

## MARKET REPORT:

### Offshoring in Central and Eastern Europe: A Closer Look at The Czech Republic, Poland and Hungary

By neoIT

*neoIT regularly conducts research on existing and emerging offshore and nearshore markets to assess the markets' viability as a destination for our clients. This report is the result of extensive primary and secondary research conducted by neoIT in February 2004.*

#### Key Topics Covered:

- What are the key opportunities in the Central and Eastern European (CEE) region for offshore outsourcing?
- How does it compare with other established offshore locations?
- What are the labor costs?
- What type of infrastructure exists in these markets?
- How critical is it to evaluate CEE as part of a global sourcing strategy?

## Introduction

Services globalization, originally leveraged to manage skills shortage and rising salary costs, has become an increasingly important sourcing delivery model. Strong market growth coupled with booming IT demand in the 90s made the decade very lucrative for service providers, but on the flipside created scarcity of skilled manpower to implement and support IT projects and infrastructure. This scarcity, together with the challenges in managing employees with desired skills, resulted in a rise in IT salary levels. The opportunity created by these changing market dynamics has been well exploited by offshore service providers through a combination of availability of skills, remote service delivery and a substantially lower cost structure.

Among the more prominent offshore locations are India, China, The Philippines, Russia, and Vietnam. Today, India is the most dominant region in offshore outsourcing delivery, however a number of other countries, including the Czech Republic, Poland and Hungary are emerging as leading global IT and business service supply markets. Driven in part by security concerns and project or process specific needs, Central and Eastern European (CEE) countries are rising to the top of the list for companies seeking to lower costs but unwilling to bear the risks associated with offshoring to Asia.

The combination of strong cultural affinity and relative cost advantages make Central and Eastern Europe an attractive destination for US and Western European companies seeking to reduce their costs and improve existing operations. In addition to these characteristics, the CEE boasts strong telecom and physical infrastructure, pending European Union membership and a strong and successful history supporting manufacturing outsourcing. A few of the key successful initiatives in the CEE include:

- **DHL** is shifting activities from Britain to the Czech capital, where IT workers cost 30 to 40 percent as much as their UK counterparts. They recently announced investment plans for €500m over five years and aim to employ 1,000 people in Prague to track customer shipments and billing in Europe.
- Leading global services supplier, **Accenture**, has plans to increase employees fivefold at its finance and accounting outsourcing center in Prague, over five years, to 1,500.
- In Budapest, **General Electric** opened an IT and back-office support centre in 2002 that will employ 500 people by 2005.
- **Diageo** opened a back-office support center in Budapest, employing 300 people.
- In Lodz, West of Warsaw, **Philips** opened a services center with capacity to employ 400 people in 2006 when it takes over human resources management, purchasing, finances and accounting for all European operations.
- Financial major **CitiBank** Handlowy employs 300 people in a settlement center in Olsztyn, North of Warsaw, processing transactions for Poland, the Czech Republic and Slovakia. They have plans to soon expand processing coverage to include Hungary and Romania.

## The Czech Market

### POLITICAL ENVIRONMENT

The Czech Republic, a Parliamentary Democracy entered the reform process after the Velvet Revolution in 1989 with favorable initial conditions as the Communist regime had maintained prudent macroeconomic policies. The economic transformation proceeded rapidly with the liberalization of prices, the restitution of most properties to their pre-1948 owners and the mass privatization of most companies through two waves of voucher privatization. After the Velvet divorce with Slovakia in 1993, the Czech Republic experienced the so-called Czech miracle, a combination of a rapid transfer of ownership to the private sector, low unemployment and no hyperinflation.

### ECONOMY

Spurred by FDI inflows, the Czech economy has resumed growth since 2000 in a context of low inflation and stable but significant unemployment. The economy has weathered the recent global slowdown well, with real GDP growth at 3.3 percent in 2001, and 2.0% in 2002. Strong fixed investment and buoyant household consumption - underpinned by robust wage growth and modest gains in employment - helped sustain domestic demand. Moreover, the external current account deficit narrowed in 2001. Inflation remains subdued at 2%. However, the public deficit has been rising and needs to be stabilized. Also, enterprise restructuring has led to rising structural unemployment and large regional disparities in unemployment rates.

**Table 1: Economic Indicators**

	<b>Czech Rep.</b>	<b>Poland</b>	<b>Hungary</b>
GDP PPP(\$, billions, 2002)	\$ 69	\$ 187	\$ 65
GDP Real Growth Rate (2002)	2 %	1.2 %	3.3 %
GDP Real Growth Rate (2003E)	2.7 %	5.0 %	3.5 %
Overall Rank (by size in USD)	43	25	48
Foreign Direct Investment (\$, Billions, 2002)	\$ 8.4	\$ 6.0	\$ 1.3

Source: World Bank, July 2003, OECD, India Govt., Canadian Govt., CIA Factbook

### INFRASTRUCTURE

#### **TELECOMMUNICATIONS**

The Czech telecommunications market was one of the first in the region to become fully liberalized, doing so on January 1, 2001. Prior to that time, a number of alternative operators invested in the market to position themselves for the market opening. When liberalization occurred, there was a flurry of additional activity from several other companies rushing to enter. The excitement proved to be excessive, as regulatory hurdles prevented any kind of 'big bang' liberalization. Instead, with carrier selection put off until mid-2002, infrastructure-based competition led by a few well-placed companies had the best chance of success. By late 2001, several operators had already given up on the market, leaving just a handful of medium and large companies challenging Cesky Telecom.

## **ENERGY**

The Czech Republic has greatly diversified its oil and gas supplies and routes. Commissioned in 1996, the oil pipeline from Ingolstadt (Germany) to Litvínov provides Czech refineries with an alternative to Russian supplies. Norway now supplies 15% of the country's natural gas. Strategic oil stocks and emergency preparedness meet with IEA standards.

Coal still dominates the Czech fuel mix and generates 70% of total electricity. The commissioning of a second nuclear power plant in Temelín next year will increase the share of nuclear in total power generation to 40%. As a result, the use of brown coal is expected to be cut by 25% and several power plants are likely to be closed. The Czech government has made substantial progress in restructuring and privatizing the coal sector, although it has announced that the planned lifting of restrictions on coal imports from 2002 will be postponed.

Beginning in 2002, Czech consumers were given the right to choose their electricity suppliers. Full liberalization of the market is scheduled for 2006. The introduction of competition in the natural gas market will start in 2005.

The government plans to sell electricity, natural gas and oil state-owned companies as single packages, so that they will remain large and sufficiently influential to compete in the European market, and to offer the companies for sale at high prices.

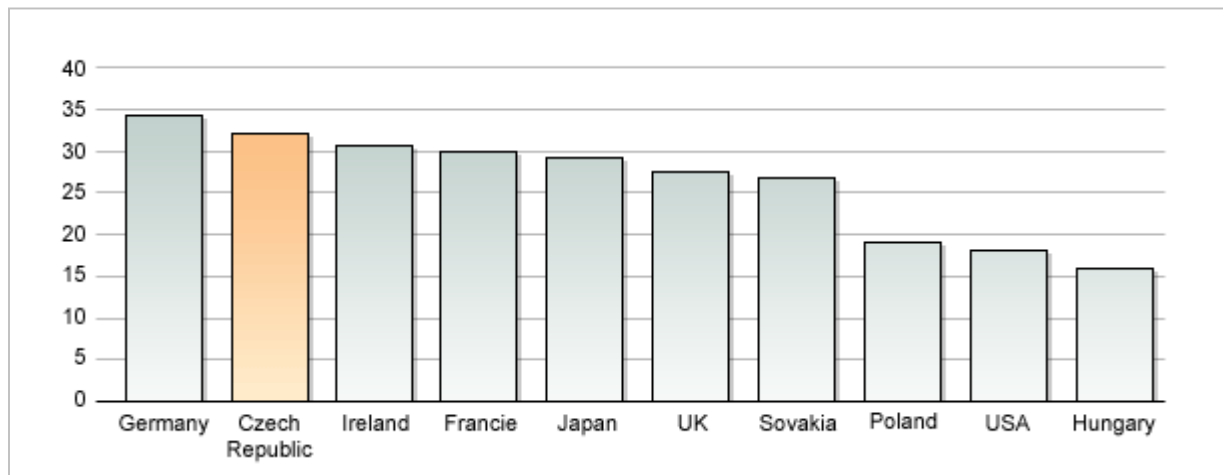
## **PHYSICAL (ROADS, BUILDINGS, AIRPORTS)**

The Czech republic boasts a modern physical transportation infrastructure that includes 55, 408 kilometers of paved roads, 9,462 kilometers of railway and three major ports and harbors in Decin, Prague, Usti nad Labem. The country is also home to 19 major airports. Class AAA real estate is available in all major Czech metropolitan areas.

## **EDUCATION AND HUMAN RESOURCES**

The Czech Republic boasts a high quality education system, boosted by a stronger enrolment pattern at secondary level and revealed in higher performances in mathematical tests at secondary level and a proportionately higher number of tertiary-level scientist and technologist graduates. According to the OECD, the Czech Republic has an extremely high secondary level completion rate that is second only to the USA. 86% of the Czech labor force aged 24-64 have completed their higher secondary education compared to an OECD average of 64% and 88% in the USA. Ninety Two (92%) percent of the Czech population aged 20-29 years has completed higher secondary education compared with an EU average of approximately 69%. The Czech Republic produces 14,000 university graduates in technical and scientific subjects each year

**Figure 1: Science And Engineering % Of Total Degrees Awarded in 2000**



Source: *Education at a Glance, OECD 2002*

<b>Table 2: Population and Labor Pool</b>			
	<b>Czech Rep.</b>	<b>Poland</b>	<b>Hungary</b>
Total Population	10.2 M	38.6 M	10.0 M
Available Labor Pool	5.2 M	17.6 M	4.2 M
IT Graduates (per year)	14,000	40,000	10,000

Source: *World Bank, NASSCOM, National Association of Universities and Institutions of Higher Education (ANUIES, Mexico)*

## **LANGUAGE AND CULTURE**

Although the primary language in the Czech Republic is Czech, the education system pays particular attention to language skills. The proportion of secondary-level students studying English is as great in the vocational stream as in the academic stream, and high by European levels at 95-96%. Many students also learn to speak German during their secondary schooling.

As a central European country, the Czech Republic has a high cultural affinity to Europe, especially to Germany and Austria. With its NATO accession in 1999 and the pending accession to the EU in May 2004, the country is expected to become an increasingly important destination for both IT and BPO services for Western European companies.

## **INTELLECTUAL PROPERTY**

Although, the Czech Republic is party to most major global intellectual property protection laws, in 2003 (after a 2-year absence on the list) the country was added to the US Special 301 Priority Watch List. The list identifies nations that have failed to establish fair and effective legal protections outlined under international obligations for intellectual property rights.

According to the International Intellectual Property Association (IIPA), copyright piracy in the Czech Republic has cost an estimated \$57.6 million (2002) in trade losses. As a result, the IIPA has recommended to the US government to maintain The Czech Republic on the 301 Priority Watch List pending additional initiatives to ensure intellectual property rights.

## **MULTI-NATIONAL PRESENCE**

A plethora of multi-nationals have operations in The Czech Republic, including manufacturing firms, software companies, consumer products companies and IT service providers. A selected list is provided in table 3 below.

<b>Table 3: Multi-National Presence – Czech Republic</b>			
<b>IT Services/Consulting</b>	<b>Systems Integrators</b>	<b>Multi-National Captives</b>	<b>Software</b>
Accenture	IBM	Honeywell	Microsoft
McKinsey	TietoEnator	Siemens	SAP
PriceWaterhouse	EDS	DHL	Oracle

Source: *neolT*

## The Czech IT Industry

### OVERVIEW

#### THE DOMESTIC MARKET

The Czech domestic IT services market has continuously achieved double-digit growth in 2002 and 2003. The market is estimated at around \$760 million in 2002. The appreciation of the Czech crown somewhat skewed the growth of the IT services market in dollar terms this past year.

#### THE EXPORT MARKET

The export market for IT services in the Czech Republic, although small by global standards, has gained in maturity during the past 5 years. With the presence of numerous domestic firms and many multi-national service providers, the market is a destination of choice for key global clients. According to neoIT estimates, the Czech IT services export market was approximately \$26 million in 2003. This estimate includes domestic IT services firms and multi-nationals with services delivery operations in the Czech Republic.

#### SALARIES AND CHARGE RATES

The average salary for a Czech programmer with 2-3 years of experience in Prague would be approximately \$1,500 per month, or \$18,000 annually. The average, fully-loaded charge rates for the same programmer would be \$18-22/hr. Both salaries and charge rates would be 15-25% lower in second tier cities.

### GOVERNMENT SUPPORT

A new Ministry of Information Technology (MIT) was established and on January 1, 2003 took over responsibility for telecommunications from the Ministry of Transportation. The MIT also oversees the activities of the Czech Post. Vladimír Mlynar was appointed Minister of Information Technology. The new ministry has already drafted what it terms "a white book" containing proposals for measures aimed at removing legal barriers to Internet commerce. The document makes a number of recommendations to facilitate electronic signatures, e-invoices, and online accounting

### KEY INDUSTRY CENTERS

Key IT industry centers in the Czech Republic can be categorized into Tier 1 and 2 cities. Table 4 below presents the two tiers of cities.

Table 4: Czech Cities by Tier	
Tier 1	Tier 2
Prague	Brno Plzen

Source: neoIT, Czech Government

## **ASSOCIATIONS**

Key IT Associations in the Czech Republic include:

- Association for Consulting to Business

## **DOMESTIC SERVICE PROVIDERS**

The top tier Czech firms include the following:

- Auto-Cont on Line
- ICZ
- LogicaCMG
- PVT

Second tier Czech IT firms include the following:

- ANECT
- GiTy
- BSC Praha
- ITS

## **GLOBAL PLAYERS WITH SIGNIFICANT PRESENCE**

- Accenture
- HP
- IBM
- Siemens Business Services

## **Czech Republic - SWOT Analysis**

<b>Table 5: SWOT Analysis – Czech Republic</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• Political stability</li> <li>• Low geopolitical risk</li> <li>• Lower cost basis than U.S. and W. Europe</li> <li>• Proximity and access</li> <li>• EU Member – May 2004</li> <li>• General English proficiency</li> <li>• Good telecom and energy infrastructure</li> <li>• Critical mass of service providers and captive operations</li> </ul>	<ul style="list-style-type: none"> <li>• Limited labor pool</li> <li>• Government's ability to enforce IP laws</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Diversification play to major offshoring destinations</li> <li>• Mitigate security and privacy issues post EU accession</li> </ul>	<ul style="list-style-type: none"> <li>• EU Accession may drive prices up</li> <li>• Limited labor pool and competition for resources may drive prices up</li> </ul>



## The Polish Market

### **POLITICAL ENVIRONMENT**

The republic of Poland entered the political reform process in 1990; subsequent to formation of a strong political force evolving from the labor turmoil in the eighties. During the 90's Poland seized the momentum and implemented a package of successful economic reforms which laid the solid foundations for the economy. President Aleksander Kwasniewski heads the republic since 1995. On March 1, 2003, the ruling coalition of the Democratic Left Alliance (SLD), the Labor Union (UP), and the Polish Peasant Party (PSL) fell apart. Following a tense meeting of leaders of the three parties, Prime Minister Leszek Miller officially announced that the SLD-UP government would continue to operate without the parliamentary support of the PSL. Miller also asked President Aleksander Kwasniewski to approve the dismissals of Deputy Prime Minister Jaroslaw Kalinowski (head of the PSL) and Minister of Environment Stanislaw Zelichowski. Following the split with the PSL, the SLD-UP coalition can count on only 212 votes in a 460-seat chamber, forcing it to form a minority cabinet.

The success of political and economic transformation in Poland has found international recognition evidenced by accession to the OECD (1996), NATO (1999) and upcoming membership in the European Union (2004).

### **ECONOMY**

Real GDP growth in Poland reached 1.2% during 2002, slightly up on the previous year but still disappointingly modest. Nevertheless, improvements were witnessed in personal consumption, which was the chief driving force behind economic expansion, and gross fixed capital formation. In the first eleven months of the year, exports rose 11%, while imports climbed 8% (both in zloty terms). Progress with privatization was slow in 2002, with just 18% of the planned annual revenue achieved by November. Direct investment in Poland in 2002 amounted to approximately \$6 billion. GDP is forecasted to expand around 3% to 4% in 2003 and 2004 respectively as investments pick up.

### **INFRASTRUCTURE**

#### **TELECOMMUNICATIONS**

The Telecommunications Law of July 2000 set out the legal framework for the Polish telecoms market. It regulates the monitoring of telecom services and providers, including networks, the use of radio equipment, operation of regulatory authorities in telecommunications, and the management of numbering, radio frequency spectrum and orbital resources. Two bodies regulate the telecommunications market in Poland: Urzedu Regulacji Telekomunikacji (URTIP) and the Ministry of Infrastructure. The Ministry is responsible for writing the laws, which must then be accepted by Parliament and are enforced by the URTiP.

The Polish telecommunications market is already liberalized, with open competition in the local and long-distance calling segments. Long-distance is offered both on a call by call basis and as a pre-selected service.

TP SA still holds a leadership over international calling, countered only by mobile and Voice over IP calling. In 2002 the incumbent lost revenue from both the local and long-distance calling segments, but continued to fight both its competition and the regulators. There was an ongoing dispute between TP SA and the VoIP operators, which believed they should be allowed to offer international VoIP service as well as local and long distance. In early 2002, a group of independent operators began to discuss a possible consolidation, to create an operator capable

of competing effectively against the incumbent. The proposed project involves NOM, Tel-Energó, Dialog, Netia, and Szeptel, and is strongly backed by the Ministry of Infrastructure.

## **ENERGY**

The Polish power generation sector is the largest in Central and Eastern Europe. In 2001, Poland's installed electric capacity was about 30.6 million kilowatts. Electric generation reached 135 billion kilowatt hours (Bkwh), while consumption was 119 Bkwh in 2001. Coal-fired power plants meet most of Poland's annual electricity demand. Poland is also a net exporter of electricity.

Coal accounted for 93% of the country's primary energy production in 2001, and remains one of the country's most important employers. On February 1, 2003, the Polish government created Kompania Weglowa (KW), Europe's largest coal company. The original plan called for the closing of the country's 39 mines; the consolidation of mines from five failing coal firms (Bytomska, Rudzka, Gliwicka, Nadwislanska and Rybnicka); and the reduction of 35,000 jobs by 2006. After protests from coal unions in December 2002, the government toned down initial restructuring plans. The government changed the total employment reduction to 27,200; gave workers job placement guarantees in surviving mines, if their own unit goes under; and required KW to be responsible for 24 mines held by the country's five worst mining firms.

Given increased domestic natural gas production and flat demand, Poland has reduced the import of natural gas from Russia, Denmark and Scandinavia. In the year 2003, PGNiG, Poland's state oil and natural gas firm, and Gazprom renegotiated the original Yamal pipeline contract, reducing Poland's annual imports from Russia by a third in the years 2003-2022. The EU accession treaty requires the participant countries to liberalize their natural gas markets according to the EU 1998 natural gas directive. Along with divesting and unbundling state owned natural gas companies, the government is required to open the natural gas market to outside competition, thus allowing customers to choose their own supplier.

## **PHYSICAL (ROADS, BUILDINGS, AIRPORTS)**

Poland is well connected through a widespread and modern transport infrastructure that includes highways, rail, air and sea. It boasts 249,060 kilometers of paved roads, 23,420 kilometers of railway and nine major ports and harbors in Gdansk, Gdynia, Gliwice, Kolobrzeg, Szczecin, Swinoujscie, Ustka, Warsaw and Wroclaw. The country is also home to 39 major airports and 3,812 km waterways through navigable rivers and canals.

## **EDUCATION AND HUMAN RESOURCES**

In the last decade, many political, social and economic transformations took place in Poland, which influenced changes in the educational system. The emergence of a free market economy has forced changes in secondary education curricula and training requirements for engineers and computer scientists. In September 1990 three new education laws were implemented: the School Education Act, the Higher Education Act, and the Academic Title and Academic Degrees Act.

Today, the Polish university system consists of over 100 institutions of higher learning, including 11 universities, 14 technical universities, 4 higher schools of engineering, 8 agricultural academies, 5 academies of economics, and 10 teacher-training colleges. The educational system currently produces approximately 40,000 engineering and IT graduates annually.

## **LANGUAGE AND CULTURE**

Polish is the official and most widely spoken language, while English is widely spoken as a second language. Due to Poland's proximity to Germany, a significant segment of the population is also fluent in German, while French, Spanish and Italian are also prevalent.

Poland's geographic proximity to Germany and the EU contributes to a strong cultural affinity to Europe which will undoubtedly be strengthened by its accession to the EU in May 2004.

## **INTELLECTUAL PROPERTY**

According to the International Intellectual Property Association (IIPA), copyright piracy in Poland has cost an estimated \$491million (2002) in trade losses. Imports of pirated copyrighted products - most in optical disc format - remain a top piracy problem in Poland. Furthermore, optical disc (OD) production has reached excess production than local demand and it is imperative that Poland implement regulations on the production, distribution and export of optical media.

The International Intellectual Property Association (IIPA) has recommended that Poland remain on the Special 301 Priority Watch List and that an out-of-cycle review be conducted later in 2004.

In 2003, the Polish government had devised a national strategic plan to combat copyright piracy. Copyright reform efforts were adopted by the Council of Ministers in December 2003, and reforms are expected to be adopted in 2004 as Poland joins the European Union.

## **MULTI-NATIONAL PRESENCE**

Numerous multi-nationals have operations in Poland, including manufacturing firms, industrial companies and IT service providers. A selected list is provided in table 6 below.

<b>Table 6: Multi-National Presence – Poland</b>		
<b>IT Services/Consulting</b>	<b>Systems Integrators</b>	<b>Multi-National Captives</b>
Accenture	IBM	OPEL
KPMG	Unisys	Delphi
Cap Gemini E&Y	BearingPoint	Lufthansa
HP	EDS	Motorola
	CSC	Citi
		Philips
		GE

Source: neoIT

## The Polish IT Industry

### OVERVIEW

#### THE DOMESTIC MARKET

The Polish IT industry has been hit by a slowing economy and a downturn in FDI inflow and exports for the past two years. In 2002, domestic IT market growth slowed to below 5% and market revenue of close to \$3 billion. Overall, the IT market is expected to recover in late 2003 and into 2004 and continue to grow over the next 2 years. Essential reforms of IT infrastructure in the public sector (central government and municipalities), investment in many industrial sectors pushed by the EU accession process, privatization in the utilities and steel industries, the strength of the banking and telecommunications sectors, and growing interest in the SME sector are key drivers for the IT sector.

#### THE EXPORT MARKET

According to neoIT estimates, the Polish IT services export market was approximately \$ 22 million in 2003, while the BPO services export market was \$10 million in the same period. This estimate includes domestic IT services firms and multi-nationals with services delivery operations in Poland. Major custom application developers are emerging as strong local contenders to the traditional offshore IT services leaders. These companies include ComputerLand, Prokom, DRQ, Winuel, Bazy i Systemy Bankowe, POLSOFT, Spin, Optix and ComArch.

#### SALARIES AND CHARGE RATES

The average salary for a programmer with 2-3 years of experience in Warsaw would be approximately \$1,300 per month or \$15,600 annually. The average, fully-loaded charge rates for the same programmer would be \$17-20/hr. Both salaries and charge rates would be 15-25% lower in second tier cities.

### GOVERNMENT SUPPORT

In early 2003, the Polish government approved the 'Strategy for Electronic Industry 2003-2010', which aims to increase electronics industry production and bring work efficiency to the EU average. The strategy does not stipulate any financial means to support development but names the state budget, EU, World Bank, and EBRD funds as possible sources of financing. The following sectors will be aided by the strategy: telecommunications (broadband, software & hardware, GSM, UMCS and TETRAS systems, optical telecommunication), e-identification solutions, and manufacturing for international partners. The government wants to promote technological parks that closely cooperate with educational and science institutions. Additionally, the Polish government has developed plans to boost the growth in the services export sector that includes promoting local services companies to enter into foreign markets through tax reduction on exports, attracting foreign investors with tax allowances on reserve funds created for future investments and focus on infrastructure improvement.

## **ASSOCIATIONS**

- Polish Chamber of Information Technology and Telecommunications

## **KEY INDUSTRY CENTERS**

Key IT industry centers in Poland can be categorized into Tier 1, 2 and 3 cities. Table 7 below presents the three tiers of cities.

<b>Table 7: Polish Cities by Tier</b>		
<b>Tier 1</b>	<b>Tier 2</b>	<b>Tier 3</b>
Warsaw	Lodz	Mszczonow
Krakow	Poznan	Olsztyn

Source: Government of Canada, neolT

## **DOMESTIC SERVICE PROVIDERS (list)**

A selected list of top tier domestic Polish firms include the following:

- ComputerLand
- Prokom
- DRQ
- Winuel
- Bazy i Systemy Bankowe
- POLSOFT
- Spin
- Optix
- ComArch

## **GLOBAL PLAYERS WITH SIGNIFICANT PRESENCE**

- Accenture
- HP
- IBM
- KPMG

## Poland - SWOT Analysis

<b>Table 8: SWOT Analysis - Poland</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• Political stability</li> <li>• Telecommunications infrastructure</li> <li>• Linguistic abilities</li> <li>• Technical skill pool</li> <li>• Employment costs</li> <li>• Facility and infrastructure costs</li> <li>• Proximity and access to WE</li> </ul>	<ul style="list-style-type: none"> <li>• Growing Fiscal Burden on Companies</li> <li>• Slowdown of Privatization Process</li> <li>• Bankruptcies among Local IT companies</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Strengths can be leveraged to take advantage of nearshore outsourcing uptrend</li> <li>• Site location for captive operations due to multilingual labor pool and government incentives</li> <li>• Mitigate security and privacy issues post EU accession</li> </ul>	<ul style="list-style-type: none"> <li>• Strong competition from South-East Asia</li> <li>• Rising salaries tied to EU accession</li> </ul>

## The Hungarian Market

### **POLITICAL ENVIRONMENT**

Hungary is a stable, multi-party parliamentary democracy. According to the Constitution, state power rests in the 386-seat Parliament. The Parliament has the authority to propose, review, adopt or reject all legislation, and can override presidential vetoes. A political party must receive at least 5 percent of all votes to gain representation in Parliament. The Government consists of the Prime Minister (currently Peter Medgyessy), who is elected by a majority of the Members of Parliament, and a Council of Ministers. The President of the Republic (currently Ferenc Madl), upon the Prime Minister's recommendation, appoints the Ministers. The Prime Minister chairs the Council of Ministers and is the government's chief executive official.

The current government is comprised of a coalition of the Hungarian Socialist Party (MSzP) and the Alliance for Free Democrats (SZDSZ) and is a center-left coalition. As has been true since the transition to democracy, the ruling coalition has kept Hungary on a centrist, reformist, free-market track, whose goal is preparing the country for EU accession, which is scheduled for May 2004. Free-spending its first year in office, coupled with slow economic growth, however, has led to a high fiscal deficit and current account deficit which will lead to some painful adjustments and difficult decisions if Hungary is to meet its goal of being one of the next countries to adopt the euro sometime after 2007. To date, most members appointed to ministerial leadership positions are veteran politicians with experience in the earlier pre-1998 center-left administration.

### **ECONOMY**

Hungary, a market economy, where public and private ownership have equal rights and are protected equally. Hungary continued its run of relatively strong GDP growth, with a full year 2003 increase of over 3.5%. With a downturn in external in 2002, expansion was driven by domestic spending, notably in the services sector and the construction industry. In 2004, GDP is projected to grow 4%. Hungary's performance is not, however, all positive; recently, there have been signs of economic overheating. The government's expansionary policies of 2002 put considerable pressure on the budget and led to a widening in both the budget and current account deficits. Hungary's international competitiveness is also being threatened by the rapid currency appreciation. Inflation is estimated to remain at approximately the same level, at 5% for 2003 compared with 5.3% for 2002. The unemployment rate has increased by 0.7% over the previous year to 6.4%, and is growing most strongly among young jobseekers.

The planned privatization of three state-owned banks and some other state assets should increase the inflow of foreign direct investment, which has been stagnant in recent months. Foreign direct investment by Hungary totaled over \$1.3 billion for at 2002. Remarkably, green-field investments represent most of the FDI inflow. Currently, over 45 of the world's top 50 multinational companies are present in Hungary.

### **INFRASTRUCTURE**

#### **TELECOMMUNICATIONS**

Hungary had chosen a unique path to liberalization, with most of the market becoming fully liberalized in December 2001. Until 2001, Matav, the nation's telecommunications monopoly provided a variety of communications services. With monopoly concessions expiring, regional local telephone operators are among the most serious challengers to Matav's dominance. A variety of other backbone network operators, data network service providers, ISPs, CATV

networks, and other companies are positioning to carve out a piece of the communications market.

The telecoms market regulator is the Communications Authority (Hírközlési Felügyelet, or HIF), which reports to the Chancellor in the Prime Minister's Office and the Hungarian government. It is composed of three separate units: the Regional Communications Office, the Communications Inspectorate, and the Communications Arbitration Committee. The Regional Communications Office handles administrative tasks such as issuing licenses; the Communications Inspectorate is responsible for market surveillance and frequency management; and the Communications Arbitration Committee is responsible for several duties: dispute resolution; review and approval of reference offers for interconnection and local loop unbundling; and determination of which operators have significant market power (SMP) that requires special regulatory treatment and carries additional obligations for the operator. An operator with SMP is one that has more than 25% market share in a particular service area and particular geographic region.

## **ENERGY**

Hungary is neither a large producer nor consumer of energy. Hungary has total proven oil reserves of approximately 102.5 million barrels, as of January 2003. Hungary is the largest producer of crude oil in Central and Eastern Europe, with about 24,083 bbl/d, followed by Poland with 16,800 bbl/d. Despite almost negligible oil reserves from a global point of view, firms continue to explore the region for oil deposits. According to its three-year strategic plan, the Hungarian Oil and Gas Company (MOL) aims to double its oil exploration and extraction. The company plans to spend \$40-\$50 million on exploration in Hungary.

Hungary has a total of 1.2 trillion cubic feet (Tcf) of natural gas as of January 2003 which accounted for a quarter of its demand. The remainder was imported from Russia. This dependence on Russian gas and oil imports is also a point of contention for Hungary, particularly as they privatize their energy markets in preparation for EU accession.

Most of Hungary's electricity capacity and generation is thermal (oil, gas, and coal), although the country's sole nuclear plant at Paks produces slightly less than 40% of total electricity generated. Hydropower generates less than 1% of Hungary's electricity. In 2001, Hungary generated about 34.4 Bkwh and consumed about 35.1 Bkwh of electricity. Consumption peaked at 37 Bkwh in 1989, but declined in the early 1990s as Hungary's post-Communist economy grew less energy-intensive. Hungary is a net importer of electricity, mostly from Slovakia.

## **PHYSICAL (ROADS, BUILDINGS, AIRPORTS)**

Hungary connects to international and domestic destinations with 49 airports and 13 of them with paved runways. It also boasts modern physical transportation infrastructure that includes 81,680 kilometers of paved roads, 7,875 kilometers of railway and two major ports and harbors in Budapest and Dunaujvaros.

## **EDUCATION AND HUMAN RESOURCES**

The Hungarian higher education system consists of universities and colleges. (The latter were established to reflect the German Fachhochschulen model.) This binary system has developed in response to the demand for training that met practical needs in contrast to the longer and more theoretical courses offered by the universities. Consequently, universities generally provide a high standard of theoretical knowledge, and colleges offer more practical and generally shorter courses. In the early 1990's, a number of church-run higher education institutions were established and they offer subjects other than theological (e.g. teacher training; business administration) in an increasing number.

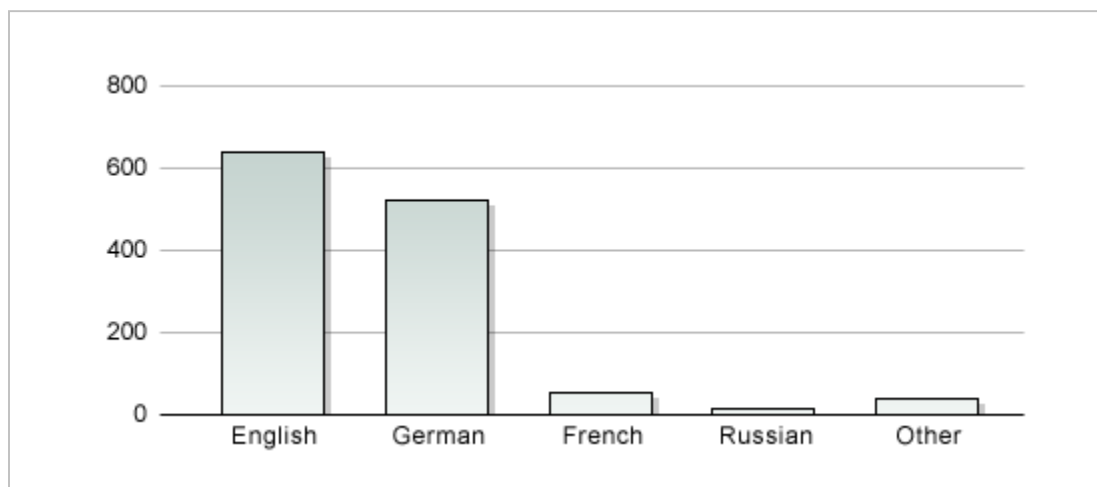


At present there are 89 higher education institutions, of which 30 are universities (25 state-run, and 5 church-run) and 59 colleges (32 state-run, 23 church-run and 4 run by foundations). The education system currently graduates approximately 10,000 engineering and IT graduates annually.

## **LANGUAGE AND CULTURE**

Hungarian is the primary language in Hungary, however a significant proportion of the population also speaks English, followed by German and French. Use of English as a medium of education is high in senior school level and higher courses. Hungary has a high cultural affinity to both Germany and France.

**Figure 2: Students with Foreign Language Skills in all school types and on all educational levels**



Source: National Institute of Public Education based on the Educational Yearbook 2001/2002, OM, 2002

## **INTELLECTUAL PROPERTY**

According to the International Intellectual Property Association (IIPA), trade losses due to copyright piracy in the Hungary were an estimated \$50.2 million (2002). As a result, Hungary was put on the Priority Watch List, primarily for patent and data exclusivity problems. Over the last several years, Hungary has made great strides to modernize its copyright legal regime, including extensive legislative revisions and amendments to its criminal code, and it is in the process of finalizing the harmonization of its laws in accordance with its accession duties to the EU. However, IIPA recommends that Hungary be placed on the Special 301 Watch List in 2004.

The main problems adversely affecting the copyright industries in Hungary include 1) Continued prosecutorial delays within the courts; 2) Low fines and generally weak sentences that fail to provide sufficient deterrence; 3) Failure to fully comply with TRIPs Agreement enforcement obligations (such as issuing non-deterrent penalties and the lack of a civil ex parte provision) and 4) Poor border enforcement.

## **MULTI-NATIONAL PRESENCE**

Numerous multi-nationals have operations in Hungary, including manufacturing firms, industrial companies and IT service providers. A selected list is provided in table 6 below.

<b>Table 9: Multi-National Presence - Hungary</b>		
<b>IT Services/Consulting</b>	<b>Systems Integrators</b>	<b>Multi-Nationals</b>
Accenture	IBM	OPEL
KPMG	Unisys	Delphi
Cap Gemini E&Y	BearingPoint	Lufthansa
HP	EDS	Motorola
	CSC	Citi
		Philips
		GE

Source: neoIT

## **The Hungarian IT Industry**

### **OVERVIEW**

#### **THE DOMESTIC MARKET**

The IT market in Hungary is pegged at \$1.7 billion for 2003. In 2002, growth in IT market spending in Hungary slowed to only 7.5% due largely to lower revenue from hardware sales. Slowing dynamics of the Hungarian IT market in general and shrinking demand from large enterprises in particular have increased price competition and forced leading IT services and software vendors to move down-market. This phenomenon resulted in lower margins, and IT firms have had to take measures to restructure their activity and reduce costs.

According to the Hungarian Chamber of Commerce, a large number of Hungarian SMEs are unprepared to face the higher level of competition that will characterize the SME segment after accession. In addition to investing in technology, skills, and marketing, Hungarian small and medium organisations will have to improve their IT systems in order to expand productivity and efficiency.

#### **THE EXPORT MARKET**

Similar to the Czech Republic and Poland, the IT services and BPO export market has continually shown high growth over the last couple of years. Hungary is an attractive nearshore outsourcing location for western European countries specifically for IT application development and maintenance. Some of the leading companies, particularly in the area of software development, that are offering offshore services include Grepton, Kurt Computer, Montana, FreeSoft, Eurotrend, rEvolution Software, and EuroMacc.

According to neoIT estimates, the Hungarian IT services export market was approximately \$ 20 million in 2003 while the BPO export market was \$ 8 million during the same period.

## **SALARIES AND CHARGE RATES**

The average salary for a Hungarian programmer with 2-3 years of experience in Budapest would be approximately \$1,100 per month or \$13,200 annually. The average, fully-loaded charge rates for the same programmer would be \$15-18/hr. Both salaries and charge rates would be 15-25% lower in second tier cities.

## **GOVERNMENT SUPPORT**

The Hungarian Information Society Strategy prepared by the new Ministry of Informatics and Communications has launched several programs to support IT development. Long-term programs were launched with the aim of facilitating IT infrastructure development, e-government initiatives and Internet penetration among various institutions (e.g., educational institutions, museums, libraries) and professional communities (educational and public employees). A representative program in 2002 called for the development of the national data-network backbone system that included the installation of a new 2.5GB optical data network connecting 26 towns in March 2002, and the connection of another hub comprising 16 extra centers in November 2002.

Developing offshore services capabilities represents a major opportunity for the Hungarian IT industry, a possible magnet for FDI and a sector with significant potential in creating new jobs. Therefore, the Hungarian government is becoming more aware of the importance of this sector for the Hungarian economy. It is yet unclear whether the government's plans for subsidizing Hungarian offshore software developers entering foreign markets, or attracting foreign investors with tax allowances will produce tangible results.

## **ASSOCIATIONS**

In September 2002, after five years of negotiation, 12 domestic software development companies founded the **Hungarian Software Alliance (HSA)**. The main objective of the HSA is to increase the software export business of its members, which include as founders AAM Vezetoi Informatikai Tanacsado Kft., Duna Elektronika, Eurotrend, Eurotronik, FreeSoft, Interface, ITConsult-Pro, Montana, Pressmen, Simpletech, Unitis, and VTSoft.

## **KEY INDUSTRY CENTERS**

Key IT industry centers in Poland can be categorized into Tier 1, 2 and 3 cities. Table 7 below presents the three tiers of cities.

<b>Table 10: Hungarian Cities by Tier</b>		
<b>Tier 1</b>	<b>Tier 2</b>	<b>Tier 3</b>
Budapest	Dunaujvaros Kecskernet	Szeged Pecs

### **DOMESTIC SERVICE PROVIDERS (list)**

A selected list of top tier domestic Hungarian firms include the following:

- Grepton
- Kurt Computer
- Montana
- FreeSoft
- Eurotrend
- rEvolution Software
- EuroMacc

### **GLOBAL PLAYERS WITH SIGNIFICANT PRESENCE**

- Accenture
- HP
- IBM
- Cap Gemini Magyarország Kft.
- Unisys
- Atos Origin

## **Hungary - SWOT Analysis**

<b>Table 11: SWOT Analysis - Hungary</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• Low geopolitical risk</li> <li>• Low Wage costs</li> <li>• Proximity and access</li> <li>• EU Member – May 2004</li> <li>• General English proficiency</li> <li>• Government Efforts to Boost IT Development</li> <li>• Custom Duty on IT Equipment Eliminated</li> <li>• Venture Capital in IT Industries</li> </ul>	<ul style="list-style-type: none"> <li>• Limited labor pool</li> <li>• Government's ability to enforce IP laws</li> <li>• IT Development Below EU Standards</li> <li>• Telecommunications market not fully competitive</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Strengths can be leveraged to take advantage of nearshore outsourcing uptrend</li> <li>• Site location for IT captive operations due to strong application development skills and low overall cost (relation to WE)</li> <li>• Mitigate security and privacy issues post EU accession</li> </ul>	<ul style="list-style-type: none"> <li>• EU Accession may drive prices up</li> <li>• Limited labor pool and competition for resources may drive prices up</li> </ul>

## Recommendations

### **WHY CENTRAL AND EASTERN EUROPE IS AN EMERGING DESTINATION**

The markets of Central and Eastern Europe are quickly emerging as prime destinations for both Western European and US companies looking to leverage a highly skilled labor pool with a significant labor cost advantage. Countries such as the Czech Republic, Poland and Hungary have become locations of choice for a variety of multi-national service providers as well as for captive operations of major global firms. Along with a 20-30% labor cost advantage over Western Europe and the United States, these markets offer high cultural affinity to the West as well as excellent language capabilities that include both English and German among others.

### **MITIGATING SECURITY AND PRIVACY ISSUES**

As the adoption of offshore or global sourcing has increased, so have the number of instances related to security and privacy breaches. The stringency of privacy and security laws in the European Union have driven companies to carefully evaluate the markets and service providers from whom they procure services. In May of 2004 a number of Central and Eastern European countries, including the Czech Republic, Poland and Hungary will be joining the EU as members. The entrance of these markets into the EU will on the one hand obligate them to comply with a variety of security and privacy laws and on the other hand instill added assurance among prospective outsourcers that their data will be well protected by service providers in the new member markets.

### **EASTWARD PROGRESSION**

The accession of countries like the Czech Republic, Poland and Hungary to the EU will undoubtedly drive numerous benefits for both Western clients as well as service providers in the new member markets. At the same time, however, as the Central and Eastern European markets enter the EU, the cost of living in these markets will likely increase driving an inflationary trend among local salaries and over time diminishing the cost advantage associated with outsourcing to those markets. As a result, during the next several years there will be a continued eastward migration of IT and BPO services to ever lower cost destinations. Although relatively young markets today, Romania, Bulgaria, the Ukraine and Belarus are expected to become increasingly larger players in the global sourcing market in the coming years.

#### ***Sources:***

*CIA Factbook*  
*Government of Czech Republic*  
*Government of Poland*  
*Government of Hungary*  
*Nationmaster.com*  
*World Bank*  
*OECD*

More information about the offshore outsourcing industry can be found within neoIT's research center at [www.neoOffshore.com](http://www.neoOffshore.com). For more details about neoIT's offshore advisory and management services, please contact:

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