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“ We do have the ICT resources in place—great people and ideas—we just need to enhance and protect them by enacting and enforcing good laws and regulations.”

—*Romanian IT executive*

“ I think that ICT in rural areas is a problem. We can't expect people in the villages to understand they need Internet when they don't even have a phone line in their home.”

—*IT policymaker, Romania*

Historically, Romania has shown regional leadership in information technology: the first computer was designed and manufactured in Romania in 1957, launching the nation's indigenous IT industry, and the country was a significant exporter of hardware and software in Eastern Europe during the 1990s. Nonetheless, Romania ranks only sixty-fifth overall in Readiness for the Networked World.

A series of government reforms were enacted in 2000 that should be harbingers of future development of the ICT sector. The establishment of a new Ministry of Information and Communications Technology, as well as new parliamentary mechanisms to ease adoption of ICT legislation, signaled a greater commitment by the government to ICTs as a national priority. A mechanism of tax incentives was set up for the ICT industry, and progress was made on adopting e-commerce and e-signature legislation. Private-sector perceptions of the government's commitment, however, remain very poor (Ranking in ICT as Government Priority: 75).

E-commerce and e-government are basically nonexistent in Romania. The low purchasing power of the Romanian population, extremely limited PC ownership, high Internet access costs, and difficult national economic situation all remain obstacles. Nonetheless, there has been rapid recent growth in the number of Internet hosts and mobile telephony subscribers.

Romanian Networked Readiness is held back by an inability to set the stage for sound regulatory reform (Ranking in Effect of Telecommunications Competition: 60). Chronic inconsistency and unpredictability in policymaking and unevenly enforced tax laws have had a negative impact on foreign investment, because foreign investors have been reluctant to bring their resources to an unstable business environment. A lack of enforcement of intellectual property rights and a soft

approach toward piracy and the black market have counterbalanced positive opportunities such as the decline in computer prices and the growing demand for ICT applications in schools.

Romania's largest challenge may be the underdevelopment of its rural areas. The lack of technology in rural areas (in 1999, only about 5 percent of the rural population had access to telephones¹) has paralleled significant economic and social discrepancies. To overcome these deficits, the Romanian government started a US\$500 million, 3-year program in 2001 to create ICT community centers and to supply schools with computers, software, and educational content (Ranking in Internet Access in Schools: 74).

Economic considerations have compelled a large number of ICT specialists to leave the country to seek better-paid jobs in Western Europe and the U.S. (Ranking in IT Brain Drain: 75). However, during the last ten years, the brain drain has decreased from its estimated high of 40 percent,² reviving optimism in the power of the ICT market to absorb human resources.

Many consider Romania's greatest opportunity to be liberalization of telephony in 2003, which is expected to give a great boost to the telecommunications sector. Two new licenses for national fixed-telephony operators will be issued at the end of 2003. There are three national GSM operators, and a CDMA operator started service at the end of 2001. Alternative network telephony and Internet access solutions are also anticipated.

Key Facts

Population	22,300,000
Rural population (% of total population) 1999	44.06 %
GDP per capita (PPP)	US\$6,309
Global Competitiveness Index Ranking, 2001–2002	56
UNDP Human Development Index Ranking, 2001 (adjusted to GTR sample)	44
Main telephone lines per 100 inhabitants	17.46
Telephone faults per 100 main telephone lines	49.08
Internet hosts per 10,000 inhabitants	18.60
Personal computers per 100 inhabitants	2.69
Piracy rate	77.00 %
Percent of PCs connected to Internet	6.05 %
Internet users per host	19.27
Internet users per 100 inhabitants	3.58
Cell phone subscribers per 100 inhabitants	11.19
Average monthly cost for 20 hours of Internet access	US\$16.62

RANK

Networked Readiness Index **65**

Network Use component index **57**

Enabling Factors component index **65**

■ Network Access **65**

Information Infrastructure 60

Hardware, Software, and Support 70

■ Network Policy **61**

Business and Economic Environment 53

ICT Policy 69

■ Networked Society **60**

Networked Learning 75

ICT Opportunities 73

Social Capital 31

■ Networked Economy **65**

e-Commerce 75

e-Government 75

General Infrastructure 45