



STIKK

SHOQATA PËR TEKNOLOGJI TË INFORMACIONIT
DHE TË KOMUNIKIMIT TË KOSOVËS

KOSOVO ASSOCIATION OF INFORMATION
AND COMMUNICATION TECHNOLOGY

SOUTH-EAST EUROPE IT
INDUSTRY BAROMETER
(SEE ITIB) 2015

IT BAROMETER 2015 KOSOVO



JULY 2015

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THIS REPORT SHOWS RESULTS FOR KOSOVO ONLY AND IS PART OF THE SOUTH EAST EUROPE IT INDUSTRY BAROMETER 2015 WHICH CAN BE FOUND AT WWW.STIKK-KS.ORG.

“

I THINK IT'S FAIR TO SAY THAT PERSONAL COMPUTERS HAVE
BECOME THE MOST EMPOWERING TOOL WE'VE EVER CREATED.
THEY'RE TOOLS OF COMMUNICATION, THEY'RE TOOLS OF
CREATIVITY, AND THEY CAN BE SHAPED BY THEIR USER.

BILL GATES

”

CONTENTS

| | |
|---|-----------|
| 1. ABBREVIATIONS | 4 |
| 2. EXECUTIVE SUMMARY | 4-5 |
| 2. INTRODUCTION | 6 |
| 3. PROJECT METHODOLOGY | 7 |
| CHAPTER 1: RECENT ICT TRENDS IN KOSOVO | 8-13 |
| CHAPTER 2: SEE ITIB 2015 COMPARATIVE ANALYSIS | 14-36 |
| Ch2.1. General information about the companies | 15 |
| Ch2.2. Export | 22 |
| Ch2.3. Statistics | 26 |
| Ch2.4. Human resources | 30 |
| Ch2.5. Forecasts | 34 |
| 5. CONCLUSIONS..... | 38-39 |
| 6. ANNEXES | 40-48 |
| 6.1. Annex 1 | 40-41 |
| 6.2. Annex 2 | 42-45 |
| 6.3. Annex 3 | 46-48 |
| 7. REFERENCES | 49 |
| 8. ANNEX 4: Questionnaire | 50-64 |

ABBREVIATIONS

BPO - Business Process Outsourcing

ESI - Center Eastern Europe

EU - European Union

ICT - Information Communication Technology

IDC - International Data Corporation

IT - Information Technology

PCT - Patent Cooperation Treaty

PMP - Project Management Professional Certification

SEE ITIB - South East Europe IT Industry Barometer

SME - Small Medium Enterprises

STIKK - Kosovo Association of Information and Communication Technology

WB countries - Western Balkan countries

WEF - World Economic Forum

EXECUTIVE

In 2014 a unique methodology was developed as basis for the realization of the first IT Industry Barometer in South East Europe (SEE ITIB 2014). The main purpose of such barometer was to provide information and in-depth analysis of internal resources, capacities, as well as external market analysis between six Western Balkan countries and their IT associations. A common questionnaire was developed in order to get information that is comparable.

In 2015, the project has continued, taking the previous methodology as basis. The given reports have been prepared by the National IT Associations by using the questionnaire in the respective internal markets.

Analysis have shown that ICT companies within all targeted countries are dominantly in domestic ownership, are members of some ICT Associations, and mostly oriented towards software and IT services. Most used operating system is Windows, with a strong presence of Linux usage.

SUMMARY

Most of the companies in Kosovo target national clients to do business. Analysis have shown that companies see low prices, high quality and technical know-how as their core competitive advantages. Kosovo sees the German-speaking markets as the greatest potential to do business with. Export barriers are seen by the companies as one of the most problematic points when it comes to the external markets. Nevertheless, the analysis have shown that companies see the lack of government support and lack of branding of local IT industry abroad as highly problematic.

A very important subject for the companies are their employees. Analysis have shown that companies are planning expansion through adding additional employees to their teams. However, companies are facing the need to replace employees who leave their workplace in a one-year span. This replacement of workforce needs an average of 3 months of adjustment, which is something that a company has to expect.

Last part of the analysis is focusing on employees and the specific incomes within the ICT industry. Statistics have shown that among highest paid jobs are Developers, Project Managers and System Administrators. Kosovo companies do plan to increase the number of employees for 10%. At the same time, IT experts can expect an increase approximately of 10% in their salary, while for other positions no change in salary is foreseen. On one hand, the national economic situation is seen as a major negative impact, and as such, this creates difficulties in the internal company projections for the upcoming years. Additionally to that, "brain drain" is also shown as very negative effect for their business, because it creates lack of skilled/qualified workforce. On the other hand, intensified competition is seen as a positive impact.

INTRODUCTION

Information and Communication Technologies (ICT) represents one of the most important drivers of innovation, growth and competitiveness of national economies worldwide. As a direct result of the current economic necessities and ongoing technological developments, the ICT industry is undergoing a number of fundamental challenges. In order to remain relevant to their clients and customers, it is increasingly important for businesses to monitor developments closely, adapting essential products, and services to meet new marketplace demands.

The main goal of the “South East Europe IT Industry Barometer” (SEE ITIB 2015) are to support the increase of export capacities of ICT companies in South East Europe. The project aims to collect basic information on ICT companies in the Western Balkan region and to provide an insight of the value of the national ICT market, as well as their competitiveness. The project includes five countries: Albania, Kosovo, Macedonia, Montenegro, and Serbia.

This project is conducted on the basis of the first SEE ITIB’s methodology that was conducted in 2014. This study is providing information and in-depth analysis of internal resources, capacities, as well as external market analysis between five Western Balkan countries and their IT associations.

This report represents regional analysis based on the data that are previously collected in five targeted countries and contain the following:

- General overview on IT development in the region, based on previous national IT analysis, its characteristics and trends;
- Comparative analysis for five WB countries;
- Recent export trends between WB countries;
- Analysis on Human Resources;
- Qualitative analysis on recent trends in the IT industry, including recommendations.

Additionally, the SEE ITIB report is providing qualitative analysis on recent trends in ICT within targeted countries, with main conclusions and recommendations for further development in the future.

PROJECT METHODOLOGY

The SEE ITIB report contains comparative analysis of the recent trends in ICT sector among five targeted countries, with the special focus on their export capacities and practices. In order to reach the project goals, comparative analysis that is providing in-depth analysis of the development level of the IT industry between the targeted countries were implemented. Comparative analysis (benchmarking) represents a method used in qualitative analysis based on cross-national research on specific area, and represents a method that is 'connecting' quantitative and qualitative analysis on targeted topic.

The survey included 40 companies from Kosovo. Whereas, 50 companies from Montenegro, 20 from Serbia, 9 from Albania, and 7 from Macedonia have completed the survey. The total number of companies from the whole SEE re-gional which have completed the survey is 126.

The questionnaire consisted of 35 questions divided into five different sections:

Section 1: General information about the company;

Section 2: Export;

Section 3: Statistics;

Section 4: Human Resources;

Section 5: Projections.

The results are prepared in the form of a report which contains qualitative and comparative analysis of recent IT industry trends in 2015 for the Western Balkan countries.

CHAPTER 1

RECENT ICT TRENDS IN KOSOVO

“ICTs act as a vector of social development and transformation by improving access to basic services, enhancing connectivity, and creating employment opportunities. In these ways ICTs affect how people live, communicate, interact, and engage among themselves and with their governments”.

- WEF, Global Information Technology Report, 2015

ICT in Kosovo slowly started re-development in 1999. From being almost non-existent 15 years ago, Kosovo IT companies started offering wide range of ICT services to their customers, both local as well as to foreign companies. Interesting fact backing up the fast growth was that Kosovo has the youngest population in Europe, with advanced know-how. Today, public and private education in the field of IT are performed through companies, such as CISCO and Microsoft, which are certified partners in offering crucial education to thousands of young Kosovars, the demand for which is still increasing.

Identifying reliable sources of systematic market data on Kosovo ICT Industry is extremely problematic. Most of the information is based on custom surveys, different methodologies that make difficulties in comparison of results. The most accurate recent analysis of the ICT Kosovo market size and segmentation comes from the IDC study of 2012, as well from other trusted sources.

| | ONGOING FROM | NEW FROM | ESTIMATES FROM | TOTAL |
|-----------|--------------|-----------|----------------|------------|
| 2012 | 12,807,680 | | | |
| 2013 | | 1,204,750 | | 14,012,430 |
| 2014 | | | 15,243,230 | |
| 2015 | | | 13,167,130 | |
| 2013-2015 | | | | 42,442,790 |

Ministry of Finance - ICT budget for Kosovo, 2012-2015

A high number of Kosovo ICT companies (88%) are domestically owned, 2% have majority of domestic ownership, 3% have equal ownership between domestic and foreign owners, and 8% are foreign-owned companies. It is important to note that there are more ICT companies of mixed domestic-foreign ownership and foreign majority ownership than non-ICT companies which are almost entirely domestically owned. Therefore, the positioning for foreign investment through ownership acquisition is already present in the ICT sector, but not that much in other sectors.

| COMPANY OWNERSHIP | ICT 2010 | ICT 2013 | NON-ICT 2013 |
|---------------------------------|----------|----------|--------------|
| | % | % | % |
| 100% Kosovo owned companies | 80.2 | 87 | 95 |
| Most of company is Kosovo owned | 0 | 2 | 1 |
| 50-50 Kosovo owned/foreign | 3.3 | 3 | 1 |
| 100% foreign-owned companies | 6.6 | 8 | 1 |
| Other/refused | 9.9 | - | - |

Companies' ownership 2010-2013

CLIENTS & LOCATION

The ICT sector consumers in Kosovo consist of telecommunication, finance, government, and individual buyers/home users. The sector is heavily affected by international organisation present in Kosovo, either by offering service directly their operational needs, or by implementing various donor projects supported by these international players. A high percentage of client distribution groups show close correlation to the income share of these groups.

Vast majority of ICT companies (87%) have their clients located in Kosovo, with a small number of businesses (13%) having clients located abroad (up from 3.3% in 2010). Non-ICT companies have a larger share of their clients in Kosovo (93%), compared to ICT companies, and a very small share in the Balkan region (3%) and Europe/worldwide (4%).

The difference of income corresponds closely to the location of clients, and it shows that ICT companies realise higher revenue share (13% cumulative) from customers abroad than non-ICT companies (7% cumulative).

Finally, ICT companies do not pursue aggressive marketing and sales to get to new customers. In fact, most of them (34%) wait passively for clients to contact them, followed by companies who get business leads through their web sites (19%) and through phone calls (19%). This is an indicator of the general lack of sales and marketing skills among ICT companies.

SUPPLY WITH ICT PRODUCTS AND SERVICES

ICT companies have greater dependence on imports than non-ICT companies when it comes to getting ICT services and product supplies. ICT companies get IT services and products in Kosovo in a little more than half of the cases (59%), close to one third (29%) in Europe and worldwide and just 12% in the Balkan region. On the other hand, non-ICT companies are primarily supplied with IT Products and Services in Kosovo (95%), with just a small portion supplied from abroad (2% in Balkans and 3% in Europe and worldwide).

A recent STIKK study shows that the ICT market in Kosovo has not changed significantly in the period 2010 - 2013, which is to say it has not developed as expected. The growth forecasts by the companies are grim, reflecting the reduced spending primarily by the government, lack of new entrants or major investments in telecommunications, and the decrease of purchasing power of retail buyers in Kosovo.

“No money” (meaning no buyers) and “No work” at aggregate 28% of the overall business sample in Kosovo, followed by the complaint on “Competition” at 21%, indicate that the economic recession might be sneaking into Kosovo too, and that businesses are struggling due to lack of work. The IT services and BPO seem to be the only segments promising some growth.

Looking over IT sector as a whole, Kosovo's IT spending will increase 2.6% in 2012 and that it will continue to grow through to 2016, with traditional IT segments (IT services, software, computers and peripherals) performing better than networking (IDC, 2012).

KOSOVO ICT MARKET / SWOT ANALYSIS

Strengths

Stable economic development in the last decade.
Consistent ICT-related legislation and strategic framework in place.
Well organized private sector with good international representation.
Mostly vendor-based, training and certification capacity. Growing ICT Market.
Good interconnectivity between municipalities, combined with availability of basic hardware and software.

Weaknesses

E-government services are still underdeveloped.
ICT employees in municipalities are technically oriented. They lack e-service specific management and organizational capabilities.
Insufficient coordination between the public institution and public institutions and private companies.
Weak coordination between training and education stakeholders.
Low level of public services delivery.
Insufficient awareness and implementation of process-based methodologies.
Lack of objective data and benchmarking of the Kosovo ICT Sector.

Opportunities

Availability of small number, but well educated professionals graduated abroad.
Youngest population in Europe.
Rapidly developing mobile and internet infrastructure.
Good level of cooperation among companies and between companies and universities.
Young people are eager to learn and to be trained and certified on international recognized programs.
Effective cooperation between private sector and government.

Threats

Public procurement practices do not contribute to sector development.
Incomplete legal and normative environment on municipal level does not support e-services delivery form the municipality to companies and citizens.
Insufficient cooperation between public and private stakeholders.
The ICT-related strategies and normative framework have not been sufficiently implemented.
ICT graduates supply doesn't meet the demand of the industry.
Low visibility of the Kosovo ICT Sector.

Source: ESI Center Eastern Europe, ICT country profile-Kosovo, Regional Competitiveness Initiative
http://www.rciproject.com/itprofiles_files/ICT_Country_Profile_Kosovo_2013_1.1.pdf

CHAPTER 2

SEE ITIB 2015 COMPARATIVE ANALYSIS

2.1. GENERAL INFORMATION ABOUT THE COMPANIES

OWNERSHIP STRUCTURE

In the region, the greatest number of companies with dominant domestic ownership is present in Kosovo (91.2%).

COMPANIES' PRODUCTS AND SERVICES

The majority of companies in Kosovo are providing software products (70%).

MEMBERSHIPS IN ICT ASSOCIATIONS

In Kosovo, the majority chose STIKK to be part of (70%). Following is AITA with 7.5%, other associations with 2.5%, and 15% declared of being part of no association.

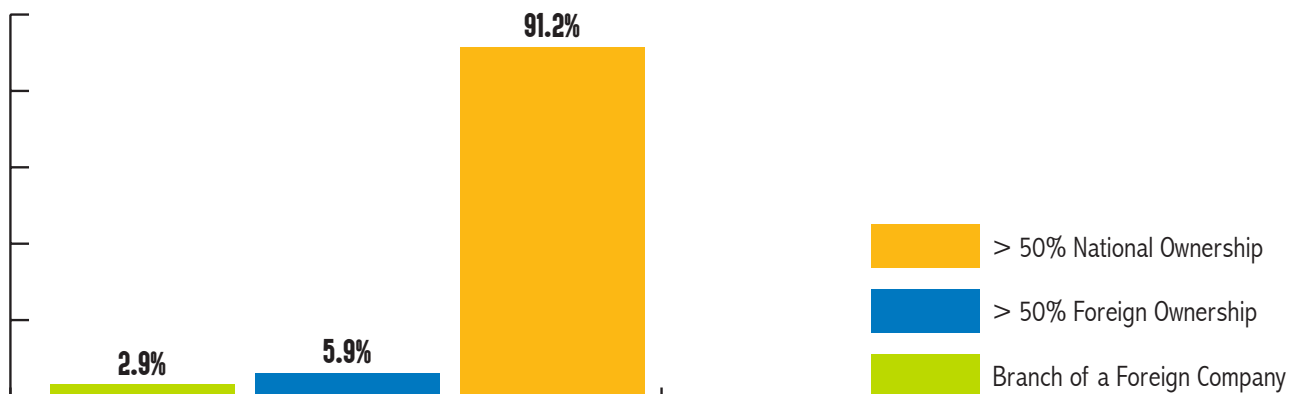
YEAR OF FOUNDATION

ICT companies from Kosovo are representing newly established companies, where 58.8% is established after 2010.

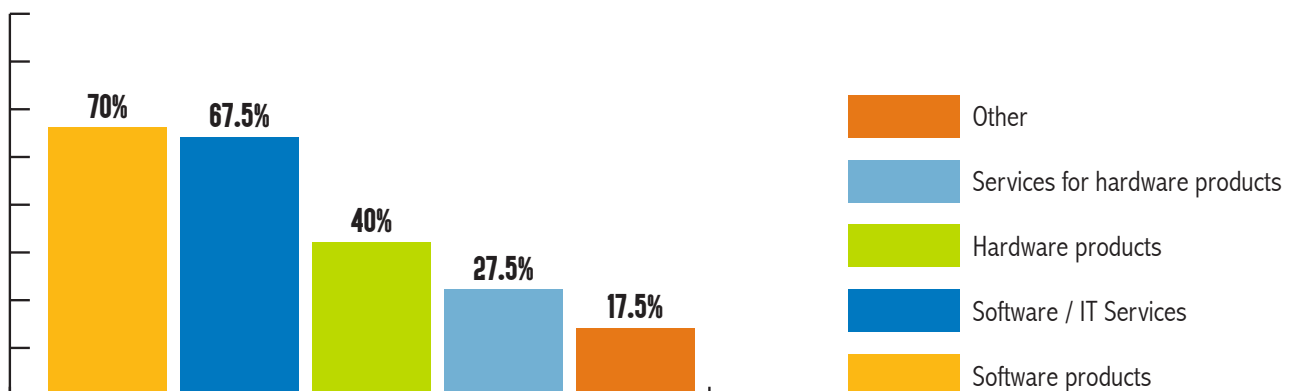
OPERATING SYSTEMS AND PLATFORMS

80% are using Windows, while 52.5% use Linux.

OWNERSHIP STRUCTURE



COMPANIES' PRODUCTS AND SERVICES



MEMBERSHIPS IN ICT ASSOCIATIONS

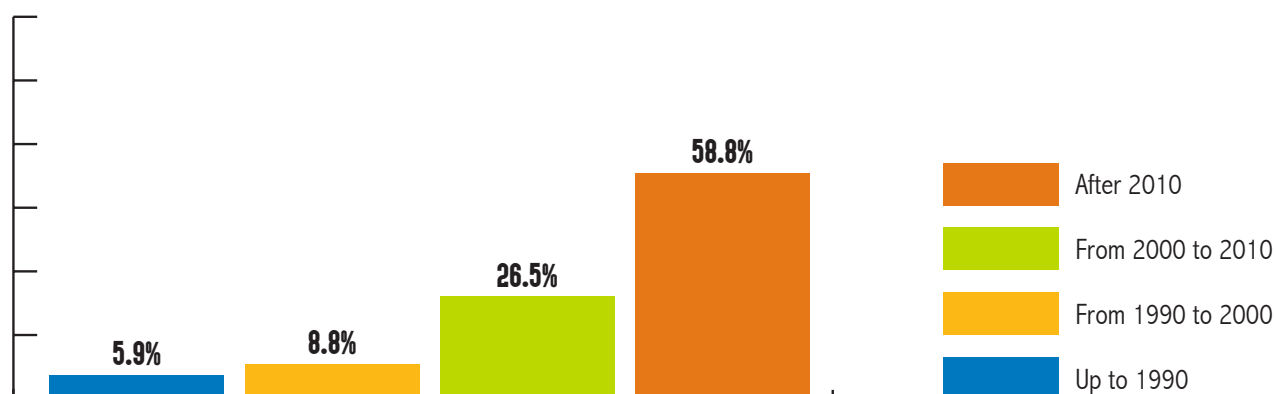
KOSOVO ICT ASSOCIATION (STIKK)
70%

NO MEMBERSHIP
15%

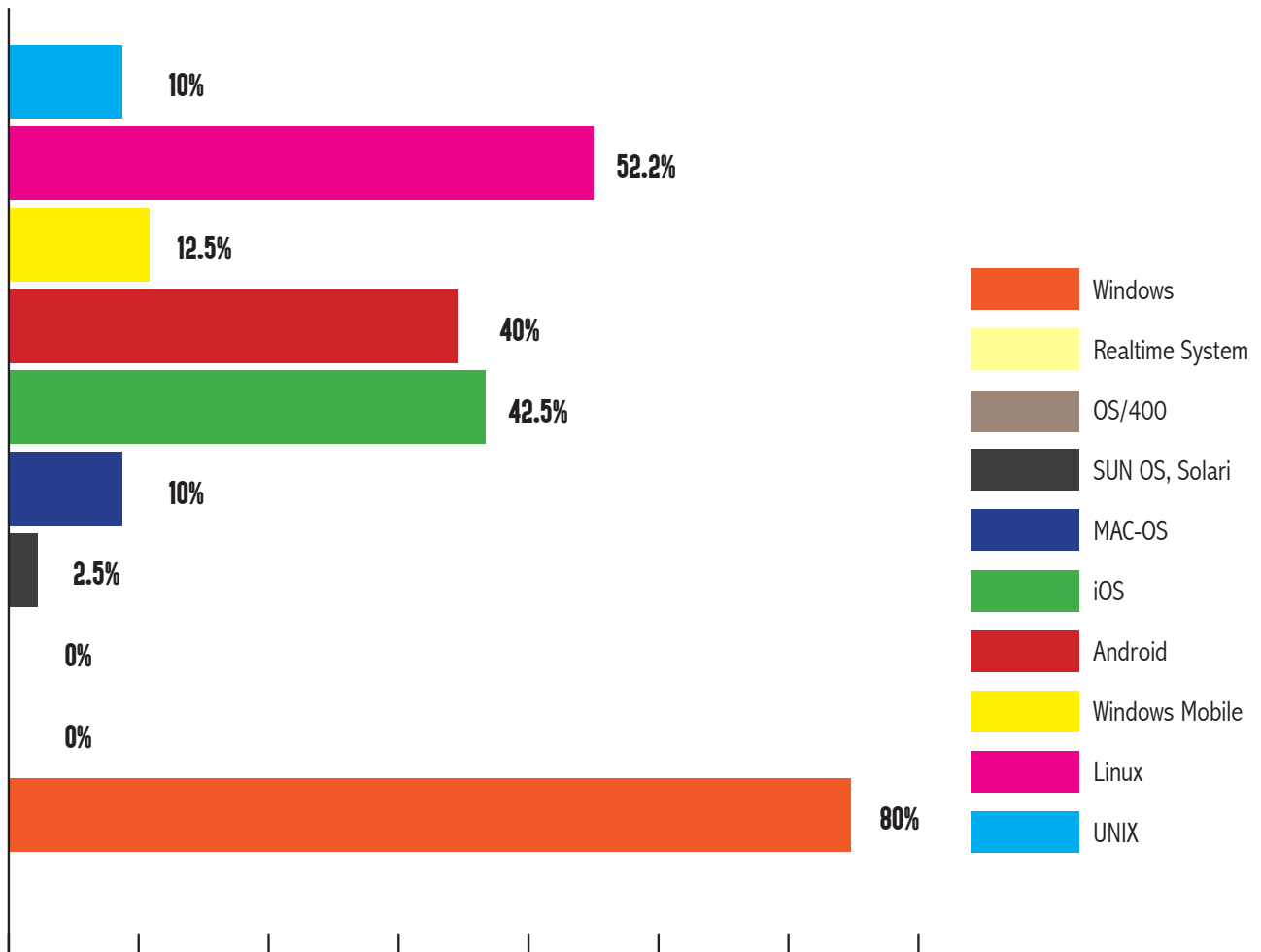
ALBANIAN ICT ASSOCIATION (AITA)
7.5%

OTHER
2.5%

YEAR OF FOUNDATION



OPERATING SYSTEMS AND PLATFORMS



PROGRAMMING LANGUAGES AND DEVELOPING TOOLS

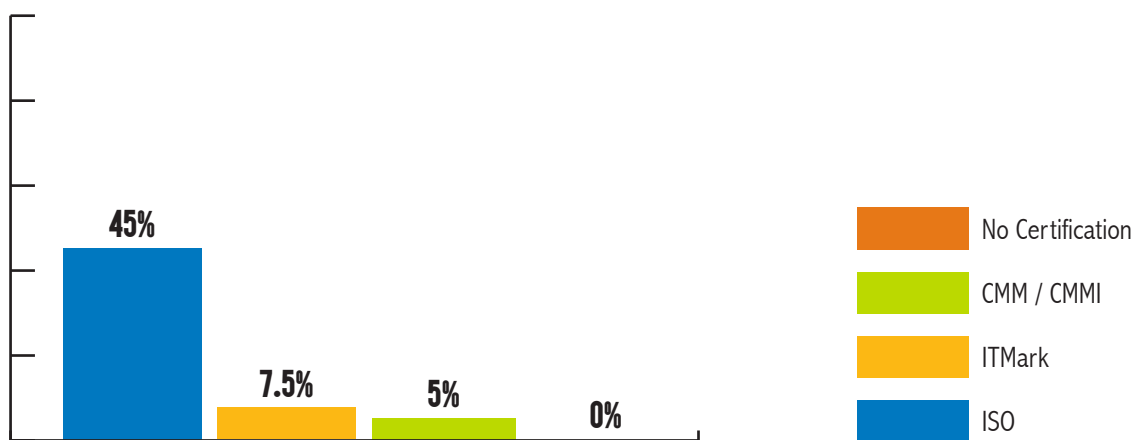
| No. | Programming Languages and Development Tools | Percentage |
|-----|---|------------|
| 1 | ABAP4 | |
| 2 | Assembler | 5 |
| 3 | Visual Basic, VBA etc. | 20 |
| 4 | Basic - Visual Basic, VBA etc. | |
| 5 | Basic -C | 27.5 |
| 6 | Basic -C++ | 37.5 |
| 7 | Basic -Clipper | 5 |
| 8 | CL/400 - AS/400 Control Language | |
| 9 | Delphi | 2.5 |
| 10 | Cobol | |
| 11 | dBase | 2.5 |
| 12 | Fortran | |
| 13 | Foxpro | |
| 14 | ESQL/C | 2.5 |
| 15 | HTML, XML | 60 |
| 16 | Java, JavaScript | 57.5 |
| 17 | Lips | |
| 18 | JCL | 2.5 |
| 19 | Macro Languages– others | 2.5 |
| 20 | Lotus Notes Script | |
| 21 | .NET | 50 |
| 22 | .Objective C | 22.5 |
| 23 | Pascal | |
| 24 | Perl | 5 |
| 25 | PHP | 55 |
| 26 | PL/SQL | |
| 27 | Powerbuilder | 2.5 |
| 28 | Python | 10 |
| 29 | Script Languages – others | 10 |
| 30 | Shell,K-Shell,Bourne-Shell | 5 |
| 31 | Tcl/Tk | |
| 32 | Visual Objects | 12.5 |
| 33 | Other | 2.5 |

DATABASE TECHNOLOGIES

| No. | Database Technologies | Percentage |
|-----|-----------------------------------|------------|
| 1 | Access | 32.5 |
| 2 | Adabas | |
| 3 | BTrieve | 2.5 |
| 4 | DAO | |
| 5 | DB2 | 5 |
| 6 | DB/400 | |
| 7 | IDMS | |
| 8 | Informix | 2.5 |
| 9 | Interbase | |
| 10 | ISAM | |
| 11 | JDBC | 2.5 |
| 12 | Lotus Notes | |
| 13 | MS SQL Server | 60 |
| 14 | mSQL / MySQL | 55 |
| 15 | Object Store | |
| 16 | ODBC | 10 |
| 17 | Oracle | 20 |
| 18 | Paradox | |
| 19 | Progress | 2.5 |
| 20 | RDB | |
| 21 | SQL | 40 |
| 22 | VSAM | |
| 23 | xBase - dBase, FoxPro, Clipper... | |
| 24 | Sybase | 2.5 |
| 25 | Base - dBase, FoxPro, Clipper... | 2.5 |
| 26 | Other | 5 |

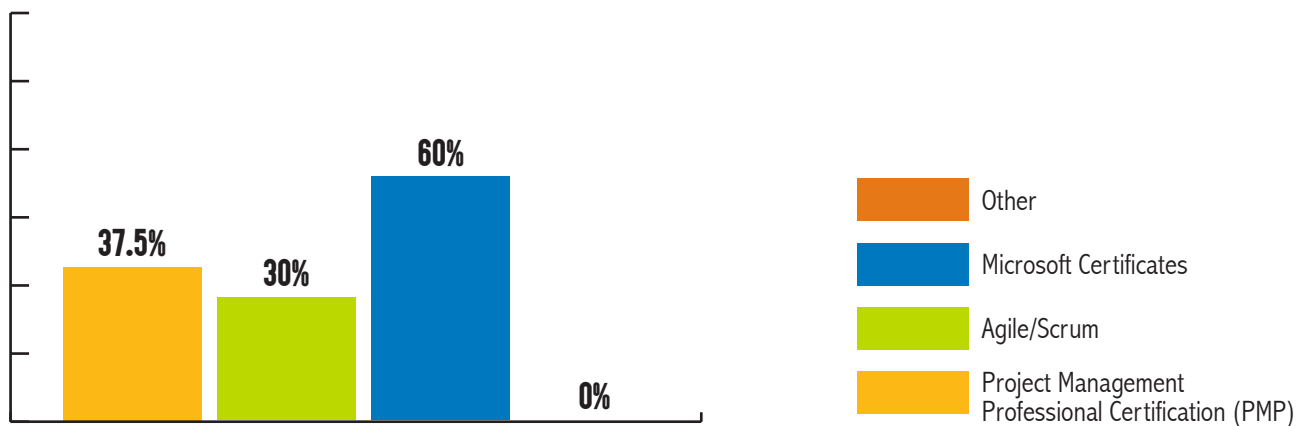
QUALITY STANDARDS

Is your company certified according to one of the following quality standards?



TECHNICAL CERTIFICATIONS

Is your company certified according to one of the following quality standards?



2.2. EXPORT

INTERNATIONAL CLIENTS

In Kosovo 65.6% of the companies do business for the international clients.

WAYS OF EXPORTS

Kosovo is exporting directly from the country to the clients abroad (71.4%).

CORE COMPETITIVE ADVANTAGES

Major core competitive advantages in the international markets are: price, quality and technical know-how.

FOREIGN MARKET POTENTIAL

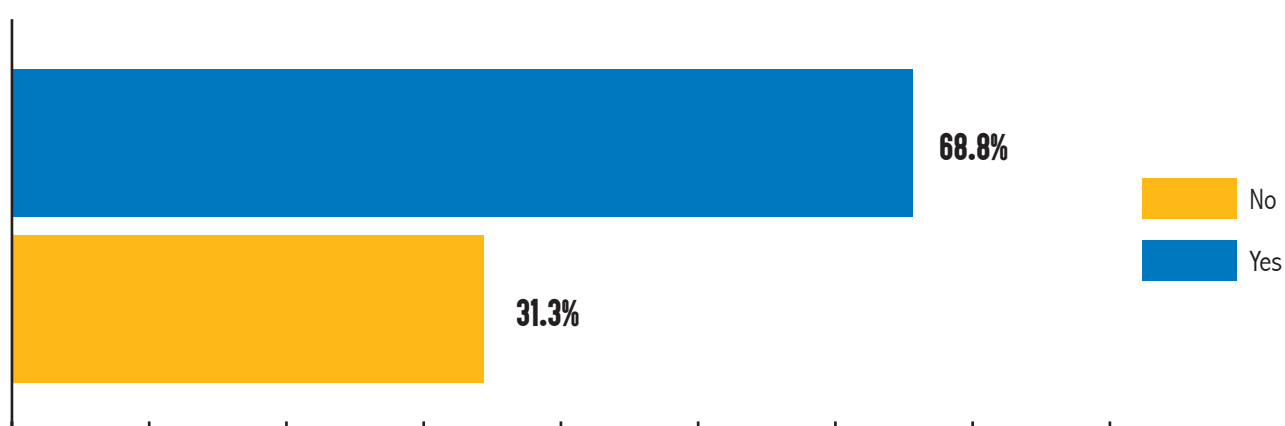
Majority of ICT companies have the see the German-speaking markets as key potential market for future export activities (59.2%).

FOREIGN LANGUAGE SKILLS

English language represents a dominant foreign language that is present in targeted ICT companies from Kosovo. Additionally, employees mostly have knowledge of German language.

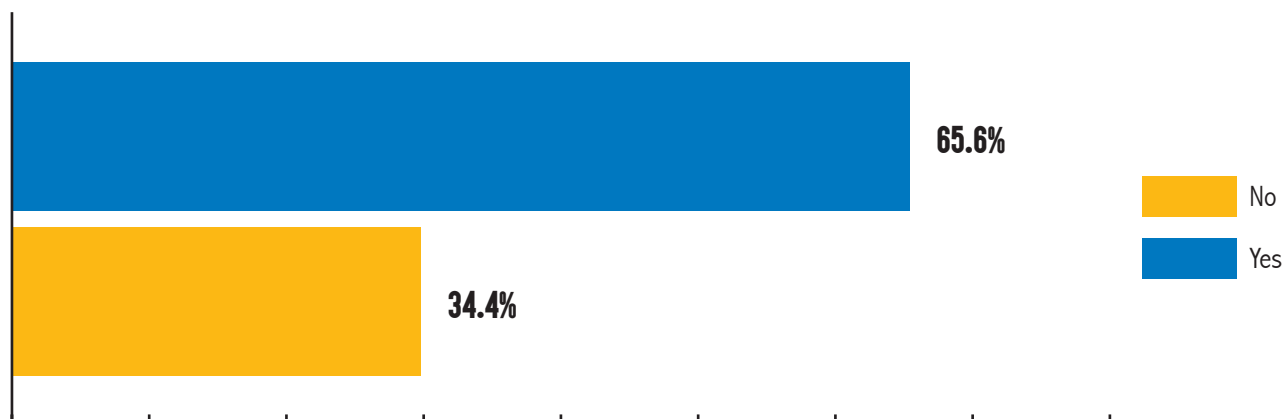
INTERNATIONAL CLIENTS

Does your company work for international clients in your country?



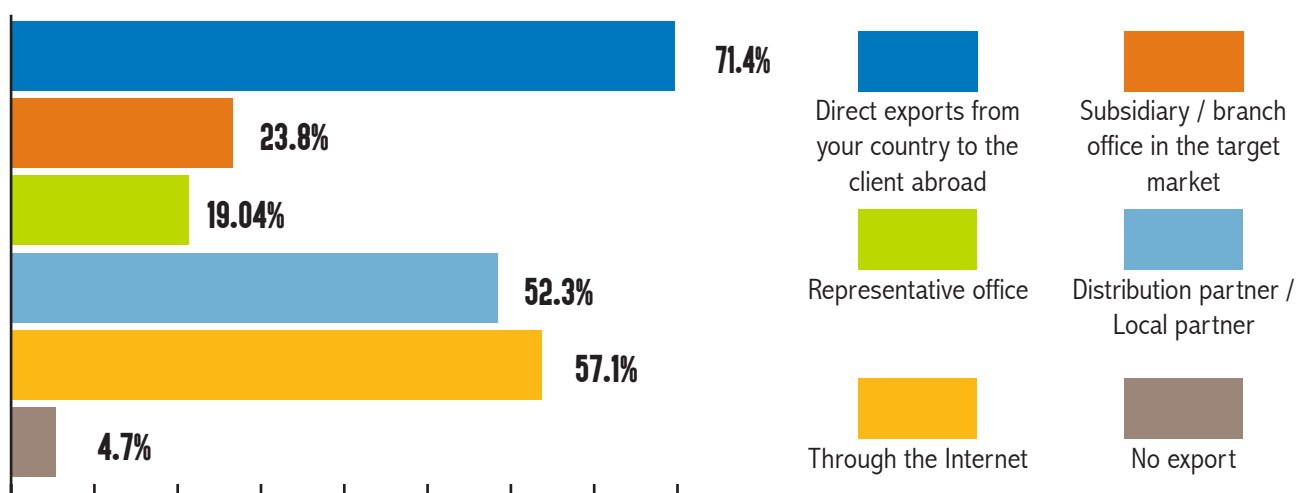
EXPORT ACTIVITIES

Does your company conduct export activities?



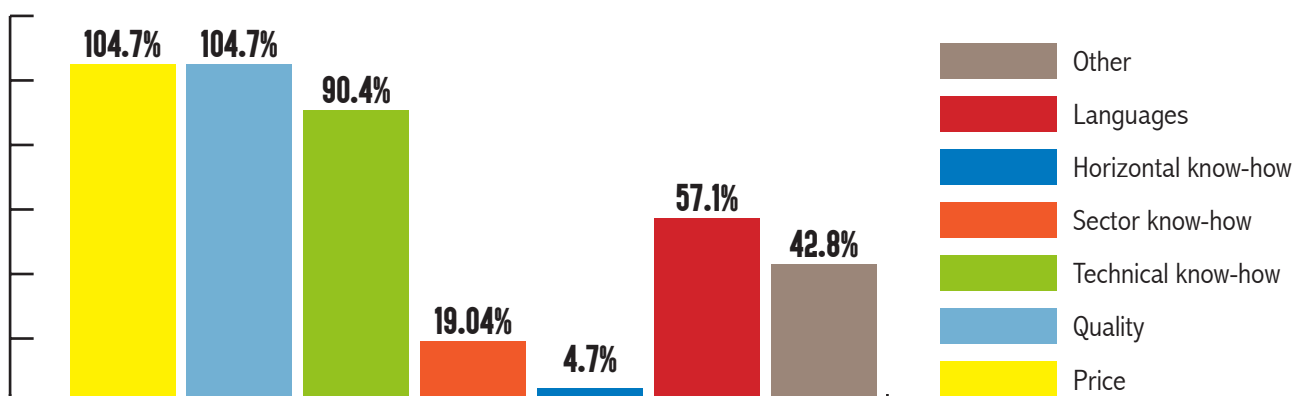
WAYS OF EXPORTS

How do you conduct your exports?



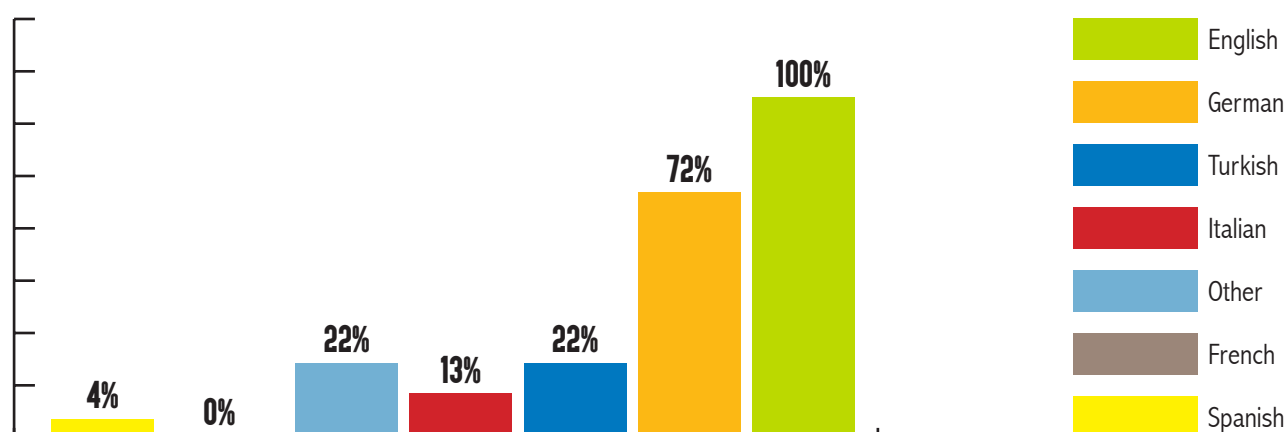
CORE COMPETITIVE ADVANTAGES

What are your core competitive advantages in the international markets?



FOREIGN LANGUAGE SKILLS

Which foreign language skills are available in your company?



EXPORT BARRIERS

Where do you see the biggest export obstacles?

| Not problematic | Highly problematic |
|---|--|
| Culture & language barriers | Visa requirements |
| Lack of branding of the local IT industry abroad | Lack of support by government institution (export financing schemes, etc.) |
| Market information (lack of suitable information on export markets) | Finding the right business partner |

2.3. STATISTICS

VERTICAL SECTORS/CLIENTS

ICT companies from Kosovo see financial services, technology and telecommunication as main clients.

PRODUCTS/SERVICES FOR THE DOMESTIC CLIENTS

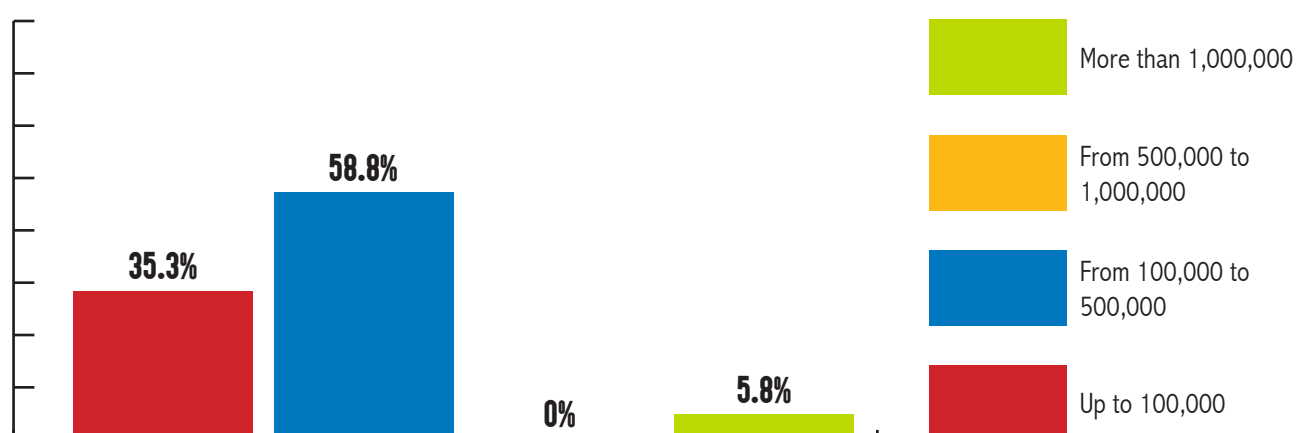
The majority of ICT companies are providing IT consulting services (37.5%), IT Project Management (22.5%).(ANNEX 3)

PRODUCTS/SERVICES FOR THE INTERNATIONAL CLIENTS

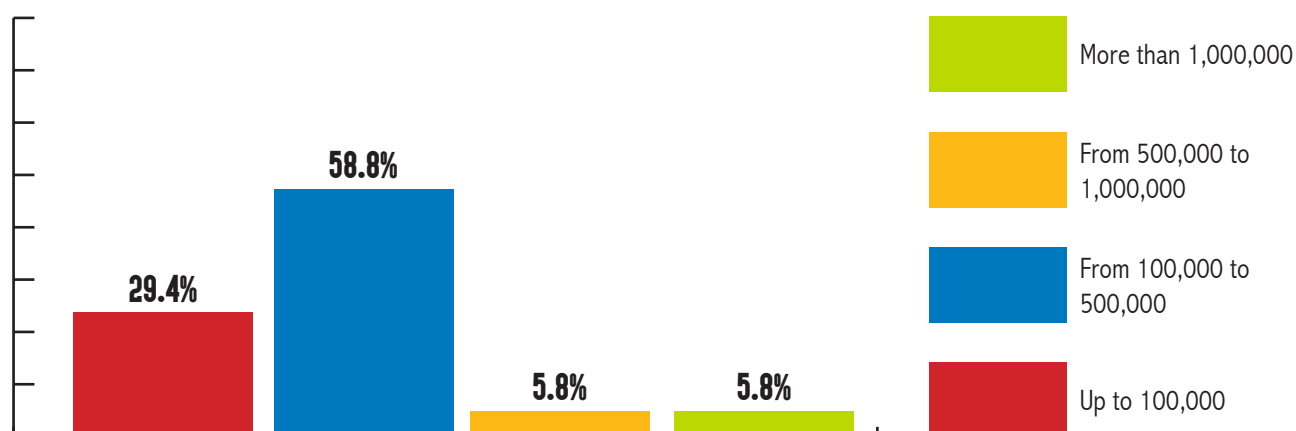
ICT companies from Kosovo are mostly providing following services to their international clients: Mobile solutions (22.5%) as well as Web design (22.5%). (ANNEX 3)

TOTAL SALES IN 2013 AND 2014

What was your annual revenue in your local currency in 2013?

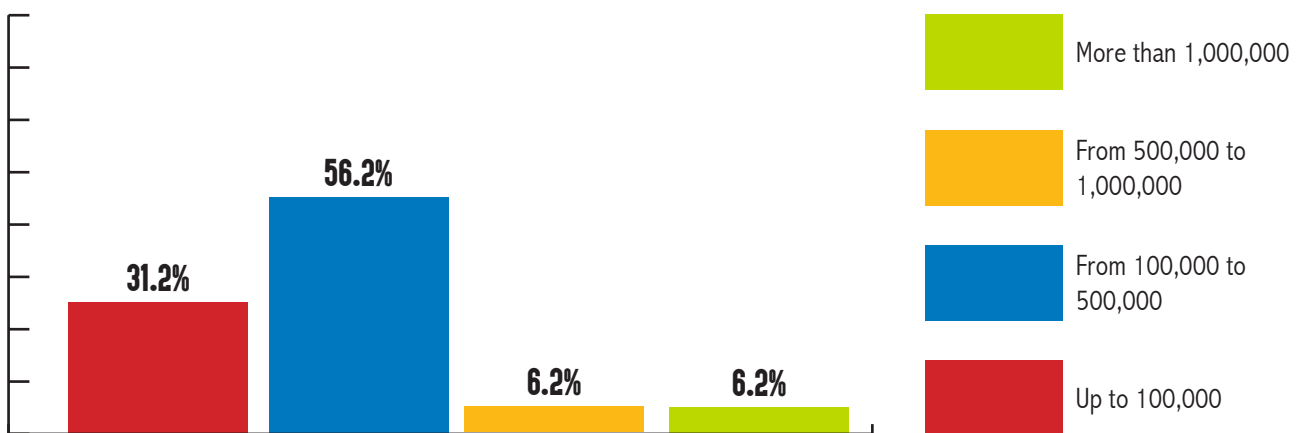


What was your annual revenue in your local currency in 2014?



PROJECTED SALES FOR 2015

Please provide an annual revenue forecast for 2015



VERTICAL SECTORS/CLIENTS

| | |
|--|------|
| Aerospace | 2.5 |
| Automotive | 2.5 |
| Defense | 5 |
| Education | 27.5 |
| Financial services | 17.5 |
| Gaming and Entertainment | 12.5 |
| Healthcare Services | 10 |
| Households-domestic market | 2.5 |
| Industry | 2.5 |
| IT Services and Outsourcing | 40 |
| Press and Media | 10 |
| Manufacturing, Distribution, Retail | 7.5 |
| Marketing and Communications | 15 |
| Publishing house-domestic market | 15 |
| Non-profit organizations | 12.5 |
| Public sector (E-Government) | 17.5 |
| Real Estate | 7.5 |
| Services (HR, accounting, legal) | 15 |
| Technology | 27.5 |
| Telecommunications (wireless and mobile) | 22.5 |
| Telematics | 2.5 |
| Tourism and Hospitality | 12.5 |
| Trade, transport and logistics | 5 |
| Utilities | 7.5 |

2.4. HUMAN RESOURCES

EMPLOYEES AND ASSOCIATES FOR 2014

In 2014, the majority of Kosovo ICT companies had from 10 to 20 employees and associates, 36.4% of ICT companies. Whereas, 31.8% of ICT companies with less than 5 employees and associates.

EMPLOYEES AND ASSOCIATES FOR 2015 (FORECAST)

The forecasted number of employees and associates in ICT companies in 2015 is predicted to be from 10 to 20 employees and associates, in 36.4% of ICT companies.

EMPLOYEES WHO LEFT COMPANIES

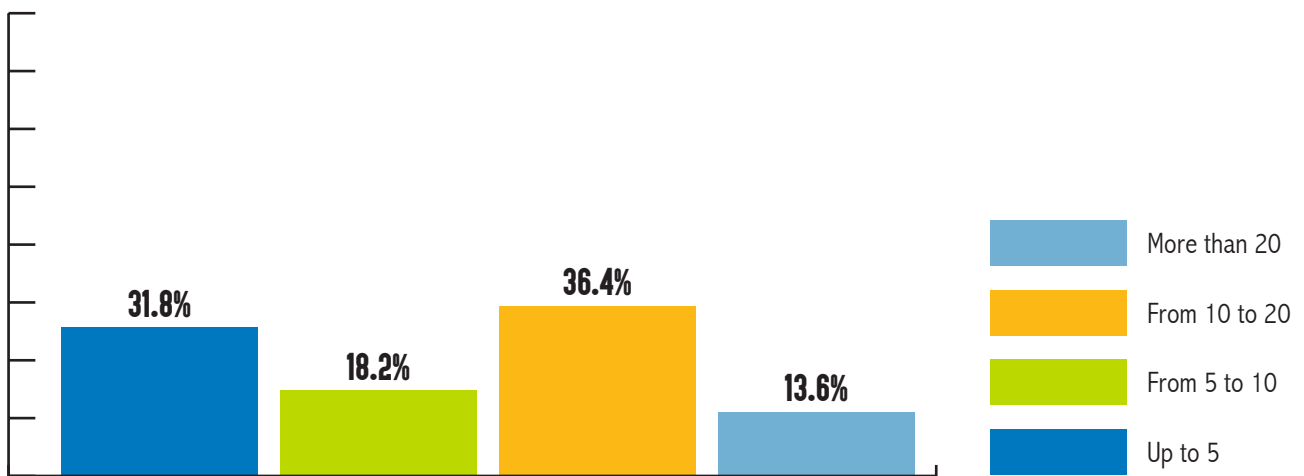
Number of employees who left the companies on the annual basis is 25%.

AVERAGE MONTHLY SALARIES IN 2014

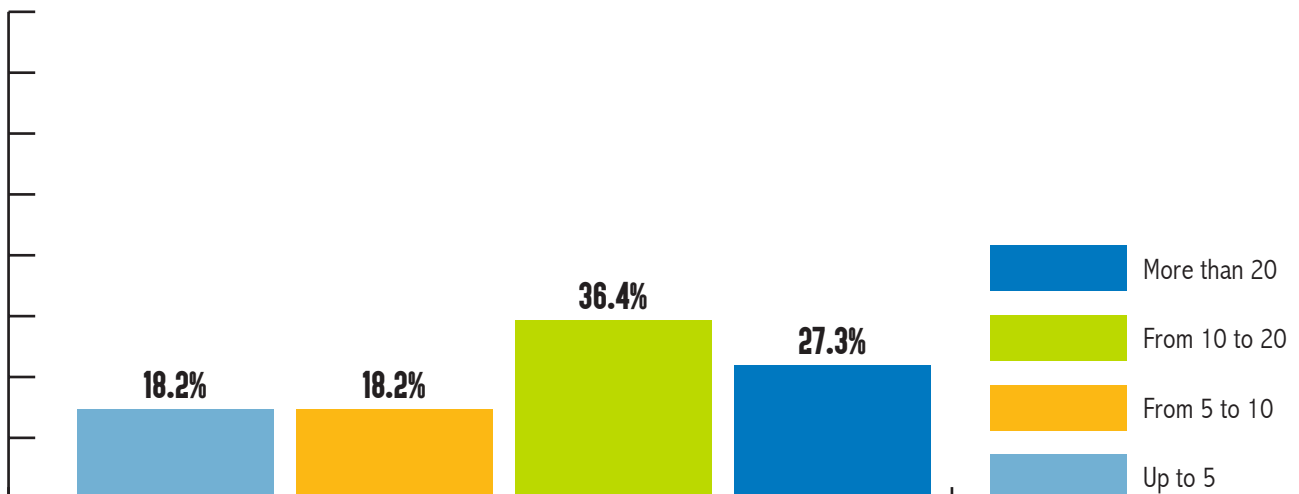
Comparing average monthly salaries for different positions in ICT sector, System Administrators have had the highest average, while Graphic Designers have had the lowest.

EMPLOYEES AND ASSOCIATES 2014 AND 2015 (FORECAST)

What is the total number of your employees and associates-2014?

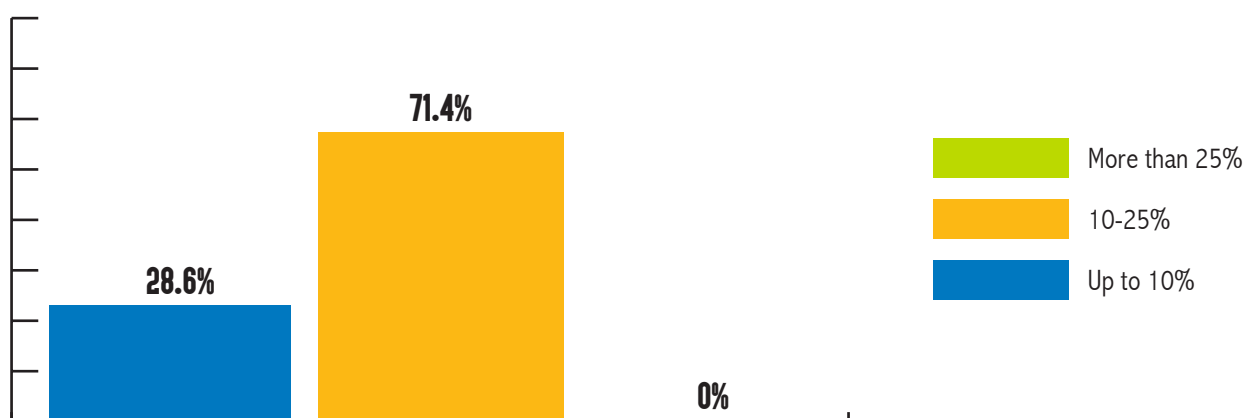


What is the total number of your employees and associates- 2015 forecast?

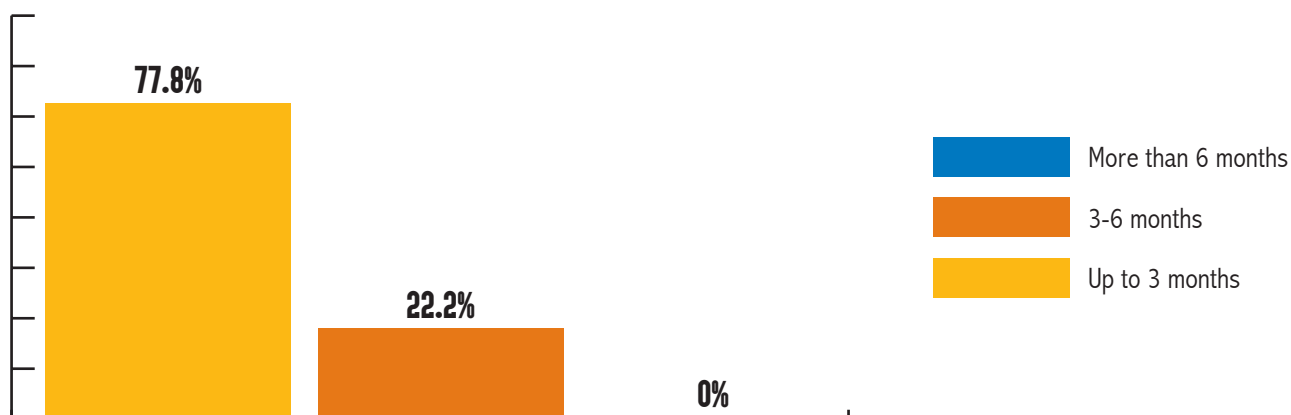


EMPLOYEES WHO LEFT COMPANIES

Specify the number of employees who leave the company on an annual basis

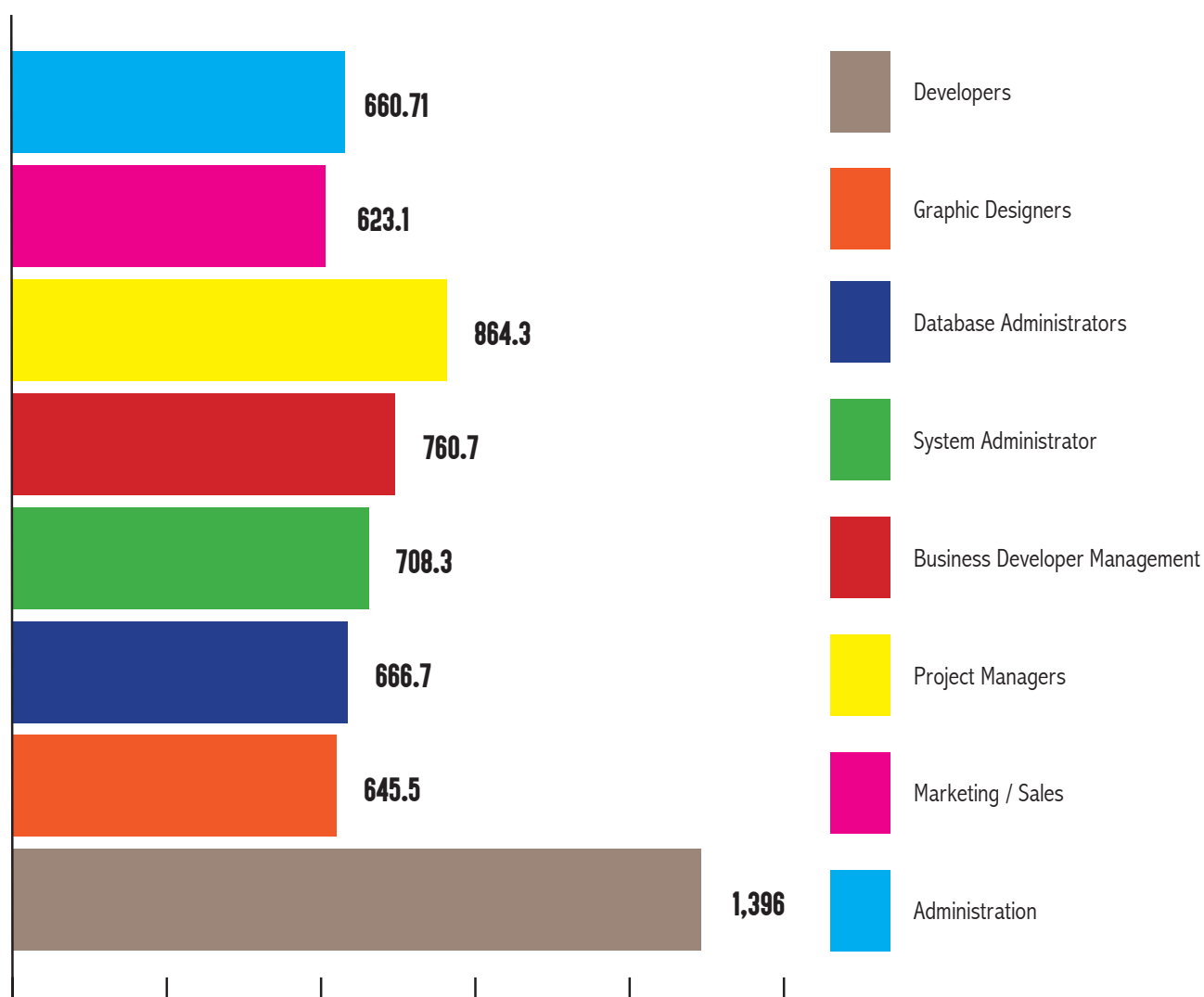


What is the average length of time required for a change of employees who leave the company?



AVERAGE MONTHLY SALARIES IN 2014

Average monthly salary in 2014 in euro



2.5. FORECASTS

EXPECTATIONS/NUMBER OF EMPLOYEES

ICT companies from Kosovo expect an increase of up to 10% of their employee number.

EXPECTATIONS/SALARIES

43.8% of ICT companies do not expect salaries to increase or decrease in the near future.

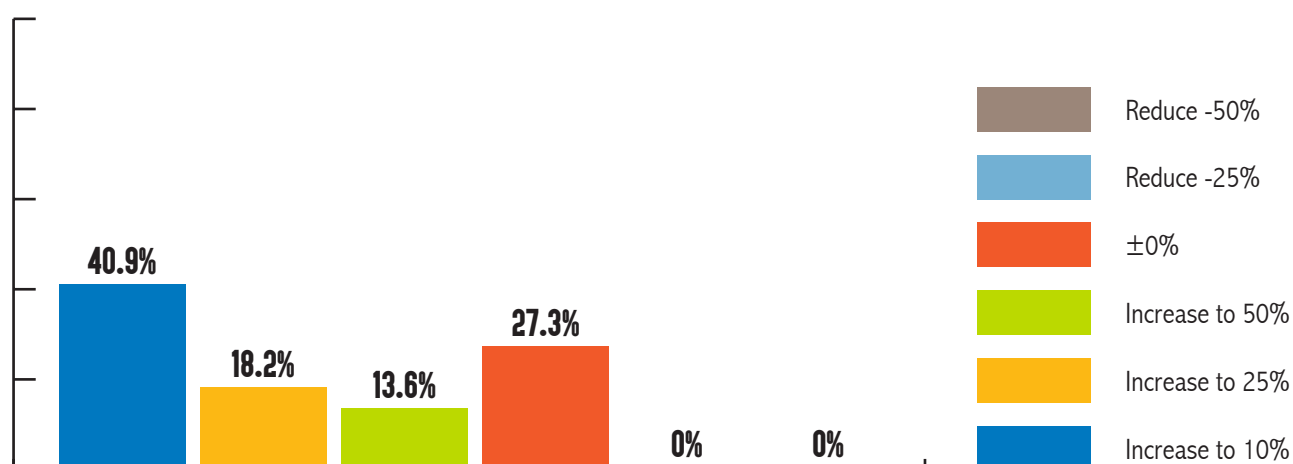
EXPECTATIONS/BUSINESS ENVIRONMENT

54.5% of ICT companies consider the national economic situation as major negative impact on business.

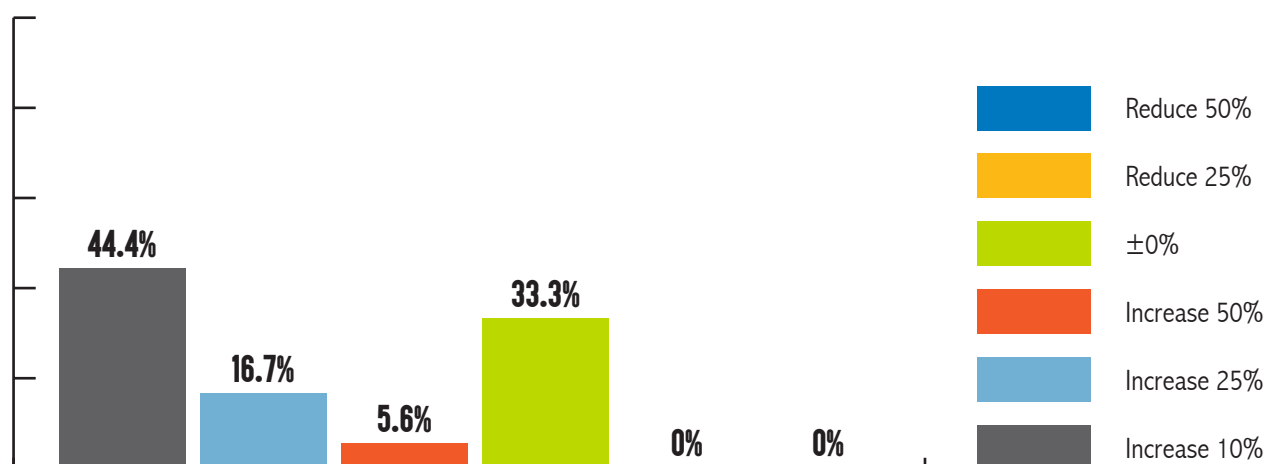
BRAIN DRAIN

ICT companies from Kosovo do think that brain drain has negative influence on their business activities.

EXPECTATIONS / NUMBER OF EMPLOYEES



EXPECTATIONS / SALARIES

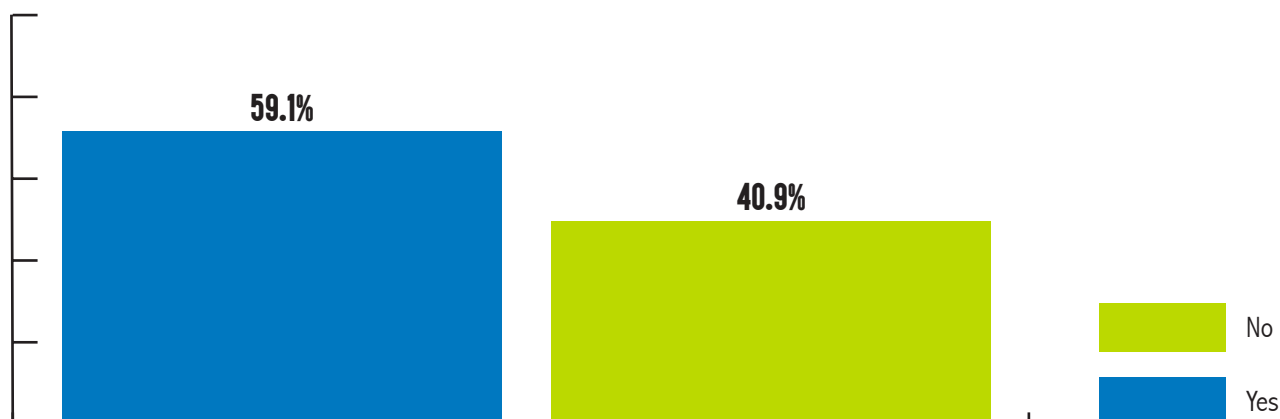


EXPECTATIONS / BUSINESS ENVIRONMENT

How do you assess the impact of the following factors on business?

| | Negative | Neutral | Positive |
|-----------------------------|----------|---------|----------|
| Global Economic situation | 23.8 | 57.1 | 19 |
| National Economic situation | 54.5 | 36.4 | 9.1 |
| HR Market | 27.3 | 63.6 | 9.1 |
| Intensified Competition | 13.6 | 81.8 | 4.5 |
| Government policy | 42.9 | 47.6 | 9.5 |

BRAIN DRAIN



CONCLUSIONS

The main goal of the “South East Europe IT Industry Barometer” (SEE ITIB 2015) are to support the increase of export capacities of ICT companies in South East Europe. The project aims to collect basic information on ICT companies in the Western Balkan region and to provide an insight of the value of the national ICT market, as well as their competitiveness.

This report represents regional analysis based on the data that are previously collected, and contain the following:

- General information about companies;
- Export data and trends;
- Statistics considering sales and clients;
- Human Resources – the number of employees, and the company structure;
- Projections – plans of expansion, pro and cons of the current market, and influence of those on projected plans.

Analysis have shown that companies in all targeted countries have similar trends of development, products, projections and general structure. At the same time, when we look into data about export and trends in that area, we can see some differences. ICT companies' clients within domestic markets are mainly from financial services and telecommunication, after that comes education and technology. Clients abroad are in the field of IT services and outsourcing.

Very important aspect for export and strengthening export capacity are core competitive advantages of companies, and what can give them additional recognition in the international market. A major issue for companies in all industries is the export barrier. For ICT companies in Kosovo, most problematic barriers for building their export capacities are the lack of government support, the lack of branding of the domestic IT industry abroad, as well as the lack of export oriented trainings and business development/consulting services. At the same time they see national economic situation as important setback for their development.

But there are some more basic barriers: visa requirements, finding adequate business contact in targeted market, high exporting costs, and the level of staff experience in order to conduct those kind of activities. Looking into the plans and projections of ICT companies, analysis have shown that they have growth plans, and that they are seriously looking into their strengths and weaknesses. They all recognize "brain drain" as one of the biggest issues for additional development and as a major negative impact on their business. Positive trend that analysis have shown are that within their expansion plan, companies project additional employment of IT experts, and a high number even considers to raise salaries for current employees.

Finally, ICT companies are very ambitious, and they have expansion plans, but while they are focused on foreign clients, they do neglect domestic clients. Considering export, they are faced with significant barriers which should be targeted on the country level through specific strategies and special policies.

ANNEX 1

How would you evaluate the potential of the following markets for your company's export activities? (%)

| | No potential | Very low potential | Low potential | Potential | High potential | Very high potential |
|--|--------------|--------------------|---------------|-----------|----------------|---------------------|
| Germany | 14.8 | 7.4 | 11.1 | 7.4 | 25.9 | 33.3 |
| Austria | 14.8 | 14.8 | 7.4 | 14.8 | 29.6 | 18.5 |
| Switzerland | 15.4 | 3.8 | 19.2 | 11.5 | 19.2 | 30.8 |
| United Kingdom | 19.2 | 7.7 | 15.4 | 11.5 | 26.9 | 19.2 |
| France | 36 | 8 | 20 | 20 | 12 | 4 |
| BeNeLux (Belgium, The Netherlands, Luxembourg) | 20 | 16 | 12 | 28 | 20 | 4 |
| Scandinavian countries | 16.7 | 12.5 | 8.3 | 29.2 | 25 | 8.3 |
| Southern Europe (Italy, Spain, Portugal) | 26.1 | 21.7 | 21.7 | 17.4 | 13 | |
| Regional (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Montenegro, Romania, Serbia, Slovenia) | 14.3 | | 17.9 | 21.4 | 21.4 | 25 |
| Central and Eastern Europe | 24 | 12 | 28 | 16 | 12 | 8 |
| North America (USA, Canada) | 24 | 12 | 8 | 4 | 24 | 28 |
| Middle East and Africa | 25 | 20.8 | 29.2 | 12.5 | 12.5 | |

ANNEX 2

Where do you see the biggest
export obstacles? (%)

| | Not problematic | Somehow problematic | Little problematic | Problematic | Very problematic | Highly problematic |
|--|-----------------|---------------------|--------------------|-------------|------------------|--------------------|
| Market information (lack of suitable information on export markets) | 18.2 | 22.7 | 18.2 | 18.2 | 13.6 | 9.1 |
| Costs of exporting | 50 | 9.1 | 18.2 | 4.5 | 9.1 | 9.1 |
| Finding the right business partner | 8.7 | 4.3 | 17.4 | 26.1 | 30.4 | 13 |
| Lack of interest/awareness among foreign companies | 4.8 | 4.8 | 23.8 | 23.8 | 23.8 | 19 |
| Lack of technical skills | 18.2 | 27.3 | 27.3 | 9.1 | 9.1 | 9.1 |
| Lack of export marketing skills & know-how | 10 | 35 | 30 | 10 | 15 | |
| Lack of branding of the local IT industry abroad | 23.8 | 23.8 | 4.8 | 9.5 | 14.3 | 23.8 |
| Culture & language barriers | 35 | 25 | 20 | 10 | 10 | |
| Lack of support by government institution (export financing schemes, etc.) | 5 | 5 | 20 | 20 | 20 | 30 |
| Lack of export-oriented trainings and business development / consulting services | 5 | 5 | 35 | 30 | 20 | 5 |
| Technical standards and requirements (ISO, CMMI, specific technologies, etc.) | 14.3 | 23.8 | 23.8 | 14.3 | 23.8 | |
| Legal aspects (contract law in other countries, legal requirements, etc.) | 15 | 25 | 15 | 20 | 10 | 15 |
| Visa requirements | 4.3 | | 8.7 | 13 | 21.7 | 52.2 |
| Lack of qualified staff to conduct export activities | | 35 | 20 | 15 | 20 | 10 |
| Lack of business contacts in target markets | | 9.5 | 19 | 14.3 | 28.6 | 28.6 |

CLIENTS ENTERPRISE / DOMESTIC MARKET

| | |
|--|------|
| Aerospace | 2.5 |
| Automotive | 2.5 |
| Defence | 5 |
| Education | 27.5 |
| Financial services | 17.5 |
| Gaming and Entertainment | 12.5 |
| Healthcare Services | 10 |
| Households-domestic market | 2.5 |
| Industry | 2.5 |
| IT Services and Outsourcing | 40 |
| Press and Media | 10 |
| Manufacturing, Distribution, Retail | 7.5 |
| Marketing and Communications | 15 |
| Publishing house-domestic market | 15 |
| Non-profit organizations | 12.5 |
| Public sector (E-Government) | 17.5 |
| Real Estate | 7.5 |
| Services (HR, accounting, legal) | 15 |
| Technology | 27.5 |
| Telecommunications (wireless and mobile) | 22.5 |
| Telematics | 2.5 |
| Tourism and Hospitality | 12.5 |
| Trade, transport and logistics | 5 |
| Utilities | 7.5 |

CLIENTS ENTERPRISE / INTERNATIONAL MARKET

| | |
|--|-------|
| Aerospace | 2.5 |
| Automotive | 5 |
| Defence | 2.5 |
| Education | 5 |
| Financial services | 2.5 |
| Gaming and Entertainment | 10 |
| Healthcare Services | 5 |
| Household | 7.5 |
| Industry | 7.5 |
| IT Services and Outsourcing | 18.75 |
| Manufacturing, Distribution, Retail - domestic market | |
| Publishing house | 46.9 |
| Press and Media | 2.5 |
| Non-profit organizations | 2.5 |
| Public sector (E-Government) | |
| Real Estate | 6.2 |
| Technology | 12.5 |
| Services (HR, accounting, legal) | 5 |
| Telecommunications (wireless and mobile) - domestic market | 7.5 |
| Telematics | |
| Tourism and Hospitality | |
| Trade, transport and logistics | 2.5 |
| Utilities | 5 |

ANNEX 3

What products / services do you provide to your customers?
(Domestic Market) (%)

| | |
|--|------|
| Business Intelligence/Data Warehousing | 17.5 |
| Business Process Optimization | 7.5 |
| Corporate Security | 10 |
| Custom Development / Outsourcing | 17.5 |
| Customer Management (CRM) | 15 |
| Document Management | 15 |
| E-Commerce | 7.5 |
| Embedded Engineering and Development | 2.5 |
| ERP / Supply Chain | 12.5 |
| IT Consulting | 37.5 |
| IT Project Management | 22.5 |
| Knowledge Management/Operations | 2.5 |
| Navigation Applications | |
| Mobile Solutions | 17.5 |
| New Media Production (Multimedia / Web animations) | 2.5 |
| Product maintenance, Support and Customization | 10 |
| Software Quality Assurance | 10 |
| Tools / COTS | 2.5 |
| Web design; development | 25 |
| Other | |

What products / services do you provide to your customers? (International Market) (%)

| | |
|--|------|
| Business Intelligence/Data Warehousing | 2.5 |
| Business Process Optimization | 5 |
| Corporate Security | 2.5 |
| Custom Development / Outsourcing | 12.5 |
| Customer Management (CRM) | 12.5 |
| Document Management | 2.5 |
| E-Commerce | 7.5 |
| Embedded Engineering and Development | 2.5 |
| ERP / Supply Chain | |
| IT Consulting | 12.5 |
| IT Project Management | 7.5 |
| Knowledge Management/Operations | |
| Navigation Applications | 22.5 |
| Mobile Solutions | 5 |
| New Media Production (Multimedia / Web animations) | 12.5 |
| Product maintenance, Support and Customization | 15 |
| Software Quality Assurance | 10 |
| Tools / COTS | |
| Web design; development | 22.5 |
| Other | |

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1. Shaipi, K.: ICT in Kosovo — A sector decoded. STIKK, 2010.
2. US Department of State, 2011, Bureau of European and Eurasian Affairs, Background Note: Kosovo.
3. Fazliu, A, 2013: Internet Penetration and Usage in Kosovo. STIKK
4. Shaipi, K. 2012: Public Procurement for ICT in the period June 2009-June 2012 — Findings Report. STIKK

ANNEX 4

Questionnaire

General Information

1. In which country is your company located? (If in many, which is the main location in the listed countries.)

- Albania
- Bosnia-Herzegovina
- Kosovo
- Macedonia
- Montenegro
- Serbia

2. Do you want to provide your company name and contact information?

- Yes, I will provide company name and contact information.
- No, I want to answer the questionnaire anonymously.

3. Company

Name

URL

4. Contact Person

Name

Function / Position

Direct Email

Type of company

Ownership

5. What is the ownership structure of the company?

- > 50% national ownership
- > 50% foreign ownership
- Branch of a foreign company (If the company works only for the parent company or for other companies belonging to the group)

Product / Services

6. What type of products and/or services your company provides?

- Software products
- Software / IT services
- Hardware products
- Services for hardware products
- Other: _____

ICT Association membership

7. Your company is a member of:

- Albania: AITA
- Bosnia-Herzegovina: BIT Alliance
- Kosovo: STIKK
- Macedonia: MASIT
- Montenegro: IT Cluster
- Serbia: ICT Network
- No ICT association membership
- Other(s): _____

Year of Foundation

8. Which was the year of foundation of the company in the country?

- | | | | |
|--------|--------|--------|--------|
| • 1985 | • 1993 | • 2001 | • 2009 |
| • 1986 | • 1994 | • 2002 | • 2010 |
| • 1987 | • 1995 | • 2003 | • 2011 |
| • 1988 | • 1996 | • 2004 | • 2012 |
| • 1989 | • 1997 | • 2005 | • 2013 |
| • 1990 | • 1998 | • 2006 | • 2014 |
| • 1991 | • 1999 | • 2007 | |
| • 1992 | • 2000 | • 2008 | |

Technical Profile of the Company

9. Please provide us with information on your company's technical expertise/offering concerning Operating Systems and Platforms, Programming Languages and Development Tools as well as Database Technologies.

a) Operating Systems and Platforms

(Please tick the appropriate fields.)

- Windows
- Realtime Systems
- MAC-OS
- OS/400
- SUN OS, Solaris
- iOS
- Android
- Windows Mobile
- Linux
- UNIX
- Others:

b) Programming Languages and Development Tools (Please tick the appropriate fields.)

- | | | | |
|------------------------------------|--------------------------|--|------------------|
| • ABAP4 | • ESQL/C | • Pascal | • Smalltalk |
| • Assembler | • Fortran | • Perl | • Tcl/Tk |
| • Basic - Visual Basic, VBA etc. | • Foxpro | • PHP | • Visual Objects |
| • C | • Gupta, Centura | • PL/SQL | • VRML |
| • C++ | • HTML, XML | • PL/1 | • Xt, Motif |
| • Clipper | • ILE/400 | • Powerbuilder | • yacc/lex |
| • CList | • Java, JavaScript | • Python | • 4gl |
| • CL/400 - AS/400 Control Language | • JCL | • QMF | • Other |
| • Cobol | • Lisp | • Rexx | |
| • CORBA IDL | • Lotus Notes Script | • RPG | |
| • dBase | • Macro Languages—others | • SAS | |
| • Delphi | • Natural | • Script Languages — others | |
| • Eiffel | • .NET | • Shell - C-Shell, K-Shell, Bourne-Shell | |
| | • Objective C | | |

c) Database Technologies (Please tick the appropriate fields.)

- | | | | |
|------------------|-----------------|----------------|-------------------------------------|
| • Access | • IMS | • Object Store | • SQL |
| • Adabas | • Informix | • ODBC | • Sybase |
| • Btrieve | • Ingres | • Oracle | • UDS/IDMS |
| • DAO | • Interbase | • Paradox | • VSAM |
| • DB2 | • ISAM | • POET | • xBase - dBase, FoxPro, Clipper... |
| • DB/400 | • JDBC | • Progress | • 4th Dimension |
| • DL/1 | • Lotus Notes | • RDB | • Other |
| • Gupta, Centura | • MS SQL Server | • SAS | |
| • IDMS | • mSQL / MySQL | • SESAM | |

d) Have you been asked to have one of the following quality standards? (multiple answers permitted)

- ISO 27001
- ISO 20000
- ISO9001
- CMM / CMMI
- ITMark
- SPICE
- Other(s):

e) Do your employees have some of the following technical certifications?

- Project management professional certification (PMP)
- Agile/Scrum
- Microsoft certificates
- Other(s):

Export Related Questions

10. Does your company work for international clients in your country?

- Yes
- No

11. Does your company conduct export activities?

- Yes
- No

Export Market Potential

12. How would you evaluate the potential of the following markets for your company's export activities?
(Please evaluate the export potential of each market even though you might currently not be exporting to that country/market)

| | No Potential (-3) | Very low Potential (-2) | Low Potential (-1) | Potential (+1) | High Potential (+2) | Very high Potential (+3) |
|--|-------------------|-------------------------|--------------------|----------------|---------------------|--------------------------|
| Germany | | | | | | |
| Austria | | | | | | |
| Switzerland | | | | | | |
| United Kingdom | | | | | | |
| France | | | | | | |
| BeNeLux (Belgium, The Netherlands, Luxemburg) | | | | | | |
| Scandinavian countries | | | | | | |
| Southern Europe (Italy, Spain, Portugal) | | | | | | |
| Regional (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Montenegro, Romania, Serbia, Slovenia) | | | | | | |
| Central and Eastern Europe | | | | | | |
| North America (USA, Canada) | | | | | | |
| Middle East and Africa | | | | | | |
| East Asia | | | | | | |
| Other(s) (specify below) | | | | | | |

Other(s):

Competitive Advantages

13. What are your core competitive advantages in the international markets?

- Price
- Quality
- Technical know-how
- Sector Know-how
- Horizontal know-how
- (human) Languages
- Cultural closeness
- Other(s):

14. Which foreign language skills are available in your company?

- English
- German
- Turkish
- Italian
- Spanish
- French
- Other(s):

15. How do you conduct your exports? (Please indicate your export channels)

- Direct exports from your country to the client abroad
- Subsidiary / branch office in the target market
- Representative office
- Joint venture
- Distribution partner / Local Partner (sales agent, sales representative, sole distributor, etc.)
- Through the Internet
- Other(s):

16. Where do you see the biggest export obstacles? Please rate the different export obstacles.

| | No Potential (-3) | Very low Potential (-2) | Low Potential (-1) | Potential (+1) | High Potential (+2) | Very high Potential (+3) |
|--|----------------------|----------------------------|-----------------------|----------------|------------------------|-----------------------------|
| Market information (lack of suitable information on export markets) | | | | | | |
| Costs of exporting | | | | | | |
| Finding the right business partner | | | | | | |
| Lack of interest/awareness among foreign companies | | | | | | |
| Lack of technical skills | | | | | | |
| Lack of export marketing skills & know-how | | | | | | |
| Lack of branding of the local IT industry abroad | | | | | | |
| Culture & language barriers | | | | | | |
| Lack of support by government institution (export financing schemes, etc.) | | | | | | |
| Lack of export-oriented trainings and business development / consulting services | | | | | | |
| Technical standards and requirements (ISO, CMMI, specific technologies, etc.) | | | | | | |
| Legal aspects (contract law in other countries, legal requirements, etc.) | | | | | | |
| Visa requirements | | | | | | |
| Lack of qualified staff to conduct export activities | | | | | | |
| Lack of business contacts in target markets | | | | | | |
| Other(s) (specify below) | | | | | | |

Other(s):

Statistics

17. What was your annual revenue in your local currency? Please provide a forecast for 2015.

2013

2014

2015 (forecast)

18. Please fill in the table the information about your total export expressed in % or amount. Please provide a forecast for 2015.

| | Total export (% or amount) | % of export in EU |
|-----------------|----------------------------|-------------------|
| 2013 | | |
| 2014 | | |
| 2015 (forecast) | | |

Product / Services

19. What was the percentage of your exports between products and IT services?

If you did not have exports in a certain year please enter 100 in "Not Applicable" (N/A).

(Sum of each line/year must be 100)

| | IT Services | Products |
|-----------------|-------------|----------|
| 2013 | | |
| 2014 | | |
| 2015 (forecast) | | |

Clients

Sector

20. In which sector do you have business expertise? Please separate domestic market from export.

| | Domestic Market | Export |
|--|-----------------|--------|
| Aerospace | | |
| Automotive | | |
| Defence | | |
| Education (E-Learning) | | |
| Financial Services | | |
| Gaming and Entertainment | | |
| Healthcare Services | | |
| Home Automation | | |
| Industry Application and Automation | | |
| IT Services and Outsourcing | | |
| Manufacturing, Distribution, Retail | | |
| Marketing and Communications | | |
| Media and Publishing | | |
| Non-profit organizations | | |
| Public sector (E-Government) | | |
| Real Estate | | |
| Services (HR, Accounting, Legal) | | |
| Technology | | |
| Telecommunications (Wireless and Mobile) | | |
| Telematics | | |
| Tourism and Hospitality | | |
| Trade, Transportation and Logistics | | |
| Utilities | | |
| Other 1 (specify below) | | |
| Other 2 (specify below) | | |

Other(s):

Clients

Horizontal

21. In which horizontal markets do you provide products and / or IT services to your clients? Please separate domestic market from export.

| | Domestic Market | Export |
|--|-----------------|--------|
| Business Intelligence/Data Warehousing | | |
| Business Process Optimization | | |
| Corporate Security | | |
| Custom Development/Outsourcing | | |
| Customer Management (CRM) | | |
| Document Management | | |
| E-commerce | | |
| Embedded Engineering and Development | | |
| ERP/Supply Chain | | |
| IT Consulting | | |
| IT Project Management | | |
| Knowledge Management/Operations | | |
| Mobile Solutions | | |
| Navigation Applications | | |
| New Media Production (Multimedia/Web animations) | | |
| Product maintenance, Support and Customization | | |
| Software Quality Assurance | | |
| Tools/COTS | | |
| Web design; development | | |
| Other 1 (specify below) | | |
| Other 2 (specify below) | | |

Other(s):

Human Resources

Employees

22. What is the total number of your employees and associates?

2014

2015 (forecast)

23. Please provide the number of employees that leave the company on yearly basis.

- >10%
- 10 -25%
- < 25%

24. What is the average time needed to replace the employees that leave the company?

- > 3 months
- 3-6 months
- < 6 months
- Other: _____

Salaries

25. What are the average monthly salaries (as per labor contract) for the following positions?

| | 2014 |
|-------------------------------|------|
| Developers | |
| Graphic Designers | |
| Database Administrators | |
| System administrator | |
| Business Developer Management | |
| Project Managers | |
| Marketing / Sales | |
| Administration | |
| Others | |

Rates

26. What is the average billable rate for the following staff categories?
Please provide rates per person in your local currency per hour (VAT excluded). (If you don't have the rates, just leave zero.)

Developers

Graphic Designers

Database Administrators

System administrator

Business Developer Management

Project Managers

27. Blended Rate
(Blended Rate is the rate that you would quote your services to a client, should you have to provide one number for that.)

28. Do you expect the total number of employees in your company to:
(Please, include full-time and part-time/free-lance employees in your calculation.)

| | -50% ----- | -25% Decrease | -10%----- | ±0% | +10% --- ---- | +25% Increase | +50%---- --- |
|-----------------|--------------|------------------|-----------|-----|--------------------|------------------|-----------------|
| Number of Staff | | | | | | | |

29. Do you expect the salary level to:

| | -50% ----- | -25% Decrease | -10%----- | ±0% | +10% ----- | +25% Increase | +50%----- |
|----------------|--------------|------------------|-----------|-----|--------------|------------------|-----------|
| IT Specialists | | | | | | | |
| Others | | | | | | | |

Current Issues and Remarks, Comments

Impact of external factors

30. Considering the current situation of your business, how do you evaluate the influence of the following factors on the development of your business?

| | -50% ----- | -25% Decrease | -10%----- |
|-----------------------------|--------------|---------------|-----------|
| Global Economic situation | | | |
| National Economic situation | | | |
| HR Market | | | |
| Intensified Competition | | | |
| Government policy | | | |

Current Issue

31. Is brain drain influencing negatively your business?

- Yes
- No

32. Do you think there is a deficit of skilled/qualified workforce in your country?

- Yes
- No
- Comment: _____

Remarks, Suggestions

Use the space below to give your comments and suggestions on the subjects that you evaluate as important for your company. Consider the work being performed in the IT sector, the supporters, the associations, the government etc. Comments, remarks, suggestions are also welcome.

**THANK YOU
FOR YOUR TIME!**

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