LORIS

Main organizer

Kraj Vysočina

Education and Culture

Town Twinning

Project LORIS is supported by the European Commission–Directorate General for Education and Culture.

www.isss.cz/loris

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Introductory word by Miloš Vystrčil, President of Vysočina Region

Dear Ladies and Gentlemen.

Let me here wish this year LORIS conference (Local and Regional Information Society) not only a lot of success, but first of all interesting contributions, responsive audience and constructive discussions. It has already become a tradition that this conference enables to compare various views onto the issue of information society and it has become an interesting platform for exchange of experience for old as well as new members of the EU.

The conference is again held within the programme of this year (this time the anniversary tenth year) conference Internet in Public Administration and Self-government in the days 2 and 3 April 2007 in the Congress Centre Aldis in Hradec Králové. The main organiser of this conference co-financed by the European Union is Vysočina Region, which is fully aware of the role of regions in the process of creating information society and by organizing this conference it enables not only exchange of experience but also makes it possible to concentrate a number of personalities and experts of the EU in one place.

The main target of the LORIS conference is to increase awareness of the participants from the twinning towns about the European initiative i2010 (European Information Society for growth and employment), which further develops Lisboan strategy. The conference will intensify the dialogue about this basic European policy and in close collaboration with the conference EISCO 2007, held by associations ELANET and CEMR (Council of European Municipalities and Regions), will suggest future direction of this initiative. The conference will significantly contribute to deeper collaboration of twinning towns and regions from the whole Europe, to which there belongs the Capital City Prague, City of Hradec Králové or Vysočina Region. The participants of the conference will adopt a declaration summarizing the best practices of separate twinning towns with implementation of this policy and related sources. The key themes of a two-day programme will include among others also discussions about development of e-government at the local and regional level, use of EU sources in development of some ICT projects, town-twinning and networking or in development of e-tourism.

It is also significant that there will be concurrently held already a forth year of euroregional conference of the Visegrád Four countries – V4DIS, whose aim is to create a necessary base for mutual communication and perspective collaboration at the level of specialized teams, associations of regions, self-governments as well as parliaments of Poland, Hungary, Slovakia and Czechia.

In the course of the past years the ISSS/LORIS/V4DIS conference has become an important platform for continual estimation of development of information and communication technologies at the local, regional as well as national levels. It has also become the most significant event of its kind in the Central, Eastern and Southern Europe.

I wish all the participants to consider time spend here as usefully spent and I hope that they will find here many incentives for their further work and that the LORIS conference will become source of inspiration for further development of eGovernment not only in the Czech Republic.

Miloš Vystrčil
President of Vysočina Region

LORIS 2007 Conference Agenda

Sunday, April 1

Prague

9:00–9:15 Rendez-vous in front of the TopHotel, departure to the Town hall

9:45–10:00 Rendez-vous near the Prague Town Hall

10:00–13:00 **Sightseeing tour around the Prague City center**

13:00–14:00 **Lunch with the Prague officials**

14:00 Departure from Prague to Hradec Kralove by bus provided by the organizers

Hradec Kralove

15:30 Estimated time of arrival to Hradec Kralove

15:30–17:00 Accommodation

Hotel Nove Adalbertinum
Conference Hall

17:00–18:30 **eGovernment Expert Forum**

presentations on development of Central European countries in the field of eGov

Introduction
Jiri Polak, SPIS

Strategic aims of Czech government in the field of eGovernment
Ivan Langer, minister of interior and informatics, Czech Republic

Possible scenarios of eGovernment realization in Czech Republic – commentary to SPIS materials
Jiri Peterka, independent journalist

Digital Austria – project continuation in 2006 (statistics, changes made in previous 12 months), new features planned for 2007/2008
Christian Rupp, Digital Austria spokesperson

Klicpera Theater

19:00–21:00 **Ceremonial evening in the Hradec Kralove theatre**

Monday, April 2

Main Hall

10:40–12:00 **Conference opening**

Premysl Sobotka, president of Senate
Mirek Topolanek, prime minister
Ivan Langer, minister of interior and informatics
Jiri Pospisil, minister of justice
Jiri Cunek, minister for regional development
Frantisek Dohnal, president of Supreme audit office
Evzen Tosenovsky, president of Moravskoslezsky region
Pavel Bradik, president of Kralovehradecky region
Milos Vystrcil, president of Vysocina region
Otakar Divisek, lord mayor of Hrade Kralove
Oldrich Vlasak, chairman of Union of towns and municipalities of the Czech republic
Paul Timmers, head of unit eGovernment DG INFSO, Brussel
Omar Al-Rawi, Member of City Council Committees, Vienna
Kristof Forrai, executive director of International Visegrad fund, Bratislava

Eliska Hall

9:00–10:30 **eGovernment**

0:15 Introduction
Kristof Forrai, International Visegrad Fund, Bratislava, SK; Milos Vystrcil, Vysocina region, Jihlava, CZ

0:15 V4 portal
Jiri Sykora, International Visegrad Fund, Bratislava, SK

0:10 European Quartet as a Part o Visegrad Four
Martin Kosatka, CzechTourism, Prague, CZ

0:20 TRANSFER-EAST–Project for G2B implementation in Public Administration
Peter Druga, BIC Bratislava/PD Consulting, Bratislava, SK

0:15 Action plan on eGovernment
Heikki Lunnas, ELANET, Helsinki, FI

0:15 Round table

12:45–14:45 **Development of cooperation**

0:15 Possibilities of ICT projects co-financing from the EU programs
Blanka Hasova, Ministry of informatics, Prague, CZ; Martin Hirsal, Ministry of informatics, Prague, CZ

0:15 Resources drawing from the EU funds
Jiri Kolecek, RERA, Ceske Budejovice, CZ; Miroslav Krticka, RERA, Ceske Budejovice, CZ

0:15 Research on information literacy of Slovakian state government officers
Darina Imreova, ACRC spol. s r. o., Bratislava, SK; Jan Tucek, StemMark a. s., Prague, CZ

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0:15 Developing the V4 virtual region concept
Andrzej Janicki, Alfa-Omega Foundation, Warsaw, PL

0:15 Country Development Strategy on duty of Information Society on the post and pre-accession stage
Monika Walczak, Polish Ministry of foreign affairs, Warsaw, PL

0:15 Operation program Informatization of society in Slovakia between 2007–2013
Denisa Zilakova, Ministry of finance, Bratislava, SK

0:10 Comparation of eGovernment development in V4 countries
Peter Druga, PD Consulting, Bratislava, SK; Jaroslav Svoboda, Ministry of interior, Praha, CZ

0:10 Key problems in eGovernment
Arpad Takacs, VUS, Banska Bystrica, SK

0:10 ICEGEC research
Renata Jaksa, Pal Gaspar, ICEGEC, Budapest, HU

14:55–16:50 **eTourism**

0:10 Introduction
Jiri Vackar, Ministry for regional development, CZ

0:15 WWW part of the regional tourism IS–concept in context of inspirative guide
Josef Zelenka, University of Hradec Kralove, CZ

0:15 Modern elektronic marketing tools of local governments
Ivona Franova, AICES, City of Nitra, SK

0:10 Multimedia kiosks with touristic information about Wałbrzych and Hradec Kralove
Waldemar Kujawa, City of Walbrzych, PL

0:10 Touris portal of Eastern Bohemia
Vit Pechanec, World Media Partners, Prague, CZ

0:10 Bratislava Tourism Website
Martina Gajarska, City of Bratislava, SK

0:10 Tourist portal of Vysocina region and its further development
Jitka Mattyasovska, Vysocina region, Jihlava, CZ

0:10 ePrague and promotion of tourism
Ivan Seycek, City of Prague, CZ

0:10 Tourist portal of Lower Silesia
Arkadiusz Dolega, Lower Silesia tourist organization, Wroclaw, PL

0:15 Round table

17:00–18:30 **eInclusion**

0:15 i2010 and eInclusion
Paul Timmers, European Commission, Bruxelles, BE

0:15 Junior Internet–projects even for a public administration
Daniel Pecynski, Together Poland, Wroclav, PL; Peter Slosar, Amaweb, Bratislava, SK; Jiri Peterka, Together, CZ

0:10 Senior Internet–intergeneration barriers tremble and disappear
Monika Kavanova, OPS Internet pro vsedni den, Praha, CZ; Martin Soukup, OPS Internet pro vsedni den, Hradec Kralove, CZ

0:10 Access to public Internetu in libraries of towns and villages
Vit Richter, National library, Prague, CZ

0:10 Electronical signature and accessible forms–way to independence of sight impaired citizens
Branislav Mamojka, Peter Teplicky, UNS, Bratislava, SK

0:10 Problems in accessiblity of web pages in Slovakia
Vojtech Regec, UNS, Bratislava, SK

0:10 Even handicapped citizens have rights to use elektronic services of public administration–but what is needed?
Radek Pavlicek, TyfloCentrum, Prague, CZ

0:10 Barrierfree web–service for all
Alexander Kamaryt, City of Nova Dubnica, SK

Visegrad Lounge

12:55–13:55 **Communication infrastructure**

0:15 Wireless Prague
Jaroslav Solc, City of Prague, CZ

0:15 Internetization of Bodva river valley
Istvan Zacharias, City of Moldava nad Bodvou, SK

0:20 ROWANet and other projects of Vysocina region
Petr Pavlinec, City of Jihlava, CZ

0:10 Round table

14:00–15:35 **GIS**

0:20 INSPIRE
Jiri Hradec, CENIA, Prague, CZ

0:20 GIS a map services of the City of Nitra
Tibor Nevicky, City of Nitra Townhall, SK

0:15 Data sources and information systems of the City of Prague area
Jiri Ctyroky, City of Prague Townhall, CZ

0:10 Municipal GIS in Slovakia
Branislav Balint, CORA GEO, Milan Matuska, City of Martin, SK

0:10 Digitalization of cycling routes–map support in the Czech republic
Vaclava Seblova, Plzen region, CZ

0:10 Education of employees in introduction, maintenace and actualization of analytical basis for ground developement
Tomas Vasko, Liberec region, CZ

0:10 Geografical information system Single transport vector map
Stepan Zezula, Transport research centre, Prague, CZ

Congress Centre Aldis 20:00–0:00 **Ceremonial evening**
delivering of miscellaneous awards including the Eurocrest award (for the best municipal web site in each competing country)

Tuesday, April 3

Eliska Hall 9:00–10:25 **Best practices**

0:15 International project MATEO
Miroslav Krticka, RERA, Ceske Budejovice, CZ

0:15 Golden crest competition–Zlatyerb.sk
Miroslav Drobny,UMS, Nitra, SK; Lubos Magat, City of Dubnica nad Vahom, SK

0:15 Municipal websites and eTourism
Margit Benickova, Ministry for regional development, Prague, CZ

0:10 Golden crest competition–Zlaty Erb
Jan Savicky, Webhouse, Jihlava, CZ

0:15 Presentations of the Golden crest competition winners

0:15 Round table–Best practices of webpages of the Town Twinning Cities

Hradec Kralove 12:00 Departure of the buses to Prague provided by the organizers

14:30 Departure of the buses to Prague provided by the organizers

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Internet ve státní správě a samosprávě
LOCAL AND REGIONAL INFORMATION SOCIETY
Visegrádská konference V4DIS

přízemí – 1st floor

1. patro – 2nd floor

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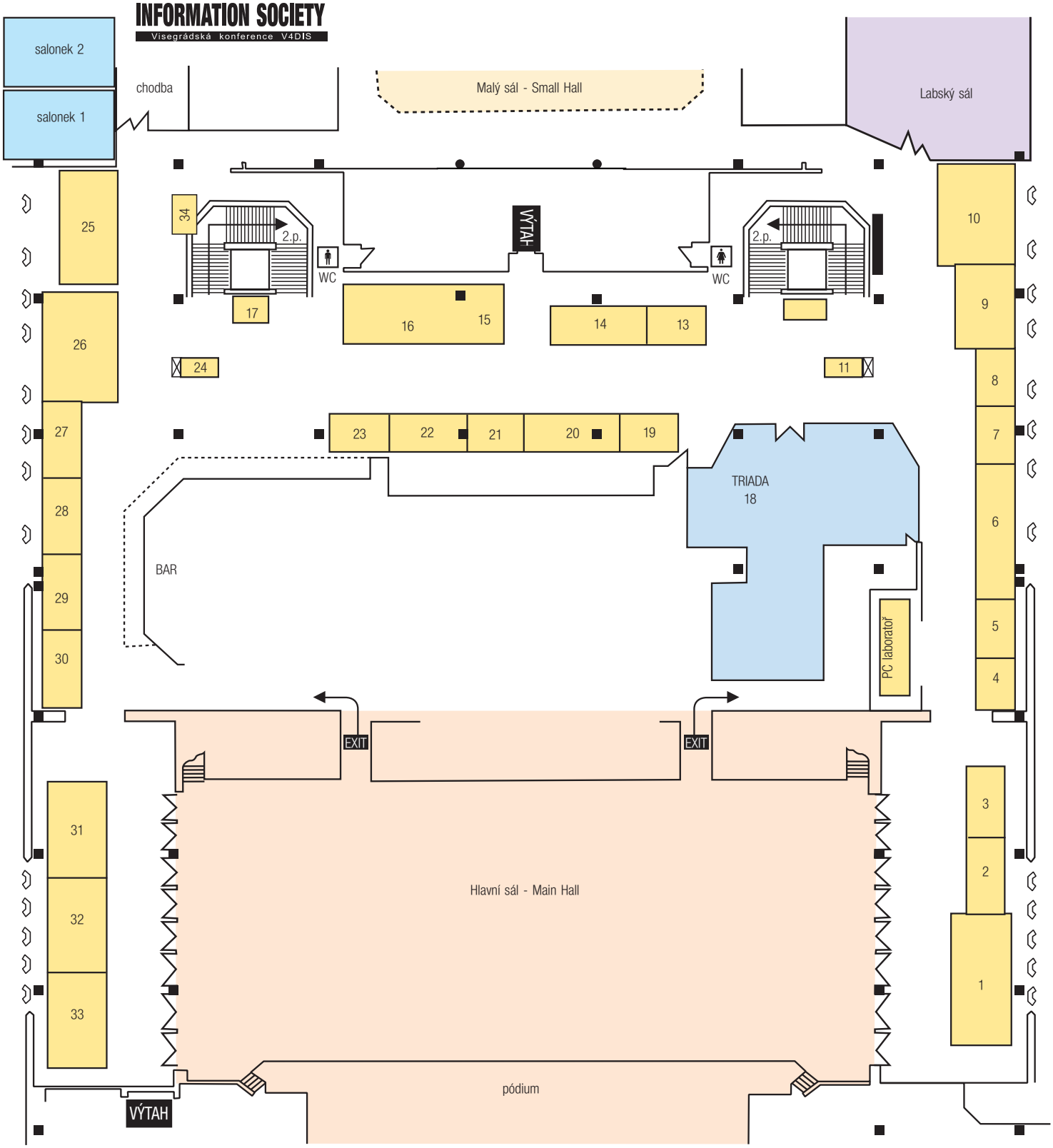
Visegrádská konference V4DIS



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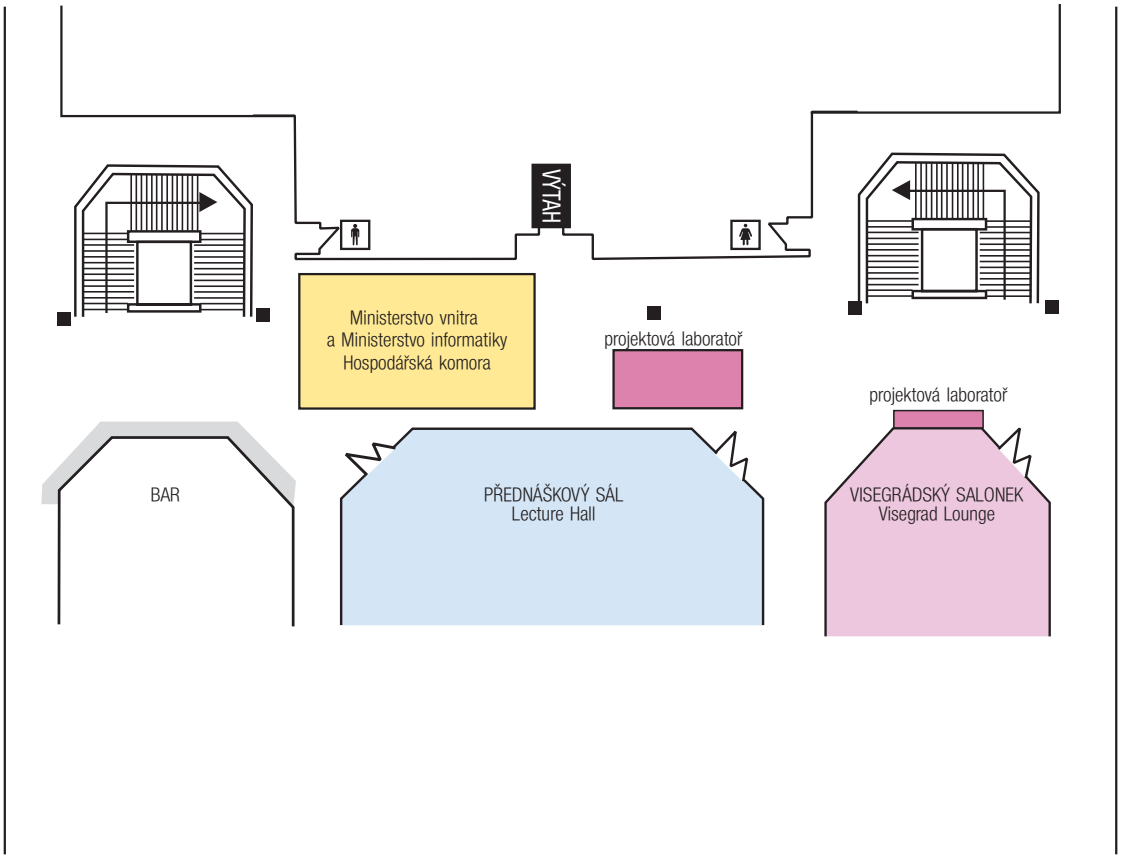
2. patro – 3rd floor



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Documents

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Framework of the LORIS Conference

The LORIS conference implies a major step for strengthening cooperation amongst towns, regions and countries across Europe. Its aim is to foster existing partnership mainly in the field of ICT knowledge, practices and contacts. One of the reasons to organize the ISSS/LORIS event is to create a possibility to meet people from other partner town or city and to share experience acquired to help to develop and deploy stable, competitive and strong Europe.

The conference gives a great chance to handle with problems with experts in the field and helps to prevent mistakes and to use best practices provided by a partner town. This is also a brilliant possibility to share visions, to discuss with other representatives and to be informed about what is new in partner towns in information and communication technologies development.

Twinning cooperation in this particular event is targeted to bring together all relevant stakeholders from various backgrounds and participating in local and regional Information Society development.

The ICT issues penetrate all aspects of life – from policy, legislation and regulation to industry, cultural development, the delivery of health and education, etc. – offering number of possibilities to facilitate everyday life.

In cooperation with all member states the European Commission has initiated several strategies to create conditions for local to trans-national Information Society deployment.

A brief history of activities in main European initiatives on Information Society: On 8 December 1999 the European Commission has launched an initiative entitled *"**e**Europe An Information Society for All",* which proposes ambitious targets to bring the benefits of the Information Society within reach of all Europeans on local, regional, national and pan-European level. The initiative was focused on ten priority areas**,** from education to transport and from healthcare to the disabled. The initiative was a key element in the President's strategy to modernise the European economy.

The key objectives of the *e*Europe Initiative were:

- Bringing every citizen, home and school, every business and administration, online and into the digital age.
- Creating a digitally literate Europe, supported by an entrepreneurial culture ready to finance and develop new ideas.
- Ensuring that the whole process is socially inclusive, builds consumer trust and strengthens social cohesion.

The **eEurope 2005 Action Plan** was launched at the Seville European Council in June 2002 and endorsed by the Council of Ministers in the eEurope Resolution of January 2003. It aimed to develop modern public services applications and content and a dynamic environment for e-business through widespread availability of broadband access at competitive prices and a secure information infrastructure.

In 2005 the EU adopted a new strategic framework, **i2010 – A European Information Society for growth and employment** – that promotes an open and competitive digital economy and emphasises ICT as a driver of inclusion and quality of life. As a key element of the renewed Lisbon partnership for growth and jobs, i2010 builds an integrated approach to the information society and audiovisual media policies in the EU.

Drawing on a comprehensive analysis of information society challenges and drawing on wide stakeholder consultations on previous initiatives and instruments, i2010 proposes three priorities for Europe's information society and media policies:

- The completion of a **Single** European Information Space which promotes an open and competitive internal market for information society and media;
- Strengthening Innovation and Investment in ICT research to promote growth and more and better jobs;
- Achieving an Inclusive European Information Society that is consistent with sustainable development and that prioritises better public services and quality of life.

To achieve these priorities, a set of actions have been launched. They include: regulatory actions, policy coordination actions, and financial instruments at Community level. The ICT PSP in the CIP is one of the main financial instruments of i2010.

What is i2010? A comprehensive strategy for the information society 2005–2010

The "i2010 – A European Information Society for growth and employment" initiative was launched by the Commission on 1 June 2005 as a framework for addressing the main challenges and developments in the information society and media sectors up to 2010. It promotes an open and competitive digital economy and emphasizes ICT as a driver of inclusion and quality of life. The initiative contains a range of EU policy instruments to encourage the development of the digital economy such as regulatory instruments, research and partnerships with stakeholders.

i2010 has three following priorities:

- to create a Single European Information Space offering affordable and secure high-bandwidth communications, rich and diverse content and digital services. Action in this area combines regulatory and other instruments at the Commission's disposal to create a modern, market-oriented regulatory framework for the digital economy, which promotes an open and competitive internal market for information society and media services.
- to strengthen investment in innovation and research in ICT. Efforts will be targeted to strategic ICT research within the Seventh Research Framework Programme (FP7), EuropeanTechnology Platforms and Joint Technology Initiatives, ICT policy support programme in the Competitiveness and Innovation Programme, e-business policies and ICT adoption by enterprises, especially SMEs, New patterns of work that enhance innovation and adaptation to new skill needs and to Standardization for ICT.
- to foster inclusion, better public services and quality of life through the use of ICT to promote an inclusive European Information Society, supported by efficient and user-friendly ICT enabled public services. These activities will be focused on people who are disadvantaged due to limited resources or education, age, gender, ethnicity... (e-Inclusion policies & activities); people with disabilities (e-Accessibility) and those living in less favoured areas (preventing "digital divide"); better public services (e-Government, e-Health).

The European Commission has presented flagship initiatives illustrating the potential of ICT to improve quality of life as follows: Intelligent Cars, European Digital Libraries, ICT for independent living in an ageing society, ICT for sustainable development.

eGovernment: Commission calls for ambitious objectives in the EU for 2010

Hundreds of billions of euros could be saved for European taxpayers every year as a result of administrative modernisation in the 25 EU Member States, outlined today in the European Commission's eGovernment Action Plan. Information and communication technology is the key to modernising local, regional and central government services: making them more efficient and more responsive. 100% take-up of electronic invoicing and electronic public procurement is predicted to save 300 billion euros every year. All Member States already signed up to an ambitious agenda to achieve these goals in Manchester last year. Today's action plan proposes concrete steps towards achieving these goals,

"We are starting to see benefits from Europe's investments in 'eGovernment' over the last few years, but we need to be more active in learning lessons from each other and getting the benefits of scale from adopting common approaches across borders," declared Viviane Reding, Information Society and Media Commissioner. "eGovernment is no longer just a political toy, it is the essential tool of government, for modernising Europe's public administrations".

eGovernment initiatives in Europe have already resulted in significant saving of time and money in some Member States. Public service eProcurement in Italy resulted in savings of €3.2 billion by 2003 (for example an average saving of 34% on PCs). Portugal has reported savings of 30% through electronic public procurement. Full deployment of e-Procurement across the EU could reduce this bill by up to €80 billion a year.

The new eGovernment action plan adopted today by the European Commission addresses five priority areas for 2010 and underlines the commitment of the European Commission to delivering tangible benefits to all Europeans, in cooperation with the Member States:

- No citizen left behind: eGovernment will only really make a difference if everyone can use it. The Commission will work with Member States to make sure that by 2010 all citizens, regardless of gender, age, nationality, income, or disability will have access to a wide range of technologies such as Digital TV, PCs and mobile phones.
- Raising efficiency: Public services concern everybody – all 470 million citizens in the EU, 20 million firms and tens of thousands of administrations. Governments account for 45% of EU GDP, which has to be paid from taxes. Transformation of the UK pension programme has freed up 50% of clerical staff to provide face to face support to customers, or to carry out other tasks. All Member States have undertaken to use ICTs to achieve "considerable gains in efficiency" and "significant reductions in administrative burdens" by 2010. Under the Action Plan, the Commission and the Member States will put in place a framework for benchmarking the impact of e-government in order get this process on track.
- Implementing e-Procurement: Government procurement represents 15% of GDP or about €1.500 billion a year. The Member States have committed to achieving 100% availability and at least 50% take-up of procurement online by 2010, with an estimated annual saving of €40 billion. The action plan will lay out a road map for achieving these goals as well as the practical steps required for such large-scale cross-border procurement pilots and full electronic handling of company documents (the "Electronic Company Dossier").
- Safe access to services EU wide: When citizens travel or when they move they want easy access to services. EU governments have agreed to facilitate this process by establishing secure systems for mutual recognition of national electronic identities for public administration web-sites and services. The Action Plan foresees a full implementation by 2010. The Commission will help make this happen by supporting wide-scale cross-border demonstrators, identifying common specifications for electronic ID management during 2007 and by reviewing the rules of electronic signatures in 2009.
- Strengthening participation and democratic decision-making: 65% of respondents to the Commission's public consultation on eGovernment said that eDemocracy can help reduce Europe's democratic deficit. The Action Plan proposes to support experiments in the use of ICT for more effective public participation in policy making.

Further information: *http://europa.eu.int/information_society/activities/egovernment_research/index_en.htm*

Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee on Scientific Information in the Digital Age: Access, Dissemination and Preservation

Introduction

The present Communication comes from two policy strands, the **i2010 digital libraries initiative** and the **Community policy on research.** The digital libraries initiative aims to make information more accessible and usable in the digital environment. It follows up on a letter of 28 April 2005 by six Heads of State and Government asking the Commission to take necessary steps to improve access to Europe's cultural and scientific1 heritage.

The Community policy on research looks to maximise the socio-economic benefits of research and development for the public good. The present Communication represents an initial step within a wider policy process addressing how the scientific publication system functions and what impact it has on research excellence. It comes at a strategic moment for European research with the launch of the Seventh Framework Programme (FP7) for 2007–2013 and the forthcoming Communication on developing the European Research Area (ERA).

The Communication's objective is to signal the importance of and launch a policy process on (a) access to and dissemination of scientific information, and (b) strategies for the preservation of scientific information across the Union. To this end, it announces a series of measures at European level and points to the need for a continuing policy debate. These issues have a direct impact on Europe's capacity to compete through knowledge, a determining factor to reach the goals of the Lisbon agenda for competitiveness.

The Importance of Scientific Information

In order to become an increasingly competitive knowledge-based economy, Europe must improve the production of knowledge through research, its dissemination through education, and its application through innovation. All research builds on former work, and depends on scientists' possibilities to access and share scientific publications and research data. The rapid and widespread dissemination of research results can help accelerate innovation and avoid duplication of research efforts, although some delay for the first use by researchers or for commercial purposes can be justified. The system by which scientific information is published is pivotal for its certification and dissemination, and thus has a major impact on research funding policies and on the excellence of European research.

Public authorities fund around one third of European research3 and therefore have a clear interest in optimising the scientific information system. The stakes for the European Community are high: between 2007 and 2013, the Community will invest some €50 billion in FP7.

Access to and Dissemination of Scientific Information in the Digital Age

A system in transition: new markets, services and players

The rapidly increasing use of digital content in research and in the dissemination of knowledge is a main characteristic of modern science. The Internet makes instant access to and dissemination of scientific information possible and new information and communication tools offer innovative ways to add value. They have opened up new ways to use masses of data resulting from experiments and observations in the scientific process and to extract meaning from this data stored in repositories in combination with other scientific information resources. This leads to a "continuum" of the scientific information space from raw data to publications across different communities and countries.

Scientific journals traditionally hold a central role within the scientific information system. They are a vehicle for spreading research results and have a considerable impact on scientists' careers.

The peer review process underpinning the selection of journal articles is its main quality control mechanism.

Technological change offers tremendous opportunities for Europe's scientific publishers. Over the past years, scientific publishers and other actors have made substantial investments in information technologies for online delivery, in the retro-digitisation of content, and in added value services. About 90% of all science journals are now available online, in many cases via a subscription.

There are some 2 000 scientific journal publishers globally, producing about 1.4 million articles a year. Some 780 of these publishers are located in the EU, producing 49% of the total journal output. They employ some 36 000 persons directly in the EU and have a strong position in the world market.

An important recent trend has been the development of the open access movement, based on the viewpoint that access to publications and data should be improved in the Internet age. This movement aims to ensure immediate and free Internet access to research publications. A key milestone within this movement is the 2003 Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities.

According to the Berlin Declaration, Open Access publication requires that authors grant free access to their scientific contributions, as well as the possibility to use them, subject to proper attribution of authorship. Moreover, a complete version of the work and supplemental materials should be deposited in at least one online repository. 196 research institutions have signed the declaration, which is still open for signature.

The Open Access movement has resulted in publishers experimenting with the 'author pays' business model, which allows free online access to readers. This business model shifts publishing costs from the reader to the author, i.e. the author's institution or funding body. There are also increasing numbers of so-called hybrid journals offering both reader pay and author pay solutions. Another model currently being experimented with foresees a critical mass of journals in a specific area moving towards open access, under the sponsorship of a consortium of funding bodies. An example is the Sponsoring Consortium for Open Access Publishing in Particle Physics led by CERN, the European Organisation for Nuclear Research. At present, open access journals account for about 10% of total journal output.

A further development is the deposit of peer-reviewed and/or not yet peer-reviewed journal articles in freely accessible repositories organised by institution or discipline. In some cases, deposit occurs after an embargo period during which publishers can get a return on their investment (e.g. Cairn in France/Belgium). The length of the embargo period may vary between disciplines.

Some research funding agencies are active in developing policies recommending or mandating publication in open repositories of journal articles resulting from the research that they fund. Prominent examples are the Welcome Trust and the National Institutes of Health. In the US Senate, a draft bill was recently introduced providing for federal agencies to develop public access policies.

The trends described have led to a debate on the scientific information system, with a focus on scientific journal articles. The key arguments used by stakeholders are summarised below.

Main arguments of researchers, research organisations, funding bodies, and libraries

Open access can increase the impact of scientific research and innovation through improved access to and rapid dissemination of research results.

- The Internet should bring the costs of scientific publications down, but journal prices have increased. This affects access to scientific information.
- The public purse pays for research, peer review (through reviewers' salaries), and journals (e.g. through library budgets). It is natural that public actors should request a better return on their investment.

Main arguments of publishers

- There is no access problem. Access to scientific information has never been better.
- Publishing has a cost. Publishers add considerable value to the research process by guaranteeing the quality of journal articles in the most efficient way possible.

- The publishing market is highly competitive and does not require public intervention. An ill-conceived intervention may lead to 'implosion' of the current system without offering a clear and viable alternative.

Issues and challenges

Organisational issues

A shift in the type of publishing business model commonly used may entail unforeseen organisational consequences. For example, in an 'author pays' model, costs for accessing research results are shifted from one part of the public institution (the library) to another (e.g. university departments). This may lead to transitional costs or to a temporary gap in the accessibility of scientific information.

The emergence of increasing numbers of repositories containing not only peer-reviewed articles, but also working papers, PhD theses, research data, etc raises further issues.

An example of this integrated approach is the DARE programme in the Netherlands. Its objective is to provide networked free access to the academic output from all universities. The basic infrastructure currently includes more than 100.000 scientific reports and research articles, and in a later phase will include experimental or observational data, and other digital objects such as video- and audio-files.

Digital repositories promise new and integrated sources of information and are increasingly a strategic infrastructure in support of research. They require considerable organisational effort in relation to issues such as: who is responsible for depositing the material? How can the quality of repositories and of repository content (e.g. version management) be guaranteed?

And how can repositories within Europe be linked to arrive at a critical mass of information?

Legal issues

When publishing scientific articles in journals authors normally assign their rights to publishers. Publishers then provide for the dissemination of these articles with an aim of ensuring a return on their investment. It has been suggested by researchers, funding bodies and libraries that current contractual practices can have a negative impact on access and dissemination and need to be reflected upon. The aim here is not the introduction of

Community rules on copyright contract law – an area which has not been harmonised at Community level – but a reflection on the way in which authors exercise their rights in the digital environment.

In the case of research data, the intellectual property right (IPR) issue is different. While research data as such are not protected by IPRs, Directive 96/9/EC on the legal protection of databases protects efforts in organising research data. In this context, concerns have been raised about the impact of the *sui generis* right of protection for non-original databases on the accessibility of scientific research data.

In case personal data is processed or disseminated in this context, access to and use of this data should respect the rules on the protection of personal data as laid out in EU Directives 95/46/EC and 2002/58/EC.6

Technical issues

Technological progress can greatly contribute to the accessibility and use of scientific information. For example, better search tools can help researchers find information and progress in new areas and collaborative tools can enhance the way in which researchers share information.
In order to link digital repositories and make them searchable, interoperability issues also need to be addressed systematically. In this respect, the use of open standards is crucial.

Financial issues

Over the last twenty years, journal subscription prices have on average increased above inflation level - according to one study 4.5% per year above inflation – while there are considerable differences according to disciplines and journals. This has put publicly funded libraries, their main clients, under

financial pressure and led to subscription cancellations in certain cases. This is particularly acute for less well-endowed institutions and in countries with lower income levels. Publishers argue that price increases are due to the growth in numbers of articles submitted and the increasing volume of journals, and that they are linked to a higher usage rate.

At the same time, the increase in research budgets has outpaced the funding of research result dissemination – today less than 1% of total European R&D-expenditure – including the available budgets of libraries. Publishers have responded by offering 'big deals' (bundling of journals for a discounted price) to libraries and to library consortia. These have benefited research organisations across Europe, but have also introduced the new problem of library budgets becoming inflexible through multi-year and relatively rigid contracts.

A further financial issue is that of value added tax (VAT) for digital products. Across Europe, digital journals are subject to standard rate VAT while paper journals benefit from a reduced rate. Thus the same content triggers a different VAT rate depending on the medium. Moreover, in view of the current rules concerning exemptions, public authorities and subsidies, public research institutes and libraries cannot deduct VAT costs. To address this situation, some Member States refund VAT for digital journal subscriptions to libraries.

Preservation in the Digital Age

The problem

Long term preservation of digital material is a central problem for the information society, which features an exponentially growing and increasingly dynamic supply of information. Digital information is unstable due to rapid changes of hardware and software, and to the limited lifetime of storage devices. Information needs to be preserved in order to keep it readable and usable for the future. This challenge was signalled in the Communication 'i2010: digital libraries' in relation to Europe's digital cultural heritage.

The issue of preservation is relevant for publications and for research data. Preserving research data is essential to ensure traceability and repeatability of experiments. Moreover, research often depends on past observations, for example in the case of research on climate change. Sometimes research data collected in the past acquires contemporary relevance.

This was the case during the 'anthrax alerts' in the US and Europe. The British Library – one of the few places worldwide with comprehensive historic holdings of research information on anthrax – received numerous enquiries. Virtually no new research had been done on anthrax for forty years.

There are currently no clear strategies in place across the Union for long term preservation and usability of digital scientific information. Existing national and European initiatives must be linked systematically. Preservation is also an area with considerable market potential (e.g. storage services) where Europe cannot afford to lag behind.

Issues and challenges

Organisational issues

The issue of preservation raises organisational questions. Who is responsible for preserving research data and the necessary software and hardware? What are the roles of research organisations and libraries? According to what criteria should the material to be preserved be selected? Moreover, a successful public preservation strategy requires good collaboration between public and private partners.

Examples of public-private partnerships for preservation purposes are the agreements between the Dutch National Library and publishers such as Reed Elsevier, Springer and Bio-Med Central.

Legal issues

Legal deposit, i.e. the obligation for content producers to make one or more copies of scientific materials available to a mandated deposit body, is a central issue for the preservation of digital scientific information. Member States have started to extend deposit arrangements to digital information, at dif-

ferent speeds and with different types of information covered. Nevertheless, the transition towards a digital environment may cause gaps in the intellectual record. A 2004 report of the Science and Technology Committee of the UK House of Commons signalled a gap of 60% in the deposit of electronically delivered publications due to delays in implementing legal deposit. In order to maximise the efficiency of the preservation process, digital information should be made available to mandated deposit bodies without technical protection against copying.

Technical issues
Technological advances can help to keep information accessible and usable. The goal is to reduce preservation costs and offer solutions for challenges such as the storage of large volumes of dynamic content. Upgrading of the supporting technical infrastructure would increase the capacity of research organisations to store information.

Financial issues
The cost of long term and sustainable preservation must be taken into account when setting up open repositories, but is often difficult to assess. Determining factors include the type and volume of information stored, the number of migrations needed, and envisaged use.

Actions at European Level

Commission position
Initiatives leading to wider access to and dissemination of scientific information are necessary, especially with regard to journal articles and research data produced on the basis of public funding. With respect to journal articles, the Commission is observing and considering experiments with open access publishing.

Fully publicly funded research data should in principle be accessible to all, in line with the 2004 OECD Ministerial Declaration on Access to Research Data from Public Funding.

Moreover, the Commission draws particular attention to the need for clear strategies for the digital preservation of scientific information.

The Commission values the crucial role of all stakeholders in the scientific information system, and these stakeholders should be involved in any transformation process regarding access to, dissemination of and preservation of scientific information.

What has been done so far?
Member States and the Commission have started exploring issues of access, dissemination and preservation of scientific information, through project funding and by launching a public debate with stakeholders. Examples of relevant projects co-funded under the Sixth Framework Programme (FP6) are CASPAR, DRIVER, and SEADATANET. CASPAR looks at how to manage future access to and preserve scientific data. DRIVER focuses on ways to link repositories of scientific information. SEADATANET aims to develop a Pan-European Marine Data Management Infrastructure integrating the national marine data repositories.

The Commission has also begun to work with advisory groups and gather views from stakeholders, for example the High Level Group on Digital Libraries and the European Research Advisory Board (EURAB).

It has also financed a ‘Study on the economic and technical evolution of the scientific publication markets in Europe’, which was subject to a public consultation in 2006. Responses from these initiatives together with regular interaction with stakeholders have given the Commission valuable inputs.

At the political level, a Commission Recommendation on the digitisation and online accessibility of cultural information and digital preservation adopted on 24 August 2006 addresses the digital preservation issue.

Future actions managed by the European Commission

A. Access to Community funded research results

Within FP7, the Commission will take measures to promote better access to the publications resulting from the research it funds. In this context, project costs related to publishing, including open access publishing, will be eligible for a Community financial contribution. The Commission will encourage the research community to make use of this possibility.

The Commission also envisages, within specific programmes (e.g. the programmes managed by the European Research Council), to issue specific guidelines on the publication of articles in open repositories after an embargo period. This would be done on a sectorial basis, taking into account the specificity of the different scholarly and scientific disciplines.

B. Co-funding of research infrastructures (in particular repositories) and projects

Within FP7 the Commission will intensify its activities regarding infrastructures relevant for access to scientific information, in particular by linking digital repositories at the European level. An amount of approximately €50 million will be made available to this end for the period 2007-2008 (some 20 million of which have been allocated for 2007).

In addition, an indicative amount of €25 million will be provided during this period (some 15 million of which during 2007) for research on digital preservation (in particular a network of Centres of competence for digital preservation) and on collaborative tools for using the content.

Within the *e*Content*plus* programme (2005–2008), €10 million has been earmarked to improve the accessibility and usability of scientific content, in particular addressing issues of interoperability and multilingual access.

C. Input for the future policy debate

To feed the debate and the policy process, the Commission will launch a study on the economic aspects of digital preservation to start in 2007. Moreover, through the Science in Society programme, the Commission will support research on the scientific publication system within the ERA and globally, for example on publication business models, dissemination strategies, and the connections between research excellence, scientific integrity and the scientific publication system.

When reviewing VAT-legislation, the Commission will critically examine issues relevant for scientific publications, such as the restrictions for public authorities or the exempt sectors on the recovery of VAT.

D. Policy co-ordination and policy debate with stakeholders

Discussions in the European Parliament and Council will contribute to a common understanding of access and dissemination issues at European level. In this respect, the Member States are invited to explore possible common strategies and to discuss the relevant issues and challenges – organisational, legal, technical and financial – highlighted in this Communication. Instruments such as ERA-NET and fora such as CREST and ESFRI could contribute to shaping the discussion.

The Commission will continue consultations with stakeholders in relevant expert and advisory groups such as the EIROforum, ESF, EURAB, and the High Level Group on Digital Libraries, taking into account the global dimension of the issue. It will organise a high-level conference on scientific publishing in the ERA in early 2007. The Commission will encourage universities, research organisations, research funding bodies and scientific publishers to exchange information on good practices in relation to new access and dissemination models for scientific information.

Overview of actions

A. Access to Community Funded Research Results

- Costs for publishing, including open access publishing, defined as eligible costs in Community funded research projects.

- Specific guidelines to be issued, within specific programmes, on the publication of articles in open repositories.

B. Co-Funding Through Community Programmes

- Approximately €50 million for work on infrastructures, in particular digital repositories, in 2007-2008.
- Approximately €25 million for digital preservation and collaborative tools in 2007-2008.
- Approximately €10 million on access to and use of scientific information through *e*Content*plus* programme.

C. Input for the Future Policy Debate

- Study on the economic aspects of digital preservation.
- Funding of research on publication business models and on the scientific publication system.

D. Policy Co-Ordination and Debate with Stakeholders

- Deliberations in the European Parliament and Council; further discussions with stakeholders.
- Exchange of good practices for new models of access to, dissemination of, and preservation of scientific information.

Conclusion

Access to, dissemination of, and preservation of scientific information are major challenges of the digital age. Success in each of these areas is of key importance for European information society and research policies. Different stakeholders in these fields have differing views on how to move towards improvements for access, dissemination and preservation. Within this transition process from a print world to a digital world, the Commission will contribute to the debate among stakeholders and policy makers by encouraging experiments with new models that may improve access to and dissemination of scientific information, and by supporting the linkage of existing preservation initiatives at European level.

The Commission invites the European Parliament and Council to debate the relevant issues on the basis of the present Communication.

eInclusion – ICT & Inclusion

Many Europeans still reap few or no benefits from ICT. There are resilient gaps in ICT use. Lack of affordability, access, accessibility, skills and motivation, these all are barriers for the estimated 30 to 40% of Europeans not benefiting from the information society. Despite broadband subscriptions in Europe is growing by 60% in 2005 and overtaking the US for the first time, broadband penetration (the number of subscribers per 100 inhabitants) is still only 13% of the EU population with significant differences in access between rural and urban areas. Only 10% of persons over 65 use the Internet; and only 3% of public web sites comply with eAccessibility standards fully – which is a major problem for citizens with disabilities. In real terms, this means that a huge percentage of the population in the EU cannot fully participate in and contribute to social and economic life.

eInclusion aims to prevent new forms of exclusion and ensures that disadvantages people are not left behind. It addresses issues in the fields of active ageing, geographical digital divide, accessibility, digital literacy and competences, cultural diversity and inclusive eGovernment.

eInclusion should help people to overcome barriers so that they can participate fully in society regardless of disabilities, age, gender, ethnicity, educational achievement, financial and technological resources. It should reach out everyone no matter where he or she lives in Europe.

The European Commission publishes its Communication on eInclusion describing state of play and proposing recommendations for future activities. Consequently, following EC Communications were published: eAccessibility, Bridging the Broadband Gap Communication and Initiative ICT for Independent Living in Ageing Society.

eInclusion is an important topic in FP7 (Cooperation), as a part of the 7th Challenge of the IST Programme in "ICT for Independent Living and Inclusion". FP7 Working programme (2007–2008) is targeted on eAccessibility and eAgeing projects. The ICT Policy Support Programme CIP (Competitiveness and Innovation framework Programme) aims to ensure deployment and efficient exploitation of technology results and good practices in reality and thus contribute to achieve goals of eInclusion policy.

ICT provides a major opportunity to integrate people at risk of exclusion and empower individuals to fully participate in the knowledge society. ICT also offers important means to address the challenges associated to the ageing population such as the rise in number of people with high disability rates, fewer family carers, and a smaller productive workforce. For many people, in particular for groups at risk of exclusion, e.g. the growing part of the population that is over 60, the complexity and lack of utility, accessibility and usability of ICT is a major barrier. The objective is to respond to these trends by mainstreaming and radically improving the accessibility and usability of new ICT solutions. This should ensure a better adoption and acceptance of ICT by people with disabilities, functional limitations or lacking digital competences, and may have a large spill-over effect to the wider society. In addition, new opportunities offered by ICTs will be exploited to help offset the impact of the ageing population, significantly prolonging independent living, and increasing active participation in the economy and in society. Finally new ICT solutions for improving social cohesion will be explored and developed.

In the FP7 Work-programme 2007–2008 there are two objectives in Challenge 7:

- ICT and Ageing
- Accessible and Inclusive ICT.

eAccessibility

While accessibility is a wide concept, e-Accessibility deals mainly with aspects linked to the Information Society.

All citizens have the right to benefit from new opportunities that the Information Society offers. People with disabilities and older persons sometimes experience difficulties in accessing these new technologies and services, as some barriers can be inadvertently created by the Information Society itself. Accessibility problems can also be created by specific environment or social conditions.

On the other hand, Information Technologies and Services can greatly help overcome other environmental or social barriers, encountered by people with disabilities and older persons.

Accessibility problems concern specifically Persons with disabilities and older People, but also anybody in specific environmental or social situations. Solutions to overcome these issues are therefore very wide and can be grouped in following categories: "Mainstreaming Accessibility in goods & services", in particular through Design for All and "Developing up-to-date Assistive Technologies".

eAgeing
An activity where the information society should enable older people to fully participate int the society and the economy and to be active and empowered citizens and consumers, thereby contributing a positive perception of ageing in Europe.

eCompetences
Activities aimed on strengthening the eCompetences (skills, knowledge, attitude, etc.)

Socio-Cultural eInclusion
Aimed on reducing socio-cultural diversities.

Geographical eInclusion
Aimed on reducing the geographical divide.

Inclusive eGovernment
E-inclusion ('e' standing for electronic) aims to *prevent the risks of 'digital exclusion'*, that is to ensure that disadvantaged people are not left behind and to avoid new forms of exclusion due to lack of digital literacy or of Internet access.

At the same time e-inclusion also means *tapping new 'digital opportunities'* for the inclusion of socially disadvantaged people and less-favoured areas. The Information Society has the potential to distribute more equally knowledge resources and to offer new job opportunities, also by overcoming the traditional barriers to mobility and geographic distance.

EU activities cover:

- **policy making**: eInclusion is part of the third pillar of the i2010 initiative and a major EC initiative was announced in this domain for 2008 with therefore much preparatory work needed. There was already an EC Communication on e-Accessibility in 2005, and work is currently focusing on e-Ageing.
- **research & technology development**: the different focuses have been covered sometime separately in EU framework programmes for research (FP4, FP5, FP6) and FP7 eInclusion component is currently (2007–2008) targeting e-Accessibility & e-Ageing and some first investigations of ICT for maginalised young people.
- **deployment** for efficient exploitation of technology results and good practices in support to policy goals, for the benefit of the users.

EISCO 2005 Statement – European Information Society Conference of Local and Regional Governments

The Cracow Declaration

On Local Agenda I2010 in Europe and the Promotion of Digital Solidarity among the Cities of the World

We, representatives of Local and Regional governments, Universities, ICT companies and experts working in eGovernment and in digital local services delivery, have met in Cracow (Poland) from the 2nd to the 4th of June 2005, hosted by the Malopolska Region, to discuss the new scenario and tasks that European local and regional governments must implement to make a significant step forward in the Information Society and to address the challenges of i2010 (eEurope). The meeting was especially significant because this fifth edition of our European Information Society Conference has taken place in a new Member State of the European Union, bringing together mayors, experts and representatives of the local and regional authorities as well as private companies and institutions working with the public sector from all over Europe.

We have analysed the digital divide within our own regions and between developed and less developed countries and discussed the solidarity agenda of the II World Summit of Cities and Local governments that will take place next November in Bilbao, prior to the United Nations Summit on the Information Society in Tunisia. The main concern of our local and regional governments is how to ensure that the use of information and communication technologies brings practical benefits to all the people Libiny in our territories. Economic growth without social inclusion does not signify prosperity for all sectors of society and may even radically increase social differences by creating a digital divide.

Inclusiveness and cooperation is what makes Europe unique and significantly different from other areas in the world competing in the global market. It is clear to us that Europe, except for some countries, still lags behind in the use of information and communication technologies at public and private level. Regions, in other countries, not only from the USA and Japan, have made rapid and significant advances into the digital economy arena that are changing their way to compete and attract investment.

In this context, the i2010 initiative launched by the European Commission, to reduce the competitive gap and consolidate a leading position by the end of the present decade, is most timely. It is a goal for everyone that requires a special and close co-operation between the different levels of the public and private sectors to meet this strategic challenge for our future.

It will not be an easy task to increase in 5 years the investment in research and innovation to 3% of the European Union GDP as this is almost double the current rate. Neither will it be easy for the private sector to increase their investment by at least 30%. If such investment is achieved the impact on our territories will be enormous. To get the maximum return from such investment it will be an absolute priority to find the best ways to transform first results quickly into specific new products and services. From our local and regional perspective, this European effort will succeed only if it results in empowering European citizenship and further developing our local economies, to enhance the identity of the different territories and in strengthening political and social cohesion in our continent. It will require careful planning and accountable policies at local, regional and national level.

The Conference considers that the first task for local and regional governments in Europe is to be fully aware of the challenges facing them and to take strong political and operational measures to implement i2010. Municipalities, counties, provinces and regions can do a lot to create the best possible conditions for such a process. We believe that the adoption of the *i2010 local agenda* is the way forward.

We have agreed that the *i2010 local agenda* should:

- Reaffirm the subsidiarity principle as the main guideline to implement the agenda, as well as the need to reinforce strong partnerships among the different levels of government for this purpose;
- Indicate as a clear priority the need for specific planning of the local agenda in every territory;

- Emphasise networked services at local, national and European level as the key element for rapid development of eGovernment in Europe as well as to make local economies more dynamic and create new jobs;
- Promote long-lasting public-private partnerships with a clear roadmap and a strong coordination between the different levels of the public administrations that are present in the territories;
- Describe the tasks and the targets to be reached by 2010, as well as relevant indicators to measure performance and impact, that take fully into account the identities and peculiarities of each local area.
- Ensuring broadband access, whatever technological solution is chosen, in all territorial areas, especially in schools, health institutions, local and regional government premises as well as in public spaces open to citizens and enterprises;
- Strengthening the enabling role of local and regional administrations in guaranteeing adequate and secure technological infra-structure and in promoting ICT-based inclusive services and applications, by actively supporting regional clusters for innovation in our territory to modernise public administrations, generate new investment, and stimulate local development. The cooperation model developed by the PRELUDE initiative has been a most successful exercise in the said direction and its replication in other regions could be beneficial. An urgent problem is how to overcome the actual trend in Europe where best practices in core digital areas (like eGovernment, eBusiness and eCommerce, eHealth, eSecurity and eTransport) exist almost everywhere but where the implementation of their results or its replication by other actors remains weak.

The Conference debated the problem and raised some preliminary conclusions:

- Coordinated regional planning is insufficient and the roles of the different actors, especially in the public sector, not always properly established through a concentration process. The aim should be to deliver joined-up on-line services across organisational and geographical borders based on a good integration of the back and front office and long-lasting partnerships involving public and private operators.
- The reengineering of the administrations and of the administrative procedures using ICT is also insufficient, except for some specific regions and countries. The tendency just to reproduce what is already being done by physical and paper means prevails, with little real innovation or systems reengineering and therefore minimal added-value for citizens. Creating incentives that produce real savings and that stimulate people interacting with public administrations to use electronic services is a most urgent task.
- There is a consistent lack of knowledge and experience in the use of ICT by civil servants and public managers. There is an urgent need for younger staff who have good ICT skills and training to participate more in decisions on what is to be done;
- Combining fast changes in technology with organisational change and content updating of databases has proven to be a hard task not sufficiently addressed through good feasibility studies, monitoring tools and cost-benefit analysis;
- Although some good first results are now being obtained to allow more secure transactions in the net and to authenticate users, short-term policies to protect the private data of citizens in public databases are not always there. This is surely a strong decision-making barrier for public managers to allow interoperability between different systems and databases.

To tackle these difficulties and the challenges lying ahead, the conference participants agreed on suggesting the following goals as part of the *i2010 Local Agenda*, to be implemented in all European countries.

i2010 Local Agenda

Goal 1 – Full access to on-line services
Each Local and Regional Authority will make their best efforts to support and implement policies in regions and local areas ensuring broadband access to on-line services for all citizens in Europe by 2010. In every European city and local government public access points to on-line services will be established. Inter-operability of systems and among data-bases as well as the integration between the electronic back-office of the administrations and their front-office on the web shall be a priority. The financial and human resources to implement this objective will be planned and budgeted as from 2006.

Goal 2 – Awareness and Inclusion
Each Local and Regional Authority shall mount a communications campaign to involve citizens, SMEs and community organisations in this common effort, to listen to their demands and to help them understand the public value of the information and communication technologies. The importance of receiving appropriate training to make use of on-line services shall be underlined. In particular, training programmes for economically and socially excluded groups will be encouraged and financially supported.

Goal 3 – Security and privacy
Each Local and Regional Authority, will implement specific measures to improve the personal security of their citizens and to protect their personal data in public data bases and service delivery avoiding any use for non authorised or private purposes and ensuring the right of every citizen to know what personal information is being stored and for what purposes.

Goal 4 – eParticipation
Each Local and Regional Authority shall implement digital communication systems to allow individual citizens and relevant stakeholders in their territories to actively participate in decision-making processes on local matters directly affecting their living and working conditions.

Goal 5 – eGovernment
Each Local and Regional Authority will take concrete steps by 2006 to work together with other administrations in its territory to deliver together and integrate on-line services through the Internet web, as well as by mobile phones and digital TV, making maximum use of the prevailing infrastructural conditions. These plans, articulated with the national eGovernment, will respond to the i2010 objectives by establishing concrete and measurable objectives to be reached before the end of the decade. Secure electronic transactions between the citizen and the administration, proper user authentication and digital signature and protection of citizens' data shall be a priority.

Goal 6 – Digital ecosystems and training centres
Each Local and Regional Authority will promote the creation of digital ecosystems within their territory to stimulate innovation and the participation of local entrepreneurs in the global market, as well as support the use of electronic commerce and other digital business tools by micro and small enterprises through adequate regional centres of competence and training.

Goal 7 – Competitiveness and Public-private partnerships
Each Local and Regional Authority will promote the competitiveness and sustainable economic development of their territory. To this end, they shall foster and enable the establishment of regional clusters for innovation formed by local innovators, Universities, research and technology institutes, enterprises and administrations to boost research, technology and innovation.

These clusters will address the needs of their territories in those areas that are considered a priority for the modernisation of the public sector, for the delivery of new public services to citizens, and for local development. Clusters should not only be organised to deal with specific applications but to understand better the socio-economic conditions in which they are being deployed through studies and support actions.

Goal 8 – Open source
Each Local and Regional Authority will consider the use of ICT systems and applications developed with an open source license. Other than the concrete savings that might be made, the main aims of this concerted policy shall be to expand the use of open source software and open standards in the public sector to increase eGovernment interoperability nationally and within Europe.

Goal 9 – Training of civil servants, employment and gender
Each Local and Regional Authority will ensure adequate training of its personnel in the appropriate use of information and communication technologies as well as offer employment opportunities to suitably skilled people in its area.

Goal 10 – Digital solidarity
Each Local and Regional Administration will make its best efforts to participate in the digital solidarity initiative supported by the United Nations to fight the digital divide on the planet and to ensure the full access of all countries and regions to the benefits of the Information Society.

In relation to this last point the conference warmly acknowledged the objectives of the II World Summit of Cities and Local governments on the Information Society presented by the Regional government of Bilbao and agreed to formulate the following recommendations:

- That the summit discusses and adopt the principles and action lines expressed in our *i2010 Local Agenda*;
- That the emphasis is put on establishing a digital solidarity agenda with concrete initiatives, such as:
  - ensuring multi-channelling (web, mobile, digital TV) and broadband access in every local community within the next 15 years;
  - promoting free access to internet through kiosks in public spaces managed by administrations;
  - creating a world directory with the electronic mail addresses of all public administrations;
  - developing ICT and information society training and good practice exchange centres in regional areas for staff of the public administrations from different countries:
  - discussing a world-wide exchange programme between Local governments involving young civil servants working for administrations in digital delivery to citizens, both from the technological and content side;
  - discussing forms of digital tutoring of cities and local governments from less developed countries by cities and local governments with consolidated experience in the use of the information and communication technologies;
  - Discussing the wider support of the European Union to world-wide thematic networks of local experts working together on common problems such as pollution, transport, drug-abuse, elderly, gender etc.
  - Promoting the use of ICT for new forms of citizen to citizen exchange and dialogue in favour of people and trans-cultural understanding, drawing on the experience of twinning and sister cities actions.
- That the global digital solidarity fund and the world digital solidarity agency created in the context of the roadmap approved by the United Nation's first summit on the Information Society, and in preparation of the Bilbao gathering, be implemented with full acknowledgment of the role of Cities and Local governments.

We recommend an initial commitment of two years to the administrations that decide to join it, an intensive awareness campaign to launch the initiative and the creation of information and assessment instruments to ensure constant accountability on the investment that is made of the resources provided by the Cities and Local governments.

The conference expressed its compliments to the Region of Malopolska and the "Cities on Internet" Association of Poland for the work they have done to make EISCO 2005 a most successful and prominent event. The conference asked the Council of European Municipalities and Regions and the ELANET network to promote the outcomes of EISCO 2005 and to take the present declaration to the Cities' World Summit. It was decided to meet again in EISCO 2007 at Haemeenlinna, Finland, from the 16 to the 18th of April.

Next Steps in Developing Information Society Services in the New Member States: The Cases of eGovernment and eHealth, The Case of eLearning

Project Description

The Institute for Prospective Technological Studies (IPTS) is one of the seven research institutes of the Directorate General Joint Research Centre (DG JRC) of the European Commission (http://www.jrc.es). Its main mission is to provide customer-driven support to the EU policy-making process by researching science-based responses to policy challenges that have both a socio-economic as well as a scientific/technological dimension.

IPTS has issued two calls in 2005 with the titles of

- "Next steps in developing Information Society Services in the New Member States: the Case of **eGovernment and eHealth**" and
- "Next steps in developing Information Society Services in the New Member States: the Case of **eLearning**".

ICEG European Center, an independent research institute based in Budapest, Hungary, with its consortium composed of national institutes from the New Member States, carries out the two contracts which form one joint project covering all three domains.

Aims and Objectives of the Studies

The studies have two main aims:

- Aim 1: **National assessment** of eGovernment, eHealth and eLearning
- Aim 2: **Transnational (cross-country) assessment** of these domains in the 10 new member states (NMS)

National Assessments of eGovernment, eHealth and eLearning Developments

The main objective is

- to collect the relevant qualitative and quantitative data,
- to analyse them and
- to develop a meaningful assessment of the state of each domain, and
- to derive the relevant conclusions in terms of policy and research.

Detailed objectives

Obj. 1: to build a corpus of detailed factual knowledge about current **government, health and formal education institutions and systems** at national and regional level in each of the ten New Member States.

Obj 2.: to build a corpus of detailed factual knowledge and to provide an assessment of the role of each of the following elements, their state and their dynamic, as supportive **building blocks to eGovernment/eHealth/eLearning services and developments:**

- the institutional structures, resources and funding;
- current strategies, policies, action plans and projects
- description of relevant actors
- the supporting legal framework
- the dedicated specific ICT infrastructures
- the services provided to citizens, businesses, and other stakeholders

- the acceptance and usage of technologies and services by the different actors
- The tools, dimensions and results used by stakeholders for assessing the impacts of eGovernment, eHealth, and eLearning initiatives, projects and/or tools.
- The impacts of eGovernment/eHealth/eLearning developments

All points above will present the local, regional, national and EU dimensions, when relevant. They will be documented by the international literature and analysis existing in the area, but also by local references (literature, cases, surveys, data gathering exercises, analysis, statements, etc.) to be considered as important additional added-value in such national reports.

Obj. 3: to build the researchers' assessment of **the current developments and trends**, separately of eGovernment, eHealth and eLearning, for each country, integrating the various data collected and analysed as requested in objective 2 above. Secondly to identify the major specific technical, economic, political, ethical and socio-cultural **contextual factors – drivers and barriers** – influencing the developments of these domains

Obj. 4: to analyse the possible specific **policy options** in order to address the challenges and the local/global needs identified in objective 3, as to make progress on these services and application areas in each country

Obj. 5: to suggest the most important **future technical and non-technical R&D challenges** specific to eGovernment, eHealth or eLearning, in order to address the challenges and the local/global needs identified in objective 3, as to make progress on these services and application areas in each country.

Cross-country assessment (synthesis) of eGovernment, eHealth and eLearning in the New Member States of the EU

The project will produce 4 synthesis reports: one on eGovernment, on eHealth, on eLearning and a cross-domain one on eServices. The reports will provide an integrated view about the domain-specific developments across the ten New Member States.

Detailed objectives of the synthesis reports:

Obj. 1: providing an assessment as generic as possible for the ten New Member States, on **the current developments and trends**, across all ten countries. Secondly, to identify the major specific (to eGovernment, to eHealth, to eLearning, and to eServices) technical, economic, political, ethical and socio cultural (including skills and training) **contextual factors - drivers and barriers** – influencing eGovernment, eHealth and eLearning services developments. The report will also clearly state and **illustrate the major differences and/or commonalities** across the NMSs.

Obj. 2: analysing the possible specific (to eGovernment, eHealth, eLearning and eServices) **policy options** at local, regional, national and/or European level whenever relevant, in order to address the challenges and the local/global needs identified in the ten national reports, as to make progress on these two Information Society service and application areas in each country.

Obj. 3: to suggest the most important **future technical and non-technical R&D challenges** specific to eGovernment, to eHealth, to eLearning and to eServices, in order to address the challenges and the local/global needs identified in the ten national reports, as to make progress on these two Information Society service and application areas in each country.

The eServices synthesis report will clearly indicate for the ten countries the overlapping domains common to eGovernment, eHealth and eLearning. The Synthesis Reports will integrate the ten Country Reports, their general conclusions and key recommendations. It will offer comparative elements and integrate the elements developed in each single Country Report into a more systemic analysis. This will go beyond the simple aggregation of discrete results and look towards NMSs as a whole, making use of additional sources of data and analysis whenever relevant. In particular it will explore

the results of studies covering the other European Member States and relevant to the subject, and articulate its conclusions in terms of specificity and commonalities across Europe.

Content and Research Work

The aim of the research is to complement knowledge available in the existing national and international literature with the researcher's expertise and with the experience of key actors in the field. Therefore the desk research (research of the existing literature, complemented with the author's expertise and assessment) in the preparation of the Country Reports was followed by further validation exercise and a set of national interviews (15 per domain per country), covering most relevant actors in the national scene.

Deliverables of the Project

- 10 country studies covering jointly eGovernment and eHealth
- 10 country studies on eLearning
- cross-country synthesis report on each domain (eGov, eHealth & eLearning) in the NMSs
- 1 cross-country cross-domain synthesis report on public eServices in the NMS

Definitions of the Domain

eGovernment (European Commission COM (2003)567) could be defined as the use of information and communication technologies in public administrations combined with organisational change and new skills in order to improve public services and democratic processes and strengthen support to public policies. It encompasses thus the dimensions of Public Administration, democracy, governance and policy making.

Furthermore, the vision of eGovernment in the EU for the next decade as a tool for better government in its broadest sense should be taken into account when considering the scope of eGovernment developments. This vision places eGovernment at the core of public management modernisation and reform, where technology is used as a tool to modernise structures, processes, the regulatory framework, human resources and the culture of public administrations to provide better government, and ultimately, increased public value.

The creation of public value is a broad term that encompasses the various democratic, social, economic, environmental and governance roles of governments. Concrete examples of these roles are:

- the provision of public administration and public services (health, education, social care);
- the development, implementation and evaluation of policies and regulations; the management of public finances;
- the guarantee of democratic political processes, gender equality, social inclusion and personal security;
- and the management of environmental sustainability and sustainable development.

eHealth (Ministerial declaration at the e-Health Conference held in Brussels on 22 May 2003) refers to the use of modern information and communication technologies to meet needs of citizens, patients, healthcare professionals, healthcare providers, as well as policy makers. It makes thus use of digital data, transmitted, stored and retrieved electronically, for clinical, educational and administrative purposes, both at the local site and at a distance.

eHealth is proposed to be sub-categorised in the following application clusters: a) public health policy and prevention, b) information services to citizens, c) integrated patient management & patient health records, d) telecare & independent living services.

eLearning is defined as learning through the use of ICT. It encompasses the use of ICT in traditional education (schools and higher education), the use of ICT in training and learning at the workplace (professional education), the use of ICT in Lifelong Learning (including re-skilling and training for jobseekers) and the use of ICT in everyday life (digital literacy/digital competences). The latter

refers to the necessary critical skills and competences to make use of ICT in a knowledge society. For the purposes of this study, it is important to take these different dimensions of eLearning into account.

Furthermore, the vision of eLearning in the EU for the next decade is progressing from the basic use of ICT for learning, to new forms of education and training and new skill requirements for the knowledge society. The eLearning initiative is also set up to help to strengthen the idea of a 'single European educational area', which complements the European research area and the European single market.

eLearning also needs to be considered from the point of view of the effects of the abrupt demographic change that some of the NMS will be facing in the coming 10 to 20 years which will negatively affect the availability of a skilled labour force that is needed to maintain growth in a knowledge-based society. It will be needed to find new ways to involve the elderly in employment, training, education and learning and eLearning could be particular helpful here.

Operational Programme – Informatisation of Society in Slovakia (2007–2013)

Today, Slovakia is at the initial stage of implementing and connecting to the central public administration portal some of the eGovernment services based on the 20 basic categories of public administration services monitored by the EU Council. In 2006, the legal framework regulating the creation and development of public administration information systems entered into force and the Roadmap for the Introduction of Electronic Public Administration Services was adopted. As a result of the absence of a functional legal framework for the development of PAIS until that period, many heterogeneous information systems have been implemented. Hence, many of them are now ineffective and unsafe and most of them are isolated from other public administration information systems or resources. In the majority of cases, the electronisation of public services at individual institutions has only mimicked paper services and, ironically, has led to an even greater administrative burden. The above problems are dealt with in the national project Integrated Service Points.

The situation at the self-government level is similar. Regional information systems, which in many cases function properly, are being implemented, yet, because they are developed without coordination with other PAIS, they provide only limited benefits for their users. The management of public services at the central level suffers from the absence of interconnection of regional central information systems.

In general, public services are carried out in an ineffective way today and insufficiently use the opportunities offered by ICT. The consequences are manifested in the poor quality of services provided in direct interaction between offices, citizens and businesses (front-office). The public services provided are overly expensive, inflexible and place an unnecessary burden on citizens, businesses and the offices themselves. Lack of interconnection between PAIS and non-standardised public administration processes make horizontal (management and support) processes carried out by public administration (back-office) dysfunctional or considerably impair their quality.

The Roadmap for the Introduction of Electronic Public Administration Services specifies that the introduction of e-services can save Slovak citizens approx. one week of working time, which represents a direct financial effect in the form of savings amounting to around SKK 4 000 per working person. In other words, the time lost (as a result of low productivity of services) annually reduces state budget revenues from direct taxes by SKK 3.337 million and, at the current pace of economic growth, this figure will further increase by 4–5% annually.

The interventions under this priority axis are aimed at the modernisation of state administration and regional and local self-government through the optimisation of processes related to the services provided by public administration and development of PAIS. The modernisation of public administration is based on an integration concept which is strictly derived from a comprehensive analysis of the processes of services provided by public administration. Using the integration model as the only basis for the concept without systematic development of the quality of management in public administration would be pointless. Therefore, the implementation of the integrated model of public services and PAIS envisages the development of interconnected and co-operating information and organisation systems capable of constantly improving their quality and bringing added value to both the providers and recipients of public services.

The majority of interventions in the area of the informatisation of society that have been carried out using public funds were fragmented investments in more or less autonomous systems that neither interact organisationally nor functionally. The level of their interconnectedness and interoperability is very low. Moreover, their effect is weakened by the small amount of public resources invested in informatisation in the past compared to surrounding countries. Therefore, in the 2007–2013 programming period, it is necessary to ensure that national and EU resources are invested in this area as efficiently as possible. This can only be achieved through integration of key solutions built on a central, service-oriented architecture of the public administration's information system.

The OP IS strategy focuses on interventions increasing ICT inclusion and the availability of quality public services and useful content provided to citizens, businesses and the public administration itself. They will create and develop the supply of electronic services and stimulate the demand for

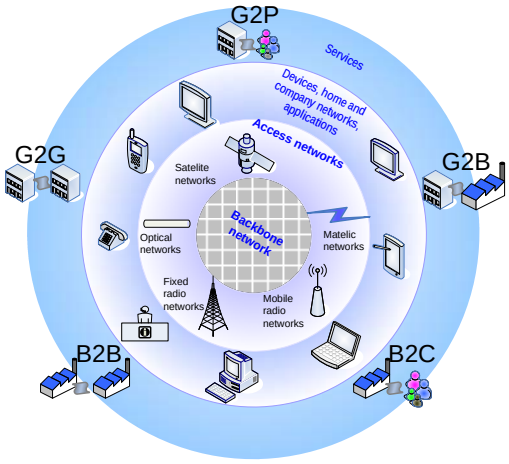
them. Contributions from the ERDF will be implemented by means of three interconnected priority axes that complement each other and together form a single whole.

The following are the main themes of the Operational Programme:

- Effective electronisation of public administration and development of electronic services (G2G, G2P, G2B)
- Development and renewal of the national infrastructure of repository institutions (G2P, G2B, G2G)
- Improvement of broadband internet access (from backbone networks to terminal equipment).

Effective electronisation of public administration and development of electronic services

ICT is a very efficient tool for increasing the efficiency of processes, but that is not enough. Informatisation cannot be an end in itself. The essence of the processes and their alignment and embedment into an appropriate legislative framework is crucial. Only then a breakthrough result can be achieved.



Hence, the key objective of the Operational Programme in the field of effective electronisation of public administration and development of electronic services is to optimise the processes related to the services provided by public administration and integrate their technological and application ICT infrastructure.

The objective of the priority axis is to build modern public administration, which effectively delivers its tasks and places a minimum burden on citizens and businesses. Public administration which is more accessible, works fast and at a lower cost than today.

The strategy for OP IS priority axis no. 1 – electronisation of public administration and development of electronic services – will therefore promote the development of public administration information and organisation systems at the central and regional levels so that they are consistent and interconnected. Processes in public administration need to be well managed, optimally developed and they have to form a single, transparent whole.

This means that when dealing with public administration, ultimately, only a single electronic form will need to be completed and sent from an integrated service point, computer, mobile phone, kiosk or TV. Everything else will take place in the back office, without direct participation of the user. The basic principle of modernisation of public administration is to develop services saving money, time and personnel and brining benefits to all users.

Development and renewal of the national infrastructure of repository institutions

This priority axis focuses on the provision of access to and creation of digital content using the resources of repository institutions. The objective of the priority axis is to improve the system of acquisition, processing, protection and utilisation of knowledge and digital content, as well as the moderni-

sation and completion of the infrastructure of repository institutions at the national level. Repository institutions are the bearers, keepers and intermediaries of social, technical, scientific and cultural knowledge. They face inadequate technical, technological and organisational conditions. The activities under this priority axis will focus on comprehensive development and inclusion of these institutions in all relevant knowledge-oriented areas of economic and social development. This priority axis will promote improving the quality of the processes of acquisition, storage and mediation of content, content digitisation and restoration of the infrastructure of national repository institutions. The key area of the priority axis is the provision of content of repository institutions and their inclusion in educational, innovation and social development processes.

Improvement of broadband internet access

Broadband access[1] should be seen as a technological platform that can be used as a basis for the development and operation of services that would otherwise be impossible or meaningless to develop. Therefore, broadband access should be looked at as a tool opening up new opportunities for access (via computer, telephone, television, kiosk, chip cards, etc.) to the resources and services available (data, voice and video) placing no time, type, content, scope and quality restrictions on end users across the whole chain between the end user and provider of the service.

The strategy in the area of broadband internet access will therefore focus on increasing the motivation for the use of broadband technology. The objective of the priority axis is to achieve a high penetration of broadband internet comparable to that of the advanced EU-15 countries. The priority axis will promote activities aimed at stimulating the demand of households and the population for broadband technologies supported by the improvement of regulatory instruments. Using indirect instruments, it will promote sustainable development of broadband access networks in regions unattractive to commercial provides and thus increase the quality of the competitive environment in the telecommunications market.

Territorial concentration of contributions

Interventions aimed at modernising public administration through ICT will focus transversely on all public administration organisations and provide direct results in the form of support for services provided to users throughout the territory of Slovakia. Since the majority of state administration institutions are placed under the objective Competitiveness and Employment and, at the same time, it is necessary to implement Lisbon Strategy objectives in the field of the development of eGovernment, some of the activities under Measure 1.1, focused on the optimisation of processes and electronisation of public administration services provided by CSAAs and state administration authorities headquartered in the Bratislava region, must be implemented in Competitiveness and Employment Objective regions. In order to ensure functional development of eGovernment and as effective and efficient use of SF in this area as possible, the interventions need to be implemented across the whole organisational structure of public administration, regardless of where the organisations are located and what functions they perform. Public administration organisations at the central level, headquartered in the Bratislava region, are the key component in this structure. Otherwise, the development of eGovernment would be dysfunctional and Slovakia would not be able to reach a level of informatisation comparable to advanced EU countries in the foreseeable future.

All other measures of the OP IS will be implemented in Convergence Objective regions.

Interventions aimed at the development of repository institutions will be implemented in organisations such as archives, libraries museums, galleries, heritage protection organisations, specialised institutes and organisations in the field of culture, etc., in particular in innovation and cohesion growth poles in Convergence Objective regions.

Interventions focusing on improving broadband internet access need to be implemented across Convergence Objective regions in order to ensure equal access for all citizens and business regardless

[1] The definition of broadband access is changing overtime towards constantly higher speeds and transmission capacity. In Slovakia, it is defined as permanent access with downstream speed of > 512kbit/s and upstream speed of > 256kbit/s.

of where they are located. Otherwise, areas located outside innovation and cohesion growth poles would be put at an even greater disadvantage and an environment augmenting the interregional gap in the level of informatisation would be created. Broadband internet access has the greatest impact on the quality of life of the populations in less advanced regions located outside greater agglomerations or their suburban areas.

The key risks to successful implementation of the interventions that could reduce their overall efficiency and impact include:

- decline in economic growth caused by overheating of the economy or as a manifestation of its cyclicality
- stagnation in the level of innovation caused by insufficient effectiveness and efficiency of investment in innovation processes in industry, research and development
- human resources underprepared for the utilisation of the opportunities offered by ICT.

These risks are part of the context of the OP IS, whose strategy takes them fully into account and attempts to maximise the contribution of informatisation to a high and sustainable economic growth through the structure and interconnectedness of supported programme activities and create an environment suitable for the rapid initiation and development of processes in the business sector, research and development. Within the framework of cross-financing, the digital literacy and skills of the users of eGovernment services will be developed. The generally implemented mechanism of horizontal management of the OP IS ensures ICT inclusion and development of e-services throughout the whole productive sector, which is supported through interventions under other operational programmes.

Project LORIS is supported by the European Commission–Directorate General for Education and Culture

The Union of Towns and Cities of Slovakia

The Union of Towns and Cities of Slovakia (hereinafter Union or UTCS) was founded at the initiative of the Club of Mayors of the Slovak Republic on April 29, 1994 in Kosice. Twelve towns and cities established the UTCS as voluntary association of local government in Slovakia. Members of the Union are today almost all large and middle large towns; its members are on the date of August 1, 2006: 87 towns, 9 municipalities and 5 special members – municipal parts of Bratislava and Kosice. Union members represent approximately 2.5 million of inhabitants. Other cities asked for membership.

Union coordinates its activities with the Club of Mayors, the Association of City Managers (APUMS) and of Local Economists (AKE SR) and the Association of Historic Cities and Municipalities of Slovakia.

Main Goals

The Union and its members are working for:

- complex and systematic reform of administration, which main features are effectiveness, competences decentralization on the principles of subsidiary and democratic character through strengthening of local and regional self-governments;
- maximal economic and fiscal independence of territorial and interest self-governments;
- mutual co-operation of cities for solving common problems and local co-operation with surrounding communities, with mutual accountability for regional development;
- restoration and protection of the environment and cultural heritage, on the basis of long-term sustainability;
- development of Pan European and mostly Middle European cooperation of towns, municipalities and regions.

Expert support
Union has broad and well-trained expert support. Expert's corps consists of 42 excellent specialists from various branches of activities. Union has also broad partnerships with various professional and educational institutions and organizations home and abroad.

Legislative process
Union represents member and cooperating cities towards third parties home and abroad. It is active participant in legislative process – partner of national government and other central state authorities. Union's representatives and experts regularly act in Slovak Parliament.

Financial management
Activities of Union are funded through member contributions, allowances and donations from other entities, grants and specific projects financing from members and partners.

Activities

Education and trainings
Since its establishment Union permanently organizes trainings of elected representatives, managers and experts, in cooperation with Slovak and foreign universities and anther institutions, such as Academia Istropolitana, INECO, STUZ and many others.

Public administration reform and civic society development
Union supports and organizes wide range of conferences, seminars and other activities focused on public administration reform and development of active citizenship.

Integration of Slovak Republic into international structures
UTCS participates in several European networks and international projects.

Regional policy and cross-border cooperation
UTCS focuses on the recent development and future trends of countries in the Carpathians area and in the Visegrad Region as an important territory for transnational and cross-border cooperation in enlarged European Union.

Recent programs and projects
- Development and strengthening of information technologies and internet implementation in public administration, especially self-administration;
- Program of sustainable energy efficient cities.

Participation in international bodies and associations
Union has significant representation in the Slovak delegation to the Committee of Regions of EU in Brussels.

In Slovak Delegation to CLRAE in Strasbourg is UTCS represented by Mr. Stanislav Bernát, Vice-president of UTCS and Mayor of City Martin, that is full member of Chamber of Local Authorities and similarly Chairman of Slovak Delegation to CLRAE. He also holds function of CLRAE Vice-President.

International partners
- Vysocina Region, Czech Republic
- Association “Czech At”
- Únia Metropolii Polskich
- Foundation for Development of Bielsko-Biala, Poland
- Hungarian Association of Local Authorities – TOOSZ
- Austrian Association of Towns
- House of Europe, Vilnius, Lithuania
- Union of French Cities – Cités Unies, France
- KEK NELE – Prefecture Thesprotias, Greece

Conference Papers

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Ten Years e-Government in Vienna – Lessons learnt

Rudi Schicker, Executive City Councillor and Regional Minister responsible for Urban Planning, Traffic and Transport, City of Vienna

To sum up a decade's e-Government operating experience of a city, which includes a nation-wide cooperation, into a one page strategy seems as hard as any task in the course of an e-Government project. So we have tried to recast experience into recommendations which may be of use to others:

- Be prepared that e-Government costs money and therefore must be profitable – but there's more to profit than monetary return of invest: It can be a motivator and a motor for modernization. It can be a built-in controlling and monitoring function. It can be enhanced trust and confidence between public administration and its customers.
- Plan and design e-Government at a government level as high as possible – at least at the regional, better at the national level.
- Issue a legal basis for e-Government at a government level as high as possible – at least at the regional, better national level.
- Install an e-Government cooperation board consisting of all administrative levels – at the national, regional, local level.
- Break down barriers between departments: as a first step, at least simulate a uniform appearance in the front office, then turn simulation into reality layer-wise until arriving at a uniform back office.
- Capitalize from e-Government by applying business process reengineering before designing and developing an e-Government application: Never use new technology on top of ancient organisation.
- In order to procure faster, cheaper, more attractive e-Government, pave the way for settling a complete business transaction into the responsibility of one single position/one single person by enlarging the sphere of competence for the individual civil servant.
- Any new product needs to develop its market. So a public authority, too, must conform to the laws of the market and develop marketing strategies for e-Government. Major part of successful marketing, as every private business will tell you, is adequate funding of PR activities.
- Never forget whom you want to reach and why: Only usefulness and usability will bring about use and added value, which alone will justify expenditures at taxpayer's cost.
- Start, but think! Planning and designing at the beginning is essential for an effective realisation phase later.
- Think, but start! By tomorrow, another day of seizing the chance to optimize administration will be lost.

e-Government in Vienna and in Austria
Success through Cooperation

Ingrid Götzl, Head of Office of the Executive Councillor and Regional Minister for Urban Development, Traffic and Transport, Vienna City Hall

In 2006, the 6th benchmarking Cap Gemini report "Online Availability of Public Services" of the European Commission on e-Government had shown Austria as number 1. Since 2002, Austria has continually risen from number 11 to its present rank.

The City of Vienna as an early adopter of e-Government already in end of the last century is Europe-widely renowned for its e-Government services, offering now close to 350 Public Services Online Support pages on its portal website and holding the second place in the rank of most-used governmental website in Austria, only precedented by the federal government's website.

Is there any recipe for such a success story? Please find out for yourself and read on.

The Basic Idea of e-Government

In e-Government, the customer should not notice administrative borders any longer: The interactive e-Government customer need not know anything about the internal structures of public administration, opening hours or competent officials. By interacting across the borders of time, space and organisation there is no traffic jam, no "Closed" sign at the counter, no "wrong queue". The electronic self-service administration is available 24 hours a day 7 days a week.

This idea of a "One-Stop Service" or a "Single-Window Government" requires continuity of administrative actions across *all departments* of an authority and across *all levels of administration.* Ideally it provides *one* web-based portal as entry point for customers to interact electronically with public administration, no matter which department or even which authority (federal, regional, local) is concerned.

A successful system of e-government is therefore based on three fundamental pillars:

- A clear legal framework which can be easily understood and can thus rapidly become part of public awareness.
- Secure and thus sustainable systems and services as a precondition for nationwide implementation and increase of confidence of citizens in electronic administrative services.
- The use of sustainable technology on the basis of open standards and defined interfaces in order to ensure continuous adaptation to new technology.

Think Big

Therefore, for Vienna it was clear from a very early e-Government start that a common approach of public administration on all levels, i.e. federal, regional and local, was essential for true e-Government in Austria. So, following a proposal of Vienna, this cooperation on an Austrian-wide level with representatives of all the key players of public authorities on the national, regional and local level, official lobbies, etc., started in early 2001 and has since that time played an indispensable role in shaping e-Government in Austria while at the same time allowing for individual e-Government developments and implementations.

There is another excellent – and very practical – reason for a joint approach: Most e-Government applications contain parts such as application, identification and authentification of the applicant, enclosing documents, sending encoded data, examining data with the help of (central) directories, transferring files and parts of files to be completed by other units or authorities, inspection of files by the applicant, payment facilities, administrative signature for duly completed notifications, the completion and the official notification as such, the safe and proved notification of the document, etc.

These are the modules of the e-Government infrastructure which can and should be the same for the individual administrative services on all levels – just like ready-made parts of a construction kit. Not only will they provide for a continuity of administrative actions but also for a redundancy-

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free, resource-friendly and time-saving development of an all-purpose e-Government infrastructure software, i.e. "global e-Government".

The identification, selection, planning and structuring of individual e-Government projects can be done simultaneously to the "construction kit definition". The implementation follows the joint arrangements and the results, which have been achieved.

Think Global…

To operationalise this high level of e-Government cooperation between the Federal Government, the provinces, municipalities and local authorities, specific e-Government organisational structures were set up, an e-Government act was passed, a concept for modular basic software was designed, existing public central registers were included and – as far as the federal law on privacy allows – were opened for common use, guidelines on a common basis were defined.

As a first, joint project step such comprehensive planning and structuring is very time-consuming in the beginning (however, contents and interfaces of the individual modules have to be defined, anyway) but later it saves valuable time for the software development of modules and project implementation. As regards the former, the possibility to divide the development of verified software modules to different units leads to a parallelisation instead of a serialisation which saves time. As regards the latter, complete modules need no further adjustments or new definitions of interfaces but can be put together for individual local e-Government applications.

How these issues were put into reality is described by two examples below.

Legal Basis

The e-Government Act that entered into force on 1 March 2004 serves as the legal basis for the instruments used to provide a system of e-government and for closer cooperation between all authorities providing e-government services. They rule the e-Government activities of the Austrian public authorities on all levels, therefore of the City of Vienna, too.

The most important principles are:

- Freedom of choice between means of communication for submissions to the public administration;
- Security for the purpose of improving legal protection by creating appropriate technical means such as the citizen card;
- Unhindered access to information and services provided by the public administration for people with special needs by the end of 2007 by way of compliance with international standards governing web accessibility.

During an initial introductory phase until the end of 2006, relief from fees was offered to encourage citizens and businesses to make greater use of electronic administrative procedures.

Creating a Basic Infrastructure

Already in 2001, Vienna designed and implemented some basic re-usable software modules for e-Government applications in order to avoid repeated development of similar solutions for similar aims in different projects. It was deemed a major step towards functional and effective software development for e-Government applications, in spite of the fact that the actual realisation of applications was delayed.

In 2003 the Austrian-wide e-Government cooperation took up this reusable software concept and developed the Online Application Modules – MOA, which serve as a software tool for the efficient and secure creation of government applications and are continuously adapted to new standards or according to legal changes. Incompatible multiple developments are thus avoided and the interoperability of the offered procedures is guaranteed by the use of standardised defined interfaces and basic tools. The MOA's were developed at the request of the Federal Chancellery and the Federal Ministry of Finance, are freely available for use by all public-sector institutions and no license costs are incurred. The federal administration, provinces, municipalities, local authorities and other administrative bodies use these tools to implement electronic services.

For example, there are MOA's for

- signature verification which can be used by online applications
- the entire functionality of signature creation on the server
- conducting online procedures with a citizen card to be identified and authenticated securely
- for the encryption and decryption of files
- providing a web service and web surface for the purposes of the signature of various document formats (WinWord, RTF, Open Office).

…Act Local

As to eVienna, the e-Government project in the City of Vienna, there are some basics, too, which help develop e-Government applications quicker at less cost – standardization is the catchword.

Amtshelferseite – Public Services Online Support

The "Amtshelferseite" has been created to simplify, or reduce the amount of interaction between public administration and its clients. It illustrates how to find one's way to a public service, which documents are required, which costs occur, which department is responsible including its contact details, opening hours, statutory time limits, extra information, down-loadable or up-loadable forms. All official online channels of the Vienna City Administration are supported by a standardised "Amtshelferseite".

Below are two examples of "Amtshelferseite": the application for market place registrations (left) and the "Amtshelferseite" for official change of name (right). Despite the fact that these two services have nothing in common whatsoever, the online support is built identically.

The structure of "Amtshelferseite" was included as a recommendation for electronic forms in the Austrian style guide in July 2004.

Form Upload

This self-developed tool enables an accelerated creation of web-form applications. A customer may download a specific form, complete it immediately on the screen and submit it electronically in a transaction to the responsible department. The necessary data of the applicant are available electronically as soon as they have been transmitted to the department. At the moment more than 50 forms are available as uploads.

Electronic Payment

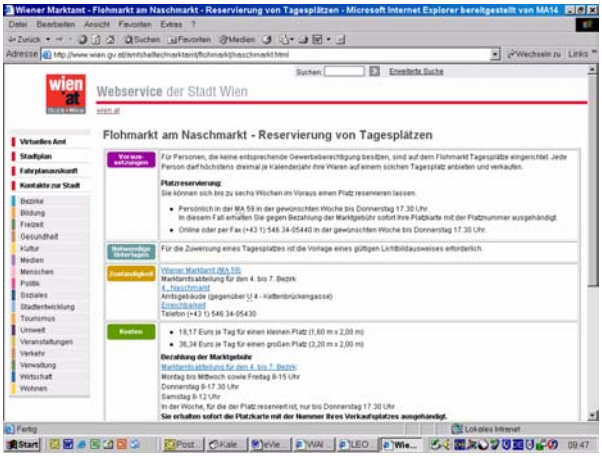
The aim of this project was to offer an infrastructure for online payment so that citizens and companies are able to execute cashless payment transactions in the same way they are offered by modern service companies. Since its early start it has been further developed into a comprehensive e-payment software system.

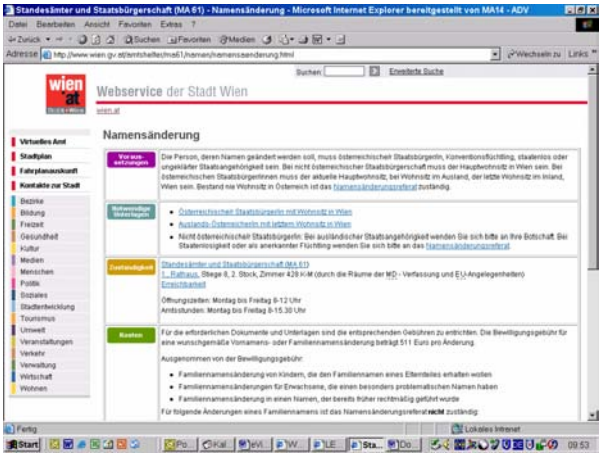
Arranging Appointments Online

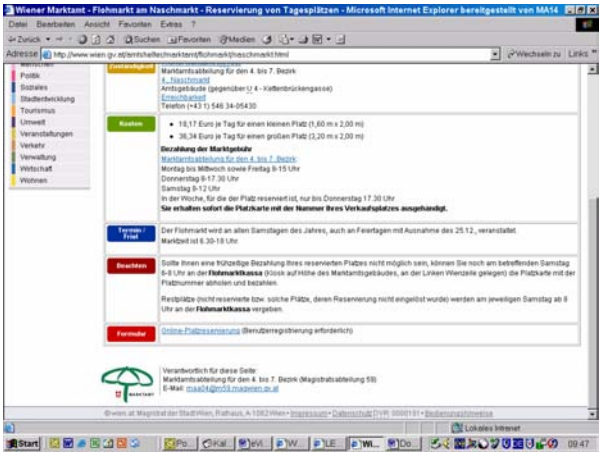
This web application enables users to arrange an appointment via the Internet and can be used to arrange personal calls on City Administration staff but also to book resources. It is used, for example, to book barbecue places at the "Donauinsel" (Danube Island), to announce preventive medical checkups or to book a meeting for applying and issuing identity cards.

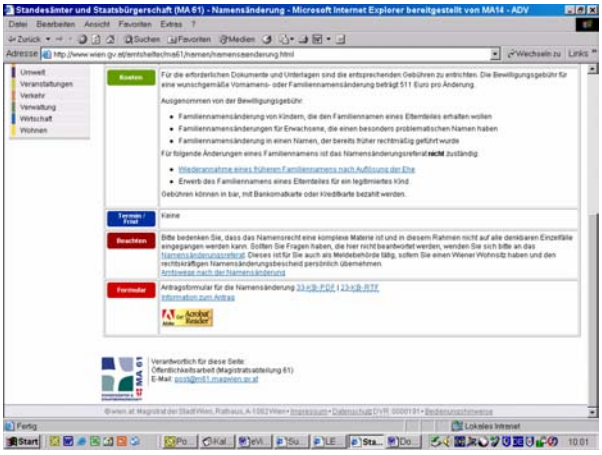
Results and Development

In May 2005 the first signature on an electronic official notification ever used in Austria was used for an eVienna service, the "Land Acquisition by Foreigners" application. By 2007, the Virtual Department in Vienna includes close to 350 public services supported by so-called "Amtshelferseiten" (public services online support sites). These sites offer information on the different public services in a clearly structured way supplemented with upload or download forms. About 10% of the services request online registration, the others can be used without registration. Some of the services offer online access to the records.









Application for a market stand

Application for change of name

The expansion of the "Virtual Department" is in constant progress. At date, the prime focus is on the implementation of the Austrian e-Government Act which regards the infrastructure such as the administrative signature (Citizen Card) and the authentification of applications which have been entered online.

This means further development of the e-Government infrastructure such as

- **Administrative Signature (establishing an infrastructure):** This is the signature which the authority applies to an official notification or letter and which shows that it is a public document.
- **Signature infrastructure:** to provide in a standardized way officials who are authorised to sign documents with an electronic administrative signature.
- **Authentification:** Establishing methods to examine signed documents.
- **Person-related identification** (associations, companies): Organisational rules to define how associations or companies can be authenticated for the City of Vienna. This includes a substitution arrangement as well as a link between a person and his/her function.
- **Communication architecture**: To enhance the quality and provides for a fast availability of new applications.
- **E-Payment**: An adaptation to international standards is necessary in this field. The existing shop infrastructure must also be further adapted to this service.
- **Enhancing directory services:** This measure guarantees that all communication data of the City of Vienna are available in a central, operative form. It will further be possible to make online inquiries regarding approved data by all Austrian authorities.
- **Electronic notification**: Since the e-Government Act provides for electronic notification, the provision of the required software is a logical consequence.

City of České Budějovice: e-City Council

Václav Binder, City Hall of České Budějovice

Till 1999 the meetings of the City Council of the City of České Budějovice were held in traditional manner, deputies were asking to speak in the discussion by raising their hands and the vote was carried out the same way. Then votes were summarised by scrutineers and results were kept in hand written records.

In 1999 the Statutory City of České Budějovice purchased the computer system H.E.R. from the company of ASPartner Košice. The system consists of an electronic voting device, which enable registering the presence, asking to speak in the discussion, and voting. The device also incorporates a microphone and a system for management of speakers' access (switching the microphone on and off). The sound is transmitted into a computer, digitised and processed. This hardware equipment is supplemented with software, by means of which the computer operators, according to instructions of the meeting chairperson, manage the course of the meeting. The control software enabled asking to speak in the discussion and voting by means of an electronic voting device. Results of votes were evaluated by the software and printed out simultaneously. The sound from microphones in the hall was analogically recorded by a tape deck. Because of the Town Hall refurbishing the City Council had meetings in temporary area and so the equipment was mobile and was installed and disassembled for every meeting.

Once the deputies moved back to the building of the historical Town Hall the voting device and microphones have been fix mounted into desks, the software was subdivided into the control part, dedicated solely to the device operators, and to the part transmitted to the other graphic adapter containing information dedicated to the deputies. This graphic output on the course of the meeting is projected by means of a data projector on a screen mounted on the hall front wall. Deputies can see which item of agenda is just being dealt with, who is enrolled into the discussion, and who and which way is voting. It is also possible to project various materials accompanying respective items of agenda dealt – figures, pictures, graphs, map documents, drawings, documents, presentations, tapes and films, etc. Further step was the digital recording of the microphone sound. Appropriate software enabled to listen to the discussion on respective items of agenda dealt with later using a direct access without the need to listen to the whole record from the very beginning thereof. This sound records archive was available at the web pages of the Statutory City of České Budějovice. Results of votes on items of agenda discussed were available on the Internet once the meeting was finished.

The broadcast of live transmission from the City Council meetings started first on the local close circuit of the City Hall. In the first phase solely sound was broadcast. The broadcast was from the beginning implemented using technology of the company of Microsoft that means using Windows Media Encoder and Windows Media Services. In the next phase there were one fixed, one rotating, remote controlled digital cameras, and one tripod mounted camera, controlled by a camera operator, installed in the hall. The image is transmitted into a computer, in the software Windows Media Encoder images from respective cameras are switched as the need may be, and synchronised with sound and the final data stream is transmitted either in the local circuit of the City Hall, either onto the public accessible Internet. The bandwidth is 220 kbps; in the case of a slow Internet connection one can receive sound only at the bandwidth of 32 kbps. The software H.E.R. for the management of meetings has now web output, which is broadcast on the intranet as well as Internet. The output contains data on the meeting agenda, on right now discussed items, on the presence of deputies at the meeting, on deputies enrolled into the discussion, and data on the deputy right now delivering his/her contribution. Results of votes, for each respective deputy, on decisions on the items discussed are available immediately the vote has been performed. Textual outputs along with image and sound are integrated into one web page and the visitor can see everything at the same time. This page link is placed on the official Internet pages of the Statutory City of České Budějovice. The image can be received in any internet browser, which is able to receive data stream in the format of Windows Media Video (wmv).

The course of the discussion and negotiations of every meeting is archived, and the digital sound record is archived as well. Subsequently after the finished meeting, data on the course of the discussion, supplemented with the sound record and results of vote are available on web pages.

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All available data on the course of the City Council meetings are stored in a database. Detailed statistics are processed on the basis of the data, which contains information from respective meetings, also summarised, or potentially averaged data for respective terms of office. These are for instance information on the participation of respective deputies in meetings, on their participation in discussions, time of the discussion on respective points of agenda, results of all votes item by item and also by respective deputies. Available information is also on how often each deputy voted for, against, or abstained. What is interesting is the information when and which of the deputies voted in accord with his/her political club and when not. The data are available also backward since 1999.

The last innovation of the system was performed in 2005, this year we plan to replace the static camera with a better quality rotating one. If our colleagues from other cities turn to us requesting information and providing of know-how, we are willing to help them.

Modern electronic marketing tools of self-governments

Ivona Fraňová, NYSIS, Nitra

Nowadays realization of marketing activities cannot exist without **modern marketing tools**, which are aimed at presenting the destinations (both villages, towns and regions) at home as well as foreign market. To these tools belong for example: **promotion-information system** (billboards, advertisement on the means of public transport, board maps in the towns, …), **information centres, infokiosks, all kinds of signing** (information signs, direction signs, traffic signs, …), **exhibitions and trade fairs,** … All these tools together create an image of the town – inner one (towards their citizens) as well as outer one.

Marketing of the town image is spread via **modern distribution channels** that are based on the sophisticated database with promotion-information content. These are represented in the first place by **internet as well as GSM mobile network, television, press**, …

Strategy of creating marketing of self-government is based on meeting most of the expectations of the client/visitor to the Web page by presenting an inspiring and encouraging form of the Web page. There should be aimed at **creation of quality mark of information database** of self-governments for motivating not only citizens but also tourists, possible investors etc.

Indirectly there is aimed at contribution to **effective development of the destination** (towns, villages, region) by increasing visit rate and expanding services, which will show itself in economic effect.

If **the city of Nitra** wants nowadays to **get image of modern, dynamic town**, **town of events, culture and tourism,** it also tries to present its Web page in this way. **Electronic market and online marketing** are new terms, which must be also adopted by Slovak self-governments if they want to compete in a wide offer of ever increasing competition.

At present the Internet represents a powerful tool of communication. It is a worldwide noticeable trend that people more and more try to get information via internet. Internet is the biggest information centre in the world and a reasonably thinking man looks for information in the widest source.

Self-governments should set a motivating example how to support development of town as well as region via internet. They have at their disposal all the necessary information for operation of information-presentation page and we are aware of not few examples in which **suitably structured and systemic page containing information about the region as well as local enterprises helped to develop the region.**

At present there takes place systemic informisation of self-governments. However their official Web pages **are still concerned too much with providing services to the citizens in the area of self-government and forget their competence in tourism and creation of marketing and image of the town outwards.** The biggest lack in creating internet Web page of the village, town or region is **omitting to integrate the final user**. This results in a Web page with **a large number of chaotic pieces of information**, which is difficult for information search both for the citizen and possible visitor to the town, village or region as well. It is therefore necessary to define in advance **market segment**, which we want to aim at**. If a citizen is our target group**, content of the Web page must be aimed at communication between the self-government and citizens and organizations via internet without personal visit to the municipal office, more effective dealing with life matters in electronic way as well as taking into account handicapped citizens depending on special communication means. If **our target group is a tourist, an investor,** or any other visitor, then the graphic form and content of the Web page must be able to capture the attention and offer the given destination as attractive and unique. It would be ideal to combine **the official town page with a page devoted to tourism in the** given town, or to structure it as its part. It is true that there must not be omitted **language mutations**, as it is nowadays in most of the cases. The tourism page could be maintained and updated by tourist information centre in the given town.

As a practical example we can name **an internet Web page of the city of Nitra,** which consists of **three subpages differing in colour** according to the target group of the visitors, but **all these pages** are part of one internet page:

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- The page of Municipal Authority with important information and prints for citizens of the town (in dark blue colour)
- The official page of the city of Nitra (in light blue colour)
- The page of town information centre NISYS (in green colour)

The first page provides for the needs of the citizens of the town, the second creates the image of the town and represents it outward (for example towards the investors, people interested in living here, tourism or any other activities in town and the third is aimed exclusively at the tourists who can find here both services which are provided by Town information centre NISYS and updated information about cultural and sporting events, cultural and sports facilities, accommodation, catering and additional services and it also serves as a marketing tool to get to know number of visitors to the page, visit rate of the page and feedback on satisfaction of the tourists by means of public inquiries.

All information-promotion solutions should promote activities supported by funds of the European Union. For example in tourism there is supposed to be supported promotion of significant products (wine routes, UNESCO sights, …) and also nationwide informisation. Such is for example the project **NUTIS – National unified information system of tourism.** The concept of NUTIS declares significance and need of existence of promotion-information units at the local level representing basic structural elements of hierarchical strategy of nationwide promotion. The project is also created in connection with **European tourism destination portal Visiteurope.com**, whose goal is to promote Europe as a unified tourism destination.

The city of Nitra became due to its effective effort in informisation a winner of the competition Golden Crest.sk in 2005 and consequently in 2006 it came the 3rd in this competition that aims at supporting informisation of Slovak self-governments and awarding of exceptional projects connected with use of information-communication technologies to increase quality and accessability of services to the citizens. Within the same competition the Web page of Nitra city received a certificate of merit for high-quality internet page of tourism. Nitra represented Slovak self-governments with its Web **page** www.msunitra.sk also abroad in the international competition **EuroCrest aw@rd**. City of Nitra received an award in competition of eight countries of the EU. This award entitles Nitra to be proud of one of the best Web pages of self-government in Europe.

Also these awards in the field of promotion and informisation represent a small success of each promotion-information page of self-government and they motivate to further effort in offering more and more professional information and creating successful and convincing image of the town. We hope that this lecture will help you as well to make marketing activities and creation of the image of the town more effective by means of modern information technologies.

INSPIRE

Jiří Hradec, CENIA, Prague

INSPIRE (Infrastructure for Spatial Information in Europe) is an initiative launched by the European Commission and developed in collaboration with Member States and accession countries. It aims at making available relevant, harmonised and quality geographic information to support formulation, implementation, monitoring and evaluation of Community policies with a territorial dimension or impact. INSPIRE intends to trigger the creation of a European spatial data infrastructure that delivers to the users integrated spatial information services linked by common standards and protocols.

The initiative intends to trigger the creation of a European spatial information infrastructure that delivers to the users integrated spatial information services. These services should allow the users to identify and access spatial or geographical information from a wide range of sources, from the local level to the global level, in an inter-operable way for a variety of uses. The target users of INSPIRE include policy-makers, planners and managers at European, national and local level and the citizens and their organisations. Possible services are the visualisation of information layers, overlay of information from different sources, spatial and temporal analysis, etc.

INSPIRE is complementary to related policy initiatives, such as the Commission proposal for a Directive on the re-use and commercial exploitation of Public Sector Information.

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Developing the V4 Virtual Region Concept

Andrzej Janicky, President of Alfa – Omega Foundation, Warsaw

Introduction

The rationally combined triangle: knowledge, skill and activity has come to be recognized and handled as a valuable entity in itself. We call it shortly KSA.

Nowadays, top executives consider KSA to be the single, most important factor in organizational success of Country Development Strategies, as well as the whole EU competitiveness. Because of EU Lisbon Strategy strongly connected with so called *knowledge-driven information society,* KSA systems have their place as an important mainstream technology which develope this society and support important parts of the business processes as well. Keeping in mind the V4 Virtual Region Concept presented on V4DIS Conference last year, concurrent to themes being prepared for V4DIS 2007, this paper is concentrated on two particular tasks:

- broker- orientated transaction systems;
- broad-band communication infrastructure.

The impact of this tasks to the V4 Region development will be discussed.

What is broker-orientated transaction system

Firstly, the term transaction used in the definition of that system means all kinds of real transactions someone has in his mind (financial, material, intelectual, political etc.). The term price means any value which could play leading role to fix current transaction.

Secondly, intelligent agents which are a partner sides across negotiation process are able to possess adequately the *buyer* or *seller* position.

In case, the partner-to-partner negotiations are supported by a third party we call that transaction (negotiation) system like *broker-orientated*.

Among key tasks of such systems there are answers for questions: *how to set the right price (value)?* and *when stop the negotiation process*

The satysfying solution of the problem, invented by P. Filipkowski and A. Janicki, leads to the method of fixing price of agreement applied to the broker module formed as a part of the transaction/negotiation system. Related algorithm of setting price of negotiation is based upon two-person recursive game with partial information and complete memory. The original adaptive sequential test developed by A. Janicki served to reach the right solution at rational time. It was shown that with random generator builded in broker module one can get expected price of the transaction. Simple modification of the generator can help to be more precise to reality of intelligent agent way of thinking.

What is proposed broad-band infrastructure

Let us suppose the mobile broad-band communication system WiMax based on standard 802.16e is going to be adopted world-wide. The system works excellent but only on pilot-platforms until now. It takes to the users relatively big investment effort. From such point of view WiMax has to be developed passing through nearliest 2-3 years of pilot exploatation.

Current V4 Countries development needs, as well as a set of managerial, organisational and technological issues focusing on the establishment of partnership and co-operation with the purpose of achieving high level of synergy and exploiting competitive opportunities, ask us to announce a more convinient solution for now.

On the basis of results of system analysis and testing some scandinavian proposals connected with mobil security network, we propose following solution of the broad-band infrastructure problem.

The main module of broadband system structure is multi-networks mobile platform (Communication Control Unit – CCU) which organizes effectively the safety communication between end-users of many kinds of networks.

Proposed solution has taken into consideration such as:

GSM
Mobile GSM networks are available and can provide affordable solution. The networks are:

Available and typically 98% coverage of population area, well proven, constantly improving in quality, constantly adding new technology and services, good data capability, satellites (many different types) ready to apply.

GSM provides coverage in difficult terrain and inaccessible areas and network operators can offer priority and pre-emption services for the emergency services - available from several infrastructure suppliers.

For example Poland is covered by minimum 2 and max. 4 satellites (Globalstar). Shadows reduced.

Hot Spots
Deliver high bandwidth but not available everywhere.

Tetra
- Tetra is the standard for emergency services
- Private Mobile Radio dedicated usage by companies and industries
- Tetra is a cost effective solution for the cities/urban areas for emergency services
- Needs dedicated purpose designed deployment

Mobile Satellites System
like Globalstar, Iridium, Inmarsat are available but more expensive than GSM.

WIRELESS BROADBAND

High bandwidth, not available everywhere but will be.

The infrastructure organized on the basis of above mentioned networks and modules is able to cover the following objectives:
- To provide coverage where none exist;
- Not to compete but to utilise the available technologies;
- To combine the best of all available technologies;
- To ensure smooth transition from legacy systems to new;
- To improve survivability and availability;
- To assist in the smooth roll out of any chosen infrastructure;
- To provide cost savings in investments and maintenance;
- To be flexible to accept new technologies - future proof;
- To be operational/invest on a ‘as required basis’;
- To be available in unforeseen catastrophes.

Generally speaking it is estimated that;
- 30% investment provides coverage for 70% of the population areas (urban);
- 50% investment provides coverage for 25% of the population areas (rural);
- 20% investment provides coverage for 5% (never spent).

Constantly evolving new services and applications, new technologies as well as improving capabilities and bandwidth – especially data; new systems and products as well.

Conclusions

The proposed solution supports the broadband communication system with proven technologies and uses a specific system composition of:

- GSM network as the physical bearer (Tetra o/IP via GSM)
- Satellite (Globalstar) as an alternate physical bearer (Tetra o/IP via Satellite)
- WLAN/WAN as alternate physical bearer
- TETRA infrastructure – when available
- TETRA hand terminals.

As well is in the position also use GSM communications and can effectively use:

- the GSM's higher data rate and future growth with EDGE & UMTS;
- Wireless IP communications between vehicles;

The system can be equipped with *mobile command centre* as well as *repeaters* (e.g. in tunnels) and can be used:

- to cover the rural areas giving cost savings for the TETRA investment;
- initially when the TETRA infrastructure is not available;
- during the roll out of the TETRA infrastructure.

The system also helps to cover areas (even in urban areas) where there is no coverage by TETRA (catastrophe, earth quake, storms etc).

Proposed solution plays a key role in ensuring an adequate focus of research funding on areas with a high degree of industrial relevance by covering the whole economic value chain by mobilizing public authorities at national and regional levels just now.

In fostering effective public-private partnerships, integrated technology platforms have the potential to contribute significantly to the renewed Lisbon strategy and to the development of European Research Area.

The open question how to secure investments and be 'future safe' as usually still remains.

International project MATEO as a "best practice" in the transfer of technology and innovations

Jiří Koleček, Regional development agency of South Bohemia, RERA, a. s., České Budějovice

MATEO (Matching Technologies and Opportunities) is a Regional Framework Operation (RFO) in the framework of the INTERREG IIIC,

The principles of MATEO is the support of the concrete cooperation between EU regions, initiating the innovation processes between small and middle enterprises, research and development institutions and the support of sharing the "best practises" in innovations. The goal is the systematic building of long term professional cooperations between strong partner regions.

MATEO focuses on linking the research and development spheres; in particular universities, academies of sciences with the entrepreneurial technological sector. We strongly stress the necessity of creating such systems and cooperations, which will be viable and will generate profit independently of external support.

The long term plan for the education and development of the educational system in the Czech Republic as well as several similar documents on a national and European level, solve the question of setting up a viable system for future financing of universities and research and development institutions. All these organisations will have to provide a gradually increasing part of their budget on their own. Practically, this means to work particularly on projects supported by the EU resources and to set up systems which will remain viable after the end of this support. The MATEO project gives the universities and other research and development institutions a unique opportunity to gain the key experience and to create teams able to support the home institutions in the future.

In MATEO, the university research and development centres in the South Bohemian and Pilsen region have the opportunity to cooperate with similar institutions from Catalonia, Lombardy and the Dutch region of North Brabant.

The MATEO project realizes 12 subprojects in 8 research and development technological sectors including; Advanced materials, Technologies for the optimal utilization of alternative energy sources, Food processing technologies, Biotechnologies, Mechatronics, Aerospace, Technologies with applications in pharmaceutical industry and medicine as well as Process and production technologies.

The team MATEO, which on the Czech side is lead by RERA, a. s., succeeded with 10 subprojects from the South Bohemian and Pilsen region. These subprojects were supported with amounts rangeing between 45,000 € to 216,000 €. The ration between the projects proposals submitted and projects realised was highest on the Czech side. A similar success has been achieved by our Catalonian partners, however, only at the cost of drastically reducing the budgets of the Spanish project teams.

Among the most interesting and most promising subprojects are definitely the Mechatronics Centre of the South Bohemian University in Pilsen, TRACENET, MedScout or E-CLUE 4 MATEO.

The future benefactors of the Mechatronics Centre in Pilsen will be the university and the cooperating entrepreneurs. The centre continues in the long and successful regional tradition in technological sectors and helps all companies interested in the development of sophisticated technological solutions.

The international project TRACENET focuses on the system of tracing the origin of food, and therefore, protects the market against low-quality products. A module of TRACENET is worked on by the University of South Bohemia.

Another interesting example of work is the project MedScout. MedScout has been set up to reduce the waste of innovative ideas in the health care sector by actively scouting these ideas and linking the feasible ones to interested companies for further development. The trigger for the subproject is that experience shows that viable ideas that can improve care itself and can generate business for entrepreneurs often never leave the mind or surgery of the medical professional. In order to reduce this waste and to stimulate medical innovations by SME's, MedScout seeks to transform ideas from medical professionals into realistic business opportunities.

Finally, the international project E-CLUE 4 MATEO which the Faculty of management of the University of Economics in Jindřichův Hradec and the Academic and University Center of Nove Hrady cooperate on, focuses on professional training for future management of the research and de-

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velopment centres, incubators, spin-off companies etc... These persons should be familiar with the subject of research and, moreover, must have the best economic education, know project management and the systems of the EU grant support. The public research and development sector suffers from a critical insufficiency of such transfer specialists. Nevertheless, their role in the institutes is essential for the future prosperity.

If you have find inspiration in these examples, if you have a similar project idea, we will be happy to guide you through the possibilities of financing, evaluate any possible risks and together we can develope an optimal way of realization.

RERA and the utilisation of grants for city, town or regional projects (possibilities, principles and examples)

Jiří Koleček, Regional Development Agency of South Bohemia, RERA, a. s., České Budějovice

The period of 2007–2013 will offer, not only the Czech Republic, but also the neighbouring countries and regions the possibility of a broad utilisation of EU grants. We are convinced there is the capacity and potential to realize a lot of fruitful and beneficial projects. The number of municipalities, institutions, companies or individuals who are realizing the benefits of financial support for their welfare and community projects is steadily increasing. Regional development agencies, such as RERA, a. s., offer a complex service for potential applicants leading to the systematic and successful utilisation of the EU funds. The key to success is in the coordinated activity of applicants, consultants and the representatives of state and regional bodies. Currently, we see the key condition in fast and smooth negotiations with the European Commission over the principles and goals of the programmes for the individual sectors, where the internal rules should be set and the process of the application evaluation simplified.

In the upcoming programming period the focus will be on the long-time sustainability of the projects results, both economicaly and environmentaly. In reality, this means that our clients must think about the system and how their projects will function when the support is over.

We offer our clients, both those who come with a definite idea of their future projects as well as those who have just rough proposals, a broad range of services rangeing from consultancy to the coordination of the realization. We help our clients find the most suitable grant, together we prepare the application for it, we find co-financing for them, help with EIA and NATURA negotiation etc. We also assist with requests for payment, with the interim and final project reports for the EU bodies, with changes in the running projects and with supervision over the project realization etc.

Our clients are, for example, local government bodies, cities and towns, companies, universities, hospitals or NGOs. They compose a broad spectrum including all the sectors of the possible grant support. The rules and systems of the EU funds utilizing are generally based on the same principles.

If you have a project idea which you are certain would be of beneficial to realize, our experts will guide you through the possibilities of financing, they will evaluate the possible risks and, together with you, set the optimal way of realization. To give you an idea of our activities, we have selected some of our most interesting projects. Though limited by space, we hope that you find here an inspiration:

- Among the most interesting and prestigious contracts was the elaboration of the Social-economic profile of the South Bohemia region. The initiator was the local authority. The topic of e-government is represented by our project; 'Internet for South Bohemian libraries', which connected 255 objects to the web. A model project for entrepreneurs can be, for instance, an elaboration of the application for the City brewery Platan Protivín. The brewery used means from the national fund OP Rozvoj II (Development II) to purchase a new technological device to improve production quality. The last example can be providing means for the construction of a new Centre for environmental education in ZOO Ohrada, Hluboká nad Vltavou.
- On an international level we are coordinating the Czech part of the MATEO project. The principle of MATEO is the stimulation of the real cooperation not only between the regions, but in particular between the research and development sector and entrepreneurs. The main focus is on technological innovation. We strongly stress the necessity of creating such a system and cooperation, which will be viable and will generate profit independently of external support, even after the project support.

There are certainly many more interesting examples of projects we have realized. Finally, we would like to point out that during the individual consultations, applications elaboration and the realizations or project evaluations and reporting, we focus on the maximum effectiveness of the means invested and thusly, our clients' complete satisfaction.

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European Quartet as a Part of Visegrad Four

Martin Košatka, Czech Tourist Authority – CzechTourism, PR Dept., Prague

The European Quartet initiates other feasible forms of cooperation of Central European countries, members of the Visegrad Four (V4) in the field of tourism.

Many interesting trends have been recently talked over thoroughly. As examples, we can mention low-cost carriers, stag parties, emerging markets represented by Asian markets, etc. However, there is one phenomenon that is stable and brings economies from the extent of sharing information and cost, a common course of action in many issues as well as a better position in negotiating with international institutions, yet it still takes a back seat. The often neglected phenomenon is cooperation, although it is one of the basic principles of the marketing mix in the tourism industry.

The European Quartet is a platform created within the scope of cooperation of Central European countries of the Visegrad Four (the Czech Republic, Slovakia, Hungary and Poland) especially for the tourism branch. The cooperation officially dates back to 15 February 1991 when the three (four) Central European countries signed a declaration of close cooperation on their way to European integration.

All information concerning the Visegrad Four can be found on the Visegrad Group website (www.visegradgroup.eu). Apart from links to the Web portals of individual V4 countries you can find links to a single, quite concrete V4 institution, the International Visegrad Fund, as well as links to the above mentioned European Quartet project.

The European Quartet unites the national tourist head offices of the V4 countries. The grouping is gradually gaining importance and strengthening the element of cooperation within its marketing programmes for particular years. So, the common strategy is implemented on the Japanese, Chinese and US markets and from 2007 even in the Asian part of the Russian Federation. Available materials include e.g. promotional materials paying particular attention to the regional themes of the V4 or UNESCO in respective language versions, the V4 statistical brochure and a publicity film on V4 countries. In selected source destinations, V4 countries jointly organize participation in tourism fairs, realize workshops or invite travel industry subjects to study tours in Central Europe.

A source of information about the European Quartet is the www.european-quartet.com internet site available in English, Japanese, Chinese and Portuguese language versions. The Russian version should come into existence in 2007, and its implementation is the responsibility of the CzechTourism agency.

An important role in backing up the Central European cooperation is played by the International Visegrad Fund (www.visegradfund.org), whose mission is to support the development of closer cooperation between the Czech Republic, Hungary, Poland and Slovakia as well as to strengthen relationships between these countries. An important tool for this support is the grant schemes advertised by the Visegrad Fund in regular time intervals, schemes not only in the Central European dimension but also schemes focused on the development of regions that involve partners from all Visegrad countries.

The European Quartet is a platform that triggers the further development of incoming tourism from remote destinations to the Central European region. A common course of action and the perception of Central Europe as an integrated target destination of tourism without differentiating tendencies is a promise of effective exploitation of the synergistic effect of such cooperation.

Transfer-East – Project for G2B implementation in Public Administration

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Abstract: *Transfer-East is a Specific Support Action aiming at, favouring the transfer of learning, facilitating the exchange of eGovernment good practices and their transfer when appropriate and contributing to enhance the quality of eGovernment initiatives across Europe financed by the European Commission within the IST priority in FP6. The project will promote the transfer to targeted NMS (Poland, Czech Republic, Hungary, Slovakia, Slovenia) of innovative Government-to-Business (G2B) approaches/tools, successful practices, transferable cases. The objective is to accelerate the transition phase to information economy and society and improve the efficiency of the Public Administration- Business relationship.*

The project aims at **favouring the transfer of learning**, facilitating the exchange of e-government good practices and their transfer when appropriate and contributing to enhance the quality of e-government initiatives across Europe. A secondary aim of Transfer-East is to accelerate the transition phase to information economy and improve the efficiency of the Public Administration – Business relationship.

The result expected is the transfer to selected Public Administrations in 5 targeted NMS (Poland, Czech Republic, Hungary, Slovakia, Slovenia), partner of the project, 10 innovative Government-to-Business approaches/tools, successful practices, transferable cases.

TRANSFER-EAST aims to make transfer and learning easier, get greater benefits from exchange of good practice, in the targeted new member state (NMS). The results expected are the following:

- Implementation of a **dedicated methodology** to select and transfer G2B services, based on the "eEurope – e-Government Good Practice Framework", replicable in different geographical/thematic context;
- **Selection** of a first pull of 25 Good Practices and **engineering** of 10 G2B **Good Practices** to be transferred to targeted NMS;
- Development of a "**Good Practices – Handbook**";
- Involvement of at least **20 Public Entities in NMS** in the Good Practices Workshop.
- Implementation of at least 10 good practices in NMS
- 4 **Targeted training sessions and coaching actions** to Public Administrations and other key actors and stakeholders in each NMS for a total of 20 training sessions.

During 2006 – the first year of project activities, the project consortium implemented first project stage **"Fine-tuning of the Pre-feasibility assessment**", during which the state-of-the-art in G2B services as well as Public Administrations needs on G2B services gave an updated situation of NMS. To support this action, it was important to carry out a promotional campaign so as to collect groundwork information and to involve potential end users in the project realization.

Then, with second project stage **"Selection of G2B Good Practices**" partners identified 32 good practices corresponding to the interests expressed by Public Administrations in NMS. This represented a catalogue of G2B good practices inside and outside Europe from which learn and receive training in Phase 3 "G2B Good Practices Engineering and Transfer".

During 2007, partners are now going through the validation and re-engineering of the Good Practices selected. They are in effect starting the re-engineering with the aim of structuring the e-Government experience of the Good Practice into logical and sequential steps in order to ease the transfer and the learning. This phase, in effect, is involving directly NMS and the Public Administrations owners of G2B Good Practices and external experts.

In each NMS partner of the project, 2 Pilot Actions are about to start. Since the Pilot Actions have been thought with the purpose of facilitating the exchange of knowledge and learning from the

experience coming from the selected successful cases, in order to encourage a strong commitment and continuity in the practical implementation of the e-Government services, NMS Public Administrations have the possibility to work through knowledge transfer work-shops, seminars, training sessions in addition to visits and direct interviews to organizations "process owners" of the Good Practices selected.

In each targeted NMS the Pilot Actions will focus on the following topics:

- technology implementations of G2B service;
- learning point from the original cases;
- impact of G2B application on the public structure;
- e-Government service model and financial plan for developing the on-line service;
- legal and regulatory practical aspects.

It is important to highlight that, due to different local situations, each targeted NMS proceeds at a different pace, namely for what the interaction with Public Administrations is concerned.

Project Coordinator
Sviluppo Italia (Italy)

Project partners
Danish Technological Institute (Denmark), Innova S.p.A. (Italy), Teseo S.p.r.l. (Belgium), University of Ljubljana, Faculty of Social Sciences-ULFSS (Slovenia), Institute of International Technology (Hungary), BIC Bratislava s.r.o. (Slovakia), Cross Czech a.s. (Czech Republic) and TechIn Sp. Z.o.o. (Poland).

Project webpage
www.transfereast.net

Tourist portal of Vysočina Region www.region-vysocina.cz and its further development

Jitka Mattyašovská, Regional authority of Vysočina Region, Jihlava

A tourist portal www.region-vysocina.cz was launched in February 2004. For 3 years of its existence it has been visited by many users who can get here constantly new and new information, get inspired for their leisure time or a holiday. In the time of its existence, the tourist portal has gone through certain stages of growth and development. It went as far as to the point when it was decided to put it through a thorough change. These changes concern design of pages, navigation and further expansion of the pages. "Restoration" of the portal should in the whole lead to "a new" tourist portal of Vysočina region which would continue to fully fulfil all the important functions – a professional presentation of tourist possibilities of Vysočina = offers, promotion and presentation, support of entrepreneurs in the area of tourism, supplementing information system and above all continual access to the information to its users. It should be also user friendly and simple and its new graphic version should be attractive to the users.

As mentioned above the first change can be seen immediately after the portal www.region-vysocina.cz is displayed, it concerns a complete change of design of tourist internet pages of Vysočina. The change is in graphic design and way of navigation.

The present introductory page of the portal www.region-vysocina.cz is conceived so that you can clearly discern basic information areas in classical navigation on the left. On the desktop there are then "highlighted" attractivities which are incorporated deeper in the basic navigation and "the news" concerning the happenings in the tourism. It is lined with graphics in green colour, which characterises Vysočina region full of forests and nature. The graphics is not complicated and does not contain any kinetic elements (flash presentations). The first page is supplemented with a calendar of cultural events which take place on the day when this Web is being visited and which are continuously updated (in the database there are monthly about 220 one day events + 70 longer – term events).

The new design is formed by a caption with changing photographs form Vysočina, pleasant colours white and blue which are completed by other colours. Using these colours helps to distinguish separate buttons of the navigation. Navigation is newly located in the upper part under the caption – horizontally and so that it continues being transparent with clear indication of what the user will find. On the desktop there will be then displayed the news, tips to visit, a cultural calendar and a piece of novelty will be an electronic postcard.

Another new element is flash presentation, which the user can (but does not have to) run. This presentation geographically localizes Vysočina Region on the map of Europe, after zooming on the map of the Czech Republic and after further zooming, Vysočina Region is displayed divided into areas of municipalities with extended activity and these towns are highlighted. After clicking on any of the locality, a set of photographs from the chosen area will be displayed and after another click the user will open a concrete link which refers to the photograph.

Structure of the Web will be completed for example with basic information on Vysočina Region, the BEST of Vysočina, interests of nature in Vysočina, traditional folk-lore of Vysočina, services (services, rentals, sports grounds etc.), tips for cross-country skiing trips etc.

Extra attention will be paid also to the photographs which complete the text information. For the need of the Web page there is being "created" a photogallery which at present contains 1.293 adjusted photographs to be used on the Web page. In the photogallery there are exclusively photographs which have clear copyright = they were given to us by the authors or are out of our own "production". Own photographs are also made by staff of tourist department and today they form about 70% of the photo databank.

There was newly registered a domain www.lyze-vysocina.cz, which will directly supply to the existing tourist portal information about possibilities of downhill and cross-country skiing in Vysočina including possibilities of service and hiring of skiing equipment, information about weather forecast, snow condition on the slopes etc. It will also include display of skiing lifts on the map. Updating of weather forecast and snow condition on the slopes will be carried out by means of SMS or email messages, which will have a certain given size.

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Tourist portal is developed not only by continual expansion and supplementing of existing information, but also by new integration of applications of geographical information system (GIS). The first use of GIS for the purpose of tourism in Vysočina was to create information system of winter cross-country skiing routes in the area of Nové Město na Moravě (Geoapplication of the year 2005), which we plan to expand to Bystřicko, Žďársko, Škrdlovicko, Ždírecko, Telčsko and Jihlavsko microregions.

Information system of cross-country skiing routes is an interactive map, which includes along with information about the routes themselves (track length, altitude profile) also information about possibilities of accommodation, information centres and sights in their surroundings with hypertext link to the concrete page of the tourist portal. Cross-country routes can be displayed on various background maps. There are available: a basic map 1:50 000, 1:200 000, an ortophotomap 2,5m/px or a digital model of the terrain. Tracks according to the way of their maintenance are displayed in a different way – some are maintained by scooter, some by snow-plough and some short tracks must be crossed without skis.

Cross-country routes are divided into tracks by means of guideposts. Every guidepost contains an interactive link to the profile of the route. Guideposts contain information about name of the crossroad, length of the track including a hypertext link to the profile of the route. For such rerouting there is used an icon “i” (identify) or an icon of “lightning” (hotlink). Icon “i” depicts descriptive attributes to the given section of the track, “lightning” will reroute the user to the relevant page of the tourist portal.

Main advantages of using geoinformation technology in tourist Web pages can be seen in expanding the tourist portal by interactive topographical maps of various scales, integration of information about route targets, higher attractivity of common content of tourist portal, possibility of localizing targets on the map of the region and availability of the content and possibility of GIS for the wide public.

All data which are connected with GIS, are supplied with metadata in metainformation system of the region (Metis).

Further there are published tourist and cycling routes which are gradually completed with the same information as cross-country skiing routes. Tourist routes are supplemented with icons of swimmable ponds. These icons have a hypertext link to the pages of regional hygienic stations with evaluation of quality of water. Prior to the summer season the ponds will be completed with other possibilities of swimming in swimming pools.

Blind Friendly Web Project

Radek Pavlicek, TyfloCentrum, Prague

Blind Friendly Web[2] project, run by TyfloCentrum Brno and Czech Blind United, is the first project in Czech Republic that deals with accessibility ever since 2000. This project was till 2003 the only activity in the Czech Republic concerned with accessibility. Project is mainly focused on so called *real accessibility*, because also people with visual impairment participate on its content (e.g. testing of accessiblity of websites).

The Project provides a source of information (in Czech) for expert public and other stakeholders on web access conditions, particularly applicable to Czech visually-impaired Internet users. In frame of this project testing, courses and consultancy are offered.

Blind Friendly Web Project was awarded a special prize in competition IT Project of the year 2003, announced by Czech Association of Chief Information Officers.

Blind Friendly Web Project is also an expert partner of competitions of websites called *Golden Crest* (a parf of *Conference Internet in Public Administration and Self-government*), *Biblioweb* and *Být vidět*. These competitions take place every year and are focused, among others, on accessibility.

In 2004 team of Blind Friendly Web Project participate in preparation of the first *Czech web accessibility guidelines*[3], published by Ministry of informatics[4].

In 2006 Czech Statistical Office[5] included accessibility as a part of analysis *Content of Public Administration websites*.

Since 2006 team of Blind Friendly Web Project participate (together with H1.cz and Faculty of Informatics, Masaryk University in Brno) in project called *Accessibility of public administration websites – project of science and research*. One of the goal of this project is to prepare new Czech web accessibility guidelines according to the Act No. 365/2000 on Public Administration Information Systems.

Parts of Project

- methodology guidelines for web designers;
- a portal leading to websites accessible to visually-impaired users;
- links to other resources dealing with this topic;
- a check-list form to test any website for accessibility to visually impaired people;
- training courses on accessibility;
- audits focused on website's accessilibity;
- e-mail conference bfw@konference.braillnet.cz;
- e-mail address info@blindfriendly.cz for consultations and questions on this topic;

TyfloCentrum Brno, o. p. s.

TyfloCentrum Brno[6] is a social enterprise, active in the regions of Brno and southern Moravia. It also delivers a number of its services in the Jihlava and Zlín regions. TyfloCentrum Brno was founded by Czech Blind United in 2000.

The main purpose of the company is to provide social services to visually impaired people, focusing mainly on social intervention services that promote independence of the visually impaired and facilitate their integration in society at large, and complementary social care services.

TyfloCentrum Brno is located in the Centre for Blind and Partially-Sighted people in Brno. The building is used solely to provide services for the visually impaired and is situated in an easily accessible part of the city, in Královo Pole. TyfloCentrum Brno is the biggest centre in Czech Republic, it has 26 employees and its services avails about 300 clients every year. TyfloCentrum Brno also

[2] www.blindfriendly.cz (CZ), www.blindfriendly.cz/en (ENG)
[3] http://pristupnost.nawebu.cz/texty/guidelines.php (ENG)
[4] www.micr.cz/default_en.htm (ENG)
[5] www.czso.cz/eng/redakce.nsf/i/home (ENG)
[6] www.tyflocentrum-bm.cz (CZ), www.tyflocentrum-bm.cz/en (ENG)

Project LORIS is supported by the European Commission–Directorate General for Education and Culture

employs people with disabilities. TyfloCentrum Brno has two centres, Day-care centre and Aids and IT Centre.

Aids and IT Centre provides

- free advice on choosing information processing adaptive equipment (PC), demonstration of its operation, certification of equipment suitability for funding applications, for the visually impaired and people with other impairments in Brno, Jihlava and Zlín regions;
- preparatory, elementary and advanced user courses in using the adaptive technology, including internet courses;
- scanning and text editing services, braille and enlarged print, searching the internet;
- technical assistance and consultations in the field of ICT with special access for people with specific needs;
- services in field of accessilibity;

The Day-Care Centre provides

- extra time and support to clients with reduced adaptability, namely those who lost sight during their adult life and who need increased attention to learn to be self-sufficient;
- quality leisure time activities, such as therapeutic clubs, lectures, discussions, or excursions, for clients who cannot find jobs;
- a number of training courses enhancing independence and self-sufficiency, re-integration in society and work; comprehensive information and counselling services connected with serious visual impairment;
- personal guide-service and reading service;
- assistance in shopping (clothing and food) for the visually impaired living alone
- support in the elimination of architectonic barriers, especially in the city of Brno;

In 2007 TyfloCentrum Brno established four offices in other towns to better cover region of southern Moravia.

Czech Blind United[7]

Czech Blind United is a civic association, founded in 1996. Czech Blind United associated over 10 000 members from the whole Czech Republic. Czech Blind United provides many highly professional services in various blindness-related fields.

Special centres and departments of Czech Blind United

- Publishing Department
- National Centre for the Elimination of Architectural and Transportation Barriers
- Guide Dog Training School
- Tyflokabinet – National Adaptive Technology Centre
- National IT Centre for the Blind
- Digitizing and Technical Support Department
- The Department for International and Cultural Affairs
- National Legal Support Centre

[7] www.sons.cz (CZ), www.braillnet.cz/sons/infoen.htm (ENG)

Regional information and communication infrastructure – project ROWANet

Petr Pavlinec, Vysočina region, Jihlava

Development of substantial ICT infrastructure all over the area helps to balance differences within the region, it creates a platform for development of new services in public administration as well as in enterprise sector, it helps to create new jobs and healthy competition environment. Extensive availability of information and offer of services contribute to increase in knowledge of inhabitants as well as in general standard of living in the given area.

The previous lines could be used as a basic motto of Vysočina Region in search of the way towards development of information and communication infrastructure in its area. In relation to frequent market failure in the rural areas of the region, we have set the following targets:

- High-quality coverage of the region with backbone telecommunication infrastructure based on optical or wireless networks
- Methodical as well as financial support of creation and development of metropolitan and local networks
- Activities improving availability of high-speed internet for the public as well as organizations
- Support of development of academic network Cesnet2 and state infrastructure KIVS
- Support of mobility of users of telecommunication networks by means of publicly accessible internet points.
- Financing of projects from the EU funds and European collaboration on development of infrastructure

ROWANet

A key project fulfilling the above mentioned vision is a network ROWANet – a regional backbone optical telecommunication network primarily intended for needs of public administration and unprofitable sector. The project aims at creating strategic backbone optical routes between all bigger towns in the region while using public, private and European financial sources. The network is based on dateless and in financial and capacity point of view very effective CWDM (wave multiplex) technologies and forms basic infrastructure for creation of new services of public administration for the citizens of the region and in a positive way it also influences development of telecommunication market in the areas of the region which are at present in market point of view unused. The first stage of the ROWANet network was finished in March 2006 in total cost of 32.2 mil. CZK. 50% of the realization costs were covered by the Structural Funds of the EU (JROP 2.2.) and from the state budget of the Czech Republic.

Information about basic services of the network

High-speed internet

High-speed connection of the organizations to the Internet (4Mb/s up to 1Gb/s) is carried out via academic backbone network CESNET2 (See www.cesnet.cz) by gigabyte connection to NIX in combination with peering of commercial ISP. Intensive cooperation with academic network CESNET is one of the priorities of the project. Thanks to radial topology of dedicated gigabyte connections to each of the nodes there is secured zero aggregation of user's capacities.

Public internet

Public internet is provided via WiFi hotspots situated at the public places (squares, schools, authorities …) in the form of limited, so called narrowband internet. Another way of providing publicly available connection to the internet is carried out via so called indoor PIAPs – computers installed at the public places and providing services of public internet to the citizens.

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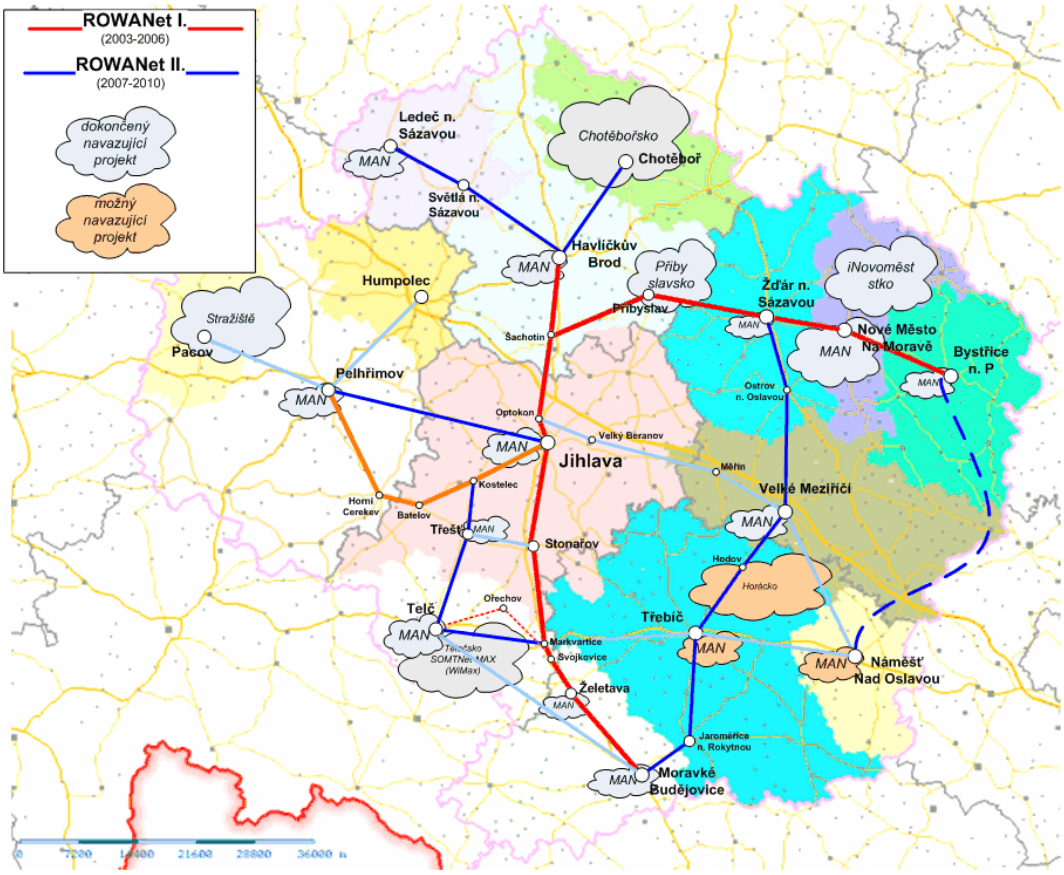
Services of high-speed storages

Vysočina Region provides for organizations connected to the ROWANet network and to the MAN network Jihlava SAN/NAS services of disc storages, so called DDS project (distributed disc system).



These services are provided on the ground of gigabyte private circuits in combination with reciprocal provision of capacities of disc arrays on the ground of iSCSI protocol. By means of this infrastructure it is possible to store tens of terabytes of data to the regionally redundant storages for short-term as well as long-term periods.

Services for iZs

Regional infrastructure provides data services for bodies of Integrated rescue system. It concerns mainly VPNs, data centre of GPS position data, back-up services of dispatching centres, DDS and GIS.

VoIP, IPTV

In 2006 the ROWANet network started to provide audio services for connected organization, in 2007 there took place the first successful testing of transmission of television broadcasting in the ROWANet. We would like to continue developing and expanding these services.

As an illustration we enclose a map of the ROWANet topology containing both current outline of the network and plan for its further development in the area of the region. As the whole project was successfully accepted, we consider connecting to this backbone network all the villages with extended activity in the region. We intend to use again financial sources of European funds in the period 2007–2013.

Junior Internet – a take-off platform for young enterprising people

Jiri Peterka, Together CZ, Prague; Daniel Pecynski, Together PL, Wroclaw; Peter Šlosár, Amaweb, Bratislava

Junior Internet (www.juniorinternet.cz) is a project for children and young people under 18, who use Internet not only for entertainment but also for creative activities. This project aims at being a kind of a springboard for young enterprising people. Every year they can submit their Web pages, internet projects or services and texts about Internet to our internet competitions. All of them are then invited to the conference where there will be prepared for them not only a plentiful programme about Internet full of lectures, presentations, discussions and competitions. The project Junior Internet has taken place in other Visegrád countries since 2006 as well.

Project Junior Internet 2007, which is held under the auspices of a member of the European Commission responsible for information society and media, Viviane Reding, joined altogether 276 young people in the Czech Republic. Their work (Web pages, texts about Internet or graphic works) reached very high level. On 3 March 2007 there was held a Junior Internet conference 2007 in Prague where all these young people were invited. The conference presented a number of interesting lectures on modern trends at the Internet, presentations of successful internet projects, discussions with internet personalities or competitions. The minister of Interior and Informatics Ivan Langer handed over a special Award of the Minister at the conference.

A number of young people, who took part in the project Junior Internet, create at present successful projects on the Internet which can stand the competition even with adults. Project Junior Internet has been held already for 8 years and has been joined by almost 2,500 young participants. There has formed around this project a strong community of young people, who create successful projects, some of them have even established their own firms and have tens of employees.

Potential of these young people can be however used also for generally profitable purposes. A number of young people creates project profitable for their municipalities and usable at the local level. This year there has been for example awarded a child internet television Sedr (http://tv-sedr.wz.cz), which was created by a 15-year old Patrik Rajs and his friends. This television is fully created by children from scripts, shooting and news moderating up to their placement at the internet. At the same time they inform about the current course of events in their village Otvice, reports concern opening the house of culture, fancy-dress ball or celebration of Easter. The television has also been awarded an Award of the Minister at this year conference.

Another awarded project is Nadovču.cz (www.nadovcu.cz) made by an 18-year old Ladislav Nosákovec, which can help to encourage tourism in the regions. It offers a database of almost 3000 accommodation facilities of various types with possibility of contact and booking of accommodation.

Since the last year Junior Internet has taken place also in other Visegrád countries. In each of them there take place internet competitions which the young people can join with their projects. Then there is for young people prepared a national conference in every state. In one of the partner states there will be finally held a final international symposium which will welcome young winners from all the states. This year this symposium will be held from 30 March to 1 April, 2007 in Bratislava.

The Slovak part of this competition also received out of the total number of 225 projects a number of works of young people which deal with municipalities, regional tourism and related areas. On the address http://lukash.colorko.net/maninska there is a page presenting to the internet users a natural area near Považská Bystrica – Manínská tiesnava, where you can find the narrowest canyon in Slovakia. The tourists coming to this area often find on this page information about tourism, sports and accommodating conditions in the surroundings. On the address www.kosice.wz.cz there is a page devoted to the city Košice, which was created by young people in 2005. Visitors can find here a number of important information about this town – about history, transport, culture, sport etc. On the other hand on the address http://www.benq89.estranky.cz young people prepare a list of activities for unemployed and handicapped citizens of Spišská Nová Ves microregion.

Young people have a great potential and often thorough knowledge in the area of information technologies. We believe that for the local self-government it can be very interesting to use this potential and enthusiasm of young people for various internet projects, Web presentations of villages, support of tourism at the local level and number of other things. On the address www.juniorinternet.cz it is possible to find more information about Junior Internet.

Project LORIS is supported by the European Commission–Directorate General for Education and Culture

Public internet in the libraries of villages and towns of the Czech Republic

Vít Richter, The National Library of the CR, Prague

Summary

The Project of Internetization of Libraries (PIK) is carried out by Ministry of Informatics and Ministry of Culture. At present 3500 village and town libraries are taking part in this project. Within this project each library can get a free of charge connection to the high-speed internet and communication fees are settled from the state budget. Connected libraries provide inhabitants with free of charge access to the public internet.

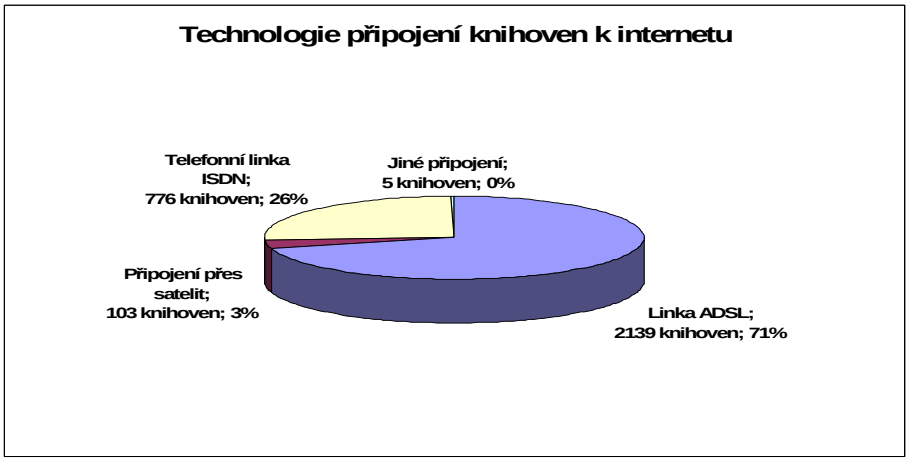
In the recently published report of the European Commission on availability of internet in the households, the Czech Republic ended up at the last place with 26.6% of connected households. It is a very far-off position from the European top, which is represented by for example Sweden, the Netherlands or Estonia with more than 80% of households connected to the internet. A real number of internet users is in our parts a little higher, because we can use internet at work or at school, but not even in this area can we aspire to be placed at some head position. Television commercials and other media may give the first impression that there is a sufficient number of computers and internet everywhere and almost for free. In reality it does not have to be so simple for a significant number of inhabitants. World of internet gets richer and richer and offers its users not only vast ocean of information, but also more and more interesting services. The way to the internet can be made difficult for many a person by necessity to overcome what is sometimes called a "digital gap". The gap can be sometimes represented by lack of money for purchasing the computer, for somebody the obstacle comes in a form of fear of something new, somewhere the barrier can be represented by unavailability of a suitable connection or an internet provider.

At which public place can one get to the public internet? At first everybody comes with an idea of an internet café or an info centre, but these facilities can be found more often only in bigger towns. To use public internet at the town or village municipal authority is not usually so common either. But the most simple may be to look for a local library, which can be found in every town and almost in every village. The Library Act (257/2001 Coll.) obliges libraries and their providers to provide for an internet connection by the end of the year 2007. According to the available information 4000 libraries and their branches offer access to the public internet. 90% of inhabitants live in a place where the library has internet at its disposal. Internet in libraries is really for everybody. Because a library is a pleasant and neutral place where really everybody can come. You can go to the library with your child or you can send the child there alone. Neither seniors nor housewives are afraid of going to the library. If you happen not to be quite sure about your computer skills, you can go to the library and the librarian will be pleased to advise you.

Region	2003	2004	2005
Praha	100	100	100
Středočeský Region	60	72	74
Jihočeský Region	81	84	85
Plzeňský Region	64	77	78
Karlovarský Region	77	92	94
Ústecký Region	82	84	90
Liberecký Region	75	85	90
Královehradecký Region	74	79	83
Pardubický Region	72	76	81
Vysočina Region	64	70	75
Jihomoravský Region	73	80	84
Olomoucký Region	76	85	88
Zlínský Region	76	87	89
Moravskoslezský Region	84	94	98
Average CR	76	84	87

% of inhabitants where the library offers public internet

Operation of public internet is for a number of smaller municipalities quite cost-consuming. That is why in 2004 the government agreed on support of connecting the libraries to the internet. Since 2004 Ministry of Informatics in cooperation with Ministry of Culture has gradually fulfilled targets of a governmental programme the Project of Internetization of Libraries (PIL), which enables every library to get its own connection. The programme is available for all libraries (or more accurately for the providers of the libraries), which provide public library and information services and are registered at the Ministry of Culture as public libraries. The connection as well as communication fees are settled from the state budget. On the other side the library must offer public access to the internet. The aim is to guarantee a quality connection, which is why a high-speed internet ADSL technology is preferred. At present the basic speed of the connection is 2 Mbit/s and the speed is supposed to increase in relation to the development of appropriate infrastructure. In case there is not ADSL available in the given area, the library is temporarily connected via classical ISDN line 64 kbit/s. ISDN lines are gradually replaced by ADSL technology and their use in the libraries approximates 75%. In case the connection of the library to the internet cannot be solved by means of telephone lines either by mobile operator, the library will get the internet connection via satellite. More than 100 libraries in small and remote places dispose now with satellite connections. Connecting of the libraries to the internet is in a number of cases expedited by availability of ADSL in smaller villages, which can be then used by other interested persons as well. If the library is seated in the place of local municipality, the connection can be also used for the needs of the municipality.

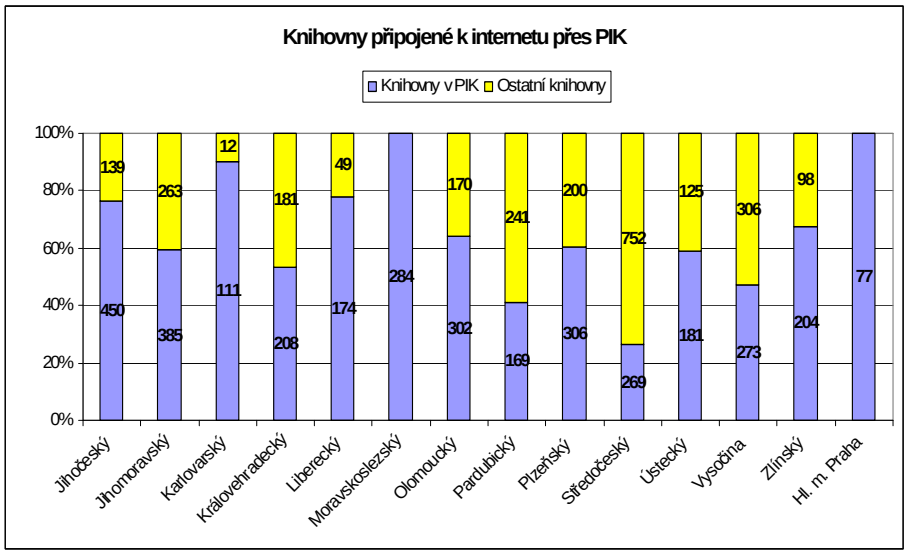


The EU Structural Funds represent a great opportunity for spread of public internet into the libraries. Altogether in 8 regions regional libraries initiated major projects for installation of public internet in the libraries in the Joint Regional Operational Programme (JROP). A total value of these projects in Liberecký, Zlínský, Karlovarský, Plzeňský, Královéhradecký, Olomoucký, Jihočeský Regions and in Prague exceeded the amount of 72 mil. CZK. These projects supplied libraries mainly with computers, printers and other equipment, while the internet connection was supplied via PIL.

Another great help is represented by education centres of regional libraries which provide training of librarians in the area of knowledge and skills with information technologies. Every librarian can attend a training course in basic computer literacy in ECDL range in these education centres. There are also offered other specialized and retraining courses. The librarians are meant to give users and other visitors support in searching for information.

It is very easy for the municipality to get a library connection to the internet – all there is to do is to send a filled in application to the regional library. At present there are already almost 3.500 municipalities and their libraries taking part in PIL, but still in some municipalities it does not succeed. Sometimes it is very difficult to persuade an elderly librarian that internet in the library can be useful, at another place a mayor or another representative can be hostile to the internet. In the smallest villages it is also very problematic to guarantee appropriate range of working hours of the library so that the internet connection is used in an effective way. But it is very interesting that dismissive approach to the internet in the libraries appears to be significantly region dependent. For example in Moravskoslezký, but also in Liberecký, Jihočeský or Karlovarský region, a free access to the internet is

used by almost all the libraries. On the other side in Pardubický region this possibility met with interest hardly in 40% of libraries and mayors and in Středočeský region only in 27% of libraries. In these regions there may be very rich municipalities, which are proud of paying everything from their own budget. But it is more likely that the mayor has a bit forgotten about the library. Of course, there are cases in which the village or town deals with the internet connection in a complex way for the whole area. In this case it is not efficient to connect the library through PIL, but these cases are not so frequent.



New internet connections of the libraries will be carried out on 31 December, 2007, afterwards this stage of PIL will be finished. If any library or municipality is interested in connection to the internet and in taking part in the PIL project, it is necessary to apply for connection by 30 June 2007 at the latest. Beyond this date it will not be possible to get a free of charge connection, but all libraries will still get the communication fees settled from the state budget.

Information and contacts

Information on the Project of Internetization of Libraries can be found on the Web pages of Ministry of Informatics: http://www.micr.cz/scripts/detail.php?id=3076
Application form for the connection is available on: http://www.micr.cz/scripts/detail.php?id=3078

Consultation concerning the form and information on the course of realization can be got at the Central users support, tel. 800 202 122 (free of charge line), e-mail statnisprava@o2.com

List of contact persons in the regional libraries

Capital City Prague: the Town Library in Prague, Mgr. Viola Nouzovská, Mariánské nám. 1, 115 72 Praha 1, Tel.: 224 257 105, E-mail: nouzovsv@mlp.cz
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City of Prague: Portal of the Capital City of Prague

Ivan Seyček, Director of Department of Informatics, Prague City Hall

Prague, the same way as other cities, has been developing its web pages as a tool for providing the public with information since the Internet arrived to the Czech Republic. Almost every City District and organisation of the Capital City of Prague have interesting web pages now. Of course, the main responsibility for the creation of information on the City administration is felt by the Prague City Hall, which web pages were in the past even awarded in the competitions of the Golden Crest (2002) and EuroCrest (2003). As technology develops the Prague City Hall has been developing further potential for electronic communication with citizens fully in accord with the Information strategy of the City of Prague 2010 "Towards ePrague". One of the major activities in recent years is the creation of the Portal of the Capital City of Prague, which started by the decision of the Prague City Council in November 2004.

The Internet is used by more and more people. Although the Czech Republic is falling behind in the penetration of Internet connectivity as well as in the offer of content and services to majority of Member States of the European Union, over one third of households has already access to the Internet at present. In Prague the situation is more favourable because of the rather more developed telecommunication infrastructure, higher number of Internet users, as well as higher computer literacy than in other regions of the Czech Republic. Users are getting accustomed to remote on-line dealing with matters, which they have had to deal in person till recently. The number of persons who enjoy on-line shopping, control their bank accounts, or order services, has been growing each year by units to tens of per cent. Therefore it is not surprising that ever more citizens desire to be able to deal with official matters in alike simple way.

The new Portal of the City of Prague is available at the address www.praha.eu. Perhaps the domain name "EU" symbolises itself its ambitions to be competitive on the international scale that means compared to other European and world metropolis portals. The Portal creation objective is the providing of on-line information and services to target groups of users (citizens, entrepreneurs, and visitors), which at present the City Hall provides either through traditional channels or by means of the existing web pages, that means in the way inappropriate concerning the current requirements and principles of e-government. The new Portal shall provide for services enabling electronic communication and dealing with authorities on every agenda where the current legislation allows. The Portal should provide the services necessary from one location, even in cases when various information systems and information sources must communicate in the background, and shall provide services, which bring significantly simpler dealing to the citizens and will pose a step towards fulfilling the known slogan that "data have to travel not the citizen".

The principal change compared to the old web pages is the high level of interactivity. The Portal users will find more than mere articles informing on events in the City and functioning of authorities, offices, and other institutions. The new applications, for instance, interconnect the Portal with other servers. Perhaps the most important is, however, the possibility of comfortable and fast communication in between the citizen and authorities by means of interactive forms, which can not only be filled in, yet also sent and later monitored how fast they will be processed. The Portal, connected with the Call Centre of the Prague City Hall and the Praguer's universal authorising card (UKP), should be a virtual counter for the contact in between the officers and citizens.

Needless to say that in the first phase technology equipment had to be substantially supplemented with new servers and applications for the new solutions. The Portal is based on J2EE and Sun One technologies. Next attention was paid to creating of new applications and interactive services provided by the Prague City Hall. The first set of on-line services has been first presented on the original City Internet pages www.praha-mesto.cz since spring 2006. It was, for example, registration of payers for municipal waste collection, submission of the application for barrier-free apartment, application for a grant for culture and monument care, submission of the announcement on the venue and date of a public assembly, registration for testing of road transport operators.

Since September 2006 the Portal www.praha.eu has been containing other services as, for instance, lost and found items, description of life situations (pursuant to the Public Administration Information Systems – ISVS standard), search in the Municipal Library catalogue, validity verification

of personal identity documents, search for the Municipal Public Transport connections, list of Technical Control Stations and emission measurement, displaying the level of the Vltava River, weather forecast, etc. Since October 2006 new services are to be added as electronic postcards, virtual 3D tour through the Town Hall, and others.

The Portal also offers new electronic forms using the technology XML Filler from the company of Software 602 for their generation and administration. The user can not only fill in and print out the forms and bring them prepared this way to the authority yet even more friendly way is their direct sending by means of the Internet. The Portal services are not terminated with the electronic submission of a form. The citizen will receive a message on the form receipt by the authority, either by e-mail or by SMS message, and then can monitor, by means of a specific application on the Prague City Hall pages, in what phase the processing of their application or request currently is. When putting the Portal under operation at the end of September 2006, roughly 60 various forms were developed this way and new ones shall be added continuously at the interval of every fortnight. On the Portal already now entrepreneurs will find aids for the registration of local charges payers for recreational stay and lodging, notice on the use of public areas, application for the use of advertising areas, remarks on the land-use plan, registration of vehicles, and reporting of changes, etc. The citizens will use tools for reporting of defects in the municipal apartments, application for exchange of apartments, application for having a foreigner accommodated, and other services related to housing as, for instance, connecting to the gas utility network, self-reading of gas consumption, changes in contact data, information on the method of payment, and others, and from the field of social care as, for example, questionnaires for the applicants for substituted family care.

Other important feature of the Portal is personalisation. Any logged-in user will be able to make the pages outlook as he/she likes in the section My Prague. Therefore he/she probably fill their page with those applications, which he/she uses most frequently. Thus it will be, for instance, possible to watch in the Portal personalised section views from web cameras, information on the current weather in Prague, and updated exchange rates of world currencies, everything sorted in clear overview on one page.

It was right for the rebuilding of the whole system and efforts for making it more clear the City of Prague's pages underwent also the change of their outlook and structure. The old Internet presentation, which had been, as majority of internet portals, gradually filled and swollen in volume uncontrollably, had been becoming unclear and hard to get oriented in. The original structure has become obsolete and confusing, links to certain pieces of information were overlapping, other data were, on the contrary, hard to find. The new Portal comes with restructured hierarchy: the basic structure represent information for citizen, entrepreneur, and tourist. It is just this fundamental subdivision, which makes the main orientation easier: tourist has no need to weave in and out through useless forms, and the entrepreneur does not waste time in educational articles on the Prague's history. It will be right companies and small entrepreneurs making business on the territory of the City of Prague who certainly welcome the concentration of all information and applications necessary for their work in one section, which is, moreover, further clearly structured.

The further Portal development counts with interlinking of information services of respective information systems of the Prague City Hall, which have been separated so far, systems of the City authorities and organisations, as well with the solution of the links to the portal services of central government bodies, namely the Portal of the Public Administration www.portal.gov.cz.

Thus the new Portal www.praha.eu, owing to the practical utilisation of new technologies, interactive services, interconnection with other systems, yet also due to the easy to follow structure and modern outlook, has become a gate to the electronic authority and the modern information centre to all Prague inhabitants, and not solely for them.

Country Development Strategy on duty of Information Society on the post and pre-accession stage

Monika Walczak, Department of European Union, Ministry of Foreign Affaires of Poland, Warsaw

Introduction

EU enlargement which took place in 2004 was the significant change for the V4 countries. As lots of facts point at we are still in the 'new member countries' position but from 1 January 2007 we have two more partners within European family such as Bulgaria and Romania. V4 countries are now changing their role: from poor, worst developed members we start to become donors and we have to total amount of financial assistance in the name of solidarity principle.

Also the opening of negotiations with Turkey and Croatia in 2005 as well as recognizing the Western Balkans as potential candidate countries to the EU gives V4 countries a new political context and new challenges for exploring new possibilities and also potential threats. Useful instruments for increasing V4 countries own competition position still are eGovernment, eDemocracy, eInclusion etc. solutions but financial assistance plays significant role. That role is going to be a crucial factor in the respective Country Development Strategy (CDS) implementation.

The problem of CDS implementation

It is rather clear that the implementation problem solving is limited mostly by financial support level.

Let us assumed that implementation in case of V4 countries, mainly Poland, will be financed by both internal and external sources.

External means are Community public financial resources such as: European Regional Development Fund, European Agricultural Fund for Rural Development, Financial Instrument for Fisheries Guidance, Cohesion Fund as well as means dedicated to Lisbon politics implementation and activities connected with security and European citizenship. Total sum EU budgetary amounts of 86 billions euros Poland could use.

More than 67.3 billions euros foreseen under structural funds for the 2007–2013 will covered the objectives included in National Cohesion Strategy *(operational programs)*.

For the agriculture restructurisation we calculate that the an overall amount of 13.2 billion euros will be committed to Poland from European Agricultural Fund for Rural Development and for co-financing there will be about 3.0 billions euros.

Financial Instrument for Fisheries Guidance will allocate about 0.7 billions euros for restructurisation and for co-financing about 0.1 billion euros.

How to make optimal EU financial resources use?

It should be:

- better co-ordination between the particular actors of economical games which implement CDS objectives;
- effective guaranties system and European means quaranties.

The main question which have to be put into consideration is how to solve the above mentioned problem. Firstly the linkages between proper CDS objectives diagnosis and financial sources use. Second the financial sources use skills in the framework of national public administration is also key issue. There is also the question of how the new members could equal compete with old members.

European Union financial assistance

EU financial assistance generally speaking is divided into two components:

- The first component we called: Post – accession assistance
- The second one is: Pre-accession assistance

Due to importance and new conception of European assistance which gives the significant role of the second component I will focus mainly on the respective pillar.

As regards the first component we can say that Czech Republic, Poland as well as 8 other new members states (joined European Union in 2004) are implemented post-accession assistance under so called *Extended Decentralised Implementation System* (EDIS) which will last till 2009. The newest member states Bulgaria and Romania are covered by post-accession Transition Facility which will be implemented also under EDIS.

Transition Facility we could understand as Union's temporary financial assistance dedicated to the new member states for developing and strengthening their administrative capacity to implement

With reference to the second component we see that Pre-accession assistance is now based on the IPA – *the new instrument for pre-accession assistance*. IPA is a part of the preparation for the new Financial Framework 2007–2013.

IPA was adopted on 17 July 2006 replacing such pre-accession financial instruments as: PHARE, ISPA, SAPARD, Turkish pre-accession instrument (the programmes for candidate countries) as well as CARDS (the projects for potential candidate countries).

IPA came into force on 1 January 2007 bringing all pre-accession instruments into one, single instrument. IPA covers candidate countries and potential candidate countries: Croatia, FYROM, Macedonia, Turkey, Albania, Bosnia and Herzegovina, Montenegro and Serbia. So the beneficiary countries are divided into two categories: 1) under the accession process or 2) under the stabilization and association process.

The components of IPA are the following:

- Cross border co-operation;
- Regional development;
- Transition assistance and institutional building;
- Rural development;
- Human resources development.

The topics of IPA pillars are chosen in order to achieve each country's objectives in the most efficient way. We can say that he three components are devoted to one category of future UE' members: candidate countries. The second category of countries: potential candidate countries can use financial assistance from similar measures through the component dedicated to transition assistance and institutional building.

The IPA is based on strategic multi-annual planning established in accordance with the EC's Enlargement package which includes a multi-annual indicative financial framework (MIFF). We can say that MIFF is the link between the political framework within the enlargement package and the budgetary process.

As it is described in the EC' Communication the MIFF is based on a rolling three-year programming cycle. For example: MIFF for years N, N+1, N+2 will be presented in the last quarter of the year N-2 as a part of enlargement package.

Conclusions

- The fact of new countries entering the European Union as well as EU' financial resources concentration on pre and post-accession objectives presented above, indicates that there is a contingency towards decreasing *per saldo* V4 countries accessible sources.
- The logical consequence of that fact is the necessity of V4 effectively increasing accessible resources use mainly by V4 multilateral co-operation strengthening in a way of synergy effect.
- The truism is the opinion that effective instrument for the respective Countries Development Strategies' optimalization particularly on the municipality and regional level is wide use of ICT technologies, broadband information networks', knowledge based economy methods and tools, eGovernment as well.

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City of Prague: The private data network of MePNet

Zdeněk Záhora, Department of Informatics, Prague City Hall

The City of Prague has been creating the fundamental infrastructure for communication of information systems of the City administration bodies for almost ten years. The name of MePNet was generated as an abbreviation of the expression **Metropolitan Prague Network**. This English name was to symbolise since the very beginning the whole City Project ambitions exceeding the domestic standard of those times. The MePNet Project objective was to create, for a limited group of City authorities and organisations, a high-speed multi-function backbone network, which should provide for conditions for complete communication of these entities in between each other and simultaneously would enable access into other private and public networks, including the Internet.

The development of the MePNet network was a separate development stage of the City Project of the Fundamental City Hall Information Service – ZRIS, which has been implemented since as early as 1996. The Project implementation was originally provided in the cooperation with an organisation established by the Prague City Hall (PragoNet), which was later on privatised and nowadays cooperates with the City Hall as the company of T-Systems Pragonet. This company is the owner of the optical cable network, which the MePNet network is operated over. The MePNet network is operated by the Prague City Hall.

In the MePNet network there are in total **three groups of entities** identified with different relation to the network as follows:

- *internal entities*, which the MePNet network provides with the required network services, including the security and access to the Internet;
- *external entities*, to which network services are provided, yet not in full extent, but they have, on the basis of mutual agreements and organisational measures, allowed access to certain circles of data or, on the contrary, provide certain circles of data to the internal entities; they do not have the option to get access to the Internet through the MePNet network and are provided with no security;
- *public network of the Internet* which is understood as potentially dangerous.

The entities' connecting was carried out in phases. In 1st phase, finished in 1999, 23 municipal entities (as Prague City Hal – MHMP, Authorities of City Districts – ÚMČ Prague 1–15, Capital City of Prague Municipal Institute of Informatics – IMIP, Regional Organiser of Prague Integrated Transport – ROPID, Road technical Administration – TSK, Institute of Transportation Engineering of the City of Prague (ÚDI Praha) Institute For Municipal Development – ÚRM, The Municipal Police of the City of Prague – ŘMP, for instance) were connected. In 2nd phase (in 2000) 7 municipal entities were connected (as Fire and Rescue Brigade – HZS, Utility Tunnels Co., Municipal Library and its branches, for instance) and the interconnection with other private networks (Pragonet, Prague Public Transport Company, Finet) was provided. In 3rd phase (in 2001) further seven authorities of City Districts (Authorities of City Districts – ÚMČ Prague 16–22) were connected in relation with the public administration reform and the new Status of the Capital City of Prague. The network still used mostly optical cables of the company of PragoNet a.s. and to the remote City Districts proceeded by directed radio connections. Within 3rd phase, the MePNet network was interconnected with the network of the Ministry of Labour and Social Affairs of the Czech Republic (MPSV CR). This interconnection provides for full connectivity of the workplaces of State social support – SSP ÚMČ Prague 1–22. In 4th phase (in 2002) 16 locations of Municipal Police (MPP) were connected. Since 2003 further entities have been gradually connected (further MPP locations and City Districts and neighbourhoods) according to the needs of the City development and the entities concerned.

Nowadays, in total about 70 entitles are directly connected to the MePNet, out of them 23 entities at the ATM level (155 Mbps), the rest at the Ethernet level (10Mbps, exceptionally at 2 Mbps) and eight smaller City Districts through ADSL PVC at the level of 1024/256 kbps. Further 300 entities of the City (mostly schools established by the City) have access to the whole city electronic mail node via a dial-up line or from the Internet. From the Internet the access is through a web browser (Microsoft OutLook Web Access) on the user side.

For secured and reliable communication on the MePNet network the internal entities, connected to the network, have the duty to obey basic **rules** (Rules for the operation of the MePNet network) and **obligations**, which are established in agreements. Their violation may be punished by imposing sanctions of service rejection or disconnection from the network.

Now, please allow to give a bit of technical information. The **Centre of the Network** MePNet resides in the building Vyšehradská. Localities accessible over optical cables are connected from one ATM switch. Some localities are connected by means of the ATM network of PragoNet. Some of smaller City Districts are connected by ADSL. The addressing scheme of private IP addresses based on the private prefix 10.x.y.z (class A) is used for local networks of connected subscribers and backbone networks. The addressing scheme concept and address translation is utilised for the access to the public Internet network. In the network central node there are servers providing for basic services of the MePNet network, servers of domain names (DNS), and servers of e-mail. DNS and e-mail services are provided by two servers, security is ensured by one server (firewall), Internet connection is secured by two www proxy servers. Then there is one common DNS and e-mail server, which provides the similar services to the locality, at every respective locality.

In order to provide for **security** the MePNet network is separated from the Internet by a proxy firewall. Inside the network, security is provided by means of other measures (filtering of IP packets), which prevent namely forging of source IP addresses of packets and access to the private networks of internal entities (except for DNS and e-mail). Devices on the network are administrated by means of safe encrypted and authenticated connections (SSH). Attempts to violate or trespass security measures are monitored. There is no direct access to the Internet allowed.

Entities incorporated into the MePNet network are separate legal entities. The technology solution chosen guarantee the mutual data protection in between respective network users. The firewall separates the Internet from the MePNet network, the external subscribers from the internal ones. The solution implemented provides for protection against unauthorised access into the MePNet network from external networks (as from the Internet, for instance). The protection of the internal entities' networks (against each other) has been solved by the setting of active elements (routers) on the backbone so far; security behind the routers is responsibility of the local network operators.

In order to ensure **antivirus protection** in the MepNet network there is the antivirus software AVAST installed on the end workstations and Symantec on mail servers.

Services and applications provided by means of the MePNet network can be summarised as follows:

Dial-up access to the MePNet network: For the Prague City Hall officers, Prague 10, and the node Zris access to the MePNet network, over a commuted line there are VPDN tunnels installed in between the PragoNet router and end routers of respective locality. For the Prague City Hall officers this tunnel is encrypted.

Access to the Internet: The connected internal entities may use the world-wide network of the Internet by means of the MePNet network without any limitations. The entities may use the standard protocols for data transmission, as ftp, http, https, and smtp. The connectivity to the Internet is implemented through a central access point equipped with security technology of a firewall and a system for IP addresses translation. At present, the speed for the Internet access is set to 44 Mbps. As the number of users and the scope of information sources utilised have been growing the demands for the speed of connecting line have been growing steadily as well. The speed is increased every year while keeping the price constant.

Access to shared data sources: All connected entities create together a WAN network, so-called extranet, which is safely separated from the Internet and allows for the operating of proprietary services for information access and data transmission.

Electronic mail: All current mail systems of the connected internal entities were interconnected through the central server with the system of MS Exchange Server in order to be able to implement synchronising, and in some cases, also replicating of local address lists. Solely MS Exchange has central support although on the side of certain entities other systems (as Lotus Notes, for instance) are deployed exceptionally. For security reasons appropriate gateways were put under operation with some limitation.

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Other services: Sharing and use of record office service (e-record) are enabled, including hosting services provided to 5 City Districts of the Capital City of Prague or to sponsored organisations of the City of Prague. Services of the system WebGIS for the work with the all City geographic data utilise the central database in the Oracle DB. In further prospects the development of applications using the three layer technology (data, application, and user layers) is envisaged, including the information and services sharing related to the Portal of the Capital City of Prague, applications in the fields of property administration, economic agendas, document administration, etc.

For the next period of the development and maintenance of the MePNet network in 2006–2007 upgrade of certain hardware components (servers, routers), connecting of further entities (further periphery City Districts), and the already mentioned development of services provided over the network are planned.

Informisation of villages in the Bodva Valley

Istvan Zacharias, Mayor of the City of Moldava

A successful project of informisation of villages in the area of Bodva received even a prestigious award…

This year competition for ITAPA 2006 Award had only one prizewinner from the self-government – it was the town Moldava nad Bodvou, which sent in a project Complex informisation of villages in Bodva Valley. In the category "New services", the town was placed at the nice second position, to which the whole editorial staff heartily congratulates… About the project and its realisation we spoke with **István Zachariaš**, lord mayor of the town Moldava nad Bodvou.

Basic data about the town Moldava nad Bodvou	
Location	Region Košice – surroundings, in Košice basin, southwest of Košice city, on the international road E 571 direction from Rožňava
Number of inhabitants	9976 (by 31 December, 2005)
Town budget	About 250 mil. SK
Number of employees of the municipality	26
The first written mention	year 1255
Association of towns and villages of Bodva Valley	Association of towns and villages of Bodva Valley was established in 1993 as a microregion incorporated into Association of towns and villages of the region Košice – surroundings, which is a member of ZMOS (further only Bodva Valley). It is an association concerned to put through and protect rights of towns and villages of Bodva Valley microregion. At present it is also a subject taking care of regional development of the area and applicant of projects. Association of towns and villages of Bodva Valley associates: Moldava nad Bodvou, Buzica, Cestice, Čečejovce, Debraď, Drienovec, Dvorníky - Včeláre, Hačava, Háj, Hosťovce, Chorváty, Janík, Komárovce, Mokrance, Nižný Lánec, Paňovce, Perín - Chým, Peder, Rešica, Turňa nad Bodvou, Turnianska Nová Ves, Veľká Ida, Zádiel, Hrhov and Žarnov. A seat of the association is Moldava nad Bodvou and its chairman is a lord mayor of Moldava Ing. István Zachariaš.

Basic data on the project	
Project title	I. stage: "Internet in the village" II. stage: "Public internet access points of the Association of the villages" (VBPI – Bodva Valley)
Project specification	OP ZI, Priority 3, Measure 3.2 Creation and development of information society for public sector
Applicants	I. Project "Internet in the village" was submitted by the Association of towns and villages of Bodva Valley. II. Project "Public internet access points of the Association of municipalities" was submitted by self-governing region Košice.
Time horizon of the project	8/2004–8/2006
Project characteristics	Investment
Financing of the investment	
Amount of the grant from ERDF	Total grant of two projects: 6.2 mil. Sk
Amount of the grant from ŠR SR	Total grant of two projects: 1.65 mil. Sk
Amount of own sources	Co-financing by the Association of towns and villages of Bodva Valley, self-governing region Košice and financing of other parts of the projects: 6.4 mil. Sk
Total amount of the whole investment	Almost 4.5 mil. Sk

It is obvious from the title that the main aim of the project is informisation of villages around Bodva. Why did you decide to carry out exactly such project? How will the inhabitants benefit from it?

The project is to contribute to the solution to the poignant problems of the microregion, among which the most visible is insufficiently created infrastructure in relation to information availability, which results in high unemployment – up to 28% – and bad financial situation of separate villages.

Creation of high-speed local internet network in 23 villages of Bodva Valley will help to spread information necessary in various areas of life. Separate organizations of local self-governments can get connected with each other, which will enable common use of application systems. Providing of information and other services to the citizens also in enterprise sector will create conditions for easier integration to the job market and increase in standard of living.

The project enables transmission of information broadcasted from studio of moldava television in picture as well as text form to all the villages and households. Used technique will enable to expand sphere of activity of town television to the whole microregion. The system will secure integrated access in using other services, for example television signal broadcasting by MMDS system in digital form, telephone services by means of IP (VoIP) protocol, but also services of central control of public lighting or installation of camera and security system with connection to the town police etc. Financial contribution of the project must be perceived also from the point of decreasing costs for the citizens, who will want to have high-speed internet supplied to their household in future – thanks to established public internet access points in Bodva Valley it will be better accessible for the citizens and for those who order the service it will be cheaper than the currently available offer.

In connection with the installed transmitter, the Association of towns and villages in Bodva Valley was asked to join an international project of 15 European institutions, which aims at creation a system of another e-learning education for the inhabitants of the region and that is by means of three media – internet, digital television and mobile telephones.

You have mentioned digital system MMDS. What advantages do you see in wireless high-speed internet and digital television via MMDS transmitter?

Used technical solution is characterised by speed of installation and convenient price in comparison to an offered product and individual access. In carrying out these network connections it was necessary to take into account a considerable scatter of residences, which makes radius of transmitting diagram about 25 km. Apart from other positive things, MMDS system contributed to starting a close cooperation between public and private sectors, and it also helped to protect environment and town property, as there was not necessary to carry out site excavations. As the transmitter communicates equally with each end point in 23 villages of Bodva Valley, any solution can be distributed to all the villages, which is about 25 000 inhabitants…

How is the project accepted by the inhabitants of Bodva Valley?

Responses of the inhabitants are mostly positive – the interest can be seen in gradual increase in number of users of internet services and digital television. At the same time there are formed social relations and networks which support citizens to act in favour of region or village where they live. We can even feel some kind of impatience while connecting each subject…

What is your experience with carrying out the project – have you addressed a specialized agency? What would you advise to lord mayor and mayor colleagues in creating similar projects?

The project originated in cooperation with a specialized company which won a competitive bidding. The preparation was in charge of 10 IT specialists and the realisation itself was carried out by about 30 technicians, we have even created 4 new job positions. We recommend also the other applicants of the project to outsource these tasks, which means to cooperate with professionally qualified companies. It is unnecessary and inefficient to solve professional matters on your own, when there are companies which already have all the necessary experience. The first step was to call for a tender and to consult professional institutions. Other activities will be carried out in the form of competitive bidding which the town municipality will call for e.g. realization of IP telephony, camera „security“ system, realisation of e-learning education of the inhabitants, etc.

Colourful background

Attractivities in the town and its surroundings

The town Moldava nad Bodvou is a natural and historical centre of the river Bodva valley. An excellent location on the crossroads of trade roads, mainly Wine road from the Tokai area through Spiš and Poland to the Baltic Sea predestined the town to a fast development in the past. At present there helps mainly nearness of the regional town Košice, a good infrastructure and conditions for entrepreneurs and potential investors.

In the town there are 3 secondary, 3 basic and 5 nursery schools, a basic school of art and a specialised basic school. There is a seat of a few banks, a post and various state institutions and private companies.

Tourists and accidental visitors will see places of interest in the renovated central town zone with many protected sights e.g. Museum of wine, Ethnical museum with a forge and others. The town is also an ideal starting point for the hiking, cycling and car trips to the surroundings. The visitor will appreciate an offer of accommodation and catering services in facilities of various categories.

WWW part of regional IS for tourism – conception in the context of inspirative guide

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Introduction

Regional IS for tourism is generally perceived by laic and unfortunately by professional public as well in a very limited way as Web pages promoting certain region. This unwelcome simplification can be perceived in many levels: in functions of IS, conception and understanding of IS, ways and forms of realization of IS, specification of interested groups, incorporation of participating subjects, management as well as interconnectivity of its parts. Conception of regional IS for tourism in the Czech Republic was gradually transformed by two pilot projects from the conception of regional tourist IS (RTIS; See [1], [2]), whose target group were visitors to the region, to the conception of regional information and monitoring system for tourism (further only "RIMS"; See [3], [4], [5]), taking into account the needs of destination management in the context of sustainable development of the Czech Republic and with many target groups (visitors to the region, entrepreneurs, destination management, TIC, journalists, local authority and self-government, bodies of area protection etc.). Below there will be discussed chosen views onto the conception of Web part of RIMS with stress on criteria of evaluation since 2007 in the competition for special prize Golden Crest in new category of regional Web pages for the Czech Republic, which consider the target group of visitors. The interpretation is conceived as creation of "inspirative guide" for realization of the Web for this target group, which means presenting chosen contentual and functional aspects of regional Web for the Czech Republic with presentation of model as well as practical examples of realization. Other target groups of RIMS should be respected by using roles at entering the Web part (a specific role is also the country, which a potential visitor to the region comes from) with adjustment of the content of dynamic Web pages.

Historical-geographical context

Some Czech regions "are the centre of the world". Such a conclusion one can make as there is lack of specification of geographical position of the region towards its location in the Czech Republic (position towards Prague, the Giant mountains, borders of the Czech Republic – in the northeast of the CR etc.), towards surrounding countries or within Europe. The textual localization towards geographical elements and sending destinations should be completed with geographical maps in various ratio scales of localization of the region (See e.g. [7]) to make the region centre of the attention also for the potential visitors and to make already the first contact with the regional Web (further most frequently only "Web") create desirable visual associations. Basic specification of nature conditions including climate, flora and fauna is common part of Web pages, but with some exceptions there is often omitted to sufficiently stress natural, cultural or historical divergences and interests of the region which can encourage a visit (for inspiration See http://www.mikroregion.net/rakovnicko/cz/Priroda-a-krajina/).

Establishment of mental contact between potential visitor and region

Static, "inventory" presentation of the region is stimulated, suitably structured as well as perception of space and to mental maps (See [6]) close communication is created by various below mentioned parts of the Web. Further parts of the Web help to create relation between potential visitors to the region at the emotional, historicist or belonging level. An interactive map (a sensitive map) interconnects through graphic interface of the map of the region further information (generally towns and villages, attractivities) and has various form of realization – a common geographical map with by colour distinguished elements for connection with other items of information (e.g. [8], [13], [16]), a geographical "3D" map with highlighted relief and various parts of the landscape (a panoramic map e.g. [9], [10]), a thematic panoramic map, which highlights a certain part of the CR (e.g. a skiing maps, See [19], [20]), GIS application with choice of displayed layers of information or a "mental map" of the region with depiction of form of significant physical or insubstantial parts of the landscape (for the whole CR there

is a static mental map in [17]), its physical or insubstantial symbols (culture, folk-lore, history and others).

Another tool of "mental" communication is represented by historical drawings and photographs, which evoke emotions of traditionality, historicist moods and historic patina (e.g. in [7] thematic photogallery Towns, villages and settlements; Castles and chateaux; Taverns, View-towers; Ecclesiastical sights; Hills; Rocks and caves; Nature creations; Trees; Ponds), historical plans and maps, use of chronicles, legends, coats-of-arms, town and village heraldry, photographs of places of interests in the landscape or various and even unusual snapshots of the landscape (e.g. in [7] a thematic photogallery Winter landscape; Interesting bits and pieces; Mood pictures; Panoramic views; Autumn colours; Trees and their souls; Out of icy kingdom; In fog). Its own significance has also the use of emblem of the region ([11], [13]). Isn't creation of an e-museum of hop-picking an interesting allurement for getting to know the region? (See [18]).

Language and national mutations

A range and a chosen language out of language (and national) mutations should meet demands of current or desirable structure of visitors to the region. An English mutation should be standard in the regional Web (its common part). National mutations, which means creation of specific offer not only by means of language but also by content, are in the Czech Republic on the regional Web pages at the moment quite rare. Inspiration at the national level can be found for example on [14], [15].

Web as a metainformation and suitably structured Web

A significant role of regional Web is to make accessible the most qualified Web sources not only in the region – mainly towns and villages, attractivities, but also information from nationally interesting sources (transport, accommodation, attractivities) and source from surrounding regions (Webs of surrounding regions, attractivities). This interconnection can take form of interconnecting links to the external sources directly in the text, interconnection as a part of structurally organized information (e.g. about towns or attractivites in the region – links to their own pages; See e.g. [12]), thematically organized links ([7]) or even a database of links.

Conclusions

On the Web pages of Association of towns and villages of Rakovnicko microregion there is this inspiring sentence concerning not only tourism in many areas of the Czech Republic: "*For tourism in Rakovnicko microregion applies that even the journey can be the goal. It is not important where you go, but which way you go"*. We could successfully paraphrase: to encourage visits to the region it is not so important which attractivities and infrastructure of the CR the region offers, but how the developed potential of the region is promoted on the Web, how the Web communicates with its visitor, how it enables the visitor to be encouraged to the visit through knowing and getting to know the region, its people, landscape as well as genius loci, so not only its main attractivities. The regional Webs in the Czech Republic do not lack so much in number of provided data, but mainly in the quality of processing, language mutations, addressing of the visitor to the Web with specifications of the region, quality and concept structure of information and quality of design. The biggest deficit is the lack of maps of various geographical or thematic views onto the past as well as presence of the regions and little effort to link other Web sources of the region, its surroundings as well as important nationwide sources.

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