



International Center for Economic Growth

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ICT Sector in Hungary

Sectoral Analysis

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Executive summary

- EU – slow down?** The performance of the European ICT market in 2004 was better than that of the US and Japan, but this tendency has changed in 2005. The expected annual growth in Europe is 2,9%, which is less than the growth of the global ICT market (4,2%, driven by China and the Far-East), and it's far behind the dynamic US market (4%). The 2006 forecasts predict further fall for Europe in market growth, however the European ICT sector's contribution to the performance of the global ICT markets is still a bit above than 20%.
- Hungary – growing market** After a stagnation period, the Hungarian market started to grow and became lively again in 2004. The telecommunication remained the fastest-growing sector within the ICT sector, but the IT market also succeeded to over-perform the growth of the GDP. The state is still one of the biggest costumers in the info-communication market, which makes a major contribution to the overall boom of the sector.
- The market actors expect further improvements** The size of the IT sector has been growing since 2003 (2003 – 9,5%; 2004 – 9,6%), but this trend of prosperity broke this year. However the expected 7% annual growth for 2005 is still better than the EU average, but already lagging behind the performance of the countries in the Central-European region. Nevertheless the actors os the sector are satisfied with the year 2005, which brought nice results for the members of the telecommunication and IT services markets.
- Regulation** The upcoming elections may have an impact on the Hungarian economy, so the ICT sector may face some challenges as well. One of the key ICT-related campaign topics is coordination of the ICT markets. It is still unclear how the changes will affect on the market processes and what benefits will arise from these actions. 1st of November 2005 is an important episode for the Hungarian public administration, as the so called "e-government" legislation come into force. This law creates the framework of the electronic governmental services with integrating the personal, written and electronical administration procedures into a common domain.
- What to expect?** Hungary still performs well in the trade of ICT related goods. The export is still booming dynamically, which is supported by the continuous infrastructural investments and the expansion of the Research and Development activities. This trend is not expected to be broken in the nearest future, as further investments target the knowledge economy based sectors.

1. Trends in the European Union and in the region

European ICT sector

The growth of the European ICT market in 2004 was 3,4%, according to the EITO, which was less than the 3,7% global rate, but still better than that of the US and Japan. This tendency has changed in 2005. The expected annual growth in Europe is 2,9%, which is less than the growth of the global ICT market (4,2%, mainly driven by China and the Far-East), and it is far behind the dynamic growth of the US market (4%). The 2006 forecasts predict a further fall for Europe in market growth. In 2006 the expected value is 2,8% which is very low compared to the US, and also 1,6%-points less than the global market growth.

According to the EITO and the IDC, Europe is the world's largest ICT market. Its share in the global market is 30,1%, with the size of EUR 614 billion. The USA, which is the second on this list, is only 0,8%-point behind Europe. Among the EU Member States, Germany has the biggest market (21,5% share) preceding the United Kingdom (19,1%) and France (15,2%). In average the EU member countries spend 6,4 % of their GDP for the ICT sector, which increases the productivity of the Union's economy by 20% and generates 40% of the EU's economic growth. Above this, the European ICT sector's contribution to the performance of the global ICT markets is still a bit above 20%.

Improving IT services

Also according to the EITO, IT services grew spectacularly in 2005. The top three market-segments within the ICT sector were the software-market (4,4% growth, compared to data of the previous year), the market of the telecommunication services (3,7%) and the market of the IT services (3,6%) in 2004. These three markets are still on the top in 2005, but the growth of the telecommunication-services (2,2%) lagged behind that of the IT services (4,6%) and the software markets (4,8%). We expect this trend will continue in 2006 as well. Namely the growth of telecommunication segment will slow down (1,4% growth), and the ICT hardware market, which produced a stable 2-2,1% annual growth in the last few years, gets its place among the leaders. The EU still has the leader position in the world, when it comes to industries of telecommunication devices, semiconductors and the productions of embedded systems.

Offshore Outsourcing – heading to Eastern Europe

Offshore outsourcing is gaining more and more attention in IT related industries, which means that companies place their ICT service provider departments outside their countries of origin or countries of operation. Eastern Europe has abilities to become attractive in the field of hosting offshore IT service providers. The workforce is cheaper, well educated employees speak languages, the region is in the heart of Europe, and the infrastructure is developed enough to serve the needs of the business actors. The fact that Central- and Eastern Europe is in the same time zone as the Western European countries makes these countries more attractive for Western European companies. According to a recent study, the leader of the offshore outsourcing is the Czech Republic, Poland is the second and Hungary is on the third place. Besides these three countries Romania and the former Soviet states, such as Ukraine may have the chance to utilize their

advantages, and become a popular target for the investors, however the 10 New Member States try to exploit the advantages of their membership and take up as many new outsourcing centers as they can.

**Telecommunication
– consolidation**

After the 3,7% percent growth in 2004 the European telecommunication segment seems to slow down. The EUR 314 billion market is expected to increase by 2% at the end of the year. The outlook for 2006 is not better, as the experts of the EITO and IDC forecast only 1,4% growth. The intensive competition between the service providers in the landline and mobile communication markets pushes the prices down continuously. The broadband technology is spreading fast across Europe both in the corporate and the public sector, but the differences between the Member States are still significant. The data-communication using the third generation mobile networks (3G) are also booming. This service is already available in most of the Member States, or the network building is under progress. Right now 30 service providers offer data-communication services through their 3G networks and 21 build the infrastructure to do so out of 75 network providers in the continent. Altogether 2,6 million 3G subscribers used the voice and data transmitting services of these companies in 2004. This mobile broadband market will be one of the engines of the further growth of the whole telecommunication segment.

Mobile sector – decreasing advantages on the leaders side

The mobile sector was booming in 2004. Besides the 7% annual growth, the market penetration was over 83% in the EU-25 (EU-15 : 86%). This penetration covers 534 million subscribers within the Union, which may grow to 574 million by the end of this year. The competition between the market actors is getting bigger, which is indicated by the decreasing market share of the leading provider in every country. (In average from 46,6% to 46,2%). According to the Datamonitor, the mobile device producers did not experience the same boom in their segment, but they expect that the market will grow. Just like in 2004, the improvement of this year will be around 1,8%.

Broadband acceleration

2004 was the year of the significant development of the broadband infrastructure. According to the surveys of the EU, there are 28 296 million broadband connections in the 25 Member States, which are used for communication by 6,5% of the EU population. Among the EU-15 the growth was 7,6 percent compared with the last year data. This sector really shows the ICT infrastructural differences between the new and the old Member States, as the value of the market growth is only 2,2% in the recently joined countries. However these countries mostly started to formalize and also to execute their national broadband strategy, so the large gap between the EU-15 and EU-10 countries is expected to decrease in the forthcoming years. According to the Datamonitor, the cable-tv and the broadcasting market, which is one of the main drivers of the broadband sectors, may grow with 2,7% in 2005 after the 2,5% value in 2004. The number of the broadband users by the end of this year will be around 40 million, says the EITO.

What is in the cable?

The landline market, despite its narrowing, is still popular among the investors, as the number of the market participants is more than last year. The consumers choose alternative service providers instead of the telecommunication-giants more frequently. The competition is not very strong on the market of local calls (the share of the alternative

service providers is only 20%), but in case of long-distance calls this number grows up to 31%. The calling rates will continue to fall not only between landline stations, but also between landline and mobile devices.

2. Evolution of the sector in Hungary

The Hungarian market

According to the estimations, the size of the complete Hungarian ICT market will be close to the EUR 7 billion by the end of 2005. The biggest segment of the whole sector is the telecommunication (57%), then comes the ICT device production (25%), the IT services and the software development (8%). The expected growth for 2005 is 6,5 – 7%, which is far above the EU average, but less than the Central- and Eastern European average (8%).

Foreign trade – slightly drop in imports

The statistics of the Hungarian Central Statistical Office indicate that in the period between January and August 2005 the foreign trade of the ICT related goods improved compared to the same period of the previous year. Hungary is more like a producer country than a host country since more products were transported to abroad than vice versa (in average the export increased by 8%, while the import decreased by 2%). The import of office machines and automatic data processing machines reached the value of 323 349,1 million Ft, the export of these products valued at 533 901,2 million Ft between January and August 2005. These values were 13% and 7,7% higher than in the same period of 2004. If we take a look at the trade of the telecommunications and sound recording and reproducing apparatus and equipments than the values were HUF 608 894,4 million (which represents a 16% growth) in case of import, and HUF 1 277 767,5 million (which is a 3% decrease) in case of export. The import is also quite high in case of the electrical machinery, apparatus and appliances (2,4% drop, HUF 1 345 480,8 million), but export remained on a growing path (8,2% growth, HUF 857 335,6 million).

The destinations of the ICT products are mostly in EU countries. The main export markets of Hungary are: Germany, the Netherlands, Austria and France. In case of import Hungary receives goods - besides the European countries – mainly from the Far-East of Asia (China), USA, and Russia.

Important comparative advantages

The actors of the Hungarian ICT industry and its submarkets still have comparative advantages, which make the products and services of the Hungarian ICT companies marketable, not only on the highly competitive Hungarian, but also on the international markets. These advantages are the cheaper workforce (compared to Western Europe), the high quality of education, the creative workforce and the management experiences from the competitive Hungarian market. But the improving management skills are not enough on the international market, as the lack of language knowledge, the ignored marketing tools and the shortage of capital (which might support the ICT R&D) hold back the expansion of the Hungarian companies in the international market.

Booming investments

The post, telecommunications and storage sector received HUF 264 564 million investments until August 2005, which was 40,6% more than last year. The majority of these investments aimed the improvement of the telecommunication infrastructure (broadband Internet, 3G mobile networks).

More and more companies locate their knowledge-intensive, R&D activities to Hungary (e.g. IBM, SAP). One of the most important initiatives is the Mobile Innovation Centre, which is responsible for the research and development of the 4th generation mobile-communication systems. Besides the support of the Hungarian state (HUF 2 billion) the private sector also joined this research consortium through the biggest telecommunication companies.

Not only the big companies, but also the SMEs decided to invest more into ICT sector in 2005. According to estimations the investments structure of the companies is the following: hardware (49,9%), software (24,4%), IT services (13,7%), Telecommunications (12%). It is worth comparing these values to the operative ICT expenditures: Telecommunications (97,8%), hardware (1,7%), IT services (0,8%), software (0,6%).

The role of the state

The Hungarian state is still one of the biggest consumers on the informatics and telecommunications markets, which results in boosting the whole sector. The infrastructural improvement of the state organisations is continuous, but there are still big differences between certain kinds of organizations in ICT device penetration. On the one hand, the organisations, which belong to the central administration, generally use the latest technology, but on the other hand, public schools and hospitals have still basic problems with their old equipment, and telecommunication connections.

In average 36% of the public institutions bought IT services in 2004. The 'best' consumer was the central administration and its institutions (54%), while the worst were the educational institutions (31%). The most popular services were the software installation and support (59%), hardware support (52%) and the application development (33%). The market has fallen a bit since 2003, but according to the experience of the biggest suppliers, like HP, a growing need is expected from the budgetary organizations for integrated, quality IT services. So the prospects of the market are quite good. Another promising field is the IT supported organizational process management. According to the Bell research, 37% of the institutions thinks that their processes need to be reengineered.

Digital divide is still a problem

The digital alphabetism is still a controversial discussion within the Hungarian society. The DIDIX index, which measures the digital divide (ICT device penetration among the citizens), was 47% in 2004, which is far behind the leader states in the EU. The indicator of the internet penetration in 2004 was 30,2%, which ranks Hungary to the 23rd place in the EU-25. The government promised to improve these conditions in 2006, which includes the training of the support staff of the e-Hungary and Public-Net points and the development of the national broadband infrastructure. In 2005 80% of the population lives in regions covered by broadband telecommunication infrastructure. The digital divide exists between Budapest and the rest of the country as well. The internet access rate is three times higher in the capital, than in other regions. Further improvement in the ICT penetration of the society is also crucial for the whole ICT industry as well. Unfortunately the numbers of the PC penetration are also stagnant. The growth between the 2nd half of 2004 and the 2nd half of 2005 was only 1%-point (it increased to 36%).

Reform in the higher education

Although the Court of Constitution declined the new act on higher education, the institutions start their educational activities next year according to the structure of the Bologna process. The number of the applicants for the Informatics faculties and majors is rising. In 2005 more than 27 000 people study IT related curriculum in the Hungarian higher education. The experts of the government and the private companies are concerned that the number of the graduates in the ICT relevant fields will cover the needs of the markets in the future. The quality of the education is supposed to be improved with the introduction of the latest quality assurance systems. The new system has a good chance to establish domains to attract more knowledge-intensive activities to Hungary.

3. Market Structure

Market size	The Hungarian IT market is a very competitive market. The number of companies, which deal with products and services, related to computer industry is more than 10 000. The share of SMEs is more than 90%. Between 1998 and 2002 the number of employed workforce in this sector increased from 13 000 to 25 000.
Market actors	The biggest companies on the market of ICT devices are the Hewlett Packard, the IBM, which is planning to establish more than 700 workplaces in its R&D centre in Budapest in 2005, and the SUN. On the market of IT services the share of KFKI and Synergon is above the average of the Hungarian companies, the SMEs cover almost the half of the whole market. New members on this field are the outsourcing companies, which support IT processes for companies within and outside the national borders. (Gedos, EDS, Accenture)
The leaders	If we try to rank the companies according to their income, then the biggest turnover goes to the computer-producer companies, but the IT service providers are also coming up to the top in the last few years. The market is dominated by the big multinational companies, but Hungarian actors have growing reputation, however there are several foreign investors among their owners. The dominant actor of the ERP market is still the SAP, but there are 20-30 other companies on the market. The majority of their turnovers are coming from consultancy, which is expected to remain in 2006 as well.
SMEs	The SMEs' ERP consumption is a relatively new market for the software suppliers. According to the estimations, only 56% of the PC user companies, which employ more than 5 people, use any kind of software support for the administrative and business processes. The ICT device penetration and the ICT infrastructure among the SMEs at this moment are good enough for the basic operational needs, but further development is essential. These developments (integration and optimization) should target the processes of the sales, procurement, executive information support, production and marketing.
Telecommunication – no borders	The telecommunication market (landline and mobile communication, Internet service providing, cable-tv, the expected, cumulated turnover in 2005 is HUF 700 billion) stepped one stage higher on its maturity in 2005. The merge of the market leader companies started to remove the borders between the submarkets, which will lead to different market segmentation. The infrastructural segmentation (landline, mobile, cable) is turning into user segmentation (public, corporate, governmental users), where the service providers will introduce customized, and integrated services for the consumers.
Landline Communication	2005 was a very busy year in the sector of landline communication. On the one hand, the market leader finally changed its name from Matáv to Hungarian Telecom (Magyar Telekom). The result is a complete company portfolio, which followed the patterns of the German owner, called Telecom group (T-Com, T-Online, T-Mobile, T-Cable, T-Systems). Besides that, the Hungarian Telecom decided to abolish the

administrative independency of the T-Mobile, so the two companies are expected to merge this year and the T-Mobile will be one of the divisions of the Hungarian Telecom. With this step the T-Com might have a great advantage on the market compared to its competitors in the mobile and in the landline market since the possibility of developing and introducing new, complex and combined services (packages of cable-tv, broadband internet, and mobile communication services, putting all of them on the same bill) is such an advantage, which is hard to be followed by other market actors.

Another reason of the strong competition is the narrowing market. The National Telecommunication Authority (NHH) reported 3,4 million subscribers in August 2005, which reflects a 140 000 decrease in the number of subscribers compared to the beginning of this year. This tendency is continuous, according to the NHH, the market lost more than 6 000 consumers in October 2004. The situation of the market leader (T-Com) is stable, but the number of its public and corporate subscribers is decreasing. This loss was 0,1% in the public sector, and 2,5% in the corporate sector. The difference in decrease rate is a result of the fact that the competitors concentrate more on the corporate users than the public ones. Nevertheless, the actions of UPC and Tele2 made the public segment also a bit more competitive. After the liberalisation of the market of the local calls, the calling rates are decreasing.

Gradient

The mobile communication market is still booming in 2005. Until the end of August, the number of calls increased by 8,5% compared to the same period in 2004. Altogether 9 02 623 subscriptions were in use, which means that among 100 people in Hungary 89,4 had a mobile subscription. If we compare this figure to those of other European countries, then Hungary has a reasonable advantage (EU-10: 67%, EU-15: 83%, EU-25: 83%). 70,79% of the mobile contracts was pre-paid type. The market share of the three big mobile service providers is the following: T-Mobile (45,29%), Pannon GSM (34,11%) and Vodafone (20,6%). The market is still dominated by the infrastructure based competition, which is driven by development of the 3G – UMTS networks, although none of the providers are willing to cover the whole country with their mobile broadband service.

UMTS

The test of the UMTS networks have started during the summer of 2005 and in September the two biggest providers (T-Mobile, Pannon GSM) entered the market with their 3G service. These mobile broadband services, which are mainly based on mobile-datacommunication, are expected to extrude the traditional voice based services.

A new market gap will be filled up soon, as the commerce of the mobile minutes for other companies will be possible. This will help the competitors of the market leader to develop integrated mobile-landline products and services, and new, budget service providers will appear on the market. (e.g. Tesco plans to introduce its value mobile service)

VoIP, WiFi

The IP based voice services (VoIP) are emerging quite fast. The first network based phone devices appeared on the market this year, and the T-Com will introduce its public VoIP service, called Klip, at the end of this year. The mobility will be a key factor in this segment as well. The combination of different technologies (3G, WiFi, VoIP) and the us-

age of the appropriate devices will enable the users to find the cheapest way of voice and data communication anytime. An existing mobile and landline network is quite important in developing these services and provides advantages for the network owners.

Broadband services

Almost all the network actors grew in course of 2005. Since January 2005 the number of ADSL subscribers increased from 249 000 to 320 000, according to the NHH. The leader of the Cable-tv – market, the UPC Hungary presented its cable-tv and internet service in more than 720 000 households. UPC also introduced its VoIP service, which is only accessible in limited areas (the capital, and some bigger cities in the country). The UPC Direct Cable-tv network and the Chello Broadband internet service have altogether more than 1 million subscribers, but the performance of the company is stagnating. The HTCC, which is behind the Hungarotel Corp. and Pantel Corp., wants to be the 2nd biggest telecommunication service provider in Hungary, throughout M&A acquisitions, however the Invitel Corp., which is the 2nd biggest company on the market at the moment with its 480 000 clients, wants to keep its position as well.

E-commerce

In July 2005, according to estimations, the internet penetration among the Hungarian Enterprises, which have more than 5 employees, was 82% (approximately 51 000 companies) that represents a 9% growth compared to the same period of the previous year. The Forester Research says that till the end of this year, the value of the B2C segment might be around HUF 18 billion, which is 40% more than the value of 2004 (HUF 12 bn). The size however is still very tiny, if we consider the size of the whole retail sector. The most important motivators to implement e-commerce, according to CEOs are the more efficient customer relations, the competition on the given market, corporate image improvement and the improvement of the services of the company. Among the barriers the most important factor is a legislation bug. Only those corporations are allowed to establish an e-Shop which have a real Shop too. The specification of the products and services could also be a barrier, as they might not be appropriate for e-commerce, and the level of preparation of the consumers for this new distribution channel is also a risk (only 6% of the internet users buy goods regularly on the internet).

The costs to launch an e-Shop are quite high. The smaller part of these costs is the technical implementation, which is not a problem for the smaller companies, but the bigger part, the marketing-communication is quite problematic. Thus not surprisingly only 50 e-Shops are managed to make a successful start out of approximately 1000 launches and they cover 80% of the whole market.

Marketplaces

The leader of the Hungarian horizontal marketplaces is the Marketline Corp, which is basically owned by the T-Com group. The turnover of the marketleader was HUF 30 billion in 2004. The most important transactions on this marketplace are the auctions (altogether 505 transactions so far), and this trend seems to be continue in the nearest future. The competitors of Marketline are not strong enough yet. The Eebid Ltd. managed to reach the HUF 40 billion income from 350 transactions in 2,5 years. The marketplace of the Hungarian Post was established in 2002 and connected to a public e-procurement system for governmental activities but it was only used for own transactions. The market is uprising, more and more service providers (e.g. Wanari) enter the market and the bigger companies also started to

develop their own auction solution (e.g. Egis, K&H Bank). There is enough room to improve, as the market is still in an early stage. According to estimations only 1% of the Hungarian market actors appeared actively on marketplaces. It means 600 companies.

**Financial services
– growing popularity**

Internet- and mobile banking services provided by financial institutions are very popular among the corporate and public clients. In the corporate sector more than 83 000 enterprises use internet banking and 70 000 use mobile banking in 2005. In the public sector the number of the individual users reached 520 000 (Internet) and 740 000 (Mobile) after the first quarter in 2005. The most popular services are the electronic money transfer, buying/selling investment funds and transaction control.

4. Regulation and policy measures

Elections 2006

The future of the ministry of the ICT sector is getting uncertain as the elections come. The government wants to cut the size of the governmental sector, and the Ministry of Informatics and Communications (IHM) is one of the possible victims. One of the options is that the Ministry of Economics would take over the tasks from the IHM (maybe even before the elections). It is quite certain that a major reengineering of coordination will take place after the elections (all parties are willing to change the structure). On the one hand, this reengineering is necessary since the ICT related coordination functions are shared between the IHM and the Office of the Prime Minister (MeH). On the other hand, there are doubts that the adequate importance of the ICT industry will be ensured after the transformation of the structure, which would be essential for the development of the Information Society and for the elicitation of the digital divide.

E-Government boom

The first stage of the e-Hungary program has finished in course of the summer of 2005. Now in 3032 e-Hungary points of 1500 municipalities provide free or cheap internet access across the country. The program continues with the development of a professional support network for e-administration. The building of the Public-net (Közháló) network is still an issue, right now 7500 access points were established, which provide services for governmental and educational institutions.

1st of November 2005 is an important day for the Hungarian public administration since the so called "e-government" legislation came into force on that day. This law created the framework of the electronic governmental services with integrating the personal, written and electronic administration procedures into a common domain. In this field Hungary is still among the less developed countries in Europe. According to the EU initiatives 20 + 7 official public administrative cases and processes will be available for the citizens on governmental websites from the end of this year. The first two steps of the 4 steps e-Government initiative (description of the cases, document downloads) will be available in 2005. The complete electronic process will be available only in case of the following three fields: taxation, enterprise-administration and higher education application. From the end of 2006 electronic payment transactions will be available too. This field must be improved since according to the 5. annual e-Government study of the Brown University (USA) Hungary is only the 105th out of 198 countries in this respect.

Intellectual Rights

In 2005 the Creative Commons (CC) intellectual rights license system was implemented in Hungary, which is supposed to be more flexible than the traditional license system. By means of the CC, authors are able to manage the copyrights of their works in line with their needs. This system makes it available to copy legally the works protected by this license. There are still doubts though – mostly from the defenders of the traditional intellectual rights system (Artisjus) – which say that the old and the new system will not work together properly.

5. Short and long term prospects

In short term

In short term the election will have the biggest impact on the Hungarian ICT sector. The biggest issues regarding the elections are the distribution of the informatics coordination and the way the new government serves the improvement of this industry. The country still performs well in the foreign trade of ICT products; the export grows dynamically, which is driven by the continuous investments into the infrastructure and R&D sector. This trend is expected to continue in the nearest future, especially the investments into the capacities of the knowledge based industries.

On the field of telecommunication the strong competition, which is driven by the infrastructure demand, will continue. At the end of this year the first integrated mobile-landline products and services may appear. The market will be still led by the T-Com group, but the competitors will be also very active. New budget service providers might enter the market soon since the trade of mobile minutes between the possible providers starts.

With the spreading of the high speed, broadband internet infrastructure the citizens of the rural areas will also be able to reach the latest e-Government applications which will start up from the end of 2005.

The companies on the IT services market will close a prosperous year in 2005, and this hype will probably continue in 2006 as well. There are several possible consumers on the market, which are planning to invest into their IT infrastructure (hardware and software development, process reengineering, IT consultation).

In long term

In longer term Hungary will also feel that the European ICT market slows down. However the reannounced Lisbon strategy may have the chance to change this trend, which would also have an impact on Hungary. If the EU accepts its budget, then from 2007 the amount of subsidies that Hungary can get from Brussels will be remarkably larger than before. Handling the extra money will be a challenge for the governmental coordination institutions since the current structure is not capable to utilize these subsidies without reforms. The political leaders have to find a solution for clarifying the institutional settings and processes and also for decreasing the high level of corruption.

On the field of telecommunications the IP based technology will push the old, regular technology out from the market. New business applications will appear for the users, which are based on the existing VoIP technology. Another emerging technology is the triplay, which includes an integrated platform of voice, image, and data communication. Companies, which have good position on at least two of the triplay's submarket, may have great advantages on this new segment.

6. Sectoral SWOT analysis

Strenghts	Weaknesses
<ul style="list-style-type: none"> • Increasing competition on the telecommunication market, high mobile-penetration, broad service scope • Strong competition on the field of datacommunication • Increasing internet-penetration, broadband penetration and computer usage • Demand driven market on the market of hardware devices and services, with great amount of market actors • Good R&D sector improvement on the basis of Hungarian professionals • The public ICT penetration grows dynamically, (Public-Net, e-Government) 	<ul style="list-style-type: none"> • Weak public internet-penetration in international comparison • There is no efficient answer for the problem of the digital anal-phabetism in the society • Small Hungarian ICT market, small Hungarian purchasing power compared to the price of the ICT products and services • The main investors are the big companies, the SME sector is not active enough • The ICT infrastructure (especially broadband) is not distributed equally in the country • The efficiency of the political coordination is getting worse, because of the elections
Opportunities	Threats
<ul style="list-style-type: none"> • The increasing telecommunication competition decreases the prices, which increases the ICT penetration • R&D investments may grow in case of an appropriate infrastructural background • Improving company competitiveness, based on infrastructure and education • Spreading ICT services in the whole economy • State services might cover the public administration with e-government services • Better integration chances for the rural areas 	<ul style="list-style-type: none"> • Political uncertainty, fragmented institutional settings are not suitable to improve the Information Society • Innovation may slow down in case of badly targeted R&D foundings • The European ICT slow down may have an affect on Hungary as well • The decreasing cost-competitiveness results in attracting less outsourcing activities • Widening digital divide between the rural areas and the capital

Appendix. Statistics

1. Definition of the ICT sector (Hungarian Central Statistical Office)

A, Production of ICT

3000	Production of office devices
3002	Hardware production
3130	Insulated cable production
3210	Electronic parts production
3220	Production of audio-visual broadcasting devices, landline phone and telegraph devices (Industrial electronic products)
3230	Production of television and radio receivers, recorders and players for audiovisual content, and similar products
3320	Production of measuring devices
3330	Production of Industrial controlling devices

B, ICT services

5143	Wholesale trade of home electronic devices
5164	Wholesale trade of office devices
5165	Wholesale trade of other products and transportation devices
7133	Leasing of Machines and Computers
6420	Telecommunication
7210	Hardware Consultancy
7220	Software services and consultancy
7230	Data processing
7250	Maintenance and repair of office devices and computers
7260	Other computing activities

2. Legal background (2005 October)

The most important parts of the Hungarian legislation regarding to the ICT industry and the development of the Information Society can:

Act C of 2003 on Electronic Communications

Act CI of 2003 on the Post

Act XC of 2005 on the Freedom of Information by Electronic Means

Decree 68/2004. (IV.15.) of the Hungarian Government on Market Entrance by Postal Service Providers

Decree 12/2004. (IV.22.) of the Minister of Informatics and Communications on the data supply obligations of the players in the postal market for the communications authority and the management of data

Decree 13/2004. (IV.24.) of the Minister of Informatics and Communications on the market surveillance activities of the communications authority concerning postal services and postal intermediary services

Decree 14/2004. (IV.24.) of the Minister of Informatics and Communications on the requirements of the quality of postal services concerning consumers protection and access to postal services by the disabled

Decree 79/2004. (IV.19.) of the Hungarian Government On the Provision of Postal Services and the Related Quality Requirements

Decree on accounting separation by universal and licensed postal service providers, and the detailed rules of costing

Government Decree 141/2002. (VI.28.) concerning the Scope of Authority and Powers of the Minister of Informatics and Communication