# Slovak Republic

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### A. Users and content

As of the beginning of 2006, the Slovak Republic had population of 5.5 million inhabitants. In addition there are about 2.7 million Slovaks living abroad (mostly Czech Republic, then Hungary, Serbia and Montenegro, Romania, Poland, Ukraine, Australia). About 10% of the population is constituted by minorities such as Hungarian, Roma, Czech, Ruthenian and others.

In the educational domain, there were 116 195 university students in 26 universities, 317 810 students in various types of a total of 819 secondary schools and joint schools, 51 511 students in 361 special schools and 532 188 pupils in 2304 elementary schools. At the beginning of 2006 there were the following numbers of in the cultural sector, there were 2658 public, 12 central scientific and 620 academic libraries with a total number of 826 000 registered users and 27.6 million circulation transactions made annually. 5463 school libraries in 3105 schools had over 420 000 registered users and 1.5 million circulation transactions. 3.9 million visitors have seen over 458 permanent and 1142 temporary exhibitions in 92 museums and 390 000 visitors came to 54 permanent and 435 temporary exhibitions in 23 art galleries. In the research and development domain, there are 22 294 (14 403 FTEs) persons in Slovakia working in this area, from highly qualified researchers to support staff. There were about 150 000 foreign visitors to see cultural heritage or activities. As far as digital literacy is concerned, in a 2005 survey Slovakia reached score of only 33%. In 2006 it could be stated that every school had an Internet connection due to projects Infovek, e-School, Digitálni štúrovci (Digital Followers of Sudovít Štúr). Another project prepared by the Slovak National Library has an aim to create 760 public Internet access points in 110 public libraries for 1 million €, presently it is in public procurement phase by the Ministry of Culture.

For the 2007-2013 programming period prepared in 2006, memory and heritage institutions are recognised as the main vehicles, preservators and mediators of social, technical, scientific and cultural heritage, knowledge, or content - the key factor of progress and competitiveness of the society and the country. Memory and heritage institutions include archives, libraries, museums, galleries, monuments protection worksites, specialized professional institutes and worksites in the field of culture, universities, Slovak Academy of Sciences, organisations for protection and management of copyright, intellectual and industrial property rights etc. Digital cultural and scientific content is created and maintained in the initiatives covered by previous years' reports. There is still no unifying cultural portal available. Some progress was observed in the following areas:

#### **Archives**

In the archiving sector digitisation equipment for 10.8 million SKK (330 000 €) was procured and scanning facilities were established in the Slovak National Archives in Bratislava, in the State Central Mining Archives in batch of over 3000 scanned files in 2006. The scanned content that includes primarily materials up to 1526 is gradually added to the Register of Archival Heritage which is kept in both written and electronic form. There is also a pilot Internet presentation allowing searches by various criteria that will be in routine operation in 2007. For describing the archival heritage the International Standard Archival Description (ISAD (G)) is followed. Information on archival heritage can be found on the Ministry of Interior's Section of Public Administration Web site, the Department of Archives and Record-Keeping Offices <www.civil.gov.sk>. Text documents are processed mainly in the HTML format and scanned files have uniform metadata format and accompanying XML files with further information. Back-up copies of the files

are burned on CDs. The plan for 2007 is to procure a central high-capacity storage server for app. 5 million SKK (150  $\,$  000  $\in$ ).

#### Libraries and literature

The collections Slovak Library and Memoria slovaca were in 2006 in one library database searchable as a part of the European Library. The contents of these collections are also searchable via Google Scholar from January 2007. From 2007 Memoria slovaca portal (the Slovak Digital Library) will be powered by a digital asset management technology based on an open source software with flexible extensible digital object repository architecture respecting relevant standards and interoperabilitity requirements.

In autumn 2006 the SME daily introduced to the public on their Web site the Golden Collection of Slovak Literature <zlatyfond.sme.sk> that currently contains about 140 full texts of literary works including biographical and literary data provided by the Institute of the Slovak Literature of Slovak Academy of Sciences, enriched with digital images from the Slovak National Literary Museum of the Slovak National Library.

## Galleries and museums

The Slovak National Gallery presented some results from a nation-wide statistical survey of digitisation in galleries. 24 galleries were inquired, 17 provided complete, 3 partial and 4 no data. In the galleries that responded, in the beginning of 2006 there were 160 307 items catalogued, from that number 150 687 items (94%) were catalogued electronically. Only less than 6% of all the items have a digital image copy in archival or working quality. Digital content is stored on optical media (CD, DVD) or hard drives in TIFF format (6 galleries) and/or in JPEG format (13 galleries). The digital content is available on individual gallery websites. In autumn 2006 the Slovak National Gallery procured a digital asset management software, based on the FEDORA open source digital library software to be implemented in 2007.

The Slovak National Museum continues to build the central register of museum collections and objects (CEMUZ) by providing technological platform based on a tailor-made software solution, and methodological guidance for all Slovak museums that also includes references to the MINERVA Good Practice Handbook and the Technical Guidelines.

#### Audiovisual heritage

The audiovisual sector has launched a national project of restoration of audiovisual heritage with a plan of activities until 2020 approved by the government. The Slovak Film Institute has performed a survey of its collections that contain 3546 Slovak and 4 278 foreign films. About 35% of the holdings need restoration. An edition Slovak cinema from the 1980s consisting of 10 DVD movie titles was prepared by the daily SME and the Slovak Film Institute with a financial support from the Ministry of Culture, and 102 000 DVDs were sold. A private company Plus Production in cooperation with the Slovak Television prepares a collection Digital Video Library of Slovakia (DVS). The aim of DVS is to restore and distribute commercially over 100 titles of Slovak movie and television creators from archives of the Slovak Television and the Slovak Film Institute. The DVS has 4 series: Slovak Movie Classic; Slovak Television Classic; People, Pesonalities, Events (which will include a sub-programme focused on cultural monuments); and Fairy Tales Back to Children. All video recordings were restored in a time-consuming and financially demanding process in German and Austrian laboratories, and, finally, in the company's own studios. The added value, besides restoration, is in multilingualism, as some DVD titles offer 6 languages), in bonus features and textual and visual supplements such as creator's profiles, documents, and commentaries. From 2005 the project has produced over 20 DVD movie titles, selling 33 000 DVDs in 2006. For comparison, there were about 899 DVD movie titles sold in 2006 in Slovakia, counting 396 000 DVDs. In the field of digital television broadcasting, in 2006 a law on digital broadcasting was prepared by the government and a full transition is planned in 2012.

## Supporting knowledge-based economy

In 2006 the Slovak National Library received a support of 240 million SKK (= 6.6 million  $\in$ ) for creating national information infrastructure and for enabling its use by the business sector. The purpose of the project is to carry out reconstruction works in 10 major libraries throughout Slovakia and buy the necessary software, hardware and information resources. Approximately 1 million  $\in$  is allocated to technologies, including mass digitisation equipment (1 production unit) and digital preservation storage technology. The project is now in preparation phase.

#### B. Sustainability of content

Preserving analogue and digital cultural and scientific materials and related issues are covered by several legislative documents such as the National Council's Declaration on Protection of Cultural Heritage, the Act on Libraries, the Act on Museums and Galleries, Act on Protection of Monuments, the Act on Archives and Record-Keeping Offices, the Act on Legal Deposit and the Act on Digital Signature. In 2006 the parliamentary election took place in Slovakia. The new government is composed of socialist and nationally oriented parties and has made its programme declaration that calls for focusing on helping to solve the problems of national cultural institutions that include the Slovak National Theatre, the Slovak National Gallery, the Slovak Philharmonic Orchestra, the Slovak National Museum, the Slovak National Library, and also the institution Matica slovenská (Slovak Heritage). Besides restoration and upgrading premises that house active institutions of Pan-Slovak significance the government claims interest in the overall stabilisation and improving quality of their further activities. In May the old government approved a draft National Reference Framework that was updated and approved by the new government in December. The National Reference Framework sets development priorities for Slovakia and identifies the expected amounts of EU structural funding.

For the new programming period the Ministry of Culture intends to support development of the Information Society and building the knowledge society by means of development of heritage and memory institutions and supporting modernisation of their infrastructure. The Building Information Society Operational Programme for 2007-2013 with total funding planned at 1.16 billion € includes the important priority axes and measures that are related to digitisation such as a) effective computerization of public administration at central, regional and local levels and development of electronic services; b) development of memory and heritage institutions and recovery of their national infrastructure which includes improvement of the systems for acquiring, processing and preserving the content from the resources of heritage institutions and digitisation of the content of memory and heritage institutions,

digital data archiving and accessibility and establishing the Slovak Digital Library; and c) increasing access to broadband internet by developing infrastructure and stimulating demand for broadband access. There are also steps taken in coordinating activities with self-governing regional units, municipalities and communities.

The competences of mediator for cultural and scientific heritage will pertain to the Ministry of Culture and the Board for Implementing ICT in Culture as the Minister of Culture's advisory body. The Board was established in February 2006 and its roles include coordination of digitisation and preparing the national strategy for digitisation. This task was assigned to the Slovak National Library. The strategy was elaborated to form a basis for a national programme with projects in various sectors. The Board formed two working groups - one for standards for digitisation and another one for dealing with the issues of interoperability of existing systems. A list of standards was elaborated specifically related to digitisation of cultural and scientific content, which includes the MINERVA Technical Guidelines. In the beginning of 2006 the Ministry of Culture elaborated a strategic framework for ICT implementation in culture with a global aim to support building knowledge society and to increase quality of systems for retrieving, managing, preserving and making access to knowledge on manifests of living culture, cultural activities, cultural, scientific and intellectual heritage for the public including making access to quality digital content. The framework is built on 3 pillars: infrastructure, human resources, content and services.

As far as resources in general are concerned, the total funding that the cultural sector in the Slovak Republic receives represents the smallest portion of public budget in Europe. In 2006 it was 4.55 billion SKK (= app. 125 million €) on expenses and 738 million SKK (=.app. 20.5 million €) in grants. The budget planned for culture in 2007 is over 10% less than the 2006 budget for expenses and over 40% for grants. The government also plans to reduce the number of employees in state and public administration by 20%. In 2006 the Ministry of Transport and Telecommunications has issued a decree that prescribes standards for information systems in public administration, including technical standards, standards for application services,

data integration and exchange, Web accessibility, security and back-up.

## C. Technologies for digitisation

The Slovak National Library has elaborated as a part of its strategic approach to digital preservation and access a project of Slovak Digital Library. Its overall aim is to build infrastructure and management to implement a long term digital preservation and access system including mass digitisation, processing and archiving of heritage material in a life cycle encompassing both digital and analogue conservation. According to calculations, the substantial volume of bound books of Slovak production is 350 000, which can be scanned and read into full text in 6 years using 4 mass digitisation production units to be deployed as soon as in 2008. The Slovak National Library has been given resources for 1 such production unit as a part of the national project to support businesses mentioned above and it is expected that resources for full production performance will be available by 2008. The input processed and available by 2010 will be the Slovak input to the European Digital Library. According to digitisation survey commenced in December 2006, organisations have own technologies for digitisation, in areas such as audiovisual heritage or monuments protections organisations prefer to outsource digitisation.

## D. Digital preservation

As of the end of 2006 there is still no common national digital preservation strategy in place, therefore each institution maintains and preserves its digital assets. This issue is tackled in the national digitisation strategy. There is a need to make legistalive and institutional changes to cover the isses of long-term digital preservation at national level. There is no web archiving activity in place currently. Under the Culture 2000 programme, the University Library in Bratislava joined together the Web of Cultural Heritage project analysing the needs in the area of Web archiving.

The Slovak National Library has set up a central library server for about 200 000 € in 2004 for the library network that includes digital storage. The current plan is to spend 400 000  $\in$  (220 000  $\in$  in 2007) from various sources for digital preservation technology to be ready from 2008 when mass digitisation of books and newspapers will demand a lot of digital storage. In the archiving sector, the Section for Public Administration of the Ministry of Interior plans procuring digital storage facility in 2007. In the area of audiovisual heritage, the Slovak Fim Institute as the managing entity of the project of systematic recovery of audiovisual heritage plans resources for archiving for year 2009. Other organisations usually have their internal strategy of preserving and migrating digital content that is stored mostly on offline optical media and server disk arrays.

## E. Monitoring progress

In December 2006 the Slovak National Library started a survey for coordination of digitisation as a part of preparing the national digitisation strategy that focused initially on major memory and heritage institutions. The questionnaire also contained sub-forms for digital collections, on-going digitisation projects or programmes and services. The questionnaire was structured according to the Dynamic Action Plan's action areas with the questions and indicators borrowed from TEL (CENL), MINERVA and DPE projects and processed results will be available in mid-2007, including a national inventory of digital collections.