



Informatikai és
Hírközlési
Minisztérium

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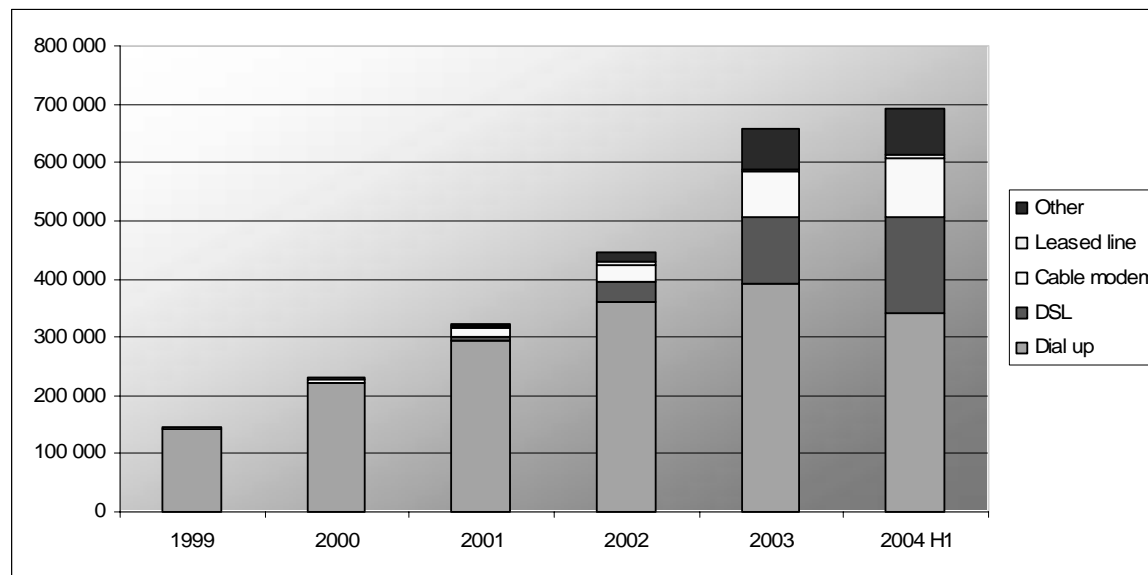
Developing broadband access in Hungary

October, 2004.

1. Main Internet trends

Relatively low Internet penetration but high growth rate

Numbers and Types of Internet Subscriptions in Hungary, 1999-2004 H1



➤ Number of Internet subscriptions more than doubled in last 2 years

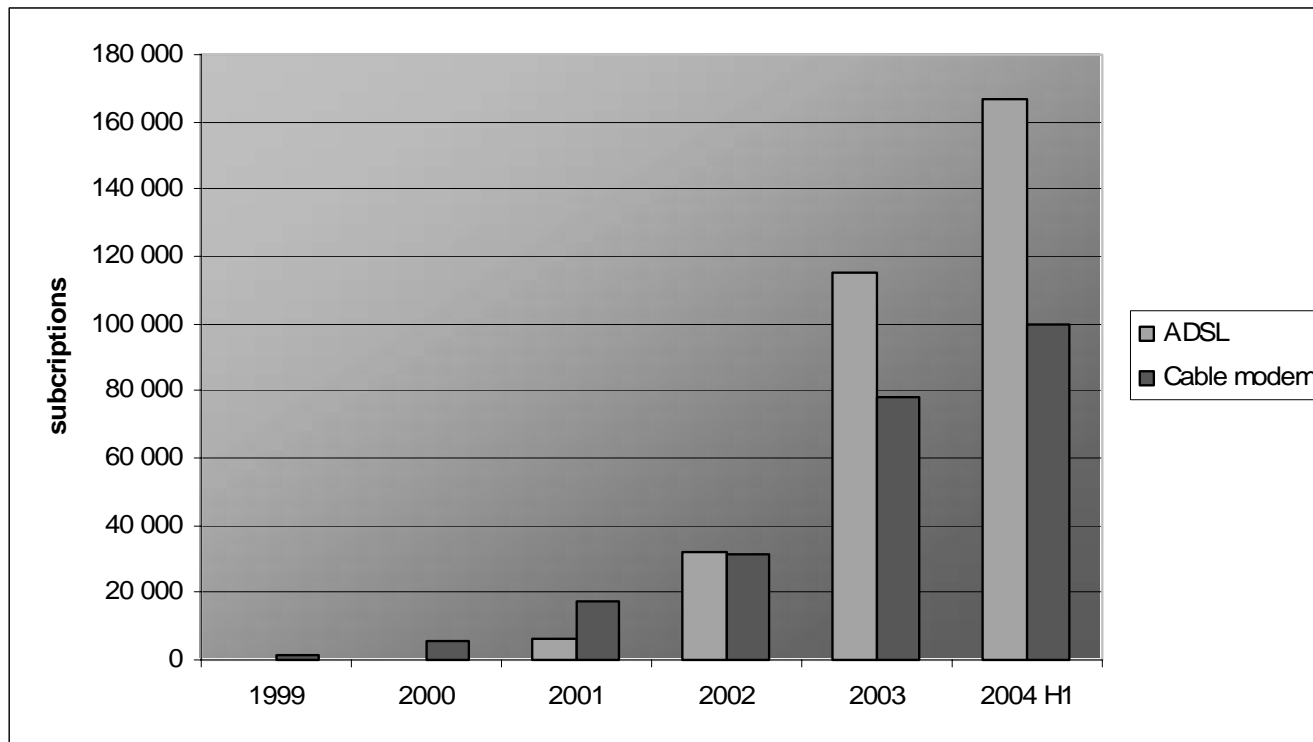
➤ only 18 % of households have some type of Internet connection

Source: Central Statistical Office

2. Broadband penetration

Dynamic broadband development

ADSL and cable modem subscriptions, 1999-2004 H1



Source: Central Statistical Office

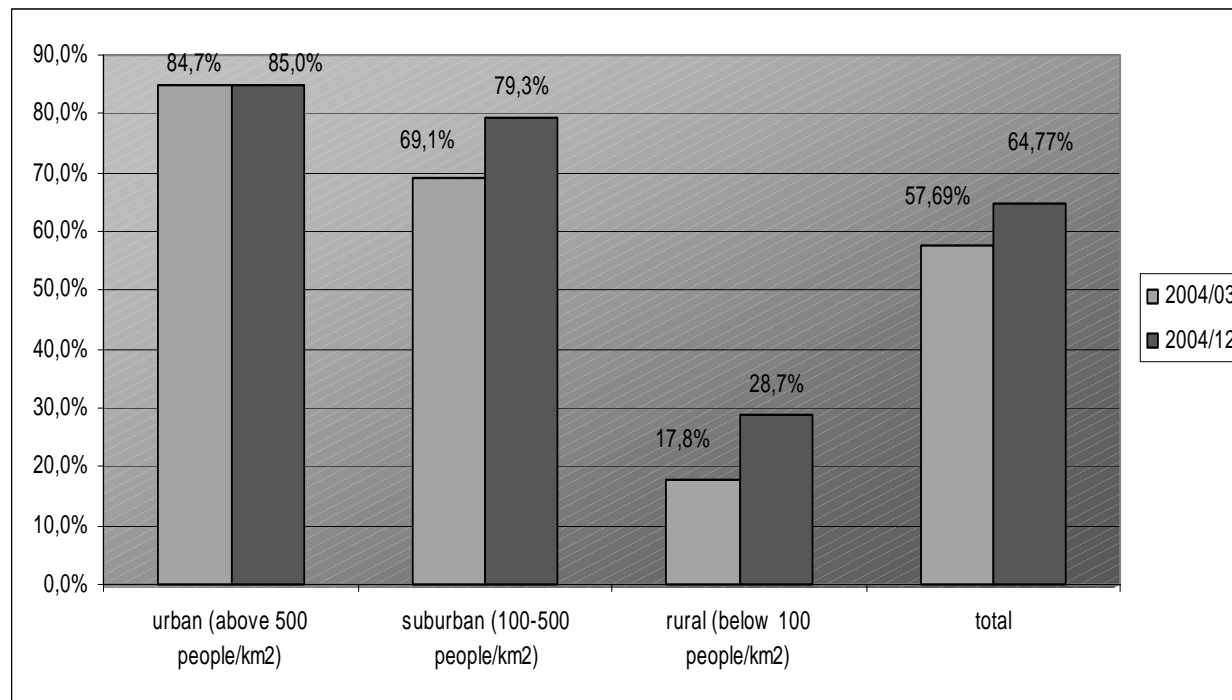
➤ *number of broadband subscriptions is eleven times higher than in 2001*

➤ *ratio of broadband subscriptions exceeded 40 % of Internet connections*

3. Broadband Coverage

Increasing broadband coverage but underserved rural households and SMEs

Expected changes of ADSL coverage in 2004 by population density



➤ **Broadband coverage is around 80 % in urban and suburban areas, but under 30 % in rural territories**

Source: National Broadband Strategy

4. Broadband SWOT

SWOT Analysis

<i>Strengths</i>	<i>Weaknesses</i>
<ul style="list-style-type: none"> • dynamic broadband market • wide range of broadband technologies available, • major investments, fierce competition on the data transmission market, • high CATV penetration, • high mobile penetration, • capacity surplus in backbone network 	<ul style="list-style-type: none"> • home Internet use and penetration low in international comparison, • lack of interest in the Internet, negative attitude, digital illiteracy all hinder development, • expensive broadband monthly fees (compared internationally and to income levels), • problems with capacity of distribution and last mile networks • high proportion of population living in rural areas, • scarce broadband content supply (slow development of e-government applications)
<i>Threats</i>	<i>Opportunities</i>
<ul style="list-style-type: none"> • Constantly low Internet penetration and usage, gradually saturating residential broadband market, • decreasing willingness of service providers to make investments and carry out deployments, • continuing regional differences, widening digital gap, • increasing backwardness compared to other EU member states 	<ul style="list-style-type: none"> • as a result of “network effect”, current dynamism on the Internet market further accelerates, • Hungary can capitalise on the “advantages of latecomers”: the period of dial-up dominance will shorten significantly, • as a result of market dynamism, the network effect and active communications the “apathy” towards the Internet will disappear, • improving life standards, strengthening social cohesion, increasing competitiveness, • Increasing penetration stimulate broadband content development

5. Targeted Internet market scenario

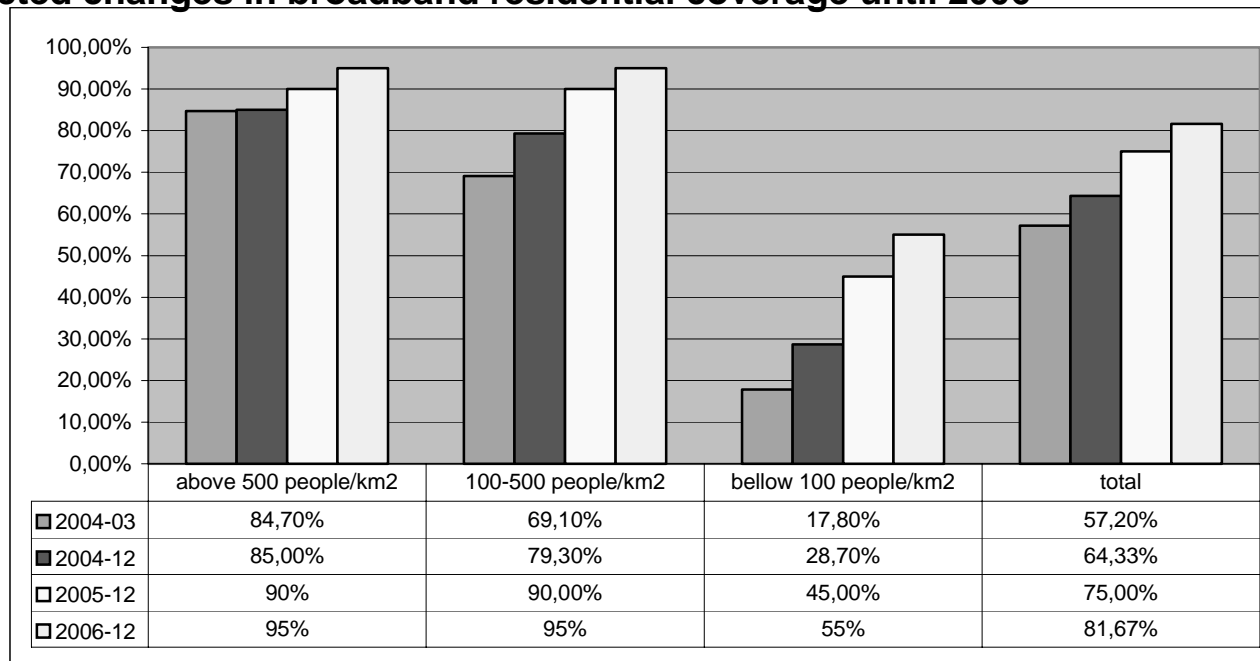
Accelerating growth of Internet penetration with high broadband proportion

<i>Initial phase</i>	<i>Extensive phase</i>	<i>Intensive phase</i>
EUROPEAN UNION		
Until 1999	2000-2001	From 2002
Relatively low Internet penetration (below 15-20 percent), moderate growth. Market is dominated by modem and ISDN accesses.	As a result of the network effect, Internet penetration accelerates for a period of 1.5-2 years. In certain countries, Internet penetration increases to two-four times its initial level, to 35-64 percent. Demand for broadband connections increases.	Compared to the year 2001, Internet penetration significantly slows down. Proportion of broadband accesses gradually increases.
HUNGARY		
Until 2003	2004-2006	From 2006
In international comparison, Internet penetration is low (10-15 percent) but growth accelerates. Starting from a low base, the number of broadband access connections increases fast.	As a result of the network effect, the number of Internet subscriptions grows significantly, up to over 30 percent (optimum). Owing to the delay in development, at least every third subscriber may have a broadband connection even during the acceleration phase.	Growth of Internet penetration continues but slows down, proportion of broadband subscriptions further increases.

6. Expected increase of broadband coverage

● Rapidly increasing coverage but half of rural areas would be without broadband access even in 2006

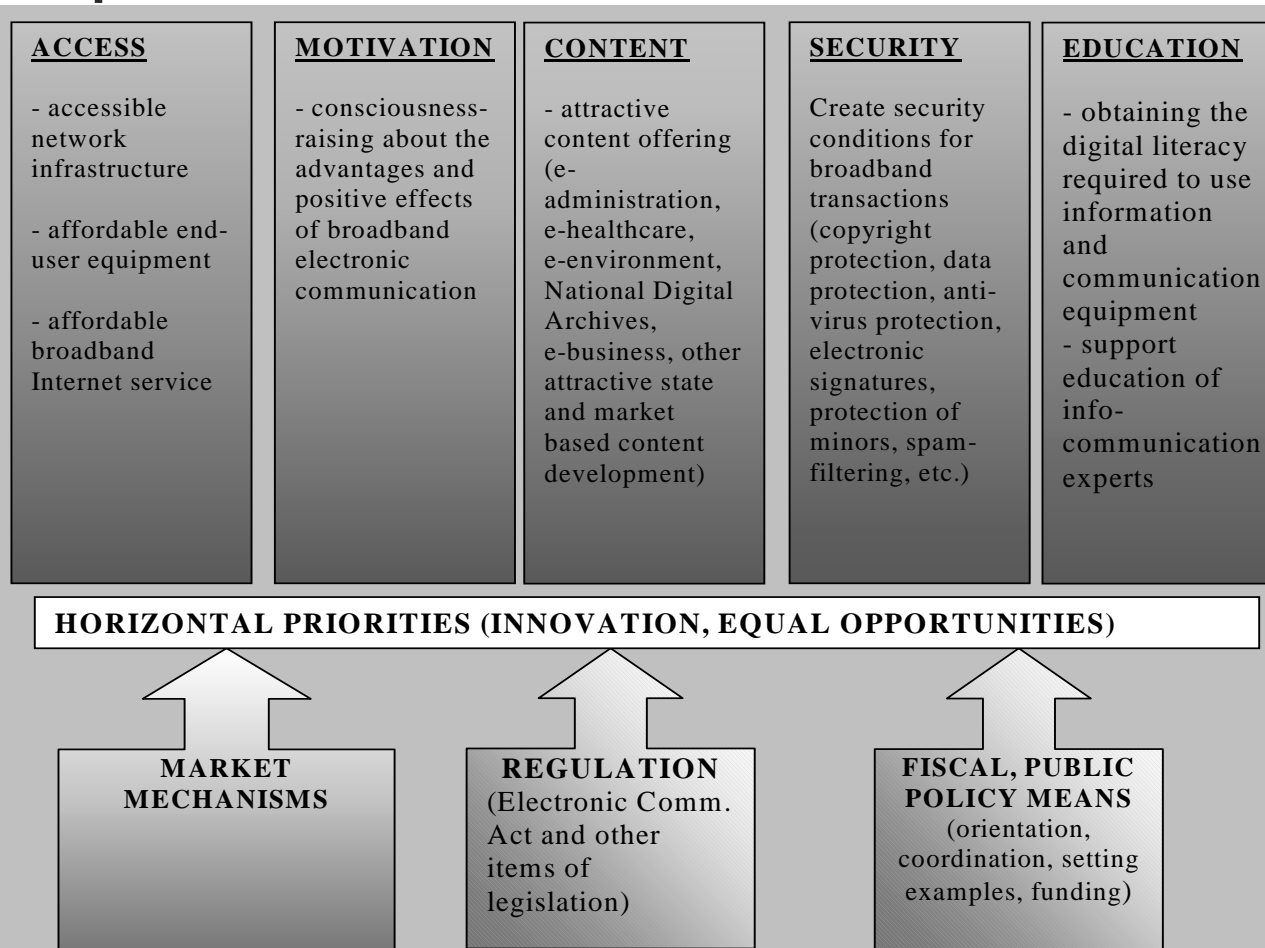
Expected changes in broadband residential coverage until 2006



Source: National Broadband Strategy

7. Means and fields of broadband strategy

Identifying and eliminating constrains of broadband development



8. Broadband strategy commitments

Focus on residential coverage, PIAP, and public sector connections

Broadband coverage for the residential and business sectors

- make affordable broadband services available to over 80 percent of the country's population by the year 2006
- make affordable broadband services available to over 90 percent of SMEs by the year 2006

Broadband community access points in each municipality

- finalise the conditions of operation, the base infrastructure and the operating organisation required for the use of community access points (eHungary points) in 2004
- 2004 broadband eHungary points by 1 May 2004
- 4000 broadband eHungary points by the end of 2006

Broadband access in the public sector

- survey the broadband coverage and service needs of Hungary's public institutions: by the end of 2004 the country's small regions and towns will have been surveyed and categorised. In the course of this exercise we will identify the institutions where state resources and support are needed to create a state-of-the-art broadband infrastructure.
- commissioning of 7300 new endpoints in public institutions by the end of Q3 of 2005.
- by the end of 2006, all elementary and secondary schools will have broadband connections.
- at least 50 percent of municipality local governments will have broadband connections by 2006
- further dynamic broadband network deployment will be implemented in institutes of higher education and research in 2004-2006.

9. Regulation to foster broadband access

• New communication act came into force in 2004

Main goals of the Electronic Communications Act

- Intensify competition between technologies and service providers
- Create transparency on the telecom and Internet markets
- Offer real choice to customers
- Protect consumers against service providers
- Establish harmony with EU principles and expectations
- Accelerate Internet spreading
- Establish the National Communications Authority

➤ *Besides improving the general conditions of market competition, a key achievement of the Electronic Communications Act in broadband developments is that – in accordance with EU Directive no. 2002/19/EC (“Access Directive”) – it orders the cost-based unbundling of local loops (twisted subscriber pairs).*

Supported broadband infrastructure development and end user equipment

Tax concession for broadband infrastructure development

The construction of broadband infrastructures is supported by granting a 50 percent profit tax concession (Article 22/B of the Company and Dividend Tax Act; Act 81 of 1996).

Tax refund for end user equipment

Maximum HUF 60 thousand (EUR 240) income tax refunds is available to people in the lower income bands purchasing information and communication equipment.

Employee PC Program

Employer-to-employee equipment and Internet service transfers are supported as follows:

- Businesses may write off the costs of purchased, rented or leased IT equipment in two years after 2003;
- Employers have to pay neither personal income tax nor social security contributions after the costs of computers and Internet access provided for employees in their homes and may transfer ownership of PCs after two years to employees without paying any tax or contribution;
- The costs of computers and Internet access provided for employees for home use can be written off in one amount

11. Demand aggregation for broadband

• The “Közháló” (“Public Net”) program

“Közháló” endpoints planned to be installed in 2004-2006



Source: Ministry of IT and Communications

The “Közháló” (“Public Net”) program, launched for considerations related to demand aggregation and being a priority program in the broadband infrastructure development. The program gives preference to the connection of endpoints of the following types:

- “Sulinet” endpoints: schools, student hostels, institutes of vocational education;
- tender winners (local governments, community access)
- eHungary points (installation of at least one public community access point in small towns and villages, offering the same portfolio of basic services, with development possibilities);
- culture houses, hospitals.

12. First support program for broadband development

- Support of the installation of the broadband infrastructure and the launch of services in Hungarian towns with less business attraction” (program code: “IHM-HHÁT-2-2003”)

Distribution of winners of HHÁT-2 Broadband infrastructure development call by technology

	<i>number of project proposals</i>	<i>funds provided (HUF)</i>
ADSL	4	265 253 000
CTV	15	265 542 000
WFI	16	369 248 000
Total	35	900 043 000

- ✓ Providing a fund of HUF 900 million, granting financial resources to over 30 bidders in support of the implementation of broadband infrastructures representing a combined value of over HUF 2 billion in more than 400 towns.

13. EU co-financing in broadband infrastructure development

• HUF 10.48 billion (EUR 42 million) for investments in broadband infrastructure projects in rural and remote areas

Priority 4.4 of the Economic Competitiveness Operational Programme (GVOP) , funded from EU Structural Funds and the Hungarian state budget, devotes HUF 10.48 billion to supporting broadband infrastructure development in poorly developed regions.

4.4.1 component of the program is a „Support of Construction of Broadband Networks by Small and Medium Size Enterprises in Poorly Developed Regions”. Projects are to increase broadband Internet penetration in small towns and villages (i.e. those with a population of less than 15,000), currently being poorly covered with broadband infrastructures and less attractive to businesses.

4.4.2 component of the program is to be launched in 2005 and will offer financial assistance to municipalities (i.e. the beneficiaries would be local governments) of rural and remote areas with lacking broadband infrastructure



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Thank You for your attention.

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