

GLOBAL INFORMATION SOCIETY WATCH 2008

Focus on access to infrastructure



Global Information Society Watch

2008



Global Information Society Watch 2008

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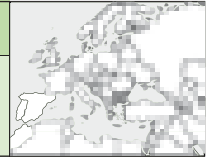
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BULGARIA

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Introduction

This report looks at the advances and changes being made in Bulgaria in its attempt to reach the level of information and communications technology (ICT) penetration seen in other European Union (EU) countries. Bulgaria became a full EU member on 1 January 2007. Though tremendous progress has been made in infrastructure development, the country still lags behind most other countries in the union.

This report has been compiled from information sources such as online newspapers, surveys and media publications, and interviews with a representative of the state institution responsible for ICT policy and a representative of the Internet Society (ISOC)-Bulgaria. After the accession of Bulgaria to the EU, Eurostat, together with the Bulgarian Statistical Institute (NSI), conducted a survey among internet users in the country. Some of the data of this survey was used to present in a qualitative way the progress the country has made in its attempts to increase ICT usage.

The government has set a number of priorities in the ICT sector, which include developing high-speed broadband internet infrastructure; modernising the public sector through e-governance; providing quality e-content for education; and improving Bulgaria's competitiveness in the field of science and technology. The State Agency for Information Technology and Communications (SAITC) is one of the bodies responsible for implementing the state policy at a national level. Another governmental structure in ICT policy implementation is the Communications Regulation Commission (CRC). The CRC is a specialised independent state authority, entrusted with the functions of regulation and control over electronic communications. In the context of equity and transparency, and in compliance with Bulgarian legislation, the CRC strives to promote competition in the country's telecommunications markets.

Physical access to technology

The SAITC is in the process of preparing a national programme for rolling out broadband internet access. After the programme is ready, it will be presented for approval to the Council of Ministers. The new idea is to include public-private partnerships in the process, so that broadband internet can become more accessible and not so dependent on state finances. The estimates made by the SAITC show that between USD 120 million and USD 170 million are needed to make broadband internet available throughout the country. Bulgaria is at the bottom of EU rankings regarding access to broadband

internet – although a large part of the sector is not regulated and not included in official statistics.

There remain disparities in physical access to technologies between the big cities and the smaller remote areas of the country. A positive trend is the increasing amount of investment which is being made by private companies and by international donors. The Telecentres Project between the SAITC and the United Nations Development Programme (UNDP) has built a network of 103 public telecentres (or iCentres) in remote and economically underdeveloped areas. A mobile telecentre started operating in 2005, to reach difficult-to-access villages in the most isolated areas of Bulgaria. It has a satellite internet connection and provides essential services to businesses and individuals in these settlements.

Over two years the Bulgarian Telecommunications Company (BTC), the partly privatised state telecoms company, invested more than BGL 130 million (USD 100 million) in modernising its fixed network. By 1 January 2007, the telephone systems in 94 Bulgarian cities and towns, including all 27 regional capitals, had been converted to digital, and the BTC had changed about 400,000 subscribers' lines. The level of digitalisation in Bulgaria now exceeds 73% of all telephone lines. Where digitalisation has been carried out, the BTC clients can activate many add-on services such as call forwarding, call hold and conference calls. The network modernisation also created an opportunity for a significant expansion of the BTC asymmetric digital subscriber line (ADSL) internet network, and broadband communications services in general. BTC broadband internet service subscribers currently number more than 140,000 (1.75% of the Bulgarian population) in more than 300 towns and cities in Bulgaria. According to one of the biggest local area network (LAN) operators in the country, their subscribers number between 200,000 and 400,000, which is between 2.6% and 5.3% of the population. According to the i2010¹ mid-term review in Bulgaria, broadband penetration in January 2008 was 7.6%, the lowest in the EU and far below the EU-27 average of 20%.

In 2007 the number of businesses with access to the internet had increased by 14.5% compared to 2005. Due to infrastructure development and the need for high-speed internet, the use of dial-up internet has decreased by 21.5% and the use of ADSL has increased. In 2007, one fifth of all businesses had accessed the internet via mobile phones, whereas in 2005 none had.²

1 i2010 is the EU's umbrella strategy for developing ICTs.

2 National Statistical Institute: www.nsi.bg/Index_e.htm

A project for creating internet labs in all Bulgarian schools, known as i-Class, has been successful. The biggest impact of the project is felt in remote areas where the lack of highly qualified specialists has been overcome by setting up a control centre in the country's capital, Sofia. The centre provides services and solves technical problems remotely. A new pilot project for providing wireless internet in schools was launched on 22 April 2008. In its first phase it will include 31 schools.

The proportion of internet users among people fifteen years and older in Bulgaria reached 34.5% in 2007, but is still behind levels in other EU countries. Recent research by Nielsen Online showed that more than half of the users live in the three biggest cities of the country. The numbers of men and women users are equal, which suggests a gender balance in internet usage in Bulgaria (Koinova, 2008).

Though the above-mentioned improvements have increased the overall level of physical access to technologies in Bulgaria, a key challenge to the government still remains: the isolation of disadvantaged groups and ethnic minorities who still have limited access to technologies. Institutional websites have improved in the last couple of years, but they are still inaccessible to people with visual impairments, with the exception of the website for the Ministry of Transport. Users of the innovative software SpeechLab, which converts computer text to speech, have now increased to more than 1,500.

Affordability of technology and technology use

The availability and affordability of ICTs determines a country's ability to take full advantage of the knowledge and information revolution.

Though part of the EU since 2007, Bulgaria is considered one of its poorest members. According to the latest research from Eurostat, the level of wages in Bulgaria is the lowest among all EU countries. The low purchasing power of Bulgarian households, especially those from disadvantaged groups, hampers their ability to buy high-quality technology and software. As a result, despite greater competition among internet service providers (ISPs) and improved peering networks, the cost of access to the internet has dropped but still remains high for people from the disadvantaged groups. For example, the price for internet access through the major ISPs is around BGL 40 (USD 32) per month, which is very expensive for a country where the average monthly salary is USD 295.

A positive trend is the continuous rise in wages, especially in the ICT sector. ICT specialists have seen a 30% rise in their salaries in 2006-2007 (calculated in USD). Another trend is a reduction in prices in the capital, due to the number of ISPs and the competition they create. The limited use of wireless internet is explained by the high cost of equipment. Depending on its quality, set-up costs range from BGL 150 to BGL 250 (USD 118 to USD 197), with a monthly fee of BGL 24-180 (USD 18-142) (CRC, 2006).

According to the International Data Group (IDG),³ ICT expenditure in 2007 in Bulgaria reached USD 113.42 per person, or 2.46% of gross domestic product (GDP). Compared with other Central Eastern European (CEE) countries, this is above average, but remains low due to the low purchasing power of Bulgarians as a whole. The Bulgarian ICT market in 2007 was worth USD 873.25 million. After Bulgaria became an EU member, the ICT market saw steady growth and IDG forecasts that the average growth for the period 2007-2011 will reach 13.4% a year.

According to ISPs, telecom charges still comprise a large percentage (approximately 70%) of internet access costs, presenting a serious disincentive to expanding their networks. The full liberalisation of the telecom market will bring significant changes in the provision of leased lines and access at the local level, resulting in a reduction in charges. The CRC continues to see growth in the number of ISPs. In 2006 the number of ISPs stood at 554, an increase of 42% compared to the previous year. In its yearly report for 2006, the CRC notes that small ISPs are being bought by bigger ones, and predicts that the internet market in Bulgaria will soon have fewer but stronger ISPs.

The computer hardware segment, which includes personal computers (PCs), notebooks, servers and peripherals, was estimated to be worth USD 224 million in 2005. With hardware still accounting for around 60% of national information technology (IT) spending, total sector value was estimated at USD 380 million in 2005. Overall, the total size of the IT market is expected by Business Monitor International (BMI) to increase to around USD 710 million in 2010, with services accounting for around 25% (BMI, 2008).

Human capacity and training

In general in Bulgaria there are relatively low levels of ICT skills in the population. A 2006 survey conducted by i2010 found that 66% of the population has no internet skills, compared to the EU average of 40%. However, this figure has improved considerably in Bulgaria.

According to the NSI, 70% of the people who use computers and the internet have never had formal computer skills education, though 37.7% of them claim that their ICT skills are satisfactory. These results are confirmed by the fact that most of the people interviewed are self-taught when it comes to ICTs, with the help of colleagues, relatives or friends.

Realising the need for higher IT skills, the government, together with other organisations, has started a series of skills-development projects. In 2006, the iCentres project developed and implemented the largest Bulgarian training programme. The target was the state administration, and 23,000 civil servants were trained on-site in core IT skills. The project expanded to 265 locations (every municipality), and 430 instructors conducted 2,500 classes in less than a year. In 2007, another 22,000 civil servants were trained

³ idg.bg

under the project. Materials and exams were also offered electronically, and e-learning is now a regular component of the project. It was expected that it would become the main way of training state employees in the future.

The iCentres Association signed a three-year contract with Microsoft for the training of trainers and of unemployed citizens in IT skills. At the same time, the project's partnership with Cisco resulted in the establishment of local Cisco Academies and the organisation of Cisco Certified Networking Associate (CCNA) courses for telecentre managers.

A joint project between the SAITC and the Podkrepa Confederation of Labour, which focuses on providing IT and business communication skills to disadvantaged groups, started in 2007. The aim of the project is to streamline the professional development of the target groups by providing them with new professional skills that can facilitate their access to the labour market.

The National Innovations Centre at SAITC has started a free ICT skills course for young people with disabilities. This course is part of the initiative to make ICTs available to as many Bulgarians from disadvantaged groups as possible. A project aiming to enhance employment opportunities of another disadvantaged social group in Bulgaria, the Roma minority, started on 2 February 2008. The project includes IT, language and business communication skills, amongst other components.

In the past few years, the non-governmental sector has been actively working to support human capacity development at the local level in Bulgaria. One of many examples is ISOC-Bulgaria, which took part in the SELF project,⁴ working to create an interactive, easy-to-use and community-driven platform for educational and training material focused on free software.

Action steps

A Draft National Programme for Accelerated Information Society Development was drawn up in 2007. The programme emphasises the convergence of ICTs, electronic content, public services and an improved quality of life. It is in line with the European Information Society Policy Strategy, i2010. Six guidelines for development have been defined in the programme: ICT infrastructure and security; society and culture; economy and employment; research and development (R&D); education and training; and marketing the ICT sector. These guidelines will be connected to concrete projects, which are going to be described in the road map developed as a part of the programme.

According to Nelly Stoyanova from the SAITC, a "reasonable medium-term goal (e.g., until 2010) is bringing the state and private sector contribution to R&D expenditure to parity, while increasing the total amount to 1.0-1.2% of GDP. In the somewhat longer term, Bulgaria should aim at achieving

a comparable position among the EU-8⁵ countries as regards the EU's strategic goal of raising R&D expenditure to 3% of GDP."⁶

In order to allow Bulgaria to achieve its R&D potential, the creation and expansion of new firms in high-technology sectors is essential. It is therefore of utmost importance to ensure that the right conditions exist for new technology-based firms to flourish in the same way as they do in the EU and the United States.

In addition, the responsibilities of institutions in Bulgaria are changing. The emphasis is not so much on the restructuring of the economy, but on specific challenges that EU membership imposes. A key step in this direction is improving the awareness and confidence of businesses in the field of ICTs. Strong support is needed for the development of relevant skills and widespread network literacy.

The following are steps the government should take in order to narrow the gap between Bulgaria and other EU countries:

- Continue investing in infrastructure (broadband internet) development in order to increase the physical access and availability of ICTs to citizens.
- Continue current training programmes, and expand the ones focusing on disadvantaged groups.
- Develop an integrated policy on R&D and innovation, which links to other economic policies, such as those dealing with small business and investment. Since one of the least-developed ICT areas in Bulgaria is R&D, the government should develop public-private partnerships for increasing investment in R&D, including providing direct public support and guarantees for Bulgarian organisations which have successfully bid for projects under the EU framework programmes.
- The worrisome trend of Bulgarian students leaving the country continues (some 20,000-30,000 annually) and the government has to develop a strategy to stop or minimise this. The government should prepare a national programme aiming to attract young specialists to work in the ICT sector, which has a chronic shortage of qualified employees.
- There should be efforts to make the ICT industry more environmentally friendly by consuming less energy and resources and generating less waste. There is a need for policy development in this regard as well as R&D and implementation. ■

5 Poland, Czech Republic, Slovakia, Hungary, Estonia, Latvia, Lithuania and Slovenia.

6 Based on a 2008 interview with the BlueLink Information Network.

4 www.selfproject.eu

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GLOBAL INFORMATION SOCIETY WATCH 2008 is the second in a series of yearly reports critically covering the state of the information society from the perspectives of civil society organisations across the world.

GLOBAL INFORMATION SOCIETY WATCH or **GISWatch** has three interrelated goals:

- **Surveying** the state of information and communication technology (ICT) policy at the local and global levels
- **Encouraging** critical debate
- **Strengthening** networking and advocacy for a just, inclusive information society.

Each year the report focuses on a particular theme. **GISWatch 2008** *focuses on access to infrastructure* and includes several thematic reports dealing with key access issues, an analysis of where global institutions stand on the access debate, a report looking at the state of indicators and access, six regional reports and 38 country reports.

GISWatch 2008 is a joint initiative of the Association for Progressive Communications (APC), the Humanist Institute for Cooperation with Developing Countries (Hivos) and the Third World Institute (ITeM).

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2008 Report

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