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ICT COUNTRY PROFILE

UKRAINE

2011

REGIONAL COMPETITIVENESS INITIATIVE

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I. EXECUTIVE SUMMARY

The purpose of this report is to provide an outside look at the ICT development in Ukraine and to identify the possibilities for regional ICT cooperation. The desktop research should reveal the national strategies, policies and action plans for ICT development from one side and the activities held in that direction from another. The overall goal of the report is to disclose the real picture of the local ICT market and identify the possibilities for regional cooperation.

In order to be as objective as possible the author of the report used different researches, analyses and statistics from international organizations (World Bank, World Economic Forum, United Nations, etc.) and domestic state agencies and profit and non-profit organizations. The respective sources are quoted as footnotes at the end of each section.

The ICT sector is one of the most dynamic industries in Ukraine. In view of the information society development the Ukrainian industries are now recognizing the need for investment in IT solutions in order to improve their performance. Leaders in this trend are public health, industry/production, human services, trade, transport, telecommunications, scientific research institute/education, finances/insurance, mass communication media/publishers.

Besides according to the annual review of IT outsourcing markets in 16 countries of Central and Eastern Europe, conducted by Central and Eastern European Outsourcing Association (CEEEOA) Ukraine's exports of computer software will exceed 1 billion USD in 2011 making up one-fifth of total figure in CEE region.

Ukraine is one of the biggest exporters of IT services in the world and has the highest revenues from the outsourcing market in Europe (around 800 million USD in 2010). The country has an enormous pool of IT specialists; only USA, India and Russia are ahead.

The country's Vice Prime Minister Serhiy Tyhypko, famous for his pro-IT views, announced that the government will continue to support the hi-tech industry and education in order to turn the IT into the fastest growing export-oriented sector of the country.¹

On grounds of the above mentioned one may conclude that there is a growing demand for IT services and products not only on the domestic market but also on the international market.

¹ <http://itonews.eu/en/news/news-ukraine/ukraine-doubles-it-outsourcing/index.html>

II. ANALYSIS OF THE ICT SECTOR IN UKRAINE

A. PAST, PRESENT AND FUTURE TRENDS

As part of the former Soviet Union Ukraine had strong traditions in cybernetics, mathematics and computer science. The fields of specialization of the country's ICT sector included production of space stations, global radio, microwave and satellite communication systems, aircraft, nuclear submarines and surface vessels, nuclear power generating stations and other achievements of modern engineering.²

According to the World Bank's report "ICT at a Glance" for the period 2000-2007 there were several major improvements in the ICT sector in Ukraine. These were:

- Increased access to ICT products and services;
- Increased ICT usage;
- Improved telecommunication infrastructure and implementation of new technologies;
- New computer equipment state authorities;
- Elaboration of distance learning courses for graduate and postgraduate education;

Furthermore in the same period Ukraine started to emerge as a low cost hub for high quality software development. A proof for that is that the amount of ICT services exported (i.e. % of total services exported) increased over 40%.

The main ICT exported services were IT consulting, system integration, software re-engineering, software testing and outsourcing.

Another positive tendency was the increase in foreign direct investments (FDIs).

The global economic and financial crisis had a negative impact on Ukrainian economy. Since the majority of the FDIs in Ukraine were European, in 2009 the FDI flows decreased by 49 % compared to 2008.³ The declining purchasing power was a challenge for the IT industry in Ukraine. At the end of 2008 sales in key market segments dropped by 20-50%. The forecasts were that the market volume will continue to decrease.

The IT companies took measures to limit the negative impact of the crisis by adapting their products and services to the new market demands. They focused on improvement and increase in the efficiency of the existing IT systems of their clients and started offering anti-crisis packages and new distribution models, like SaaS (software as a service), leasing and trial piloting.⁴

As mentioned before Ukraine is one of the most attractive outsourcing destinations. The Ukrainian outsourcing providers offer a wide range of services including software engineering, application engineering, ERP systems and IT consulting. The Ukrainian outsourcing providers can compete on the international market with the competitive labor costs, the high quality of the products and services they offer and the geographical proximity to the EU market. Despite the crisis in 2009 the IT outsourcing and custom software development services market continued their growth.⁵ In 2009 the country had the highest % of IT specialists (18,100) involved in the IT

² <http://www.eeca-ict.eu/eeca/index.php/en/eecacountries/ukraine/62-ukraine-ict-rtd-sector-overview->

³ <http://www.eeca-ict.eu/eeca/index.php/en/eecacountries/ukraine/62-ukraine-ict-rtd-sector-overview-> ; •National ICT Sector and Policy Appraisal report; http://www.vcc.columbia.edu/files/vale/documents/Ukraine_IFDI_Profile_April_13_2010.pdf

⁴ <http://itonews.eu/files/f1289403579.pdf>

⁵ <http://www.eeca-ict.eu/eeca/index.php/en/eecacountries/ukraine/62-ukraine-ict-rtd-sector-overview->

outsourcing and custom software development services industry in the CEE region. At the same time Ukraine has relatively low average rates in this field.⁶

COMPETITIVE INDEXES AND DATA⁷

	Population (m)	GDP \$ (b)	GDP per capita \$	WEF GCR index Rank (value)	GCR innovation Rank (value)	WEF GITR Rank (value)	E-gov. development Rank (value)	E-participation Rank (value)
Albania	3,2	11,8	3,7	88(3,94)	121(2,57)	87(3,56)	85(0.4519)	86(0.1286)
Armenia	3,1	9,3	3	98(3,76)	116(2,63)	109(3,24)	110(0.4025)	135(0.0429)
Azerbaijan	8,9	51,1	5,7	57(4,29)	61(3,16)	70(3,79)	83(0.4571)	68(0.1714)
BiH	3,8	16,9	4,5	102(3,70)	120(2,59)	110(3,24)	74(0.4698)	135(0.0429)
Georgia	4,4	11,7	2,6	93(3,86)	121(2,51)	98(3,45)	100(0.4248)	127(0.0571)
Kosovo	1,8	5,6	3,1	n/a	n/a	n/a	n/a	n/a
Macedonia	2,1	9,1	4,4	79(4,02)	97(2,88)	72(3,79)	52(0.5261)	55(0.2143)
Moldova	3,6	5,8	1,6	94(3,86)	129(2,49)	97 (3,45)	80(0.4611)	58(0.2000)
Montenegro	0,6	4	6,4	49(4,36)	45(3,48)	44(4,09)	60(0.5101)	76(0.1571)
Serbia	7,3	39,1	5,4	96(3,84)	88(2,93)	93(3,52)	81(0.4585)	135(0.0429)
Ukraine	45,8	138	3	89(3,90)	63(3,11)	90(3,53)	54(0.5181)	48(0.2571)

B. ICT ASSOCIATIONS

Ukrainian Association of Software Developers (UASWD) (<http://www.uaswd.org.ua/>)

Established in 2002 in order to support and promote the growth of the software industry and its affiliated industries. One of the main activities of UASWD is the promotion of quality methodologies especially CMMI. UASWD created a distance training center - "UkrSoftPro". It is also in close collaboration with the New Society (a group of 19 Verkhovna Rada Deputies which are trying to promote the development of the High Tech industry in Ukraine and prevent the "brain drain") for the formulation of new tax laws, which will aid in the growth of the software exports market. However, one may notice a current lack of information about UASWD on its home web page. This could be due to the site's transformation or restructuring of the organization.

IT Ukraine Association (<http://www.itukraine.org.ua/static.php?id=3&lang=eng>)

The association was founded in 2004 by leading Ukrainian software developing companies. The objectives of the Association include support of the development of the Ukrainian IT industry in accordance with the highest international standards and promotion of the industry on the international market.

The Association is a member of the World Alliance Information Technology and Services (WITSA) and the European ICT Association (EICTA).

⁶<http://bit.ly/fwu6cl>

⁷ http://www2.unpan.org/egovkb/global_reports/10report.htm; <http://www.worldbank.org/>

<http://gcr.weforum.org/gcr2010/>; <http://www.networkedreadiness.com/gitr/>

Ukrainian Hi-Tech Initiative - (<http://www.hi-tech.org.ua/Ukraine/index.html>)

Ukrainian Hi-Tech Initiative is a leading Ukrainian alliance in Offshore Software Development and IT industry. The organization promotes Ukrainian software development companies to the international markets through its partner network and marketing channels.

Association of Information Technologies Enterprises of Ukraine (<http://www.apitu.org.ua/english>)

This is an initiative of local IT companies aiming to resolve professional issues of common interest. 44 IT companies, among which are the biggest distributors, IT-manufacturers, retail chains, system integrators, and representative offices of foreign vendors, are members of the Association.

Ukrainian Internet Association (UIA) - (http://www.inau.org.ua/about_en.phtml)

The Association supports the Internet development in the country, as part of the global Internet network. Special attention is devoted to the protection of the legal interests of its members, providing them with consultations and legal support.

All Ukrainian Social Organization “IT-directors of Ukraine Community” (www.itdirector.org.ua)

The “IT-directors of Ukraine Community” is a public organization uniting IT professionals that are successful not only in the sphere of information technologies but also in the business. The motive uniting the members is the ambition to improve their qualifications; promote information technologies, their successful application as well as the benefits from the use of information technologies.

Ukrainian Software Consortium (www.ukrsoft.biz)

USC assists international customers in finding, evaluating, and building secure cooperation with Ukrainian IT companies. There is a lack of current information about the Consortium on its website.

Information Society of Ukraine (<http://www.isu.org.ua>)

The Information Society of Ukraine is a non-government, non-profit organization. The goal of its creation is to support the transition of Ukraine into an Information Society through cooperation between all social segments – government authorities, public, business and scientific communities.

C. PROFILE OF SELECTED COMPANIES

Most of the companies in the Ukrainian ICT sector are directly or indirectly related to the state. There is no dialogue between state and private companies and this creates difficulties for new companies and small and medium sized Enterprises (SMEs).

Besides, the government does not actively support the participation of private companies in ICT Research and Development (R&D) activities. However, private non-profit IT associations are trying to establish a dialogue with the Government and thence create a more favourable environment for the private companies. Ukraine is becoming an important global centre for offshore programming. A number of leading world ICT companies – such as Microsoft, Sun, IBM, Dell, Cisco etc - have established representative offices in Ukraine.⁸

Generally, the companies are oriented to vertical solutions development in the following spheres: health protection, industry and commercial services.

⁸ <http://www.scube-ict.eu/index.php/countries/ukraine/> National ICT Sector and Policy Appraisal report

According to acknowledged experts the market is in an active transformation stage, the market leaders are aware of the necessity for consolidation within Ukraine and cooperation with Russian and Byelorussian developers. The massive outflow of the IT specialists abroad has almost stopped; many of them are returning to Ukraine and establishing their own business.

Sales orders to Ukrainian software companies come mainly from the USA, Canada, Germany, France, Israel, and Russia.

Some of the most important Ukrainian companies are:

ISS (Information Software Systems) (www.issukraine.com) founded in 2000 as a company for Motorola outsourced engineering projects in Ukraine, and has been the exclusive partner for Motorola and Freescale (former Motorola Semiconductor sector) in Ukraine. In 2003 ISS became the first software company in Ukraine to be formally assessed in CMM Maturity level 3.

Miratech (http://www.miratech.biz/miratech/index.php?lang=&page_name=index) is the leading Ukrainian IT outsourcing provider. The company provides services to the banking, insurance, telecommunications and technology businesses, as well as technology consulting services and IT solutions for Government, educational institutions and commercial clients in travel, retail and transportation branches on local and international markets. The company gained CMMI Maturity Level 3 certification in 2003.

Levi9 Ukraine is the former Mirasoft Group, which is an informal union of two Ukrainian companies - Mirasoft-PRO Ltd. and Mirasoft Ltd. The company was one of the first private companies in the former USSR, which played an important role for the development of the outsourcing in the region. Levi9 is specialized in custom application development and software product engineering.

ADDITIONAL COMPANIES

Lists with the major IT companies can be found on: <http://it-catalogue.net/> and http://www.itukraine.org.ua/index.php?id_category=35.

D. ACADEMIC PROGRAMS

Ukrainian universities train a large numbers of highly qualified specialists in information-communication technologies, mathematics, and cybernetics.

National Technical University of Ukraine “Kyiv Polytechnic Institute” (www.kpi.ua)

Taras Shevchenko National University of Kyiv (www.univ.Kyiv.ua)

State University of Information-communication Technologies (www.duikt.edu.ua)

State University of informatics and Artificial Intelligence (www.sui.ai.edu.ua)

Ivan Franko National University of L’viv (www.lnu.edu.ua)

National university “Lviv Politechnics” (www.lp.edu.ua)

V.N.Karazin Kharkiv National University (www.univer.kharkov.ua)

State University of Information Communication Technologies (www.duikt.edu.ua)

National Technical University "Kharkov Polytechnic Institute" (www.kpi.kharkov.ua)

Kharkiv National University of Radio and Electronics (kture.kharkov.ua)

Donetsk National Technical University (www.donntu.edu.ua)

Donetsk State University of Informatics and Artificial Intelligence (www.iai.edu.ua)

Vinnitsa National Technical University (www.vstu.edu.ua)

Odessa National Polytechnic University (www.opu.ua)

Sumy State University (www.sumdu)

E. STATE AGENCIES AND ORGANIZATIONS

Ministry of Transport and Communications, State Agency on Science, Innovations and Information
(<http://www.mintrans.gov.ua/uk/press.html>)

The Agency is the central executive body responsible for the development and implementation of state ICT policies, usage of national information resources, effective use and protection of national information resources, etc. Additionally, the Agency coordinates the activities of the organization responsible for administration of the national Internet address space, including the domain .ua .

Ministry of Infrastructure – (<http://mintrans.gov.ua/>) no English version available

Ministry of Education, Science, Youth and Sports of Ukraine (www.mon.gov.ua)

The State Agency of Ukraine for Investments and Innovations (<http://www.in.gov.ua>)

The main responsibilities of the Agency include participation in the formation of the State policy in the sphere of investment and innovation activities; supporting its realization; creation of national innovation system for the effective implementation of the State policy; coordination of the work of central executive bodies in the field of innovations.

Ukrainian Business Incubators & Innovation Centers Association (UBICA-ICT)

This is a non-government organization founded in 1997 which aims to improve innovation and entrepreneurship policy and regulation. Its objectives are to introduce new technologies and innovations in national entrepreneurial support programs; increase the efficiency of institutions and improve the quality of services provided by them; develop infrastructure to support entrepreneurship in Ukraine and unite all these structures in a network for effective cooperation and so on. Either there is no available website of the Association or it is not easily accessible.

Kharkov Technologies, center of small business development (<http://www.kt.kharkov.ua>)

The mission of the Center is to assist to technology-oriented entrepreneurship, commercialization of science intensive domestic initiatives and development of innovation activity in Ukraine. Its activities include: financial support of innovation projects; consultancy services; development of innovation projects and business plans; marketing research.

IT Committee of American Chamber of Commerce in Ukraine (<http://www.chamber.ua>)

F. NATIONAL STRATEGIES AND POLICIES FOR ICT DEVELOPMENT

Two ministries– the Ministry of Infrastructure and the Ministry of Transport and Communications, State Agency on Science, Innovations and Information are overall responsible for the national ICT sector development.

The main strategic ICT related programs and policies are listed below:

- Laws **“About e-documents and e-documents circulation”** and **“About electronic digital signature”**
- **“National Programme of Informatization”** – Determines the most important national ICT projects.
- **“Strategy of innovation development of Ukraine for 2010–2020 under the conditions of globalization challenges”**.
- The Law of Ukraine **“On basic principles of information society development in Ukraine for 2007-2015”**.

The expected results are: accelerated implementation of ICT in the work governmental bodies, education system; data protection for citizens; creation of nationwide information systems, primarily in the sphere of health care, education, science, culture, environment protection; modernization and development of the national information infrastructure; increased usage of e-documenting, e-commerce.

- The Concept of **e-Government** in Ukraine until 2015

There is no consecutive national ICT policy strategy due to the frequent priority and funding changes. This creates a big gap between the goals and objectives of the ICT policies and the actual results.

Since 2000 Ukraine has started to build the legal framework for the transition to information society. In 2003, the World Bank awarded a \$5m loan to support the e-Development in Ukraine.

As a result of the efforts of the government there has been a significant improvement in the ICT sector. The ICT infrastructure has been modernized, ICT has been implemented in many other industries, pilot projects such as “e-Government” and “e-Region” have been successfully implemented, the Interbranch Council on Development of Information Society has been created. Despite the registered progress a lot more needs to be done. The innovation sector in Ukraine is still lagging behind.⁹

G. DONOR PROGRAMS IN THE IT SECTORS

East Europe Foundation (EEF), Eurasia Network/USAID

The Eurasia Foundation (EF) is a privately managed non-profit organization supported by the U.S. government and other public and private donors. The Foundation established the East Europe Foundation of Ukraine. It has 3 development programs - Local Economic and Social Development; Effective Governance; Corporate Social Responsibility and Responsible Philanthropy. The project **Innovations in E-Governance** is part of the Effective Governance Program. The project implements ICT in government authorities and municipalities. An e-documents

⁹ <http://www.eeca-ict.eu/eeca/index.php/en/eecacountries/ukraine>

exchange system and a special web resource, allowing citizen participation in policy making, prioritizing of local issues, and providing input into drafts of local ordinances and social and economic development programs, were introduced. After the success of the project in several municipalities in the Dnipropetrovsk region in 2009, the government of Ukraine decided to use this model in a nationwide program to implement e-governance. The project was implemented in three more districts of the Dnipropetrovsk region. Around 400 local government representatives were trained to work with the new information technologies.¹⁰

Another initiative supported by the international fund Eurasia/USAID is the **UkrSPIN** (no English version). The Ukrainian branch of Software Process Improvement Network (SPIN) is registered in the Software Engineering Institute of the Carnegie Mellon University. The goal of UkrSPIN is to organize communication and exchange of experience between IT professionals, interested in software process improvement, modern approaches for project management and quality improvement. The initiative manager (Evghenii Prorok) is a representative of the first CMMI appraised company in Ukraine – Kvazar–Micro.¹¹

WORLD BANK/ InfoDev

InfoDev is a partnership program within the World Bank Group which supports initiatives in the field of innovation, technology and entrepreneurship.

In 2008, thirteen youth organizations from Ukraine, Moldova and Belarus received grants from a World Bank led initiative supporting innovative development projects. The organizations are the winners of Youth Development Marketplace (DM) 2008, a competitive grant program of the World Bank.

It sponsored the Ukrainian Business Incubators & Innovation Centers Association (UBICA-ICT) and Kharkov Small Business Incubator (Kharkov Technologies).¹²

UNDP

UNDP's activity in Ukraine is focused on 4 areas: democratic governance; prosperity, poverty reduction and Millennium Development Goals (MDGs); local development and human security; and energy and environment. An example for a successful UNDP supported project in the field of IT is the **“Mobile School of Computer and Internet Training” project**. It was ranked second at the All-Ukrainian Fair of Innovative Technologies. The target group of the project are the people with special needs (physical and visual disabilities). The computer and Internet trainings are free. In addition, there are regular trainings on the psychological aspects of working with people with physical disabilities¹³.

European Union FP7-ICT support actions

SCUBE-ICT - "Strategic Cooperation in Ukraine, Belarus and EU in Information and Communication Technologies", is an innovative EU funded initiative aiming to upgrade the cooperation in the field of Information and Communication Technologies (ICT) between EU, Belarus and Ukraine in key areas of mutual interest. The project is a member of the Eastern Europe and Central Asia (EECA) Cluster, which is a joint effort of 3 FP7-ICT support actions (ISTOK-SOYUZ, SCUBE-ICT, EXTEND). The project was successfully completed in December 2010.

¹⁰ <http://eef.org.ua/index.php?page=catalog&id=25&lang=en>

¹¹ <http://www.spin.org.ua/modules.php?name>AboutUs> ¹² <http://www.infodev.org/en/Article.220.html>

¹² <http://www.infodev.org/en/Article.220.html>

¹³ <http://undp.org.ua/en/media/1-undp-news/1138-undp-supported-project-scores-second-in-the-all-ukrainian-fair-of-innovative-technologies>

ISTOK-SOYUZ - "Information Technologies to Open Knowledge for Eastern Europe and Central Asia" is a continuation of the ISTOK.Ru project (www.istok-ru.eu) implemented in Russia in 2006-2008, which aims to expand the collaboration in the field of ICT R&D and intensify the dialogue between the ICT research communities in Eastern Europe & Central Asia. The project activities will be done in collaboration with national stakeholders and other relevant co-operation projects.

EXTEND -"Extending ICT research co-operation between the European Union, Eastern Europe and the Southern Caucasus" supports the ICT research communities in this region through: (a) identifying suitable ICT research actors per country, training them on the procedural aspects of FP7 and providing assistance in developing networks across Europe and (b) defining future ICT research priorities that will enhance co-operation between the EU and EESC countries.

GIDEC (Geographic information technology for sustainable development in Eastern neighboring countries) – the project is under the framework of EU Tempus Educational Program. The goal of the project is the modernization of higher education in geographic information technologies in Armenia, Ukraine and Moldova in order to support sustainable development in these countries. The project partners include universities from Sweden, Spain, Germany, Armenia, Ukraine and Moldova. The Kyiv National University of Construction and Architecture is part of the project since October 2010. The duration of the project is three years.¹⁴

H. EXHIBITIONS, CONFERENCES AND EVENTS

The major exhibitions and trade fairs held in Ukraine are given below:

- **Annual IT Directors Association Congress** (14-15 April 2011)
- **EEBC 2011 9th International Exhibition and Conference for Broadcasting, Digital Technologies and Content, and expoTEL 2011** – the 9th International Exhibition and Conference for the Telecommunications Industry. (organized by Techexpo,LLC)
- **IT Expo** – The business Forum is oriented towards the leading specialists from the information and communication technologies (ICT), representatives of the high and middle class of business, governmental structures, and also executives of the marketing departments, analytics of the domestic and world market of telecommunications and information technologies, representatives of the banking sector. (23-26.11.2011)
- **34th Annual Conference & Technology Showcase** – the event is oriented towards state technology professionals and the private sector technology organizations serving them. The conference includes training opportunities for those technology professionals responsible for managing and operating state networks and data centers. There will also be an e-leadership session. (28.08.2011-01.09.2011)
- **Forum Management Technologies** - An annual platform for professional managers, consultants, coaches and research experts in the management field. (30.05.-01.06.2011)

¹⁴ <http://gidec.com.ua/gidec-in-ukraine>

I. IT NEWS: SOURCES OF INFORMATION

The development of free and objective media in Ukraine is lagging behind. A positive trend is that around 30% of the population takes the online press as a more reliable source of information.¹⁵

The main IT focused media are:

Computer Review weekly - weekly magazine;

Home PC – monthly magazine;

ITC Online (www.itc.ua) - features full-length copies of every article that ever appeared in ITC publications dating back to 1999;

Hot Line (www.hotline.ua) – a price internet-catalogue, information is up-dated every day.

ITC Online (www.itc.ua) – a leading Ukrainian portal about IT.

Computer World Ukraine (www.computerworld.com.ua)

Business class magazine (www.aq.kiev.ua)

ADDITIONAL INFORMATION

A list with Ukrainian newspapers and media can be found on <http://www.abyznewslinks.com/ukrai.htm>.

¹⁵ <http://www.irex.org/resource/ukraine-media-sustainability-index-msi>

III. IT FOR OTHER INDUSTRIES IN THE COUNTRY

There is a high level of awareness regarding the importance of implementation of ICT in other industries in order to raise the country's competitiveness and there are a lot of initiatives in this direction.

An interesting initiative in that direction is the Ukrainian Association for Computer Medicine (UACM). UACM is a national member of the International Medical Informatics Association (IMIA).¹⁶

At research level Ukraine is actively collaborating with the EU in the field of ICT (supercomputing, microelectronics, e-Applications). Despite this Ukraine still hasn't exploited this opportunity efficiently enough.¹⁷

The web platform IT2Business (<http://it2business.org/default.aspx>), an online catalogue with successful practices and Information Technology (IT) solutions for the business, is aimed at increasing the ICT competitiveness in Eastern Europe and Caucasus. The platform is designed and launched by USAID funded RCI (Regional Competitiveness Initiative) project through European Software Institute - Center Bulgaria and Eastern Europe to bring together the leading ICT companies in the region and their customers and suppliers. It fosters the direct contact between IT and other economic sectors. This enables the promotion of the local industry and the region as a whole. Currently there are 51 companies and 117 products/solutions registered in the platform. Two Ukrainian companies are part of the online IT2Business catalogue.

¹⁶ <http://uacm.kharkov.ua/eng/index.html>

¹⁷ <http://www.eeca-ict.eu/eeca/index.php/en/eecacountries/ukraine/62-ukraine-ict-rtd-sector-overview->

IV. QUALITY TRENDS

The main organizations working for the promotion of quality standards are:

- Ukrainian Quality Association (www.uaq.org.ua) which is aimed at promoting quality standards like ISO in Ukraine.
- Ukrainian discount club – UDC (www.udc.com.ua) created in 2000. The club is focused on the promotion and application of the recent quality standards. Every year a European Quality Week is organized.

Working in compliance with the international quality standards is one of the obligatory prerequisites for every country in order to develop a competitive ICT industry and gain strong positions on the international market. Ukraine is trying to establish itself as one of the best software outsourcing locations. A look at the industry standard measures of quality and reliability reveals that some of the leading companies in the country have already achieved quality certifications (ISO 9001, ITMark, CMMI). Nevertheless the implementation of such standards and models is expensive and unaffordable for most of the companies. For that reason they are looking for funding opportunities in order to start the implementation of quality standards and models.

The Ukrainian IT companies are fully aware of the benefits to be part of the common capacity fund of ICT training and certification providers in Eastern Europe.

In this direction the web platform Quality2IT – Eastern Europe Training and Certification Network, provides excellent opportunities to participate in the establishment of a common regional ICT brand based on high quality and innovations. The platform is designed and launched by USAID funded RCI (Regional Competitiveness Initiative) project through European Software Institute - Center Bulgaria. For the time being there are 19 companies with 90 services registered in the platform. There is 1 company in the Quality2IT online portal.

V. SWOT ANALYSIS

The SWOT analysis of Ukrainian ICT environment shows conclusions as follows:

Strengths

- Companies are already aware of internationally recognized quality standards and models
- Awareness of the need for software process improvement
- Availability of resources and IT specialists
- R&D focus of Ukrainian IT industry
- Strong fundamental education
- Experience with complicated projects
- Export-oriented industry
- The country has the image of an attractive outsourcing destination
- Naturally developed industry around centers of excellence in Kiev, Kharkov, Donetsk, Lvov, Dnepropetrovsk.

Weaknesses

- Lack of cooperation between business support organizations
- Big share of software piracy
- Big share of “black market” companies
- Lack of real statistics regarding market development
- Lack of business and management skills
- Lack of local quality certification authorities
- Absence of joint international marketing initiatives
- Lack of financial resources for IT companies

Opportunities

- Implementation of world recognized models and practices
- The IT industry has great potential for development
- The government is interested in software process improvement methodologies
- Existence of funds, which are available for investing in software companies
- Support of world organizations (USAID, UNDP, World Bank, EBRD...)
- Large emerging global IT market for offshore development
- Development of own products
- Clustering with other competitive sectors in Ukraine and the region

Threats

- Lack of a domestic market to enable the local IT industry to develop expertise
- Lack of support programs for industry promotion
- Lack of a coherent industry image
- Political instability
- Brain Drain of leading IT specialists

CMMI and ITMark implementation can support the following opportunities:

- Implementation of world recognized models and practices
- Increased understanding of software process improvement methodologies
- Tendency of companies to improve the IT image of the country
- Clustering with other competitive sectors in Ukraine and the region

and positively affect the following weaknesses:

- Lack of business and management skills
- Lack of local quality-certification authorities
- Credibility not established in the eyes of the International IT market yet
- Lack of cooperation between business support organizations

For further information please do not hesitate to contact the RCI IT team in ESI Center Eastern Europe, office@esicenter.bg, tel. +359 2 4899740