

Alzhan Braliev, *Harvard University*
with Veni Markovski, *Internet Society of Bulgaria*

“Lack of financial sources and IT education in schools are some of the current challenges.”

—General Manager, *Bulgarian software and hardware company*

“The government should think about forming a separate ministry or government office responsible for national IT strategy and policy. Right now, there is no clear engagement or policy coordination from the government.”

—IT executive, *Bulgaria*

Since the beginning of the 1990s, remnants of Bulgaria's past as a socialist economy have been holding the country back. Some Bulgarians view investment in and growth of the ICT sector as a way to overcome this challenge. Because Bulgaria is being considered in the second round for entrance into the European Union, the country must undertake specific actions to comply with EU standards. This incentive has provided a reason for major investment and a renewed commitment to the progress of national ICT development. Bulgaria ranks fifty-third in the Networked Readiness Index.

Bulgarian ICT leaders feel their country could become a regional leader in the Networked World. However, major challenges—the existing bureaucracy, corruption, a fragile democracy, and financial constraints in both the government and private sectors—are impeding successful economic development and affecting technological growth.

The infrastructure to support ICT growth is underdeveloped and outdated, with many people still sharing fixed telephone lines, one result of Bulgaria's delayed telecommunications liberalization (Ranking in Effect of Telecommunications Competition: 67). The small national ICT market also suffers from insufficient investment. Because of this lack of infrastructure, more and more people are choosing wireless solutions, leading to increased investments in wireless networks such as MobilTel's plan to launch General Packet Radio Service.

Despite the high level of literacy in Bulgaria (Ranking in Social Capital micro-index: 32), the level of ICT literacy is still low; only a relatively small percentage of the population works with computers. To strengthen national ICT skills, the previous government allocated funds specifically for ICT education in schools. These funds are sufficient to provide PCs for half the high schools in the country. Broader connec-

tivity and accompanying training are not yet on the horizon (Ranking in Internet Access in Schools: 51). Because ICT specialists seldom receive large salaries, the skilled workforce either chooses non-ICT jobs or goes abroad (Ranking in IT Opportunities micro-index: 74), making brain drain an acute problem (Ranking in IT Brain Drain: 73).

Bulgaria's Readiness for the Networked World is hindered by large numbers of people who cling to old views and thinking. By contrast, in recent years, the Internet has gained popularity among younger generations, and the private sector has embraced the advent of e-mail. There is no free Internet access available in Bulgaria, but unlimited monthly access can cost as little as US\$7. ISDN is available, and more urban residents have started using digital telephone connections to the Internet.

Internet use is not common in the public sector. While there are governmental restrictions on radio and television content, there are no restrictions on the Internet. A recent change in the Telecommunications Law freed voice over Internet (VoIP) service from Bulgaria Telecom's monopoly. This law officially allows the population to choose an alternative Internet telephone service. Another reform was won in 1999, when a lawsuit against the government freed ISPs from licensing or registration. More liberalized legislation in the ICT field is expected from the newly formed Parliament. B2B and B2C e-commerce are also limited but are developing rapidly.

Key Facts

Population	8,225,000
Rural population (% of total population) 1999	30.72 %
GDP per capita (PPP)	US\$5,469
Global Competitiveness Index Ranking, 2001–2002	59
UNDP Human Development Index Ranking, 2001 (adjusted to GTR sample)	44
Main telephone lines per 100 inhabitants	35.03
Telephone faults per 100 main telephone lines	4.20
Internet hosts per 10,000 inhabitants	22.41
Personal computers per 100 inhabitants	2.67
Piracy rate	78.00 %
Percent of PCs connected to Internet	7.24 %
Internet users per host	14.72
Internet users per 100 inhabitants	2.83
Cell phone subscribers per 100 inhabitants	8.97
Average monthly cost for 20 hours of Internet access	US\$10.74

RANK

Networked Readiness Index **53**

Network Use component index **45**

Enabling Factors component index **61**

■ Network Access **61**

Information Infrastructure 61

Hardware, Software, and Support 60

■ Network Policy **59**

Business and Economic Environment 56

ICT Policy 61

■ Networked Society **57**

Networked Learning 64

ICT Opportunities 74

Social Capital 32

■ Networked Economy **56**

e-Commerce 66

e-Government 55

General Infrastructure 46