

Ukrainian IT sector: foreign establishment

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Since 1995, European and U.S. software companies have been faced with increased pressure from the market to reduce their development costs. At the same time, they are confronted with a growing scarcity of well-qualified programmers resulting in an upward pressure on salaries. This creates interesting prospects for the resourceful Ukrainian IT-sector.

Following the U.S., India, and Russia, Ukraine has the 4th highest number of computer programmers in the world. So, Ukraine was ranked 4th in the Brainbench 2006 Global Skills Report, which gives an account of the number of certifications on a global scale: Ukraine had 1,500 more than 5th placed Romania and some 700 less than Russia. This is one of the reasons why many foreign companies have developed an interest in Ukraine. Another motive is the salary level which is lower than that of other Eastern European countries, e.g. EU

IT-education in Ukraine

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The Ukrainian software sector is one of the few sectors in the economy that has not experienced a crisis as a consequence of the dissolution of the Soviet Union. Before 1985, the development in the sector was repressed by the Soviet system, thus the dissolution of the Soviet Union provided an opportunity for commercialisation and development. Since 1991, the IT-sector has experienced constant progress, though the society in general experienced a recession. The improved economic situation in the country is expected to initiate further growth and higher professionalism in the sector.

A brief historical overview
The Soviet Union, and Ukraine as a part of it, managed to organise and develop its educational system to reach a very high level of

members such as Poland and the Czech Republic.

Ukraine's large resource pool of qualified IT specialists and the low cost of labour make the country a competitive location for offshore programming companies. With a salary level amounting to just about ten to 20 percent of the level in Western Europe, the country proves that low costs and low technology is not necessarily contingent on each other.

Ukraine's software development industry is still underdeveloped, but it grows rapidly. Average annual growth of the IT export industry is about 50 percent; from 2002-2005, it developed from \$50-150 million, and it is expected to reach \$260 million in 2006.

The country's IT-exporting industry involves around 15,000 professionals employed by up to 1,000 companies, including 300-400 that do offshore software development. In spite of an annual supply of roughly 15,000 graduates with IT-related knowledge (including students with mathematical background), the industry is suffering from a lack of skilled labour spawned by constantly growing needs for

expertise, enrolling most of the population. Special focus was paid to specific sciences such as natural science and mathematics.

Even though the educational system has been suffering from under-funding during the past decade, Ukraine continues to possess considerable intellectual potential with its Ukrainian National Academy of Sciences, numerous scientific and technological institutes, universities and R&D companies. Ukrainian scientists have achieved world-class results within fields such as mathematics, physics, computer science, biology, electric welding, new materials and space science. Ukraine participates in the 'sea launch program'; it is the producer of the biggest cargo plane in the world - the 'Mriya' - and is also the producer of one of the best brands among space launchers, 'Zenith'.

Old traditions of education inherited from the Soviet era remain. This implies that graduates with a higher level of education do not have any deeper knowledge within a specific field. Typically, therefore, the graduates are not able to solve certain practical issues or do routine coding,

people in almost all sectors of the industry. Thus, IT-related educational branches become more and more popular, which is reflected by a growing number of students.

Another important issue to keep in mind is that although the industry is mainly formed by Ukrainian-owned firms, Western companies have actively been exploring the market since 2000. In addition, the Orange Revolution has made Ukraine an even more attractive place for Western companies, which has resulted in a number of establishments during the recent years.

The biggest foreign players are Ciklum with over 300 employees in three offices (Kyiv, Kharkiv, Donetsk), Celenia with 235 people (Kyiv), Validio (Kharkiv) and Lohika (Lviv, Odessa) with about 200 specialists in each. In comparison, the biggest local companies are Lviv-based



On the contrary, however, they have a broad knowledge and an understanding of the essence; they can quickly master new technologies, and, what is most important, they can cope with tasks that require knowledge from different domains as well as a creative approach.

Today

Kyiv, the capital of Ukraine, is with its population of almost three million people undoubtedly the country's science and software development centre. However, Kharkiv, Dnipropetrovsk, Odessa and Lviv are also cities with a strong IT-education and a big number of software developing companies.

After the collapse of the Soviet Union, the Ukrainian educational system has undergone a restructuring process - not only to adjust to a dramatically decreased government financing, but also to meet up-to-date requirements from the market. The number of graduates from IT-related disciplines such as computer sciences and applied mathematics constantly grows and is currently estimated at a level of 15,000 graduates per year.

SoftServe (600 employees) and Kiyv-based Softline (400), KM SOFT (250), Mirasoft and Spline Software (100 each). Additionally, there are quite a lot of Ukrainian and Western companies of a smaller size (usually around 30 employees), which are typically located at traditional scientific centres: Kyiv, Kharkiv, Lviv, Dnipropetrovsk, and Odessa.

Considering the volume of the global software development market, which has an estimated value of \$50 billion, it is foreseen that the software development industry in Ukraine will continue to grow, not only by attracting more clients for offshore software development, but also by establishing new Ukrainian subsidiaries of Western companies. Therefore, Ukraine itself is considered a potential software development hub - yet unexploited, but indeed very promising.

The challenger from Eastern Europe

BY KIM RISE
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For a long time, India has been the primary target area for outsourcing of software development. However, Eastern Europe - lead by Ukraine - offers an interesting alternative to large-scale Indian production.

In order to understand the full potential of Ukraine as a centre for software development, it is necessary to consider the history of Ukraine. At the time of the Soviet Union, each region had a specific role to play in keeping the country going. Ukraine was a centre for information technology and most of the software used by the government and military was developed here. At the same time, the focus of the educational system was on mathematics, technology and natural sciences. These two things combined lay the foundation for what is probably the best location for software development in Eastern Europe.

Ukraine

After the U.S., India and Russia, Ukraine has the largest number of computer programmers in the world. This is one of the main reasons why many western companies have developed an interest in Ukraine. The country's large pool of qualified IT-specialists and the low cost of labour make it a competitive location for offshore programming companies. With a salary level that only amounts to about ten to 20 percent of the salary level in Western Europe, Ukraine proves that low cost and low technology are not necessarily interrelated. Moreover, geographical and cultural proximity to Western Europe is appreciated by Western companies.

India

However, the mere number of transnational and global software organisations that have chosen India as their country of operation tells the story of a country that is no doubt the most popular place for software development. The Indian government has for a long time been promoting the country as the No.1 place for IT, and with

the world's second-largest English-speaking population, business-development in India is an obvious possibility for Western companies. However, the IT-scene is mainly occupied by the bigger actors of software development and it may be hard for small and medium-sized companies to get a foot in the door and play a part in India.

Nearshore

So why should IT-companies look to Eastern Europe, when India represents such an attractive alternative and perhaps a possibility to piggyback on the big players of the industry? For many companies, India seems the right choice, but Eastern Europe is not just a small piece in the big picture. The advantages of Eastern Europe can be summed up using the term 'nearshore'.

'Nearshore' is the practice of getting work done or services performed by people in neighboring or nearby countries. Geographic proximity makes travel and communications easier and less expensive. Furthermore, there are likely to be at least some commonalities between the cultures. With 'nearshore', companies have a better possibility of personal contact which may be decisive in solving complex problems. The degree of flexibility that results from the closer geographical and cultural ties and the fact that the time zone difference is limited may be vital for software development companies that work to suit customers' specific needs.

The choice

Companies have to make their own decisions regarding the importance of communication and geographical and cultural proximity. It is, however, evident that for software development companies, intensive communication with clients concerning complex, innovative and creative processes is of the essence. In contrast, if the company is handling standardised and simple assignments, the need for communication is less significant and it may therefore be possible to focus on price as the most important parameter. For newcomers to the international software development scene, it is important to be able to monitor and have confirmation that the relationship between the company itself and the offshore (or nearshore) company is developing as planned.