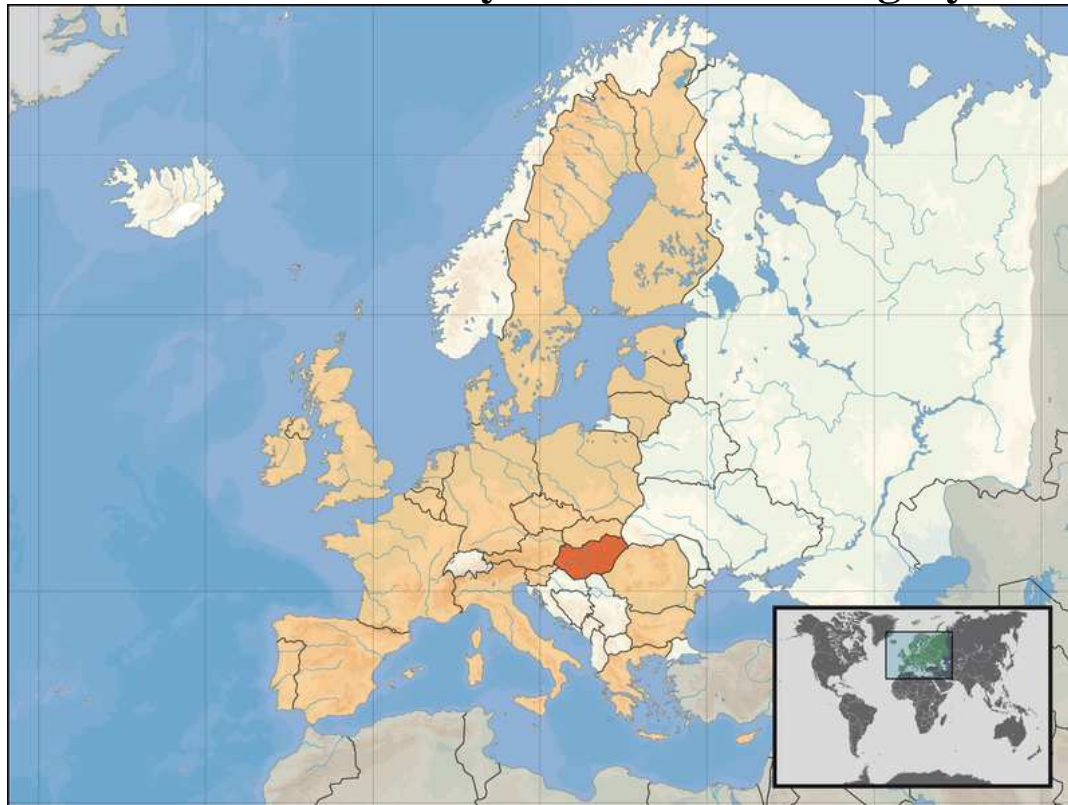


IRMA - Research Analysis Format in Hungary



Location and size

Hungary is a landlocked country in eastern Central Europe bordered by Austria, Slovakia, the Ukraine, Romania, Serbia, Croatia, and Slovenia. Located in the Carpathian Basin, it is surrounded by the Carpathian Mountains, the Alps, and the Dinaric Alps. It has a total area of 93,030 square kilometers (35,919 square miles), 690 square kilometers (266 square miles) of which is water. Comparatively, Hungary is slightly smaller than the state of Indiana. The capital, Budapest, is located in the central northern region on the Danube river, which runs from Austria to the Croatian-Serbian border.

Population and Language

Hungary has a population of approximately 10 million. Population density is about 100 persons per square kilometer. This population is expected to decline as a result of the low birth rate and the high death rate. The capital, Budapest, has approximately 2 million inhabitants. The population of the other 10 major cities ranges from 100,000 to 200,000 people. The official language is Hungarian, but English and German are also used frequently in business.

Infrastructure

The transportation infrastructure is currently undergoing major reconstruction. Through government-supported projects additional highways are being built, while the widely used, state-owned domestic railway system is also under reconstruction. Hungary has an extensive road system, centered around Budapest, with highways extending in most directions. Major Hungarian cities have modernized their airports, a sign of an increasing importance of domestic air services.

International Memberships

Hungary has been a member of the United Nations and some of its associated institutions (ILO, UNESCO, FAO, WHO, etc.) since 1955. Hungary became a member of the IMF, the World Bank and the IFC (International Finance Corporation) in 1982. Additionally, Hungary is a signatory to the GATT (General Agreement on Tariffs and Trade), a member of the WTO (World Trade Organization) and of the OECD, as well as of the International Bank for Reconstruction and Development (IBRD), the World Intellectual Property Organization (WIPO) and the Central European Free Trade Association (CEFTA). Hungary became a member of NATO in 1999 and a member of the European Union in 2004 [1].

Hungary and the EU

As of May 2004, Hungary is a full member of the European Union. In 1994, Hungary was the first of the Central and Eastern European countries to apply for EU membership. With the EU's financial assistance, Hungary aspires to close the gap between its level of development as a new member country and the EU average. In 2008, the implementation of the New Hungary Development Plan/New Hungary Rural Development Plan has been started.

1. General Analysis of the Manufacturing Sector in Hungary

Labor Force

The Hungarian labor force is highly skilled and highly educated, particularly in engineering, IT, pharmacy, economics, mathematics, physics and professional services. Around two-thirds of the work force has completed some form of secondary, technical or vocational schooling. Foreign investment has brought know-how and technology into the country, thus increasing the productivity of the labor force considerably. The unemployment rate is slightly lower than the European Union average. The unemployment rate is higher in the eastern and southern regions and lower in the central and western areas. Wages still lag behind those of Western Europe. The minimum wage is currently HUF 69,000 (approximately EUR 270) per month.

Industry

Hungary is a moderately developed, industrial-agricultural, international trade sensitive country. Hungary is lacking of energy supplies, however there is crude oil, natural gas, bauxite, coal, zeolite, perlite, bentonite, constructional andesite, riolite, tufa, and limestone mining, the country still needs a significant export from raw materials.

2/3 of the GDP in Hungary comes from the service industry. Within, the most significant is the financial sector, real estate industry, economic services and community services (administration, education, medical and social care). The industry is leaning mostly on processing industry and is producing about a quarter of the GDP. The building industry has a relatively low, 4-5 percent share.

The growth rate of the GDP exceeds the average of EU-15 by 1.5-2%, however the Hungarian growth rate is relatively slower compared to the new members. Last year, mainly because of the favourable conditions the trend of slowing noticed since 2001 has refracted and there is a 4 percent growth rate - the agricultural growth is 36 percent, the industry and building industry comes at 5 percent, while the growth of the service sector is significantly slower [2].

Although Hungary is poor in the natural resources essential for heavy industry and relies strongly on imported raw materials, it has some automobil plants:

In 1992, Suzuki and Opel began producing automobiles in Hungary.

In 1993, Audi established a Motor and Automobil plant in Győr..

In 2012, Mercedes-Benz is starting production in Kecskemét.

Manufacturing

As a result of the policy of forced industrialization under the communist government, industry experienced an exceptionally high growth rate until the late 1980s, by which time it constituted about two-fifths of GDP. Manufacturing forms an important component of the Hungarian economy and was responsible for 84.6 percent of Hungary's exported commodities in that time, even though most of Hungary's industries must import the raw materials used in the manufacturing process. The engineering industry - which is dominated by automobile and automobile parts production - accounts for roughly one-third of industrial output.

As industry and the Hungarian economy in general underwent restructuring and modernization during the early 1990s (including the implementation of privatization and the improvement of the quality of goods and services), some industries adapted more successfully to new conditions.

Partly through foreign investment, the machine industry (another important component of the economy) also showed signs of improvement by the mid-1990s.

Economic development

The table below presents key indicators of the Hungarian economy from 2005 to 2008.

ECONOMIC INDICATORS				
	2005	2006	2007	2008
Volume of GDP (%)	104.1	103.9	101.3	103
2. Industrial production (constant prices, %)	107.3	110.1	108.1	106
3. Investment in the national economy (constant prices, %)	105.3	97.9	99*	106
4. Construction (constant prices, %)	116.6	98.4	85.9	105
5. Retail trade (volume index, %)	105.8	104.4	97.0	105.1
Exports (current prices in euro %)	111.4	116.6	115.7	110
Imports (current prices in euro %)	108.3	113.9	11.9	110
Trade deficit (billion euros)	2.9	2.0	0.4	0.7
Combined deficit of the current & capital accounts (billion euros)	5.3	5.2	4.1*	3.2
Deficit of the general government (cash flow basis without local governments; billion forints)	984.4	2034	1291	1050
Index of average gross earnings	108.8	108.1	108.0	107.5
Consumer price index	103.6	103.9	108.0	106
Rate of unemployment (at the end of the period %)	7.3	7.5	7.7	7.4

* GKI Co. estimate • Sources of actual data: CSO, NBH, MoF

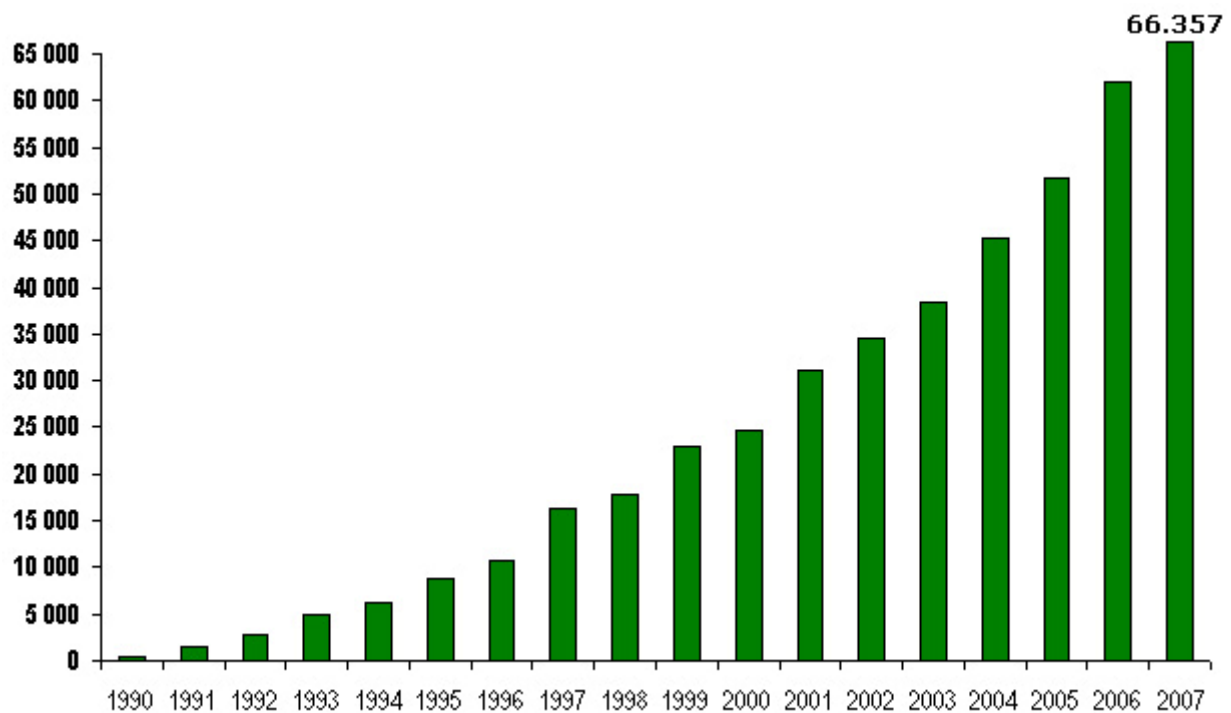
Hungary has seen successful transformation from a centrally planned economy to a free, fast-growing and robust market economy in the past 19 years. The privatization process has been completed in most sectors, bringing foreign strategic investors as well as know-how, technology and best international practice into the country. As a result, the private sector accounts for over 80 percent of the GDP today. Hungary has made significant progress in recent years in creating sustained economic growth – the growth rate was around four percent in each year in 1997-2006. Through the recent downturn in the global economy, the Hungarian economy lost momentum – the headline GDP growth slowed down in the past

years, the private sector in fact continued to grow at around 4%, with the public sector losing impetus. *At the beginning of 2008, GDP growth for the economy as a whole was expected to recover: indications were that investors would be still very active in many sectors of the economy and private sector expansion will continue at a healthy pace. But later on, because of the affect of the world economic crisis on Hungary, the Hungarian Government had to go on tick of IMF to avoid the fall-down.*

Hungary: The Logical Choice

Since the beginning of the transition to democratic market economy at the end of the 1980s, Hungary has attracted a steady stream of foreign capital, well-balanced across the various sectors of the economy. Hungary, a country of 10 million inhabitants, can currently boast of having attracted Foreign Direct Investment (FDI) of more than 60 billion Euros to date which represents the highest per capita rate in the Central-Eastern European region.

Cumulated FDI in Hungary 1990-2007, in million euros



FDI stock per capita in the CEE region, 2006

Czech Republic:	EUR 5,719
Hungary:	EUR 6,170
Poland:	EUR 2,361
Slovakia:	EUR 3,338
Slovenia*:	EUR 3,133

* Estimated on the basis of total stock

In the early 1990s, market-based privatization, a unique phenomenon in the region at that time, was the main incentive for foreign investment - although even then investments in new industrial facilities were becoming increasingly frequent. Foreign direct investment (FDI) has been crucial in boosting economic performance and remains the driving force behind

Hungary's economic success, fuelling its strong export growth and significantly increasing productivity.

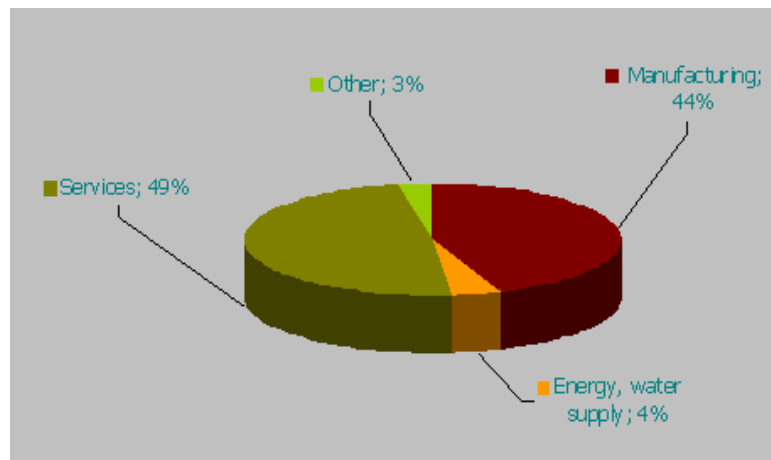
A new structure for Foreign Direct Investment (FDI)

While privatisation is still in progress in other central European countries, Hungary has been focusing more intensively on the introduction of advanced technologies and innovation into production of goods representing higher added value. Investment in the automotive sector, research and development, ICT, biotechnology, shared services operations and logistics has become especially important. Today, not only have a number of the largest multinational manufacturers and service providers established their facilities in Hungary, their major international suppliers have also come and brought along their subcontractors with them. Currently there are more than 30,000 companies operating with foreign participation in Hungary.

FDI Stock in Hungary by Sectors

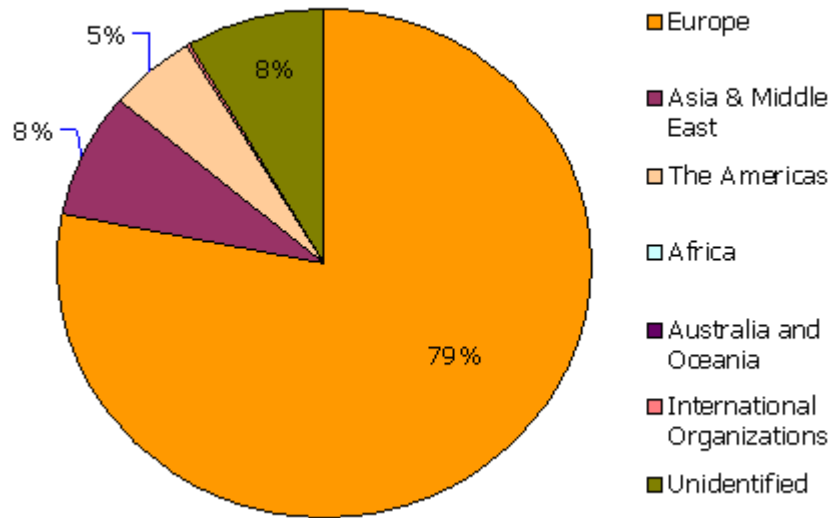
Nearly half of foreign investments in Hungary have been cumulated in the manufacturing sector. At the beginning of the 1990's manufacturing was the main target of all investments. Since 1995, however, services have gained grounds as well, partly because privatization in the services sector started later than in the manufacturing sector. Also, in the late 1990s, as other Visegrád countries opened up their markets and started privatisation Hungary had to face more competition in the manufacturing sector. Today FDI spreads more evenly among sectors in Hungary than in other countries in the region.

Trade:	10.1 %
Transport, telecom:	9.9 %
Finance:	10.5 %
Business services:	16.8 %
Food:	5.2 %
Chemical:	5.7 %
Electronics:	8.8 %
Automotive:	10.9 %



FDI Stock by Countries of Origin

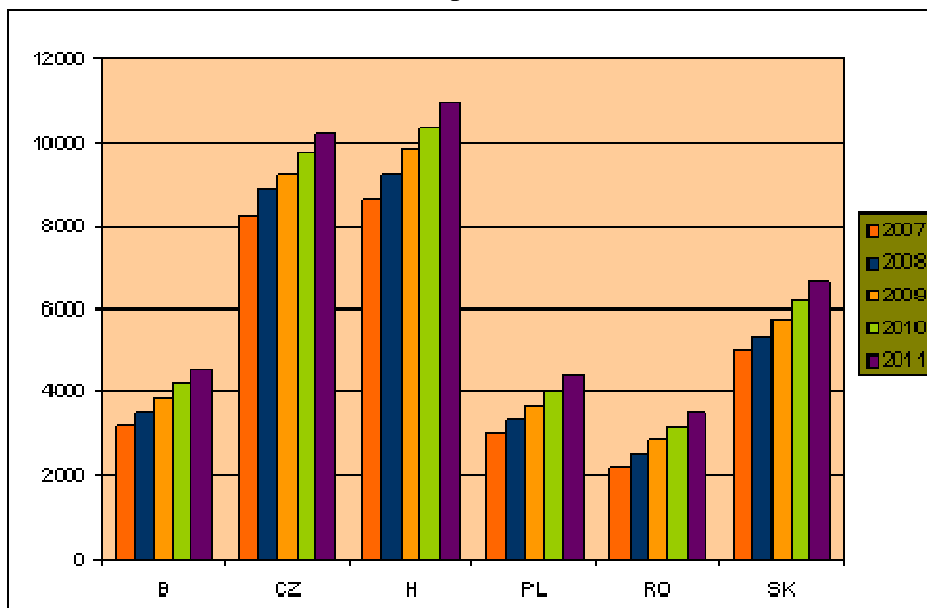
Like in other CEE countries, foreign investors from the EU-15 countries have accounted for the majority of investments (79%) in Hungary (Hungarian National Bank, 2006). Geographical proximity and historical links explain the dominance of the European investors. Germany is by far the most important country of origin with 30% of all FDI, followed by the Netherlands (18%) and Austria (11%). The United States has been the largest non-European investor (5%) and in many cases the investments going through the Netherlands and other European countries also originate from the US. Among the Asian countries Japan and South-Korea have played an increasing role in FDI.



Future prospects

According to the forecast of the Economist Intelligence Unit Hungary will retain its leading role in FDI stock/capita in the coming years.

FDI stock/capita, 2007-2011



The EIU estimates Eastern Europe will receive 6-7% of the global FDI between 2007-2011; one third of this amount will come to Central-Eastern Europe. Hungary is likely to be the second largest recipient among its main competitors in the Eastern-European region.

2. Design the IRMA Model – SWOT Analysis in Hungary

Beside the traditional fields like: heavy industries, food industry, chemical industry, at present, the manufacturing engineering industry represents the biggest opportunities in Hungary. Employers of this industry could be an important generator of value added in industrial production.

The development of the car-manufacturing industry also provides broad opportunity for a lot of small enterprises to produce components for the plant. It is necessary to focus on production with higher added value. However, this task requires closer connection between the education and the business sector.

Manufacturing Sector SWOT analysis

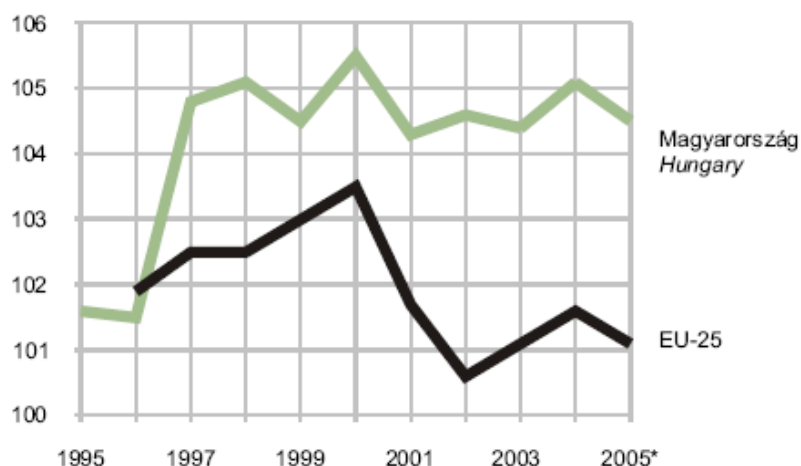
Strengths	Weakness
<ul style="list-style-type: none"> - Large investments have a multiplier effect (sub-suppliers arriving) - Crucial importance of export, driven mainly by foreign investments - Support for the investments by the government - Manufacturing industries generates new investments. - Good educational base of bachelors and masters in manufacturing engineering - Government purpose for supporting business, investment and trade. - Sufficiently developed infrastructure and the availability of qualified workforce at reasonable labour costs). - Good conditions for IT development. 	<ul style="list-style-type: none"> - Insufficient investment capital and own resources of domestic companies - Insufficient links among research, development and production - Low interest for manufacturing engineering among young people - Young and talented researchers leave Hungary - Poorer working skills in less developed regions - The price of labour is relative high compared to the surrounding countries - Lack of qualified professionals in less developed regions of country; - Insufficient own funds for investments in innovation, research and science. - Supplier chain: single companies need to be further developed in terms of chains and networks - Insufficient subsidies for financing small enterprise projects
Opportunities	Threats
<ul style="list-style-type: none"> - The car-manufacturing industry generates new investments in manufacturing engineering - Development of information technologies, causes raising demand for support services and creates opportunities - The investors' positive experience with production in Hungary lead to the expansion of plants - Stronger cooperation between multinationals and local business entities - National innovation policy successfully implemented - Government support in research and innovation programs - Reserves in the hungarian national economy 	<ul style="list-style-type: none"> - World financial crisis: decreasing need for industrial production - High prices of raw materials - Shortage of raw materials - Shortage of qualified personnel - Low wage countries will develop knowledge and technology (China, India, etc.) - Industrial production is moving to east because of the wage - Small Hungarian market - Brain drain of qualified staff, because of lack of opportunities - Undeveloped life-long learning - Low motivation in the public research institutes

3. Trends and main indicators in the Manufacturing Engineering Hungary

Sustainable development

Between 1995 and 2004 Hungarian economy shows an uneven increasing trend influenced by the changing economic and social condition. The economy became more opened, in the key sectors productivity and the competitiveness has improved. This development was supported by the modern technical improvement, and by the change in the organization of production, by the better logistic and last but not least by the labour intensity. This period started in 1997, was the first time after the change of regime when the dynamic economic growth wasn't followed by perilous ruin of the external balance of the payment. The provision package was introduced in 1995 (single currency exchange adjustment, introduction of surtax, provision for restricted demand etc) caused either the improved indicators of the balance of payment or temporary slowing down of the economic growth. Since 1997 the GDP growth rate rocketed to 5.2% which was at the top of this period in 2000. In this period the manufacturing and the construction sectors were the driving powers of the good performance. Since 2001 the growth rate declined. The reasons of this were the failure of external economic condition, and the worldwide spread of poor business performance which was followed by declining export activities. From 2004 joining the EU brought a business recovery, and the GDP growth rate reached 5.2% (year 2000 level) again. The main reasons of growth were the improved agricultural output from the production side and the recovered export and investment performance from the use side.

Az egy főre jutó bruttó hazai termék (GDP) volumenindexei, 1995–2005 (előző év = 100%)
Volume indices of the per capita gross domestic product (GDP), 1995–2005 (previous year = 100%)



The data for this publication was collected as part of the N° 1900 OSAP (National Program for Statistical Data Collection) survey, and represents the characteristic features of innovation activities performed in the industry and the service sector in Hungary in 2002-2004. The survey was representative and encompassed all economic organisations with at least 10 employees operating within the industry sector and the service sector – except for retail trade, hotels and restaurants and finally other community, social and personal service activities. Out of the 19 342 organisations belonging to this group a sample of 5157 units was chosen based on a non-proportional sample selection method. The selected organisations were contacted via post and the surrendering of data was mandatory. An average response rate of 76,6% was achieved [3].

Response rates by staff categories

<i>Staff categories</i>	<i>Response rate, per cent</i>
11– 49 employees	72,4
50–249 employees	80,1
250 and more	86,6
Total	76,6

Major results of the survey

- 18,1% of all enterprises were innovative.
- While the percentage of innovative enterprises among the group of organizations employing at least 250 people was 51,3%, the rate of innovative enterprises for organizations with less than 50 employees was 14,6%.
- In the industry sector the rate of innovative enterprises is 16,8% on average, with mining and construction the lowest rates, 5,5% and 6,3% respectively, and manufacturing showing the highest percentage of innovative enterprises with a rate of 21,2%.
- Within manufacturing the innovativeness of the manufacture of chemicals, chemical products and man-made fibres (51,9%) proved to be the highest.
- The average rate of innovation within the service sector was 21,0%.
- On average 12,0% of all enterprises proved to be product innovators, and 11,2% process innovators.
- 61,9% of organizations introducing new products undertook the development activities internally, for those employing at least 250 people this ratio was more than 71%.
- New or further developed processes were developed internally to a lesser extent than products with an average of 44,0% of enterprises undertaking the development activity themselves.
- For the realization of innovation most enterprises (75,9%) engaged in the acquisition of machinery, equipment and software and training for their personnel(49,1%)
- The main partners during innovation activity were the suppliers of equipment, materials and the clients or customers.

Number of innovative enterprises by industries and branches

Innovatív vállalkozások összesen <i>Innovative enterprises</i>	Nem innovatív vállalkozások összesen <i>Non innovative enterprises</i>	Mind-összesen <i>Total</i>	Industries, branches	
6	104	110	Mining and quarrying	Bányászat, köfejtés
360	1 279	1 639	Manufacture of food products and beverages	Élelmiszeripar
85	949	1 034	Manufacture of textiles and textile products	Textilipar
22	200	222	Manufacture of leather and leather products	Bőrpar
89	461	550	Manufacture of wood and wood products	Faipar, papíripar,
186	493	679	Manufacture of pulp, paper and paper products, publishing and printing	Nyomdaipar,
2	2	4	Manufacture of coke, refined petroleum products and nuclear fuel	Kőolajipar, nukl. en.
110	102	212	Manufacture of chemicals, chemical products and man-made fibres	Vegyipar, és termékek
143	457	600	Manufacture of rubber and plastic products	Gumi és műanyagipar
71	273	344	Manufacture of other non-metallic mineral products	Ásványi anyag feldolg.
197	1 362	1 559	Manufacture of basic metals and fabricated metal products	Fémipar
198	608	806	Manufacture of machinery and equipment n.e.c.	Gépipar
264	517	781	Manufacture of electrical and optical equipment	Villamos és opt. term.
89	150	239	Manufacture of transport equipment	Szállítóeszközök gy.
141	429	570	Manufacturing N.E.C.	N.E.C feldolg.
1 957	7 282	9 239	Manufacturing total	Feldolgozóipar össz.
67	195	262	Electricity, gas and water supply	Vill. gáz, vízellátás
246	3 656	3 902	Construction	Építőipar
2 276	11 237	13 513	Industry total	Ipar össz.
443	2 435	2 878	Wholesale	Nagykereskedelem
219	1 323	1 542	Transport, storage and communication	Szállítás, rakt., hírközl.
179	202	381	Financial intermediation	Pénzügyi szervezetek,
378	637	1 015	Computer and related activities. Research and development. Architectural and engineering activities	Kutatás, fejlesztés.
1 219	4 597	5 816	Service total	Mérnöki tevékenys.
3 495	15 834	19 329	Total	Össz. Szolgáltatás
				Összesen

4. Connection between Manufacturing Engineering and Higher Education in Hungary

Higher education

There was a major reorganization of Hungarian higher education in 2000. Prior to then, traditional major institutions of higher learning were Loránd Eötvös University of Budapest, Lajos Kossuth University of Debrecen, Janus Pannonius University of Pécs, Attila József University of Szeged, the Technical University of Budapest, and the Budapest University of Economic Sciences. There were also dozens of specialized schools and colleges throughout the country. In 2000 most of these specialized colleges were combined with older universities or with each other to form new “integrated universities.” The result was the birth of the renewed Universities of Debrecen, Pécs, and Szeged; the reorganized Universities of Miskolc and Veszprém; and the newly created St. Stephen University of Gödöllő, University of West Hungary of Sopron, and University of Győr. The main exception to this integration process was in the city of Budapest, where Loránd Eötvös University, Semmelweis Medical University, Technical University, and the University of Economic Sciences and Public Administration (renamed Corvinus University in 2005) remained stand-alone universities.

In 2006 tertiary institutions had a total of 194,607 students. Adult education expanded especially through workers' schools and correspondence courses. Although there are university fees, many students are exempt from payment or pay reduced fees.

Before the change in *higher education*, it involved: *3 year higher education* (university colleges), *4-6 year higher university education*.

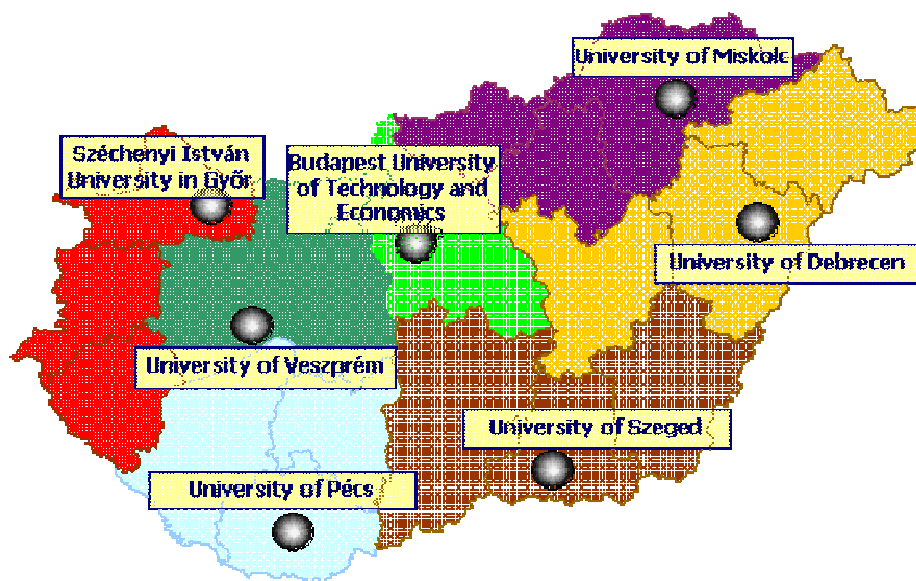
From the university year 2004/2005, university education has been organised on the basis of study programmes on three study programmes, according to the Bologna Process. University studies are restructured, as follows: *bachelor's degree*, *master's degree* and *PhD*.

Bachelor studies have a normal duration of 3.5 years (210 credits) in technical field. The graduates of this cycle can enter the labour market or can continue their studies with a master's degree.

Master's degrees have duration of 2 years in technical field (total 330 credits).

Doctoral studies (PhD) has a duration of 3 years.

Universities in Hungary educating engineers



- 46,694 technical students in Higher Education
- 3,182 of them taking motor vehicle, ship and aircraft studies
- Budapest is the centre of technical education with over 23,000 students

Source: Statistical Yearbook of Education 2006/2007

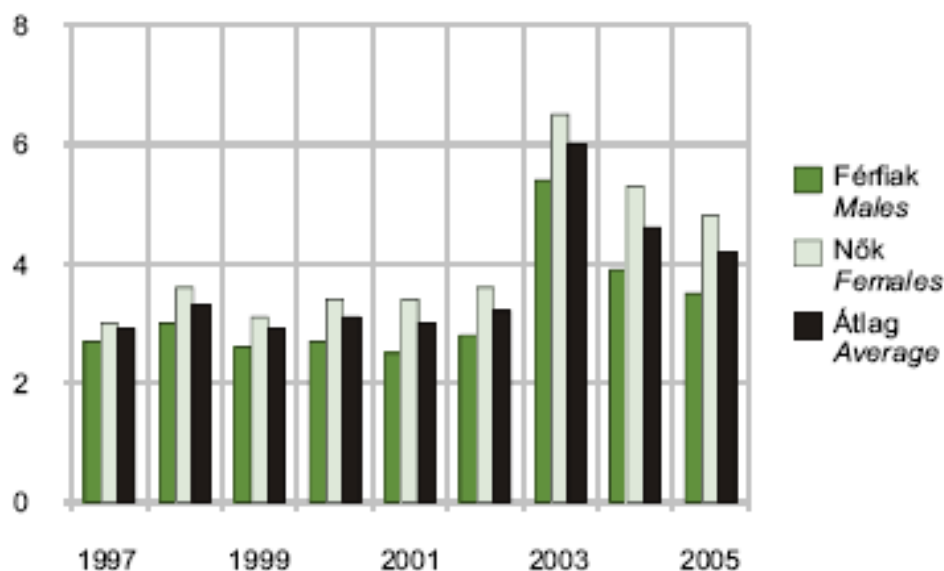
The demographic forecasts for 2005-2015 predict a decrease in the school population across the entire educational system, this will account for a reduction of about 20-25% of the school population in 10 years. This situation will bring about significant changes in the education system. Because of the finance system in the higher education in Hungary (Universities are financed by the government on the basis of student number), some Universities have to modify the education profile in conformity with the current requirements.

Lifelong learning

Lifelong learning is essential to sustainable development. As society shifts towards sustainable production and consumption patterns, workers and citizens will be needed who are willing to develop and adopt new technologies and organizational techniques as workers, as well as new attitudes and behaviour as citizens and consumers. Lifelong learning can contribute to making people more flexible, open-minded and interested in new developments.

This is why lifelong learning is regarded as a core element for reaching the Lisbon goal of becoming the most competitive and dynamic knowledge-based economy in the world. Lifelong learning will help individuals to update and complement their knowledge, competencies and skills, thus contributing positively to reinforce their position in the labour market. In 2002, the Barcelona Council set a goal for lifelong learning, stipulating that by 2010 the average level of participation should be at least 12.5% of the adult working age population (age group: 25–64 years).

Az oktatásban vagy képzésben résztvevők aránya a 25–64 éves korosztályban (%)
Rate of the population aged 25–64 participating in education or training (%)



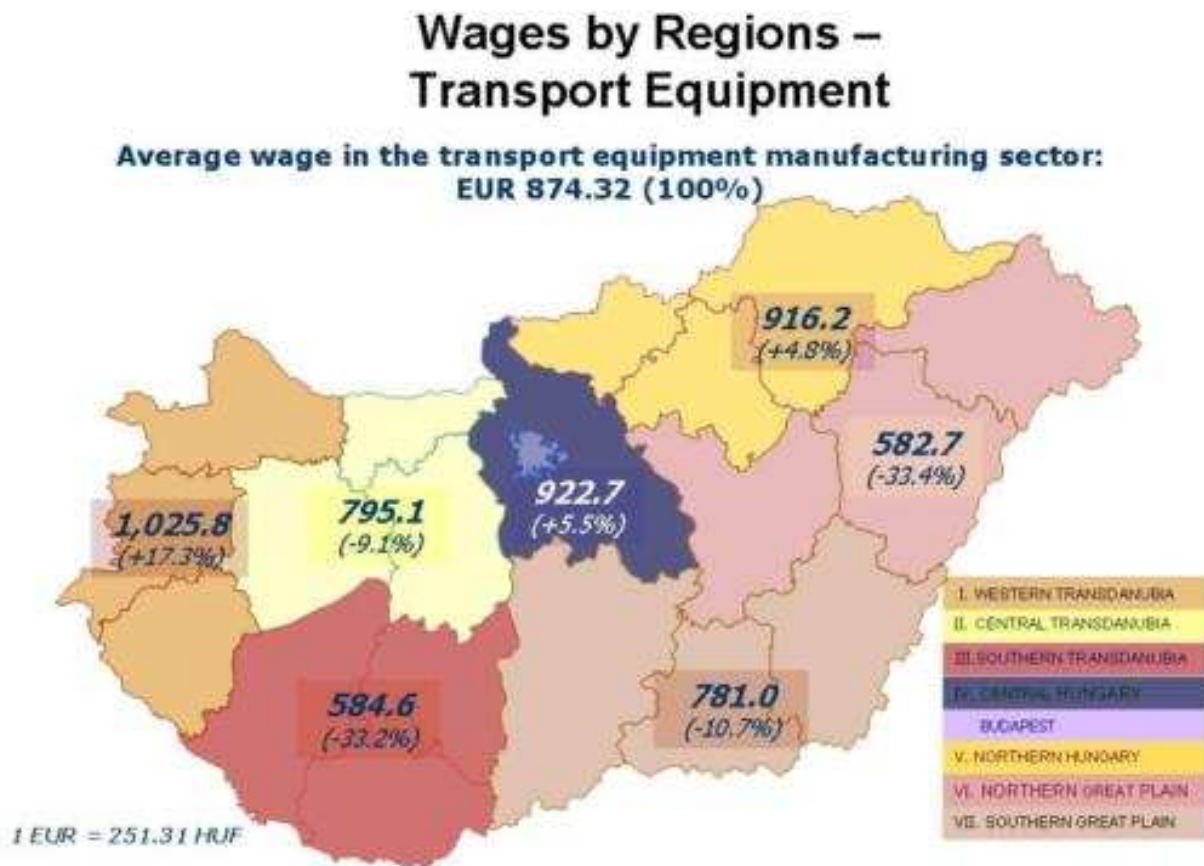
5. Best practices in Hungary

Tradition of innovation

- the Hungarian automotive industry celebrated its centennial in 2006
- Major Hungarian scientific and technical contributions include:

Access to a talented, creative, flexible and qualified labour pool at competitive costs

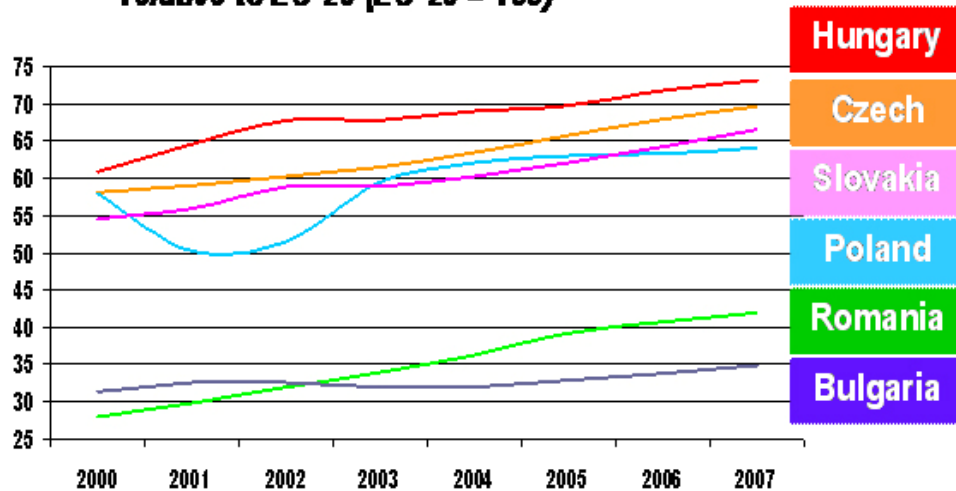
- **110,000 employees** in the automotive industry
- **World-class training and education** of engineers in 5 major cities
- Over 50% are mechanical engineers, 11% are information-systems engineers, 10% are electrical engineers, 9% are automotive engineers and 39 % are quality-assurance engineers and chemical engineers
- Nearly 20% of the working engineers are engaged in product-improvement, while the others are active in technological development, production, quality assurance and sales
- **Essentially lower wages** compared to Western Europe combined with the highest productivity rates in the region.



Source: Hungarian Central Statistical Office, 2007

Source: Hungarian Central Statistical Office, 2007

GDP in Purchasing Power Standards per person employed relative to EU-25 (EU-25 = 100)



Source: Eurostat, 2007

Central location - a possible hub for Europe

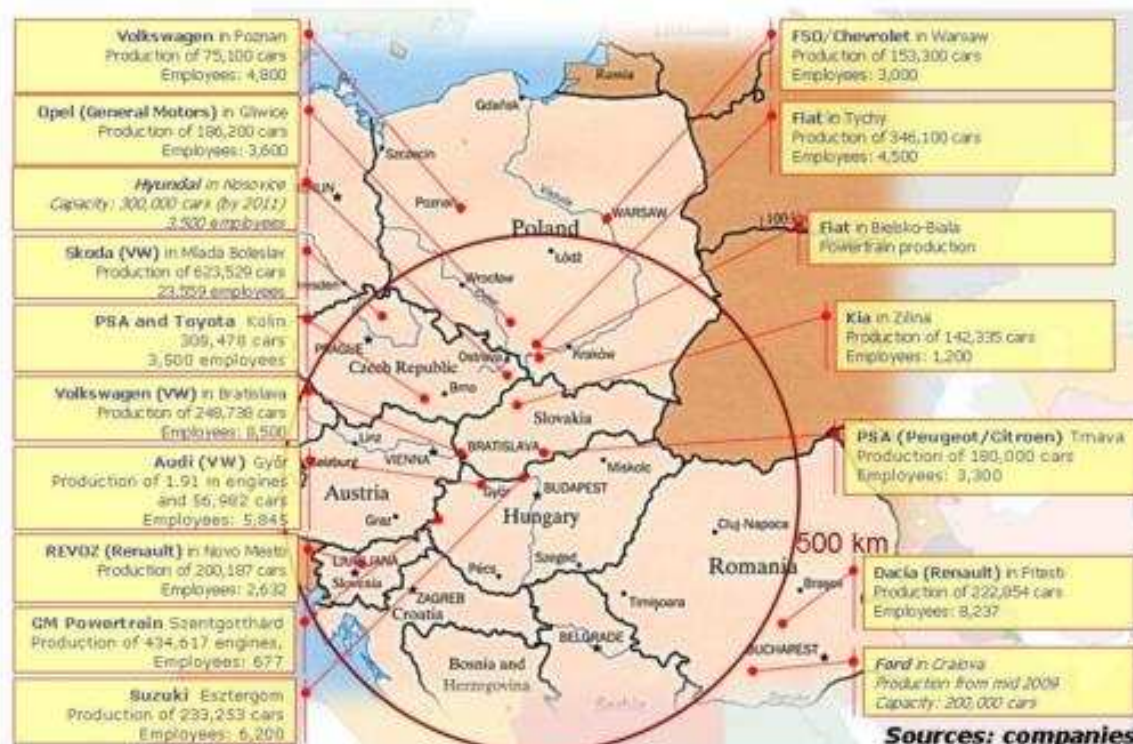
Hungary is a *potential logistics or production hub* due to its ideal location in Europe.

- Direct access to the Balkans and Eastern Europe
- **Renault** and **Porsche** have chosen Hungary for their part centres from where they can supply not only the Central and Eastern European markets but Romania, Ukraine, Russia or the Balkans as well.
- Further examples include: **Bosch**, **Audi**, **Denso**
- Four Helsinki-corridors running through the country

Excellent local supplier network

Hungary - as one of the “*Detroit East*” countries - can supply the manufacturers and the customers in whole Europe

- Number of orders are on an increasing scale due to heavy investments by the CBU manufacturers to expand their capacities.



Make your presence in Hungary! Some others have already...

Manufacturers, such as *Suzuki* or *Audi* are continuously expanding their capacities and their workforce to meet growing demand.

- 14 of the world's top 20 TIER-1s have already operations in Hungary
- Numerous multinationals have set up R & D centres in Hungary. Examples include: *Audi*, *Bosch*, *Knorr-Bremse*, *Magna-Steyr*, *ThyssenKrupp*, *Arvin Meritor*, *Denso*, *Continental*, *Visteon*, *WET*, *Draxlmaier*, *Edag* and *Temic Telefunken*, *DENSO*, *ZF* etc.
- The most outstanding investors are awarded by the Minister of Economy and Transport for their contribution to the economy every year in 6 categories.

In 2005, three of the six awards were received by automotive companies:

- **Ibiden** - Largest Greenfield Investment Award for its new plant in Dunavarsány
- **Suzuki** - Largest Expansion Award at its Esztergom plant
- **Audi** - R&D Cooperation Award for its R&D collaboration with the University of Győr and Budapest.

In 2006 two automotive companies were awarded:

- **Asahi Glass** - Largest Greenfield Investment Award for its factory in Tatabánya
- **Bosch** - R&D Cooperation Award for its R&D collaboration with the University of Miskolc

Major Automotive Companies in Hungary



- | | |
|--|--|
| 1 Le Bélier - <i>Ajka</i> | 13 Delco Remy, Robert Bosch - <i>Miskolc</i> |
| 2 Delphi Calsonic - <i>Balassagyarmat</i> | 14 Eybl - <i>Nagykanizsa</i> |
| 3 Continental Catalyst, Continental Temic, Michelin-Taurus - <i>Budapest</i> | 15 Eismann, Michelin - <i>Nyiregyháza</i> |
| 4 Schaeffler - <i>Debrecen</i> | 16 Mezőgép-Linamar - <i>Oroszáza</i> |
| 5 Ibiden - <i>Dunavarsány</i> | 17 Borg Warner, Wescast - <i>Oroszlány</i> |
| 6 Bosch-Rexroth, ZF Hungária - <i>Eger</i> | 18 Alcoa, Denso, Visteon, Videoton - <i>Székesfehérvár</i> |
| 7 Suzuki - <i>Esztergom</i> | 19 GM Powertrain - <i>Szentgotthárd</i> |
| 8 Lear - <i>Gödöllő</i> | 20 Eagle Ottawa, Le Bélier - <i>Szohók</i> |
| 9 Lear - <i>Gyöngyös</i> | 21 Delphi Packard, Eybl, Schaeffler - <i>Szombathely</i> |
| 10 Audi, Magna-Steyr R&D Center, Philips APM - <i>Győr</i> | 22 Bridgestone, Asahi Glass - <i>Tatabánya</i> |
| 11 Robert Bosch - <i>Hatvan</i> | 23 Zollner - <i>Vác</i> |
| 12 Knorr-Bremse, ThyssenKrupp - <i>Kecskemét</i> | 24 Continental Teves, Valeo - <i>Veszprém</i> |

Recent investments in the automotive sector

BRIDGESTONE Japanese Bridgestone has brought its cutting-edge BIRD production system from Japan to Hungary. By investing EUR 195 million in Tatabánya, the company establishes a production facility with a daily capacity of 8,000 tyres and employs 185 new employees.



The Korean Hankook Tire will invest EUR 528 million by 2010 in its new Dunaújváros facility that will produce 10 million tyres per year and employ 1,500 people.



Japanese Asahi Glass has invested USD 162 million to build its facility in Tatabánya that will employ 600 people to produce safety glasses



Japanese Ibiden has invested more than EUR 100 million in the first phase in its factory in Dunavarsány and will employ 1,200 people to produce ceramic filters for diesel engines.

Antriebs- und Fahrwerktechnik

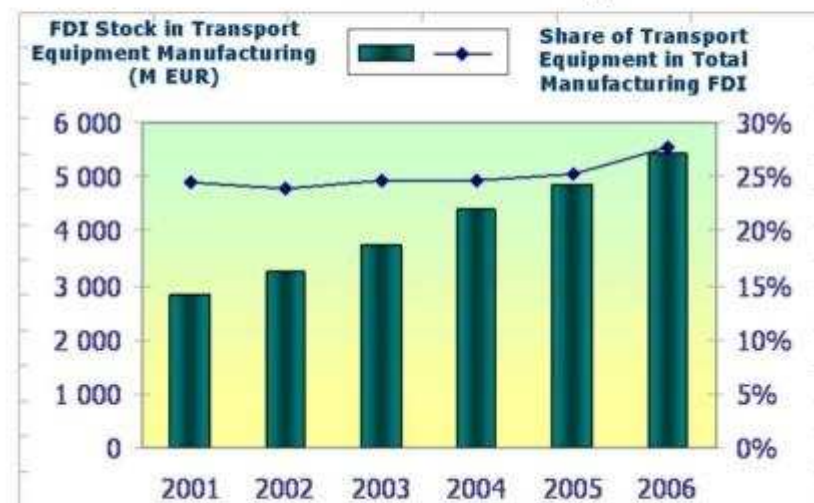


The German ZF Hungary is investing EUR 74 million in Eger to build its second manufacturing plant in Hungary. On 15,000 sq m premises with 1,400 employees ZF will manufacture 1.2 million steering gears, 1.7 million A/C pumps and 120,000 gearboxes per year.

The automotive sector is one of Hungary's core industries and contributes 20 per cent of total exports. In 2007, vehicle sales outside Hungary were worth EUR 8.2 billion and engines accounted for EUR 5.3 billion. Over 600 companies employing a total of 110,000 people are active in the sector. Of these enterprises, 240 operate according to the ISO and/or TS 16949 quality management standards. The export ratio of Hungarian made cars is 94 per cent, a figure that stands at 88 per cent for engine and component production.

The number of first- and second-tier equipment manufacturers is continually rising. Since the early 1990s, several foreign car manufacturers, such as Suzuki, Audi and General Motors, as well as 14 of the top 20 Tier 1 suppliers, have set up production facilities in Hungary [5].

FDI in Transport Equipment Manufacturing



Source: Hungarian Central Statistical Office, National Bank of Hungary

Source: Hungarian Central Statistics Office, *ITD estimate

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