (Public Information Bulletin), in accordance with accepted standards	2nd half of 2003
	All public administration bodies obliged by the Article 19 section 6 of the Environmental Protection Law to maintain publicly available lists of documents containing information on the environment and its protection make these lists available on the Internet	1st half of 2004

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[7] Electronic auctions are provided for in the draft act on public procurement.

[8] It is planned to extend the scope of activities of the Polish Internet Library, adding to it the collection of electronic publications (so called "*born digital*").

B5 Distance learning	First studies (at least postgraduate) offered in distance learning mode [9]	1st half of 2005[10]
	Development of an educational portal for pupils, students and teachers	2nd half of 2005
	First qualification improvement courses, completed with an exam, offered by an educational institution in distance learning mode[11]	1st half of 2004
B6 Telemedicine	At least 5% of medical establishments offer e-health services and make it possible for patients to contact them via the Internet.	2nd half of 2005
B7 Electronic commerce	At least 10% of companies use the electronic commerce, including B2B, in their daily operations to sell and buy goods	2nd half of 2004
	Implementation of e-commerce projects belonging to SPO WKP	2004-2006
	Implementation of adequate legal regulations, removal of legal barriers to electronic commerce	2nd half of 2004
	Promotion and support given to the dynamically developing e-business environment	Continuous work
	Increasing confidence in the electronic commerce and its credibility	Continuous work
	Active participation in e-business promotion in Europe	Continuous work
	Participation in the European initiative: *"eEurope 2005 Action Plan "*, aiming at propagation and dissemination of standards for e-business, infrastructure and security	2004
B8 Implementation Strategy for terrestrial digital radio and TV broadcasting	Final development of the strategy and its acceptance by the government on the basis of available studies, prepared by MI (Ministry of Infrastructure), KRRiT (National Broadcasting Council) and URTiP (Office of Telecommunication and Post Regulation)	2nd half of 2004

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[9] Any medium, for example TV, after the pattern of the British Open University.

[10] This deadline currently exists merely as a stated aspiration, its accomplishment depends to a limited extent on the actions of government.

[11] What is meant here is the use of electronic communication to extend the existing offer of educational institutions, rather than for example sales of foreign language teaching software.

AREA C

COMMON ABILITY TO USE INFORMATION AND COMMUNICATION SYSTEMS

Action with the highest priority in the next three years:

C1 *Common Ability to Use a Computer* – *ensuring that each secondary school graduate in Poland is able to work with a computer and benefits from using the Internet.*

Other priority actions:

C2 *Prevention of Digital Divide*– enabling the full participation in the information society of those who require additional training: the "medium-age generation" and the disabled, using e-learning methods, promotion of telework as a tool for the employment activation

C3 *Developing the IT Component of Professional Qualifications* – supporting computer training of adults, with the particular attention given to training provided for the unemployed

Action	Expected result	Deadline
C1 Common computer literacy	In secondary schools students work with a computer during at least one class per week	Starting with the 2004/2005 school year
	All secondary school graduates are computer literate	1st half of 2005
C2 Prevention of "digital divide"	Development of clear rules for financing and distribution of the ICT equipment, to even out educational chances and to help the disabled access the job market	2nd half of 2004
	Taking actions necessary to make the Internet access easier for all social groups and for the elderly and the disabled in particular	Continuous work
	Implementing and disseminating "best practices" – recommended by eEurope 2005 on a national, regional and local level	Continuous work
	Teleworking becomes a significant [13] tool for the reduction of unemployment, stimulation of job search	1st half of 2004
C3 Developing the IT component of professional qualifications	At least 30% of adults are computer and Internet literate.	1st half of 2006
	Implementation of a nationwide training system for the unemployed and those who wish to extend their skills	1st half of 2004

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[13] It is difficult to provide specific numeric values. Each new job will be a success here. Clearly a major achievement would be to reach a few percents of the total number of unemployed.

DESCRIPTION OF ACTIONS UNDER PRIORITIES WITH DEFINED COMPETENCIES OF SPECIFIC ENTITIES

A1   Broadband Internet for Schools

A 1	Action	Responsible Entity	Deadline
1.1	Equipping schools with computers and the broadband access[14]	MENiS (Ministry of National Education and Sport), coordination of MGPiPS (Ministry of Economy, Labour and Social Policy) and MNiI (Ministry of Scientific Research and Information Technology) within the confines of SPO RZL[15] and ZPORR[16]	2003-2006, but the process will not be completed
1.2	Coordinating actions of private sponsors, development of projects based on Private-Public Partnership (PPP)	MNiI, local governments	Continuous work
1.3	Pedagogical supervision of the information technology education in schools	MENiS, school superintendents	Continuous work

A2   Broadband Internet in the public administration

A 2	Action	Responsible Entity	Deadline
2.1	Equipping local government entities with computers and the access infrastructure[17]	Local government entities and MGPiPS within the confines of ZPORR[18]	2003-2006
2.2	Coordinating actions related to obtaining assistance from the structural funds for the development of the information society	MNiI[19]	2004-2006
2.3	Supporting local and regional initiatives for the broadband access and promoting best practices	MNiI, provincial governments	Continuous work

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14 Consolidating the demand to the greatest extent possible.

15 SPO RZL in the measure 2.1 includes projects of computer purchase for schools

16 ZPORR in the measure 1.5 The Information Society Infrastructure includes projects for connecting schools to the broadband Internet.

17 Consolidating the demand to the greatest extent possible.

18 ZPORR in the measure 1.5 The Information Society Infrastructure includes projects for connection of local public administration to the broadband Internet.

19 MNiI co-ordinates all information society activities under the umbrella of the National Development Plan.

A3 Access Infrastructure

A 3	Action	Responsible Entity	Deadline
3.1	Adjusting telecommunication law to the 2002 package of directives, treating the broadband Internet access as a public service	MI	January 2004 – adoption by the Council of Ministers, comes into force – prior to the date of the Poland's accession to the EU
3.2	1) Developing the strategy on the broadband Internet access 2) Developing the plan to promote the information technology in rural areas	MNiI	2nd half of 2003
3.3	Development of a plan of regulatory actions, aimed at increasing competition on the telecommunications market	URTiP	1st half of 2004
3.4	Support for the development of strategies for the regional information society	Provinces – development, MNiI – support	2004
3.5	Establishment of public Internet terminals in each commune (in organisational and budget entities managed by local governments, e.g. in libraries and community centres – the Ikonka programme)	MNiI	2004

A4 Information and Communication Technology Infrastructure for Scientific Research

A 4	Action	Responsible Entity	Deadline
4.1	PIONIER programme implementation	MNiI	2005

A5 Network Security

A 5	Action	Responsible Entity	Deadline
5.1	Developing technical security standards	MNiI/MSWiA (Ministry of Interior and Administration)	Continuous work
5.2	Publicising best security practices	MNiI/MSWiA	Continuous work

5.3	Developing requirements for the secure electronic communication in the context of on-line public services[20]	Ministries	Continuous work
5.4	Projects within the framework of NPR take network security into consideration	MGPiPS/MSWiA/MNiI, local governments and other project owners	2004-2006
5.5	Starting work on the review of solutions listed in the act on electronic signature	MGPiPS/MSWiA/MNiI	1 st quarter of 2004
5.6	Developing a method of advanced authentication available to citizens (the so called Personal Documents Integrated Package project) [21]	MSWiA	2nd half of 2004
5.7	Establishing, training and equipping teams counteracting electronic crime	MSWiA	Continuous work
5.8	Raising qualifications of prosecutors and judges in the area of electronic crime	MS (Ministry of State Treasury	Continuous work
5.9	Establishing a body to coordinate activities of government institutions in the area of the network security	MSWiA, MS, MI, ABW (Internal Security Agency), MNiI, KGW, research and development units	1st half of 2004

B1   Gateway to Poland

B 1	Action	Responsible Entity	Deadline
1.1.	Standardised presentation of central government Web pages	MNiI – development of standards, ministries – implementing changes, MNiI – unification of the BIP	1st half of 2004
1.2.	Electronic flow of documents during legislation proceedings of government administration (electronic Council of Ministers)	MNiI, RCL (Government Legislation Centre)	1st quarter of 2004
1.3	Review possibilities in the area of public-private partnerships – selection of financing methods for projects related to electronic public services	Ministries responsible for specific service in co-operation with MNiI[22]	1st half of 2004

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[20] Ministries should specify which situations during their interactions with citizens and companies require an electronic signature or the advanced electronic signature, and which may be satisfied with a password-based authentication.

[21] E.g. providing each citizen with a microchip identity card (project: Integrated Package of Personal Documents), developing a method for digital signing via a cell phone or developing a biometric authentication method.

[22] *Gateway to Poland – Preliminary Project Concept* assumes that the PPP organisation would be taken care of by a special section within the Department's structure – the National Computerisation Projects Office.

1.4	Migration of priority public services to the electronic platform	Ministries: modification of processes and support systems, MNiI: portal and MOST[23] and co-ordination within SPO WKP[24]	1st half of 2005
1.5	Improving services already provided electronically	ZUS, Ministry of Finance (electronic customs declarations)	3rd quarter of 2004
1.6	Development of electronic catalogues in selected institutions	KPRM (Chancellery of the Prime Minister), MI, MNiI, MSWiA	1st half of 2004
1.7	Development of a governmental system of document flow for selected processes[25]	MNiI: developing standards, ministries: implementing the system	2nd half of 2005
1.8	Infrastructure modernisation	Ministries, on an as needed basis	1st half of 2005
1.9	Amending acts and pursuing regulatory actions	MNiI (in agreements with MSWiA): preparing description of required legal changes UZP (Office of Public Procurement) – electronic public procurement; URTiP – regulatory actions in the area of telecommunication	3rd quarter of 2004
1.10	Educational and promotional actions	MNiI	Continuous work
1.11	Project implementation monitoring	MNiI	Continuous work
1.12	Enhancement of electronic offer	Ministries in co-operation with MNiI	Starting in the middle of 2005
1.13	Plan for the development of electronic administration in Poland (e-government) for the years 2004-2006	MNiI	1st half of 2004
1.14	Development of an on-line service platform for entities using this environment	MŚ (Ministry of the Environment), MNiI, MSWiA	2nd half of 2005

B2   Poland's Gateway to Europe

B 2	Action	Responsible Entity	Deadline
2.1	Preparing services supporting applicants for financing from the EU funds[26]	MGPiPS, MRiRW (Ministry of Agriculture and Rural Development), MI and other institutions responsible for the implementation of the EU financial support	1st half of 2004

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[23] Middleware and a transactional server, providing the so called universal services, e.g. authentication

[24] In SPO WKP in measure 1.5 Development of a system for entrepreneurs' access to information and public services on-line, migration of public services to electronic platform has been envisaged.

[25] This action assumes also the change of chancellery procedures.

[26] Making forms available, possibility of sending draft applications for review, distant courses, applicants' forum and other.

2.2	Promotional and training activities related to the EU financial assistance for the IT projects	MNiI and other ministries in the area of technical support	2004-2006
2.3	Implementing in Poland the EURES (European Employment Services) – the unified European system for the exchange of information on employment opportunities and conditions of life and work[27].	MGPiPS	2005

B3 The administration's central databases and registers

B 3	Action	Responsible Entity	Deadline
3.1	Developing an action plan for the development, integration and rationalisation of databases used to keep records of citizens, vehicles, etc.	MSWiA, in co-operation with MF (Ministry of Finance) (POLTAX)	1st quarter of 2004
3.2	Preparing (updating) the action plan related to the Register of Medical Services	MZ (Ministry of Health)	1st quarter of 2004
3.3	Integration of the national registers (e.g. KRS (National Court Register), NIP (Taxpayer Identification Number), REGON (Statistical Number), PESEL (Identification Number))	MSWiA, MS, GUS (Central Statistical Office), GUGiK (Central Office of Geodesy and Cartography), MF. MNiI co-ordination within the scope of SPO WKP[28]	2004-2006
3.4	Development of a national Polish data model	MNiI, in co-operation with interested ministers	1st half of 2004
3.5	Updating databases, adapting them to the data model and communication standards	Ministries responsible for specific databases	2004-2005
3.6	Preparation of a state-owned archive of electronic documents, equipped with legal, technical and economic instruments enabling the reception of electronic documentation, produced by the administration, not useful in daily work of offices and at the same time required to be held permanently on file	Head Office of State Archives	2nd half of 2006
3.7	Migrating the property register to electronic form	GUGiK	2004-2006

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[27] The EURES system is intended to provide employees or job seekers intending to go abroad with an information, consultation and advice on housing and work conditions in the country where a given person is going to work; assisting employers in finding workers from the other EU countries and promoting work abroad.

[28] SPO WKP in measure 1.5 Development of a system for entrepreneurs' access to information and public services on-line includes projects related to integration of state registers.

B4   Polish Content on the Internet

B 4	Action	Responsible Entity	Deadline
4.1	Digitising and publishing the collections of the Polish Internet Library	MNiI	Continuous work
4.2	Acquiring copyrights for the PBI	MNiI	Continuous work
4.3	Establishing the Internet Tourist Information Service	MNiI, MGPiPS, POT (Polish Tourist Organisation), local governments, participation of businesses	1st quarter of 2004
4.4	Translation of the Polish content to other languages (participation in the e-Content programme)	MNiI, MSZ (Ministry of Foreign Affairs), with the participation of universities and businesses	Continuous work
4.5	Maps of Poland on the Internet,	GUGiK	Continuous work
4.6	Establishing an available national system of information for young people	MENiS, MNiI, "Młodzież" Youth Programme	2nd half of 2005
4.7	Analysis of the financial consequences of reclassification of some paid information as public[29]	MNiI	1st quarter of 2004
4.8	Digitisation of cultural resources and their publication on the Internet[30]	Project owners within the scope of ZPORR[31], MGPiPS and MNiI – co-ordination, NDAP (State Archives)	2004-2006
4.9	Preparing draft amendments in the act on access to public information, broadening the scope of this category	MNiI	1st half of 2004
4.10	Assessing the needs of potential foreign investors in Poland, comparing them with the present offer of assistance from the administration, and modification of this offer[32]	MGPiPS, PAIiIZ (Polish Information and Foreign Investment Agency)	2nd half of 2003

B5   Distant Learning

B 5	Action	Responsible Entity	Deadline
5.1	Legalisation of distant studies and specification of detailed conditions under which this form of studying may be accepted	MENiS	2nd half of 2004

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29 E.g. statistical data, geological data, standards and expertises prepared with public funding.

30 Applies to such activities as archives, museums and the Internet catalogue of important historic buildings.

31 ZPORR in the measure 1.4 Protection and restoration of cultural heritage includes projects related to the digitisation of cultural resources.

32 What is especially meant is better assistance in overcoming bureaucratic problems. The Ministry of Economy, Labour and Social Policy and State Agency of Information and Foreign Investments should, analogically to the Gateway to Poland propose how to streamline services important to investors.

5.2	Development of the educational portal for pupils, students and teachers	MENiS within the scope of SPO RZL[33]. MGPiPS and MNiI: co-ordination	2nd half of 2005
5.3	ICT training for pupils, students and teachers	MENiS and MGPiPS & MNiI within the scope of SPO RZL	2004-2006
5.4	Training on the use of the Internet for adults and business employees	Project owners within the scope of ZPORR and SPO RZL. MGPiPS and MNiI – co-ordination	2004-2006

B6 Telemedicine

B 6	Action	Responsible Entity	Deadline
6.1	Assessment of legal state in the area of electronic transfer of patients' data and use of the electronic communication to provide medical services	MZ	1st half of 2004
6.2	Developing recommendations for hospitals and health centres on the electronic transfer of patients' data	MZ	2nd half of 2004
6.3	Announcement of competition for the best use of the electronic communication for telemedicine	MZ in co-operation with universities	2nd half of 2004
6.4	Preparing assumptions for projects of best practices implementation, including the financing	MZ	1st half of 2005
6.5	Preparing the strategy for the development of telemedicine in Poland for 2004-2006	MZ	1st half of 2004

B7 Electronic Commerce

B 7	Action	Responsible Entity	Deadline
7.1	Starting voluntary accreditation of companies offering the Internet sales to consumers[34]	MGPiPS	1st half of 2004
7.2	Development of an electronic company credibility register to be used in administrative proceedings related to public procurement, financial support, investment assistance, etc.	MGPiPS	2nd half of 2004

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[33] Secondary priorities in SPO RZL and ZPORR include projects for the development of educational portal, and training on the ICT technologies.
[34] To increase consumer confidence in this form of commerce.

7.3	Using electronic business solutions in companies, under SPO WKP	Project owners within the scope of SPO WKP[35]. PARP (Polish Agency For Enterprise Developrnent), MGPiPS and MNiI: co-ordination	2004-2006
7.4	Preparing the National Strategy on the Development of Open Source Software	Open Source Software Development Forum, MNiI: co-ordination	1st half of 2004

B8   Implementation Strategy for Terrestrial Digital Radio and TV Broadcasting

B 8	Action	Responsible Entity	Deadline
8.1	Amending the act on radio and TV broadcasting, in the parts related to terrestrial radio and TV broadcasting	MK (Ministry of Culture), RM	2nd half of 2004
8.2	Development of the national strategy and programme of implementation of terrestrial radio and TV broadcasting in Poland	Interdepartmental Team for Implementation of Terrestrial Radio and TV Broadcasting, consisting of representatives of MI, MK, KRRiT, URTiP, broadcasters and other interested entities	2nd half of 2004
8.3	Development of a plan of digital networks and frequency co-ordination	URTiP	2005

C1 Common Computer Literacy

C 1	Action	Responsible Entity	Deadline
1.1	Training teachers in the use of computers, and employment of the IT and the Internet in teaching process	MENiS and project owners within the scope of SPO RZL MGPiPS and MNiI: co-ordination	2004-2006
1.2	Supervising development of training materials, including distance learning courses and educational computer programmes for self-education of teachers	MENiS	Continuous work
1.3	Newly employed teachers required to have qualifications related to the IT technology	MENiS	2nd half of 2006[36]
1.4	All teachers employed required to have qualifications related to the ICT technologies	MENiS	2nd half of 2006

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[35] SPO WKP in the measures 2.2 and 2.3 includes projects related to the use of e-commerce in companies.

[36] From 1 October 2003 each student preparing to become a teacher is trained in the application of the ICT technologies in the teaching process. This means that the first university graduates fully covered by this approach will come to schools in 2008. On the other hand the requirement for all teachers to obtain qualifications in the ICT technologies comes into force at the end of 2006.

1.5	Enabling use of the Internet in teaching curriculum other than the IT	MENiS	Continuous work
1.6	Preparing rules for the standardisation and accreditation of distance learning courses	MENiS	2nd half of 2004

C2   Preventing Digital Divide

C 2	Action	Responsible Entity	Deadline
2.1	Adaptation of current programmes of assistance to the disabled to include purchase of computer equipment	MGPiPS, PFRON	2nd half of 2003
2.2	Publicising stories of successful use of teleworking to end the unemployment	MGPiPS	Continuous work

C3   Developing Information Technology Component of Readiness for Employment

C 3	Action	Responsible Entity	Deadline
3.1	Publicising benefits derived from the use of computers and the Internet in private and professional life	MNiI	Continuous work
3.2	Establishing the section of the IT textbooks in the Polish Internet Library	MNiI	2nd half of 2004
3.3	Providing training to the disabled on the electronic communication and information technology	PFRON, local governments	Continuous work
3.4	Organizing[37] the IT training system for the unemployed	MGPiPS, local governments, and project owners under SPO RZL[38], MNiI – co-ordination	2004-2006

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37 E.g. an order in the form of public-private partnership.

38 SPO RZL in the measure 1.3 includes projects of training of the long-term unemployed.

Other Actions

One of the most important actions is providing a legal basis for the process of implementation of the ICT technologies in the public administration. This goal will be accomplished by the passing of the act on implementation of the ICT technologies in the operation of some entities providing public services. The provisions of the act should come into force during the 1st half of 2004. Another action which will support implementation of the ICT in administration is the review of the state of the IT infrastructure in ministries, as well as the review of current and planned projects, which should be completed in the first quarter of 2004.

Implementation of the Strategy assumes development of a monitoring system based on a set of the information society indicators, collected in part by the Central Statistical Office.

Departments will prepare their plans for the development of the information society in the first quarter of 2004, following the priorities set in the Strategy. Other initiatives may be undertaken, within *sectoral projects*, providing that they do not conflict with the Strategy and do not cause problems (delays) in the execution of priority projects. Of key importance will be initiatives related to the electronic flow of documents in the departments and electronic communication with citizens (electronic forms, address books, on-line public services).

ANNEX A:
DESCRIPTION OF PRIORITY PROJECTS

A1   Broadband Internet for Schools

This project should be completed by 2006. In the shorter run, in 2004 all schools should have at least the "regular" dial-up Internet access. It is important that this access is really used both during the IT classes and during teaching of other subjects. Minimally, secondary schools should offer classes during which each student may work with their own computer. Furthermore, the existing specialized classrooms should be made available after classes for extracurricular activities or as "open computer rooms". Due to budget constraints, seeking of sponsors may be an integral part of the project. In particular telecommunication operators should be won for preferential treatment of schools using the Internet.

A2 Broadband Internet in Public Administration

The eEurope 2005 Action Plan obliges the Member Countries to provide the public administration entities with the broadband Internet access. This action will be based primarily on the Integrated Regional Operational Programme, especially in communal governments in rural areas and in small towns. The example of other countries shows that local initiatives supported by local communities or governments greatly enhance the implementation of digital technologies.

A3   Access Infrastructure

The report of the European Commission on Poland's progress towards the accession stated, in relation to the telecommunications law: "Further legislative efforts are needed to reach full alignment in the area of telecommunications. In particular, the telecommunications law still needs to be further amended, addressing the definition of universal service, the conditions for the provision of universal service, pre-selection and carrier selection, asymmetric regulation, interconnection, market definition, number portability and local loop unbundling."
The Ministry of Infrastructure has prepared required draft amendments. Their adoption should facilitate liberalisation of the telecom market, including the broadband access possible due to local loop unbundling.
In addition to purely legislative actions, some regulatory actions may also be necessary, especially by the Office of Telecommunications and Post Regulation.
Another component of the access infrastructure is the possession of, or possibility of using, the Internet terminal. A private personal computer should be a device of

widespread availability. The computer penetration, and in particular the increase of the percentage of households equipped with a computer may be facilitated by introduction of additional tax relief.

As citizens' wealth levels will be insufficient in the near future to quickly increase the number of private computers, other methods of common access to the Internet should be supported (both commercial and non-commercial terminals). The infomats belong to a peculiar class of terminals. They should deliver various types of information and services, not limited to content specific to the office which has installed them. As a rule each infomat should provide the access to the Gateway to Poland, that is to basic public services.

A4   Information   and   Communication   Technology Infrastructure for Scientific Research

This project is identical with the PIONIER project: Polish Optical Internet, Advanced Applications, Services and Technologies for the Information Society.

A5   Network Security

This is the common name for various initiatives aiming at maximal reduction of abuses, frauds and other offences and crimes committed using electronic means of communication.

One of the priorities of computerisation is the IT education and preparing young people to use the Internet. Actions should be taken to limit the access of minors to the inappropriate content.

B1   Gateway to Poland

The draft concept was developed for a project migrating 26 basic public services to the electronic platform. It will commence with:

- Six services for citizens: filling declarations, forms and other documents related to taxes such as personal income tax and tax on civil law transactions, browsing job offers and assistance in job search, filling for social security benefits, filling documents to obtain personal identity card, driver's license and passport, accessing and searching catalogues of public libraries, registering for consultation with a doctor.

- Five services for companies: registration with the social security office and submission of documents related to employee social insurance, customs declarations, filling declarations, forms and other documents required by tax laws and pertaining to CIT, VAT and excise tax, as well

as customs declarations, submission of statistical data, and participation in public procurement.

It is assumed that the effectiveness of administration may be increased by 40% in the case of electronically handled matters, by the development of suitable platforms for the electronic communication citizens-office and companies-office, followed by restructuring of some processes in offices and supporting the IT systems. The effectiveness will be measured by the waiting time for the issue to be addressed, and by other time and cost based indicators.

The Gateway to Poland plan includes organisational, legal and regulatory actions. Among other things it is planned to implement standards of the electronic communication (related to communication files formats, dictionaries, metadata and protocols), which do not require investment in hardware and software. Thus implementation of the plan will prepare the ground for increased use of the Internet in provision of other services, especially electronic commerce, distance learning and telemedicine. Projects migrating central public services for companies to the electronic platform will be financed under SPO WKP (within the scope of the measure 1.5 – Development of a system for entrepreneurs' access to information and public services on-line). Services provided regionally and locally may be financed under ZPORR (the measure 1.5 – Information Society Infrastructure).

B2   Poland's Gateway to Europe

As the EU Candidate Country, Poland is entitled to use the pre-accession funds: PHARE, SAPARD and ISPA. On becoming a Member Country of the Union, it will become entitled to receive assistance from the Cohesion Fund and the structural funds. Furthermore, Poland participates (paying a membership fee) in the European education and research co-operation programmes. The participation of Polish communes, companies, universities and private persons in these programmes is limited by the lack of funds for the own contribution of the Polish participant (the SAPARD programme is an example), ignorance of possibilities and lack of the skills required to prepare project documentation.

The knowledge and experience of employees of administration units responsible for the use of the EU funds should be made available to all potential applicants in the manner most convenient to them. One possible method may involve the use of the Internet, both to make forms available and to prepare model documentation, and to exchange documents in order to review them and assist in the improvement of the quality of proposals.

B3   Administration's Central Databases and Registers

Data collection in databases must be rationalized. Creation and operation of key public administration databases related to citizens' personal data, the vehicle register, the register of convicted persons, court registers, mortgage registers, tax databases and others should be co-ordinated to:

- apply consistent data models and standard metadata;

- avoid duplication of information;

- eliminate duplicating identifiers e.g. PESEL and NIP[39];

- create interfaces;

- achieve integrity of distributed databases;

- enable modern methods of access to public registers;

- ensure geo-localisation of information contained in different databases.

B4   Polish Content on the Internet

The high priority of this action is key for two reasons. Firstly, two initiatives: the Public Information Bulletin and the Polish Internet Library may be developed with relatively little effort and may become a valuable source of information and global showcase for Poland. Secondly, on the eve of the accession to the European Union it is important for Poland to commence a cultural offensive, demonstrating our input into the European culture and promoting our identity.

The execution of these actions may turn the oft-repeated thesis of the Poland's attractiveness to tourists into a real increase in the number of visitors to Poland.

Thirdly, the Polish content on the Internet, available in different world languages, should attract investors to Poland and help potential investors to access information important for business decisions. Then, just as basic public services, so also services important to investors should be streamlined and migrated to the electronic platform.

Fourthly, the Internet activity is a natural expansion path for existing printed and electronic media, and a new element of the media value creation chain, enabling both creation and offering of various new services, and utilisation of information and human resources to greatly increase the volume and quality of the Polish content on the Internet.

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[39] NIP is one of foundational components of the Polish tax system, introduced by the law of 13 October 1995 on the rules of registration and identification of tax-payers and tax-remitters.

B5   Distant Learning

Distance learning covers two areas: regular studies at distance and distant training e.g. occupational training. Higher education, and granting of academic titles is, in particular, regulated by the government. This new form of studies may require legal amendments, especially the adjustment of financing of higher education to a new situation. It needs to be remembered that the proposed form is similar to already known extramural studies and legal analysis may show that the distance learning using the electronic communication qualifies as a type of extramural studies.

A mechanism ensuring proper level of teaching and examination must be developed. In case of other distant courses, the state should limit its involvement only to the promotion of such initiatives. The announcement of a one-time tender (competition) for organisation of a model distant occupational training is proposed.

The promotion of various forms of the distance learning should not be limited only to Internet communication. Following the example of Radio and Television University for Teachers and television programmes for schools, we should attempt to work with both public television and commercial TV broadcasters. Foreign examples should also be employed, e.g. the British Open University.

B6   Telemedicine

The popularity of telemedicine, or more generally of the electronic communication in medicine depends on acceptance by medical professionals. Here the state should be less concerned with "providing the required environment", and more with showing the benefits and promoting best solutions.

The Gateway to Poland programme includes the migration of registration for consultation with a doctor to the electronic platform. Due to the very large number of medical consultations, rationalisation of the registration process (e.g. by some type of centralisation, regionalisation or outsourcing and automation) could result in better utilisation of resources and significant savings. The demonstration of these savings should be used to promote wider application of the electronic communication in medicine.

B7   Electronic commerce

Electronic commerce in Poland finds the required legal environment already in existence. Therefore, apart from the possible amendment of the act on the electronic signature, the role of the state should be limited to actions increasing confidence in the electronic trade.

One of such actions is a separate project, the "Network Security". Another is a development of the electronic company credibility register. This initiative of the Ministry of Economy, Labour and Social Policy was originally intended to save time and eliminate abuses of authority in public procurement proceedings. The register would be used to store and automatically update the certificates issued by various public administration units to companies interested in the public procurement orders. It could be also used to issue the certificates of electronic trustworthiness

C1   Common Computer Literacy

The main objective of this project is to make computer science one of the regular subjects which must be mastered by secondary school graduates, and to prepare teachers and schools for accomplishment of this objective. In addition, the ICT technologies should be wider utilised in teaching of other subjects.

C2   Preventing Digital Divide

The electronic communication may be used to level differences resulting from the place of residence, origin, disability or difficult family situation. The state should create formal and practical opportunities for participation in the social and professional life for everyone who is willing and able to participate using the ICT technologies.

C3 Developing Information Technology Component of Readiness for Employment

Investing in young people – one of the main priorities – will bring results due to natural change of generations. We cannot however exclude middle-aged people, nor even the older generation, often only prevented from finding new employment by a lack of basic computer skills.

ANNEX B:
REVIEW OF CURRENT INITIATIVES RELATED TO THE DEVELOPMENT OF THE INFORMATION SOCIETY [40]

Initiatives Related to Presentation of Content and Services on Web Pages

- Filling social insurance documents with the ZUS (Social Insurance Institution). After downloading and installing the Platnik and Platnik – Przekaz Elektroniczny software and certification, a user may check correctness and transfer all monthly reports on employee social insurance in two ways: via extranet, that is using a special phone number to connect directly to the ZUS network, or via the Internet. The amendment of the act on the social security system obliges payers of social insurance contributions for more than 20 employees to transfer insurance reports in an electronic form, created in a current version of the Platnik software. Other payers may use this form if they wish. To authenticate transferred electronic documents one uses a password valid for one year, which is received as a result of certification during a personal visit of the payer (or their representative) to a ZUS office.

- The Public Information Bulletin – a system of Web sites created in accordance with the provisions of the act on the access to public information[41]. Its standard is defined by a regulation of the Minister of Internal Affairs and Administration[42]. The act states that state administration bodies and other entities performing public tasks (including trade unions and political parties) should provide the minister proper for public administration matters with information to be published on the main website of the Bulletin and should develop their own subject pages. The information provided may be found at www.bip.gov.pl. The draft act on computerisation of operations of some entities performing public tasks assigns the creation and maintenance of the main page of the Bulletin to the minister proper for information technology.

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[40] Based on the document: *Gateway to Poland. Preliminary Project Concept*, using the *Report on the Progress of the implementation of the Information Society in Poland in the 2nd quarter of 2002.*.

[41] Act of 6 September 2001 on the access to public information (The Legal Journal, issue 112 item 1198).

[42] Regulation of the Minister of Internal Affairs and Administration of 17 May 2002 on the Public Information Bulletin (The Legal Journal No 67, item 619).

- Tax report forms – the Ministry of Finance uses its Web site (www.mf.gov.pl) to provide tax report forms and to inform users about addresses and bank accounts of the internal revenue offices. In 2003 the work on the "e-Taxation System" started. This is a set of actions (organisational, legal and the IT related) aiming at equipping the internal revenue administration with modern information management tools, and supporting the accomplishment of statutory objectives of this administration. This work was preceded by two pilot implementations, testing certain technical and organisational solutions related to the transfer of tax documents by tax payers in electronic form, while maintaining the conditions of security, credibility and nonrepudiation. At present terms of reference have been prepared within this project for the development of application enabling electronic filling of tax declarations.

- Customs Declarations Management Support System (System Wspomagania Obsługi Zgłoszeń Celnych) CELINA – the most important system for the efficiency of Customs Agencies. The system is in the stage of nationwide implementation. The first and second implementation stage has been completed, as well as the training of trainers and technical administrators. The system operates in 35 organisational units. It accepts customs declarations in the XML format submitted by e-mail, which means that no purchase of specific dedicated software is required.

- The Integrated Customs Tariff System (System Zintegrowanej Taryfy Celnej) - ISZTAR. This provides automatic tools for the creation and maintenance of the Integrated Tariff database, which contains tariff and extra-tariff data, that is terminology, explanations of the Customs Tariff, binding and non-binding tariff information, clarifications on customs value, decisions and judgements, as well as an index of goods. The software is still being tested and possible changes will be amended by the contractor in subsequent deliveries. Work is underway on drafting a contract on further development and full adaptation of the ISZTAR2 system to work with the TARIC2 – the EU system.

- IPE-PN (Fiscal Cadastre) – the Component of Integrated Land Register System (Komponent Zintegrowanego Systemu Katastralnego) developed with international co-operation. The system (IPE-PN software) will enable searching for variations between data from the EGiB (Register of Land and Property) poviat geodesic databases and the PN communal tax registers. The IPE-PN will enable also the receipt of announcements on changes in the EGiB important for the calculation

of property tax. The IPE-PN application software has been developed and implemented in seven pilot administrative units (communes).

- The Information System for Monitoring and Financial Control of Structural Funds and Cohesion Fund - SIMIK (System Informatyczny Monitoringu i Kontroli Finansowej Funduszy Strukturalnych i Funduszu Spójności). This will enable the management of the European funds within the programmes co-financed by the European Union, monitoring of financial indicators, monitoring of task results, reporting required by the European Commission, monitoring and management of each project. Work on a system prototype and General Design has been completed. Work is underway on the WAN deployment and on the organisation of purchase and installation of computer equipment for the central unit of the SIMIK. The Acceptance tests of the selected SIMIK modules are being performed.

- SI*GIIF – Information System for the Management of Tasks of the General Inspector of Financial Information (System Informatyczny do Obsługi Zadań Generalnego Inspektora Informacji Finansowej). The purpose of this system is to counteract money laundering and financing of terrorism. The prototype acceptance will be performed by the end of 2003 and by the end of the 1st quarter of 2004 the system will be implemented.

- Vehicle Certification – the Ministry of Infrastructure has started work on the electronic provision of this service, based on a simple system of electronic document flow.

- The "First Job" Portal www.1praca.gov.pl – the Ministry of Economy, Labour and Social Policy has prepared a web site with information on employment offices, establishment of own businesses, on-the-job training and voluntary services.

- The Public Procurement Bulletin on the Internet – the Public Procurement Office publishes the Bulletin on the Internet and makes it possible to publish notices in the Bulletin via the Internet.

- SIMAP – the Public Procurement Office is developing computer software assisting purchasers in procurement proceedings, conforming to the European SIMAP system, with an accompanying programme for vendors and contractors, supporting the preparation of required tender documentation. Work is delayed by the lack of a final system design, which is to be provided by the European Commission. The programme for vendors and contractors should be ready by the end of 2004.

- Reception of applications for foreign transportation permits – at present interested carriers may apply for foreign permits for international road transportation electronically via the International Transportation Management Office.

- The Marine Portal – the Ministry of Infrastructure supervises the development of the site: *Logistics Platform for Harbours and Maritime-Port Traffic*. This project is carried out under the umbrella of the regional Baltic TEDIM programme – Telematics in Maritime Transport and Logistics – co-ordinated by Finland. The designed portal will be also used by the NeLoC programme: Networking Logistics Centres in the Baltic Sea Region.

- The register of health care facilities and pharmacies: the Ministry of Health will develop an electronic register enabling patients' access (Web site and call centres) to medical information. The information will be provided by provincial pharmaceutical inspection units and founders of health care facilities.

- Agricultural Information – the Ministry of Agriculture and Rural Development has been working on the development and the Internet publication of a catalogue of the Central Agricultural Library and has prepared a catalogue of the Polish agricultural sites.

- The Internet Tourist Information Service – the service design was prepared on MNiI's order. Its specific feature is that it does not enforce any specific hardware or software platform. This will permit future information providers, local administration offices and organisations to join the system without difficulty.

Database Creation Initiatives

- The Central Database of the Ministry of Infrastructure – a comprehensive transportation database including the register of businesses licensed to provide international road transportation. This will also include the list of persons with the Professional Qualifications Certificate for international and domestic road transportation of people and goods.

  The Ministry of Infrastructure is conducting talks with IBDiM (Road And Bridge Research Institute) and GDDKiA (General Directorate for National Roads and Motorways) on updating and modernizing this database, which is a unified and comprehensive transportation

database, satisfying the information needs of the ministry, and operating independently from the database related to issues managed by GDDKiA.

In its present form the CBD contains:

- Road Surface Conditions Assessment System database,

- 2000 General Traffic Measurement database,

- Road accident database for 2000-2001,

- Weather database with information from national system of road weather stations.

- The Central Register of Vehicles and Drivers (CEPiK) – the Minister of Internal Affairs and Administration conducted a public procurement tender for the above mentioned system. The general concept of the *CEPiK* system defines its functionality as covering over 20 vehicle registration services, 13 driver registration services and co-operation with the Insurance Guarantee Fund. The database will be used by the MSWiA, the Police, the Border Guard, the Internal Security Agency, the Intelligence Agency, the MON (Ministry of National Defense), insurance companies and administration units.

- Modernisation of the PESEL system (creation of PESEL-2) – the MSWiA is carrying out the system modernisation. Work is underway to transform it into the PESEL-2 reference system (which means that the state would guarantee the correctness of data and take responsibility for errors). The new system is to be centralised. At present the analytical work is in progress.

- The National Register of Tax-Payers (KEP – Krajowa Ewidencja Podatników) is a registration database of tax entities, constantly updated with data transmitted by internal revenue offices via the departmental WAN network. Data stored in the KEP database are at present intensively used by the departments of the Ministry of Finance to detect irregularities in behaviour of taxation system entities (tax-remitters and tax-payers). Central verification of KEP records is also being performed. This is aimed at the error detection and correction in registration databases of the tax system, and then on the establishment of a central register of entities (CPR) and the implementation of a central registration system.

- The Data Transmission Network and Integrated Administration System of the Border Guard (Straż Graniczna) delivers functionality of the

Integrated Administration System which has been operating since 1998 and is used to perform actions ordered by proper state administration bodies in relation to persons, and to register persons crossing a state border. The system development will include addition of new modules enabling control and registration of vehicles crossing the border and detection of lost documents. Work is underway to provide the access to databases via mobile radio terminals. In the future this system will enable checking of external databases including the CEPIK, KSI, SIS II.

- The National Police Information System – the General Headquarters of the Police has extended the system with a few new modules: interface to the PESEL system, FIREARMS and LICENSE modules, REGON based on data provided by the GUS. The level of integration with other systems and benefits obtained by the police and citizens require assessment.

- The Integrated Package of Personal Documents – the MSWiA started work on the development of an identification system based on a single identity document. In this system the personal identity card would also provide a health insurance card and electronic signature functionality. This project has not been yet considered by the Council of Ministers. At present the analytical work is underway.

- The New Land and Mortgage Register and National Court Register – the Ministry of Justice works on the use of the information technology for maintenance of land registers. The National Court Register has already been migrated to an electronic platform. At present it is being developed and adapted to the changing legal environment.

- Support for a new visa policy – the Ministry of Foreign Affairs has been working in co-operation with the Schengen Information System, on a new software supporting visa management.

- The Integrated Administration and Control System (IACS) – the Agency of Restructuring and Modernization of Agriculture is implementing the system required for agricultural subsidies to be paid after the Poland's accession to the EU.

- The Educational Information System – the Ministry of National Education and Sport is developing a new public administration information system, which will integrate and computerise administrative reporting in the area of education, covering about 50 thousand of schools and educational institutions, 7 million students, and over 700 thousand of teachers and other educational personnel. The educational databases will be maintained by schools and educational institutions,

local governments, education superintendents, competent ministers and a minister competent in the area of education.

- The Chairman of Civil Aviation Office maintains:

  - The national register of civil aircrafts;

  - The register of civil air personnel;

  - The register of airports.

Initiatives related to the development of the internal public administration infrastructure

- The Integrated Information System of the Ministry of Economy, Labour and Social Policy – the first stage of the document flow system has been completed, covering five processes: consideration of applications for financial assistance in investments, register of the Government Legislation Centre, internal consultations, external consultations, international consultations. The outside documents are scanned.

- The Integrated Information System of the Ministry of State Treasury – the system audit performed by the Ministry enabled the adaptation of Privatisation Monitoring Subsystem to changing regulations, and modification of a few modules in the area of data archiving and security and access control. Among other things it is planned to electronically collect questionnaires related to recording the State Treasury property, and to implement electronic document flow and archiving, including scanning and character recognition (OCR).

- Modernisation of the PESEL-NET network, achieving conformity with IDA system (Interchange of Data between Administrations) – the Ministry of Interior and Administration is modernising the PESEL-NET network and integrating document issuance system with registers (among others with the PESEL system). The network uses lines leased from the Polish Telecommunications Company (TP S.A.) The modernisation consists of the increase of capacity and coverage – at least to include all the poviats. The documents which cannot be transferred electronically will be sent to citizens via courier mail.

- The Ministry of Finance has implemented ZEFIR – the Budget Accounting and Tax/Customs Settlement System in all the Customs

Chambers. This system has unified financial and accounting processes and has been used with an opening balance from January 2003. At present its functionality is enhanced to enable processing of excise tax levied on imported and internal goods.

- POLTAX – the information system supporting all operations of a tax office in the area of the tax system. This system is used in 358 tax offices nationwide. The POLTAX consists of two integrated subsystems operating on a single data model:

- REGISTRATION – registration of tax paying entities on the basis of the NIP forms, collection and maintenance of data on entities and their activities;

- ASSESSMENT – registration and processing of declarations, decisions and other documents pertaining to specific taxes;

- ACCOUNTANCY – register of taxes and non-tax budgetary receivables (increases, reductions, payments and returns), reconciliation and transfer of revenues to individual budgets and other recipients;

- EGAPOLTAX – support for the collection of due revenues by tax offices;

- INSPECTION – control planning, selection of entities to be inspected (manual and automatic), support and documentation of inspections;

- FINES – register of penal fines and repertory of penal fiscal proceedings.

Besides, to meet reporting requirements on all levels of the ministry, data warehouses are created and maintained (EGASPRAWY, ZALEGŁOŚCI, CIT, PIT etc.) containing aggregated data from POLTAX databases in all tax offices.

- MON computer networks – the Ministry of National Defence has upgraded infrastructure of its four computer networks.

- WIZA-KONSUL – the Ministry of Foreign Affairs has awarded the tender for the delivery of a Central (National) Register of Visa Applications and issued decisions and of the support system for consular activities.

Initiatives related to the development of a public access infrastructure

- Infomats – the Office of the Civil Service has installed seven pilot multimedia kiosks, called infomats, using them to publish information on basic services provided to citizens by the administration. It is not planned to use the kiosks for communication between citizens and offices, nor for the handling of official matters. The information is also available via about 100 infomats of the Magnus Info System company, and via the Web site: www.infoobywatel.gov.pl. In addition the Office of Civil Service publishes the information on civil service vacancies, accessible via a search tool on its Web site.

- Equipping high schools with computers – the Ministry of National Education and Sport conducted tenders and placed orders for about 15 thousand of computers for 1115 high and secondary schools. Costs of hardware maintenance in the following years and costs of connection to a network shall be borne by the schools.

- The Ministry of Finance plans installation of infomats in tax chambers and offices. They will be used to provide information on tax administration and the law.

Other Initiatives Related to the Development of the Information Society

- Teachers training – the Ministry of National Education and Sport with the assistance of Intel and Microsoft companies has trained about 20 thousand teachers in the use of office packages, creation of presentations and publications and use of the Internet. Furthermore, 37 thousand courses were conducted in association with the establishment of computer classrooms.

- The Polish Internet Library (PBI) – the Council for Information Science Education accredited with the Minister of National Education and Sport declared the development of the PBI as a priority. This project is expected to be carried out in the form of public-private partnership, and it is assumed that electronic access to 100,000 volumes will be provided.

- The EURODESK project – the Ministry of National Education and Sport in co-operation with the National Agency of Youth Programme commenced the development of an open information network for young people and for those who work with them. This programme is intended to

provide easy access to current and comprehensive national and the EU information on youth programmes and initiatives, youth assistance funds, opportunities for employment and studies, and educational and cultural events. The EURODESK programme is financed by the Ministry of National Education and Sport and the EU funds, and is a long-term investment.

- The 'Ikonka' (The Icon) Programme – a project carried out by the Ministry of Scientific Research and Information Technology, aiming at opening of public Internet access points in public libraries of all communes of a province, in order to provide the affordable and common access to the Internet. Under this programme libraries will be provided with sets of 3 computers, a router and wireless Wi-Fi network, enabling connection to the Internet in the closest surroundings of a library, free of charge. So far 3 provinces have been covered by the programme: Podlaskie, Lubelskie and Lodzkie. It is planned to extend the scope of the programme to further provinces.

ANNEX C:
POSSIBLE SOURCES OF FINANCING

National Development Plan 2004-2006[43]

The purpose of the National Development Plan is the development of a competitive economy based on knowledge and entrepreneurship, capable of long-term harmonious growth, and ensuring higher employment and better social, economic and spatial cohesion with the European Union on a regional and national level.

The development of the information society assumed a horizontal character under the umbrella of the NPR. It will be included in all sectoral and regional programmes. Furthermore actions directly aiming at the development of the information society in Poland were included in some Operational Programmes.

- The Sectoral Operational Programme – Improvement of Competitiveness of the Enterprises includes the priority 1 measure 5 – Development of a system for entrepreneurs' access to information and public services on-line and the priority 2 measure 2 – Support to product

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[43] On the basis of operational programmes of December 2003.

and technological competitiveness of enterprises and the measure 3 – Improvement of competitiveness of SMEs through investments The purpose of the measure 1.5 is the improvement of the business environment by extending the coverage and improving the quality of access to information and services provided via the Internet by public sector organisations to companies and citizens, using the modern information technologies. This measure will be carried out by the development of an electronic platform, providing companies and citizens with affordable, fast, high-quality services and public information, increasing the number of public services provided on-line and the integration of registers of people and companies and ensuring their security. The purpose of measures 2.2 and 2.3 includes support for investments in new technologies, used in companies for the electronic commerce and management.

Total financial resources assigned to the measure 1.5 equals 153.284 million euro. The ERDF[44] provides 114.986 million, and the state budget 38.300 million euro. Financial resources assigned to the measure 2.2 equal 724.272 million euro. Union funds contribute 253.472 million, the state budget 116.600 million and private contributions amount to 354.200 million euro. The total amount assigned to the measure 2.3 equals 718.028 million euro, including 251.328 million of the EU donations, 107.700 million from the state budget and 359 million euro of the private input.

■ Integrated Regional Operational Programme includes the measure 1.5 – the Information Society Infrastructure under the priority 1 - Development and modernisation of the infrastructure to enhance the competitiveness of the regions. Financial resources assigned to the measure 1.5 amount to: 136.409 million euro, of which 93.194 million is contributed by the ERDF, 12.426 million by the state treasury, 18.639 by local governments, and 12.15 million by the private sector.

■ SPO Development of Human Resources in the priority 2 – Development of a Knowledge-Based Society – includes a number of actions targeting pupils, students, teachers, entrepreneurs and other groups and aiming at improvement of education of those who are already present on the job-market as well as of newcomers. The measure 2.1 aims at the promotion of continuous education. The measure 2.2 Increasing the Quality of Education in Relation to Job Market Requirements includes such projects as: equipping schools with computer hardware and multimedia devices and providing training on the use of the ICT

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44 ERDF – The EUropean Regional Development Fund.

technologies. The measure 2.3 is addressed to entrepreneurs and aims at the development of human resources for the modern economy. The measure 2.4 aims at the improvement of administrative effectiveness of central and regional institutions via organisational and financial support to training. To carry out the measure 2.1 the amount of 278.028 million euro was assigned, including 208.507 millions from the ESF[45], and 69.521 from the state budget. The execution of the measure 2.2 will require expenditure of 337.911 million euro from the the EU funds and 112.634 million from the state budget. To carry out the measure 2.3 the amount of 253.325 million euro was assigned, including 189.981 million from the EU funds, and 63.343 million euro from the state budget. Total amount assigned to the measure 2.4 equals 6.667 million euro, including 5 million from the EU funds, and 1.667 million from the state budget.

State Budget and Local Governments Budgets

- In the 2003 budget in section 83 of the state budget defined purpose reserves, the amount of 48.525 million zlotys has been assigned to the programme of the development of modern technologies and the installation of optical networks. Chief components of the development of modern technologies include design work on the *e-government* system 'Gateway to Poland', the public administration portal – gov.pl and financial support in the form of donations for local *e-government* systems developed in Krakow and Białystok.
- Furthermore it is expected that the part of the expenses related to deployment of digital technologies will be covered from budgeted amounts assigned to specific administration units. At present it is difficult to assess available amounts. The implementation of the IT projects aiming at public use in institutions of local governments, their administrative bodies and partnerships will require the financial expenditure of corresponding local governments.

Public–Private Partnership

An important role in the reduction of budgetary spending on the development of priority systems may be played by so called public-private partnerships, that is agreements (licenses) between a public administration unit and a company. Under such agreement a company finances the development of the infrastructure

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[45] ESF – European Social Fund.

required for the provision of public services and then provides this service and charges for its provision.

Budgetary savings

A good solution would be to assign about 10 percent of saved budget funds to further investments in the implementation of digital technologies in public administration. This will intensify the process, ensure the permanent improvement of efficiency of the public administration and decrease its operating costs.

ANNEX D:
METHODOLOGY FOR ESTABLISHING PRIORITIES

The proposed actions address priorities resulting from the European initiatives, and additional tasks associated with the Poland's specific situation, aiming at the achievement of the purpose of the Strategy on Development of the Information Society.

The priority was given to those actions for which the existing initiatives may be used, and which promise the maximal effective impact on social and economic life.

The development of intelligent transportation system was purposefully excluded from the list of priorities, as prior to the development of intelligent systems Poland must build highways, improve road quality and liberalise railway transportation.

Name of task under eEurope initiative / Name of tasks proposed in Poland	eEu	eEu	eEu	Str
Cheaper and Faster Internet Access/ Access Infrastructure	✔	✔	✔	✔
Faster Internet for Researchers, Pupils and Students/ Information and communication infrastructure for scientific research	✔	✔	✔	✔
Secure networks and use of microchip cards / Network Security	✔	✔	✔	✔
European Youth in the Electronic Age / Broadband Internet for Schools, Common Ability to Use a Computer	✔	✔	✔	✔
Employment in the Knowledge-Based Economy / Improving the IT component of job qualifications	✔	✔	✔	✔
Citizens and Companies in the Knowledge-Based Economy / Distance learning, Prevention of Digital Divide	✔	✔	✔	✔
Acceleration of Electronic Commerce Development	✔	✔	✔	✔
E-government: electronic delivery of public services / Gateway to Poland	✔	✔	✔	✔
Telemedicine	✔	✔	✔	✔
European digital content for global networks/ Polish content on the Internet	✔	✔[46]	✔	✔
Intelligent Transportation Systems	✔	✔[47]	✔	
Increasing Accessibility of Telecommunication Service/ Access Infrastructure			✔	✔
Adaptation of Legal Environment / Part of Gateway to Poland			✔	✔
Use of the Internet in the exchange of environmental information			✔	
Poland's Gateway to Europe				✔
Central Databases of the Administration				✔

[46] As e-Content programme.

[47] Excluded for a separate e-Safe programme.