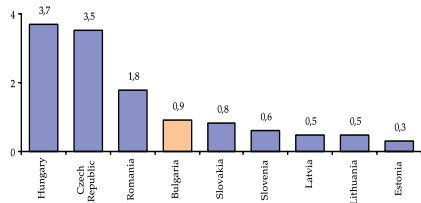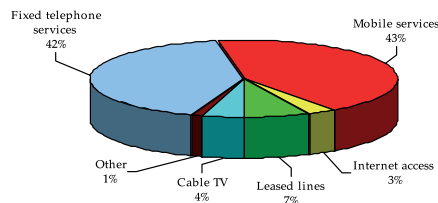# BULGARIAN TELECOM MARKET AND ICT

## 1. Telecom market 2003 - 12% growth, 5.8% of GDP, 1.4% of GVA in the services sector
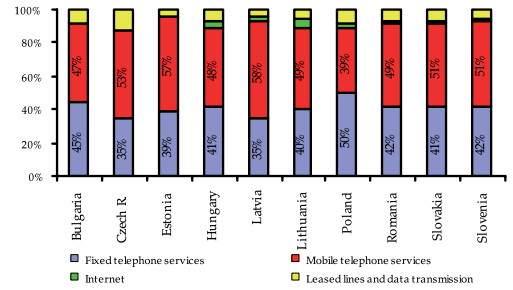
### Telecom revenues - CEE countries (2002), EUR bn

Hungary 3,7
Czech Republic 3,5
Romania 1,8
Bulgaria 0,9
Slovakia 0,8
Slovenia 0,6
Latvia 0,5
Lithuania 0,5
Estonia 0,3

### Telecom market structure (2002)

Fixed telephone services 42%
Mobile services 43%
Other 1%
Cable TV 4%
Leased lines 7%
Internet access 3%

### Telecom market structure - CEE countries (2002)

| Country | Fixed | Mobile |
|---|---|---|
| Bulgaria | 45% | 47% |
| Czech R | 35% | 53% |
| Estonia | 39% | 57% |
| Hungary | 41% | 48% |
| Latvia | 35% | 58% |
| Lithuania | 40% | 49% |
| Poland | 50% | 39% |
| Romania | 42% | 49% |
| Slovakia | 41% | 51% |
| Slovenia | 42% | 51% |

Fixed telephone services — Mobile telephone services — Internet — Leased lines and data transmission

*Source: CRC, IBM Business Consulting Services, 3rd Report on Monitoring of EU Candidate Telecommunications services sector*
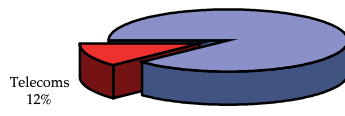
## 2. FDI in telecoms - reached USD 1 bn in 2003/2004
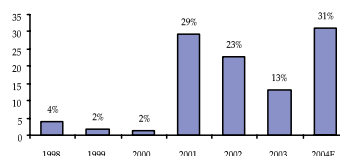
### Telecom FDI inflow (1998-2003), USD m
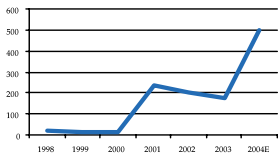
*Note: 2004 FDI Include the purchase of BTC*

### Telecom FDI stock, as % of total FDI stock (1998-2003)

Telecoms 12%

### Telecom FDI inflow, as % of annual FDI inflow (1998-2003)

1998 4%
1999 2%
2000 2%
2001 29%
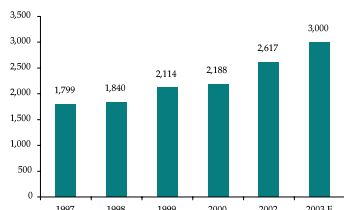2002 23%
2003 13%
2004E 31%

*Note: 2004 FDI Include the purchase of BTC*

- EUR 424 mln invested in the telecom sector in 2002 (27% growth compared to 2001)
- USD 672 mln FDI stock in the sector for the period 1998 – 2003
- USD 178 mln FDI in 2003 in the sector alone (13% of all FDI)
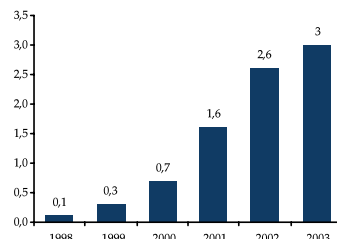- USD 1 bn FDI stock barrier in the telecom sector broken by the privatisation of BTC

*Source: Bulgarian National Bank, Foreign Investment Agency*

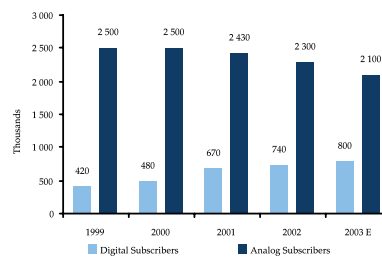## 3. Communications infrastructure - highest penetration of telephone service in Eastern Europe

### Optical transmission network, km

1997 1,799
1998 1,840
1999 2,114
2000 2,188
2002 2,617
2003 E 3,000

### Number of mobile subscribers (1998-2003), mln

1998 0,1
1999 0,3
2000 0,7
2001 1,6
2002 2,6
2003 3

### Digitalisation and density

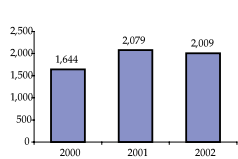| Year | Digital | Analog |
|---|---|---|
| 1999 | 420 | 2 500 |
| 2000 | 480 | 2 500 |
| 2001 | 670 | 2 430 |
| 2002 | 740 | 2 300 |
| 2003 E | 800 | 2 100 |

Digital Subscribers — Analog Subscribers

- 85% of households covered by fixed network
- 10% of population are Internet users
- 17% of population estimated to have Internet access in 2003
- 45% projected digitalization by the beginning of 2005 and 80% by the start of 2008
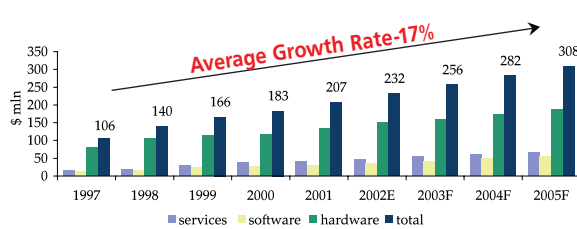
*Source: Bulgarian Telecommunication Company, company information*

## 4. Information and communication technologies - fastest growing sector
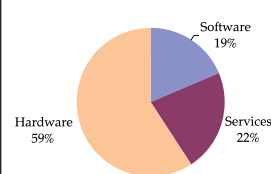
### Total revenues of ICT (EUR mln)

2000 1,644
2001 2,079
2002 2,009

### Technology sector growth (1997-2005F)

Average Growth Rate-17%

1997 106
1998 140
1999 166
2000 183
2001 207
2002E 232
2003F 256
2004F 282
2005F 308

services — software — hardware — total

### IT market structure (2002)
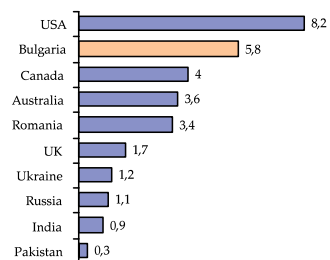
Software 19%
Services 22%
Hardware 59%

### Latest ITC Projects

- MobilTel introduced Mobile Internet Connection and WAP Services through GPRS
- BTC launched Asymmetric Digital Line (ADSL)
- Haemimont Games released the first computer game in Bulgarian language in 2000 and its subsequent launches it introduced a new blend between RPG and RTS
- CISCO launched a project for assistance to 25 Bulgarian community centers and established a CISCO Academy

*Source: Bulgarian National Bank, BFIA, Source: Brainbench, 2001*

## 5. Talent Based Bulgaria - leading in education and qualification

### Top 10 Brainbench certified countries (2002)

USA 8,2
Bulgaria 5,8
Canada 4
Australia 3,6
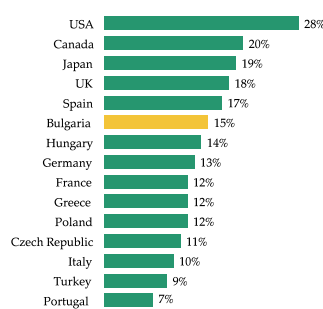Romania 3,4
UK 1,7
Ukraine 1,2
Russia 1,1
India 0,9
Pakistan 0,3

*Note: number of certified professionals per 10 000 inhabitants*

*Source: www.brainbench.com*

### At least upper secondary education (2002)

Czech Republic 88%
USA 87%
Japan 83%
Germany 83%
UK 82%
Canada 82%
Poland 81%
Bulgaria 72%
Hungary 72%
France 64%
Greece 51%
Italy 44%
Spain 42%
Turkey 25%
Portugal 21%
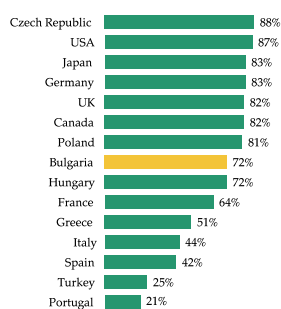
### Tertiary education /at least bachelor/ (2001)

USA 28%
Canada 20%
Japan 19%
UK 18%
Spain 17%
Bulgaria 15%
Hungary 14%
Germany 13%
France 12%
Greece 12%
Poland 12%
Czech Republic 11%
Italy 10%
Turkey 9%
Portugal 7%

*Source: EUROSTAT, OECD statistics portal*

- 20,000 IT professionals
- 4,000 IT university graduates per year
- 3rd worldwide IT certified professionals per capita
- 2nd worldwide in SAT scores
- 1st in Tokyo math Olympics (2003)
- 2 gold medals in US math Olympics (2003)
- 5th in the world in sciences and 11th in mathematics (World Bank and The Economist ranking)
- The first country ever to win 2 out of 6 annual CISCO academy awards ("Best project" and "Best student") (2003)

ICTalent BULGARIA