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) 2016

IT BAROMETER 2016
KOSOVO

JUNE, 2016

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E3 CONSULTING LTD. MONTENEGRO

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THIS REPORT SHOWS RESULTS FOR KOSOVO ONLY AND IS PART OF THE SOUTH EAST EUROPE IT INDUSTRY BAROMETER 2016 WHICH CAN BE FOUND AT WWW.STIKK.ORG.

"THE BEST WAY TO PREDICT THE FUTURE IS TO INVENT IT"
– ALAN KAY

CONTENTS

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

First IT Industry Barometer in South East Europe SEE ITIB 2014 was realized with the main purpose 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. For such project it was developed unified questionnaire which served for data collection process. Project was continued in 2015 and 2016 on the basis of the same methodology, and based on the results of the national IT reports in the target countries a regional analysis has been prepared. Comparative analysis has been prepared using three year results which provided opportunity to present recent trends and progress of ICT market in the region.

Important indicator for analysis of business potential of ICT in specific countries, NRI (Networked Readiness Index) also referred to as Technology Readiness, shows that all of analyzed countries (Albania, Serbia and Macedonia) have improved their ranking positions in 2015 comparing to 2014 regarding this indicator.

Analysis showed that ICT companies within all targeted countries are dominantly in domestic ownership, are becoming members of ICT Associations, and are mostly oriented towards software and IT services (except Montenegro which is oriented towards hardware products), and all of these trends were getting only stronger if we follow them through the years. Most used operating system is Windows, with strong presence of Linux and Android usage. At the same time it is interesting that in Kosovo and Albania there is strong and growing use of IOS. Looking into programming languages it was found that most represented are Java/JavaScript and HTML/XML. As for database technologies Albania, Macedonia and Kosovo use MSSQL, Serbia mSQL/MySQL and in Montenegro they dominantly use Access and SQL. These trends were persistent through the years.

SUMMARY

Analysis showed that technical certification of employees in ICT companies became more important through the years in all of the targeted countries, and most present certificates are Microsoft and Agile/Scrum.

Most of the companies in targeted countries do business for international clients within their countries. That number is the highest in Albania and it is the lowest in Montenegro. In terms of export most active are companies from Serbia, but in terms of export most active are companies from Serbia and least active are those from Montenegro. Analysis has shown that in average companies see their core competitive advantage in price, quality and technical know-how.

Looking into company's view of potential interesting foreign markets there were a lot of differences between countries, and not only that, there is a lot of changes in views looking through the years. For Montenegro regional market is most interesting and it stayed through the years, Serbian companies share that view but through the years they have put more emphasize on potential in North American, Scandinavian and Western Europe market. Macedonia also saw potential in North American market, but it changed to Scandinavian and Central and Eastern Europe market. Kosovo and Albania has seen, and still see, greatest potential in German market, but they are now also focusing on Scandinavian and Austrian markets.

Sales analysis 2013, 2014 and 2015 has shown that, there was an increase of percentage of companies having sales turnover up to 1 million euro in most of the countries. Only exception was Montenegro, where this category is almost nonexistent with huge growth of category of sales more than 10 million. At the same time there was an increase of companies in categories of sales 1 to 5 million euro in Serbia and Kosovo.

Very important subject for every company business and strategies are its employees, and that also applies for ICT companies. Analysis shows some positive trends in all targeted countries. Most of companies are planning their expansion in terms of employing additional people and also they see possibility of increase of salaries. At the same time they are very aware of strong trend of high (10%-25%) turnover of people within one year period, and more difficulties to replace them in short period of time. At earlier times 3 months adjustment period is something that company had to expect, in that process of replacement, now it is more 6 months.

Last part of analysis has shown that among highest paid jobs are Business Developer Management, Project Managers and System Administrators. Also in almost all countries (Montenegro is exception) planned increases of number of employees in average is 10% to 25%. While doing projections and plans these companies as major negative impact see national economic situation, and as major positive impact intensified competition. Also majority see negative influence of „brain drain" at their business, becoming stronger.

INTRODUCTION

The importance of Information and Communication Technology (ICT) for European economies has been increasingly recognized over the last two decades (EC, 2014; van Ark, 2014a; EIB, 2011). The role of ICT is significant in the process of economic development as it acts as a vehicle to improve productivity and results in added value. Additional characteristic of ICT is that it represents an important driver for innovation and knowledge-based activities, which in turn further increases economic growth. As a direct result of 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 project "South East Europe IT industry barometer" (SEE ITIB) represents the annual project realized since 2014, and its main goals are to support the export capacity 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 into the value of the national ICT market as well as their competitiveness.

SEE ITIB2015 is realized on the basis of the methodology of the first IT Industry Barometer in South East Europe 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. Project included 126 enterprises - 50 enterprises from Montenegro, 40 from Kosovo, 20 from Serbia, 7 from Macedonia and 9 from Albania.

SEE ITIB 2016 is also realized on the same basis of the methodology of the SEE ITIB 2014. As in previous years SEE ITIB 2016 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 – Montenegro, Serbia, Albania, Macedonia and Kosovo.

SEE ITIB 2016 will result with SEE ITIB 2016 Report which will represents regional analysis based on the data that are previously collected in five targeted countries and contains following:

- General state overview on IT development in the region based on previous national IT analysis in each targeted country and its national characteristics and trends;
- Comparative analysis for five targeted countries;
- Recent export trends between targeted countries(export potential, export activities, international cooperation, export barriers);
- Analysis of Human Resources;
- Qualitative analysis on recent trends in IT industry with recommendations.

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

PROJECT METHODOLOGY

The 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 project goals it was done comparative analysis that is providing in-depth analysis of the development level of the IT industry between the targeted countries. Comparative analysis (benchmarking) represents a method used in qualitative analysis based on cross-national research on specific area (IT industry) and represents a method that is 'connecting' quantitative and qualitative analysis on targeted topic. Comparative analysis is based on the quantitative analysis of variable presented within the questionnaire and desk analysis on recent ICT trends for 2016.

Quantitative analysis was realized based on the survey conducted among that targeted enterprises in five targeted state. The survey SEE ITIB 2016 included 108 enterprises precisely 50 enterprises from Montenegro, 19 from Kosovo, 21 from Serbia, 12 from Macedonia and 6 from Albania. Because of relatively small sample for Serbia, Macedonia and Albania survey results for those countries might be considered as biased. Sample of ICT companies from Montenegro is representative and defines real status of Montenegrin ICT market. Survey has been realized by pre-defined online questionnaire except in case of Montenegro where has been realized through direct interviews.

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.

Project results are prepared in the form of the report that contains qualitative and comparative analysis of recent IT industry trends in 2016 between five Western Balkan countries by presenting their state-of-art in the field of ICT and export as well as by providing key recommendations for its further development.

CHAPTER 1
RECENT ICT TRENDS IN KOSOVO

“ICT plays a crucial role in boosting innovation, creativity and competitiveness of all industry and service sectors. We are entering a new phase of development that will drive growth and sustainable development for the coming decades. ICT also acts as a impeller of social development and transformation through improvement of access to basic services, enhancement of connectivity, and creation of employment opportunities. In these ways ICTs affect how people live, communicate, interact, and engage among themselves and with their governments.”

ICT market in Kosovo, albeit smaller than that of the countries in the region, has been reported to register continuous growth which is higher than that in the surrounding countries. ICT businesses expect to grow mostly locally, in areas such as Internet Service Providing, Software development /programming, maintenance and repair, vendor sales, engineering services, training/certification, information services and web development.

But, for any significant growth to happen, a number of conditions must be met, the most pressing being the creation of a favorable business climate for ICT by bringing tax and customs fees in par with that of the neighboring countries, and establishing other incentive schemes for ICT. A targeted policy intervention and investment could produce big impact both to the Kosovo ICT industry and to non-ICT businesses.

Most of the Kosovo ICT companies (88%) are r domestic, 2% have Kosovar majority ownership, 3% have equal ownership by Kosovar and foreign owners, and 8 % are foreign-owned companies. It is important to note than there are more ICT companies of mixed Kosovo-foreign ownership and whole foreign ownership than non-ICT companies which are almost entirely locally owned. Worth noting is also that the ICT sector is well organized, where over half of the ICT companies are members of an industry or professional association, while 80% of non-ICT companies are not.

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). The main industry currently targeted by most ICT companies in Kosovo is Telecommunications (66%), followed by Government, Police and Emergency Services (46%) and Financial sector (45%). Other targeted industries are retail, wholesale, professional, scientific and technical services, education and training, etc.

SWOT analysis of the ICT Kosovo

STRENGTHS	WEAKNESSES
• 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.	• 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	**COMPANY OWNERSHIP**
• 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.	• 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.

Note: ICT Country Profile Kosovo 2013

CHAPTER 2
SEE ITIB 2015 COMPARATIVE ANALYSIS

2.1. GENERAL INFORMATION ABOUT THE COMPANIES

OWNERSHIP STRUCTURE

100% of ICT companies have dominant domestic ownership.

COMPANIES' PRODUCTS AND SERVICES

Majority (84.21%) of the companies are providing Software / IT services, which is for 16.71% higher compared to 2015.

MEMBERSHIPS IN ICT ASSOCIATIONS

In Kosovo 94.73% of ICT companies in 2016 are members of STIKK, which is significant improvement from 70% membership in 2015. While in 2015 there was one more association active in Kosovo, AITA (7.5%).

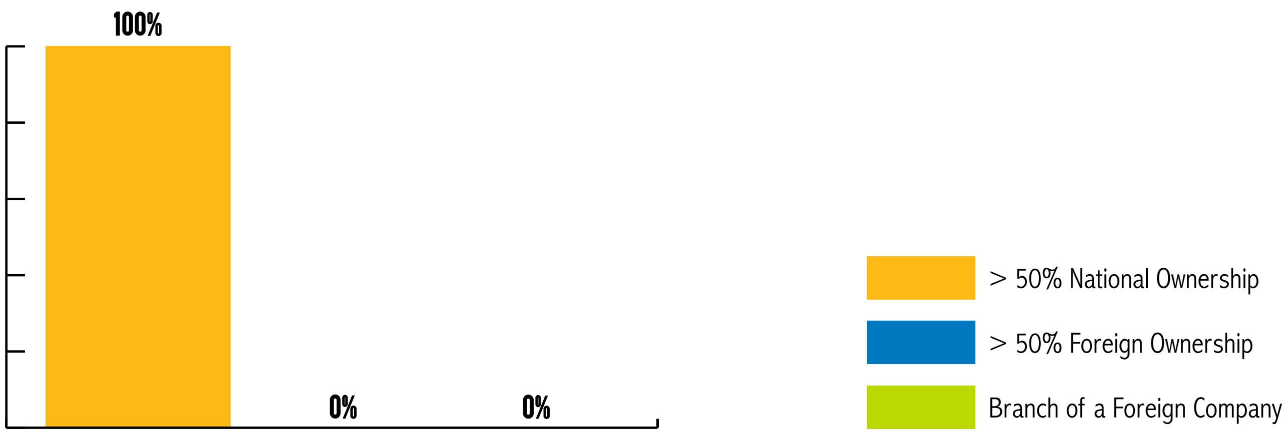
YEAR OF FOUNDATION

ICT companies from Kosovo are represented by newly established companies, because 58.8% is established within the period after 2010.

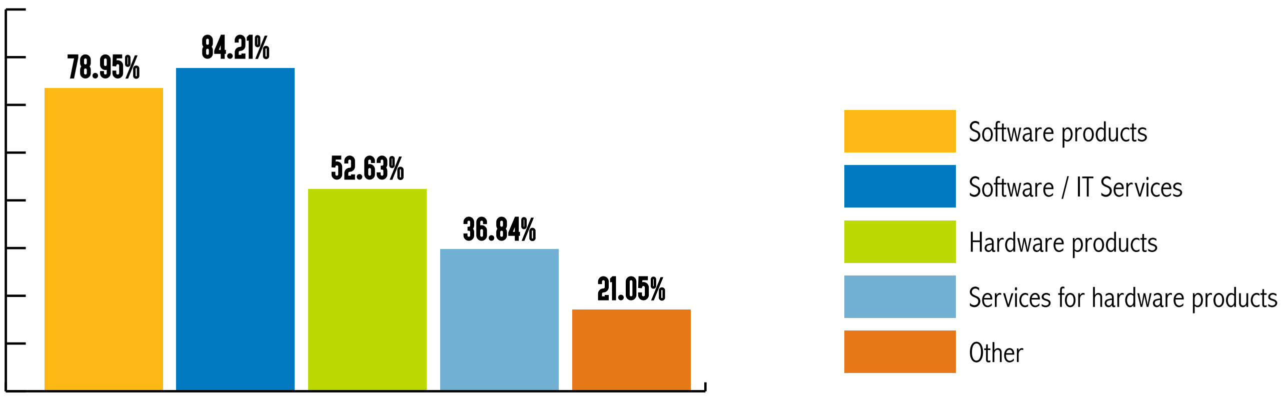
OPERATING SYSTEMS AND PLATFORMS

94.73% used Windows in 2016 which is for 14.73% increase comparing to 2015.

OWNERSHIP STRUCTURE



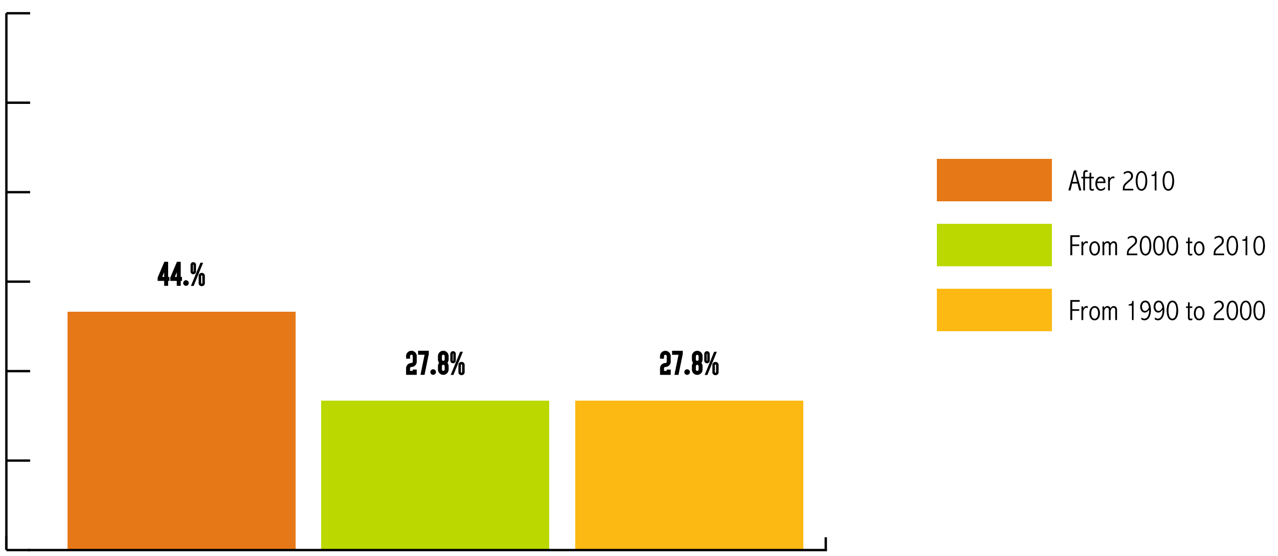
COMPANIES' PRODUCTS AND SERVICES



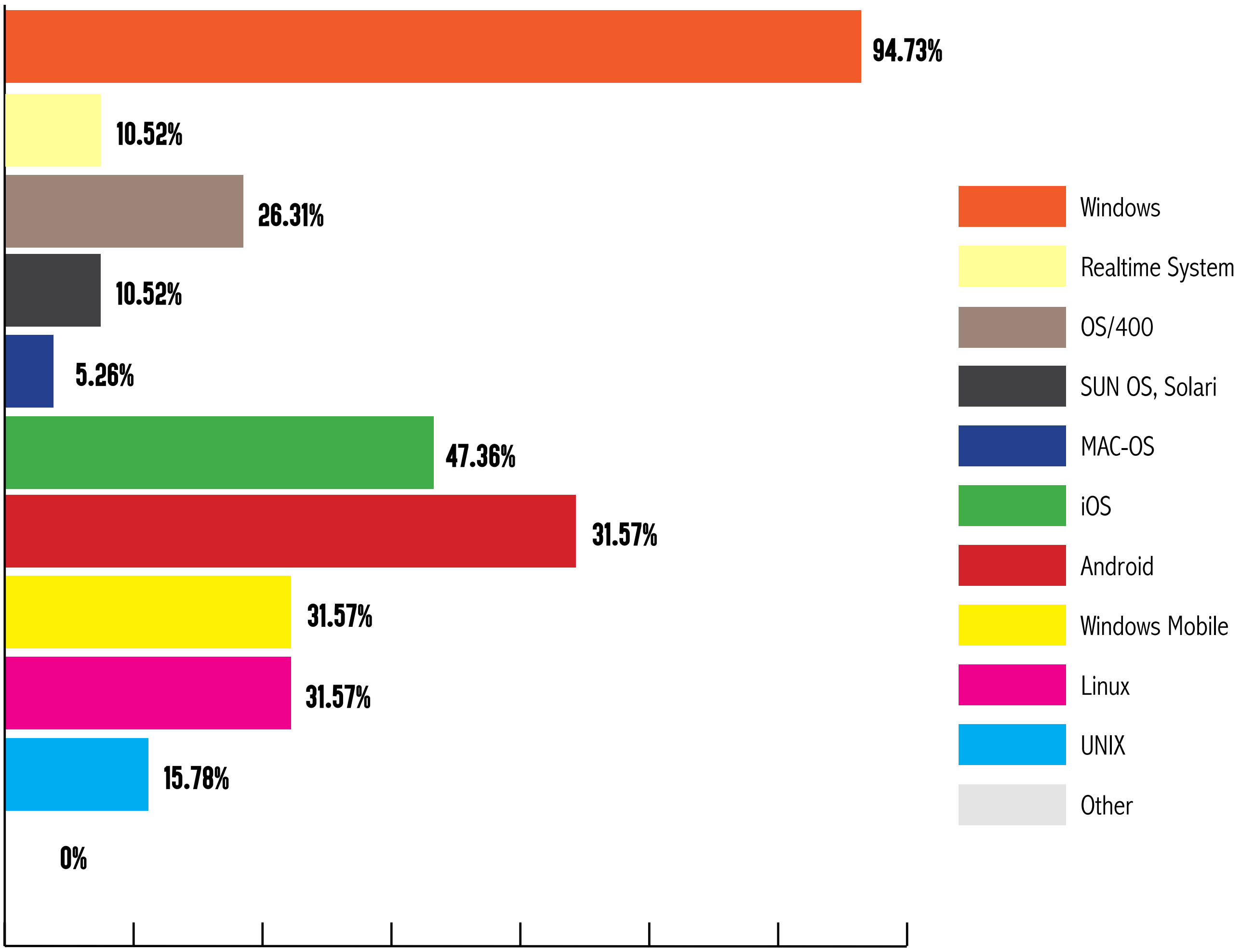
MEMBERSHIPS IN ICT ASSOCIATIONS

KOSOVO ICT ASSOCIATION (STIKK)	OTHER
94.73%	5.27%

YEAR OF FOUNDATION



OPERATING SYSTEMS AND PLATFORMS



PROGRAMMING LANGUAGES AND DEVELOPING TOOLS

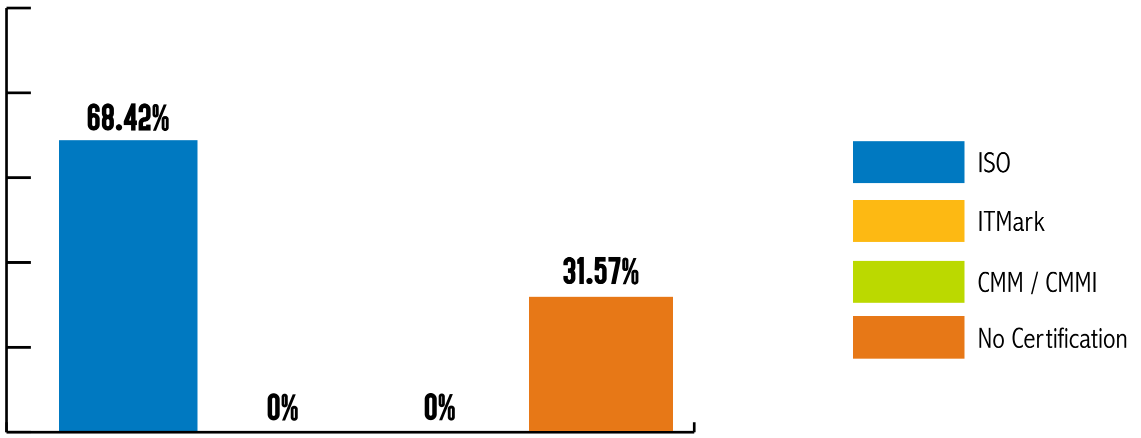
No.	Programming Languages and Development Tools	Percentage
1	ABAP4	
2	Assembler	
3	Visual Basic, VBA etc.	
4	Basic - Visual Basic, VBA etc.	31.58
5	Basic - C	15.79
6	Basic - C++	26.32
7	Basic - Clipper	
8	CL/400 - AS/400 Control Language	
9	Delphi	5.26
10	Cobol	
11	dBase	
12	Fortran	
13	Foxpro	
14	ESQL/C	
15	HTML, XML	63.16
16	Java, JavaScript	52.63
17	Lips	
18	JCL	5.26
19	Macro Languages - others	
20	Lotus Notes Script	5.26
21	.NET	57.89
22	.Objective C	26.32
23	Pascal	
24	Perl	
25	PHP	52.63
26	PL/SQL	31.58
27	PL/1	
28	Powerbuilder	
29	Python	10.53
30	SAS	
31	Script Languages - others	10.53
32	Shell, K-Shell, Bourne-Shell	5.26
33	Smalltalk	
34	Tcl/Tk	
35	Visual Objects	5.26
36	4gl	
37	Other	10.52

DATABASE TECHNOLOGIES

No.	Database Technologies	Percentage
1	Access	36.84
2	Adabas	
3	BTrieve	
4	DAO	
5	DB2	
6	DB/400	
7	IDMS	
8	Informix	
9	Interbase	
10	ISAM	
11	JDBC	
12	Lotus Notes	5.26
13	MS SQL Server	
14	mSQL / mySQL	
15	Object Store	
16	ODBC	10.52
17	Oracle	26.31
18	Paradox	5.26
19	Progress	
20	RDB	
21	SAS	
22	SQL	57.89
23	VSAM	
24	xBase - dBase, FoxPro, Clipper	
25	Sybase	
26	Base - dBase, FoxPro, Clipper	
27	Other	

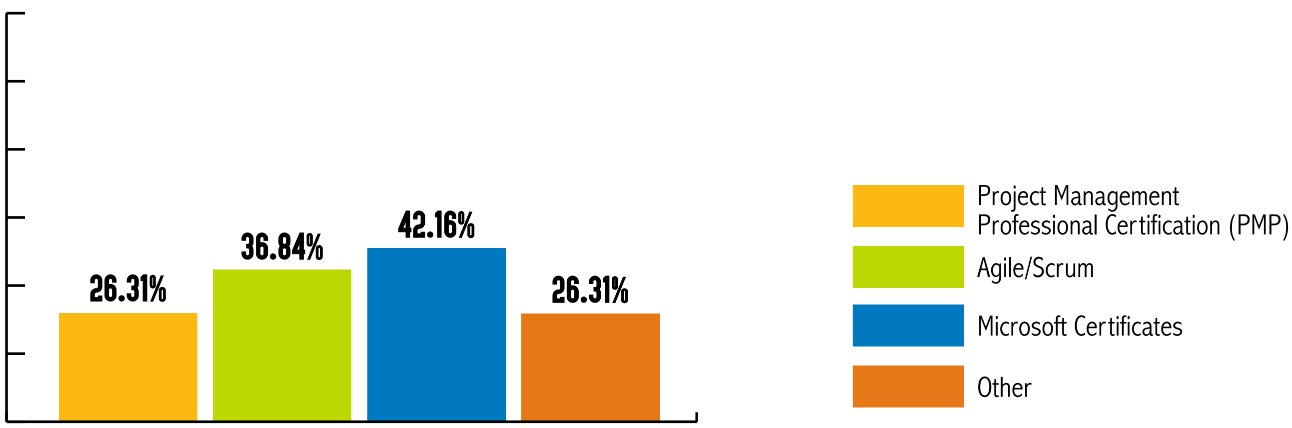
QUALITY STANDARDS

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 100% of companies do business with international clients which are 31.2% higher comparing to 2015.

WAYS OF EXPORTS

Kosovo is exporting directly from the country to the clients abroad (92.86%).

CORE COMPETITIVE ADVANTAGES

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

FOREIGN MARKET POTENTIAL

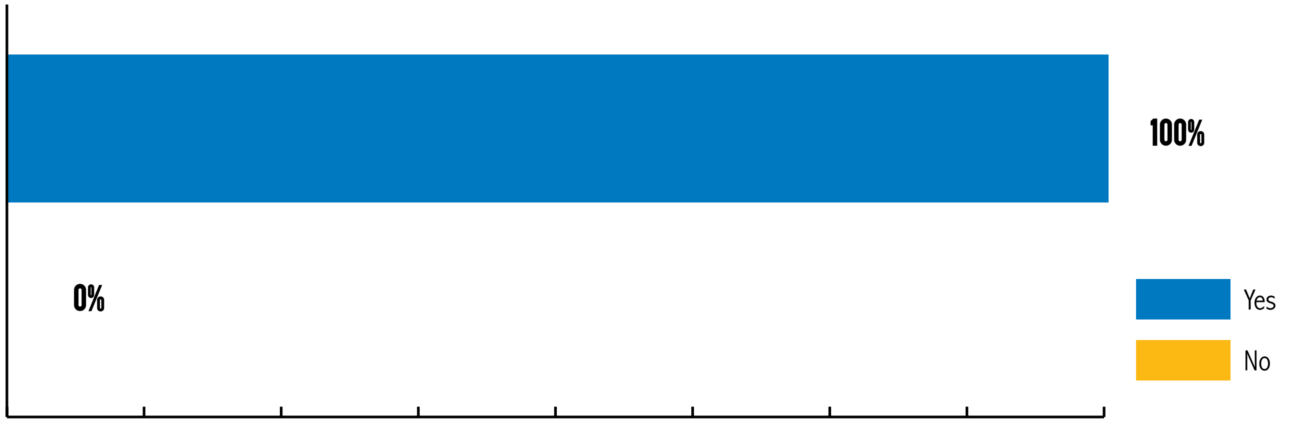
Majority of ICT companies from Kosovo has the attitude that German market represents a key potential market for future export activities (57.9%).

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 Turkish and German language.

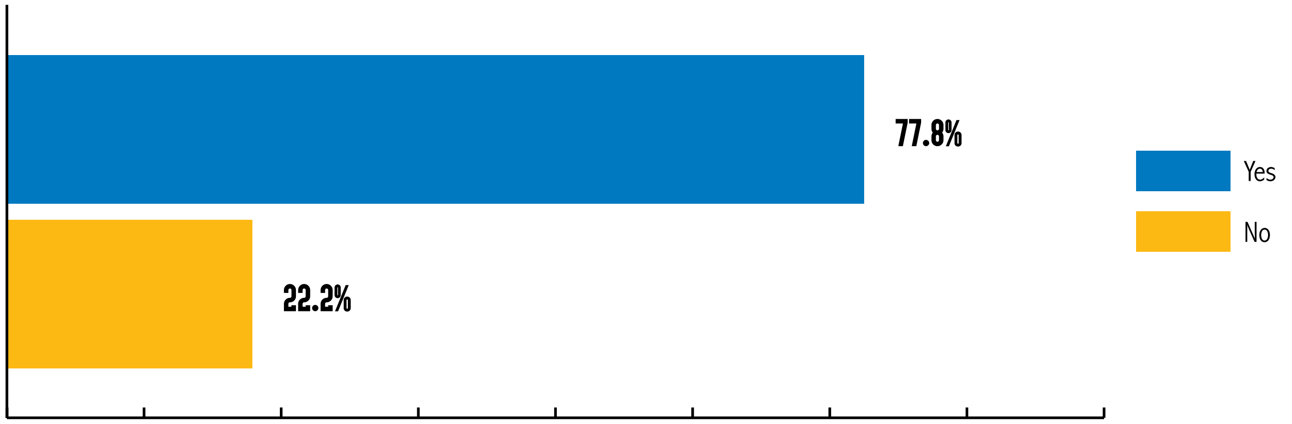
INTERNATIONAL CLIENTS

Does your company work for international clients in your country?



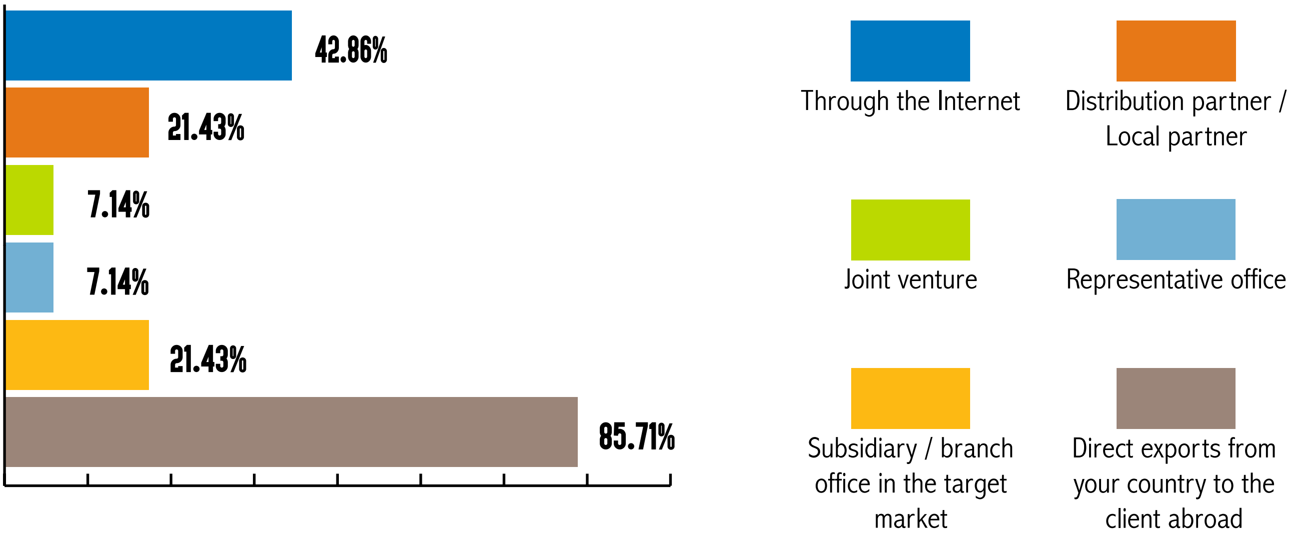
EXPORT ACTIVITIES

Does your company conduct export activities?



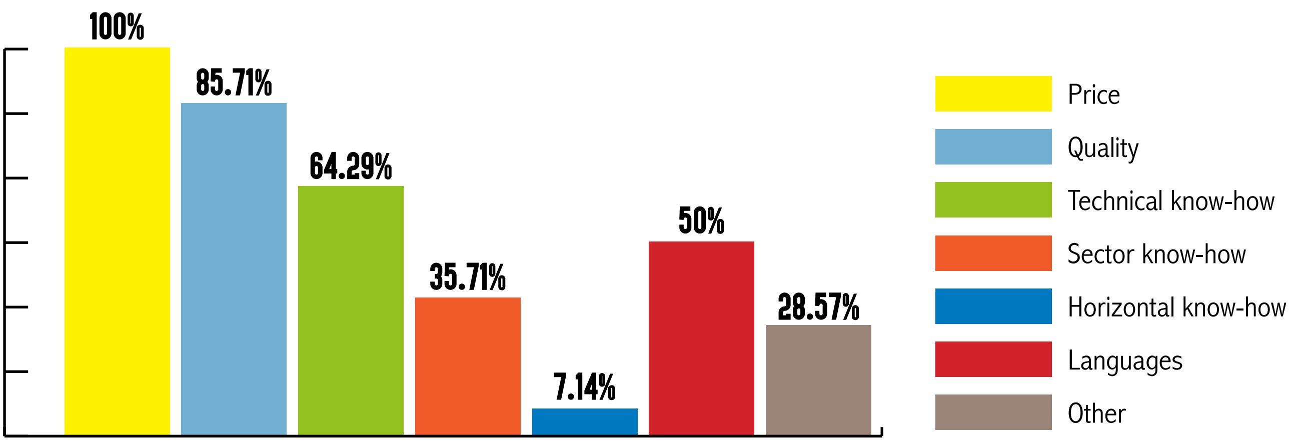
WAYS OF EXPORTS

How do you conduct your exports?



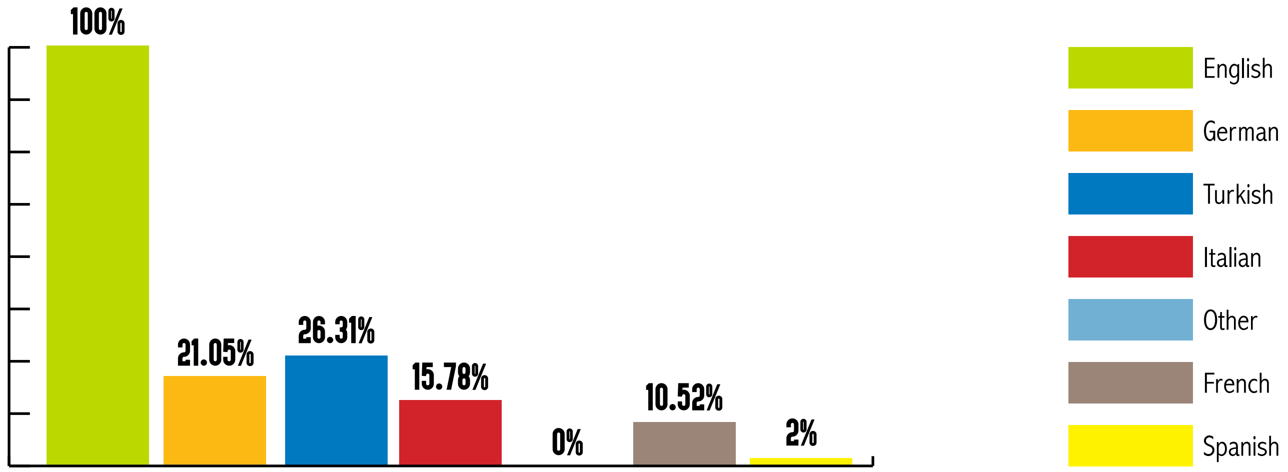
CORE COMPETITIVE ADVANTAGES

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
Costs of exporting	Visa requirements
Culture & language barriers	Lack of branding of the local IT industry abroad
Technical standards and requirements (ISO, CMMI, specific technologies, etc.)	Lack of support by government institution (export financing schemes, etc.)

2.3. STATISTICS

VERTICAL SECTORS/CLIENTS

ICT companies from Kosovo have their main clients from the sector of IT Services and Outsourcing (63.16%).

PRODUCTS/SERVICES FOR THE DOMESTIC CLIENTS

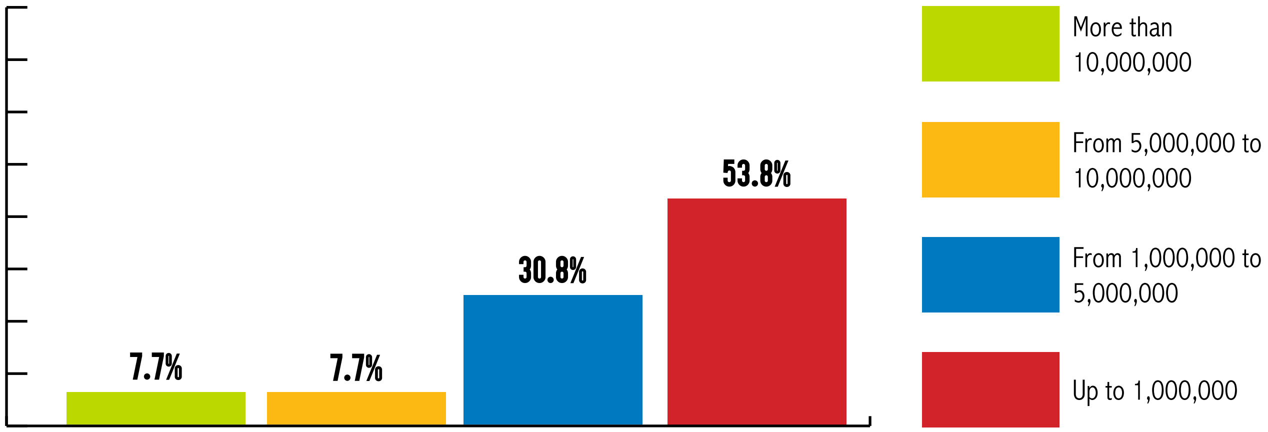
The majority of ICT companies are providing Custom Development / Outsourcing (62.11%), IT Project Management (42.11%). (ANNEX 3)

PRODUCTS/SERVICES FOR THE INTERNATIONAL CLIENTS

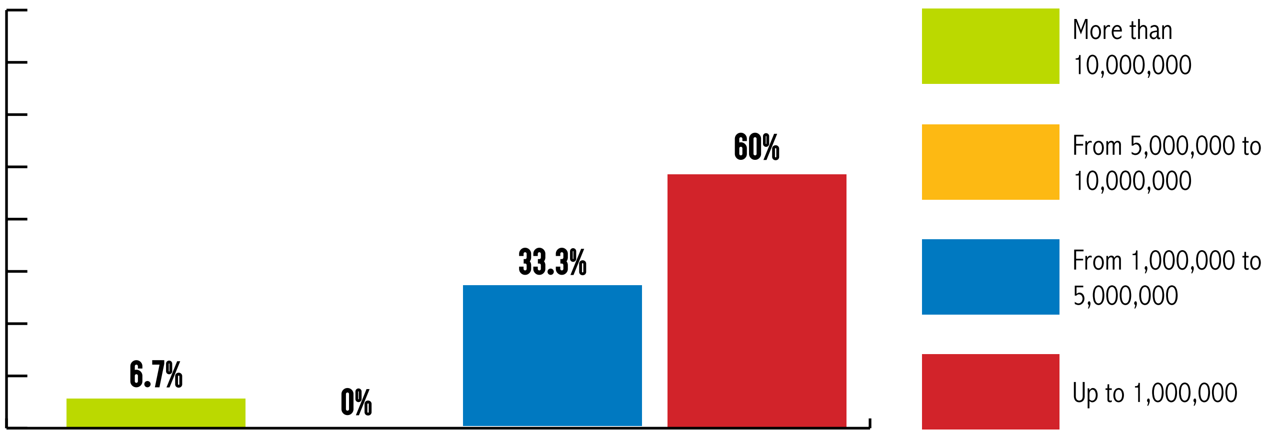
ICT companies from Kosovo are mostly providing following services to their international clients: Custom Development / Outsourcing (42.11%) as well as IT Project Management (42.11%).
(ANNEX 3)

TOTAL SALES IN 2014 AND 2015

What was your total sales in your local currency in 2014? (transferred in EUR)



What was your total sales in your local currency in 2015? (transferred in EUR)



VERTICAL SECTORS/CLIENTS

Aerospace	
Automotive	5.26
Defense	10.53
Education	42.11
Financial services	31.58
Gaming and Entertainment	10.53
Healthcare Services	15.79
Households-domestic market	10.53
Industry	10.53
IT Services and Outsourcing	63.16
Press and Media	
Manufacturing, Distribution, Retail	26.32
Marketing and Communications	21.05
Publishing house-domestic market	21.05
Non-profit organizations	26.32
Public sector (E-Government)	42.11
Real Estate	10.53
Services (HR, accounting, legal)	21.05
Technology	36.84
Telecommunications (wireless and mobile)	31.58
Telematics	
Tourism and Hospitality	21.05
Trade, transport and logistics	10.53
Utilities	10.53
Other	

2.4.
HUMAN RESOURCES

EMPLOYEES AND ASSOCIATES FOR 2014 AND 2015

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

EMPLOYEES WHO LEFT COMPANIES

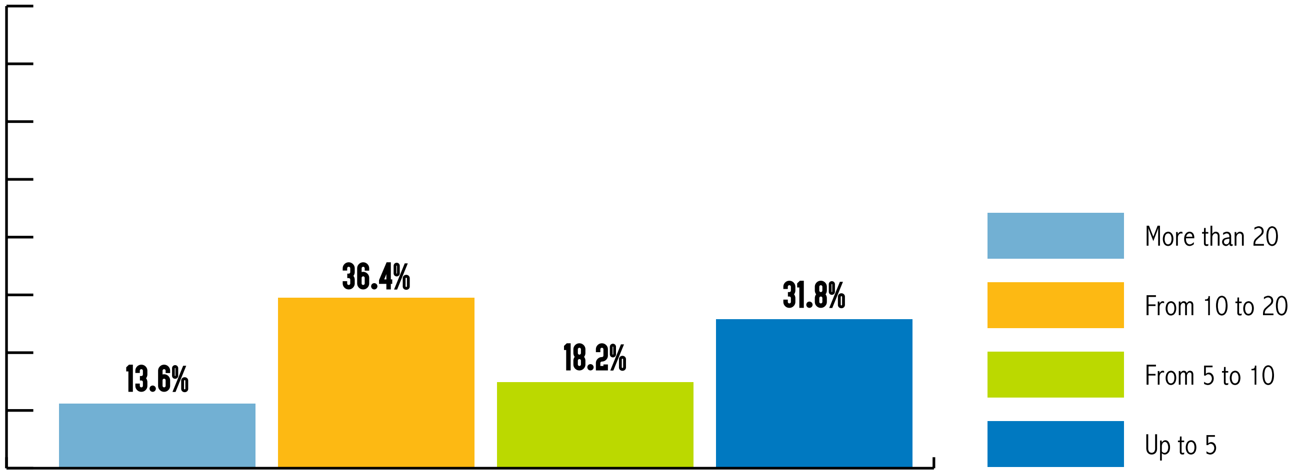
Number of employees who left the companies on the annual basis is 25%.

AVERAGE MONTHLY SALARIES IN 2014 AND 2015

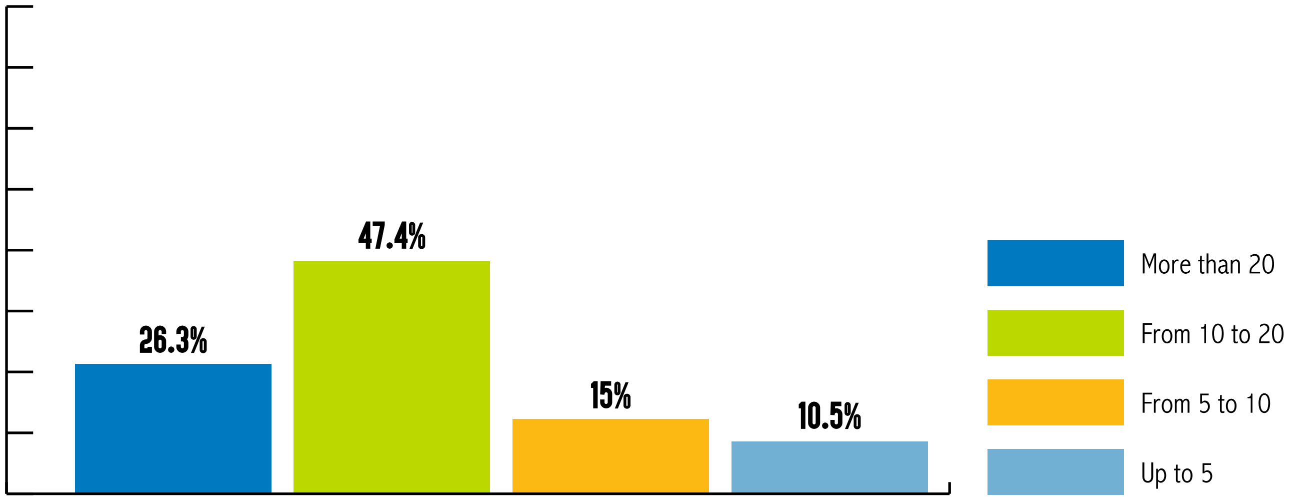
Comparing average monthly salaries for different positions in ICT sector, System Administrators have had the highest average, while Graphic Designers have had the lowest.

EMPLOYEES AND ASSOCIATES 2014 AND 2015

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

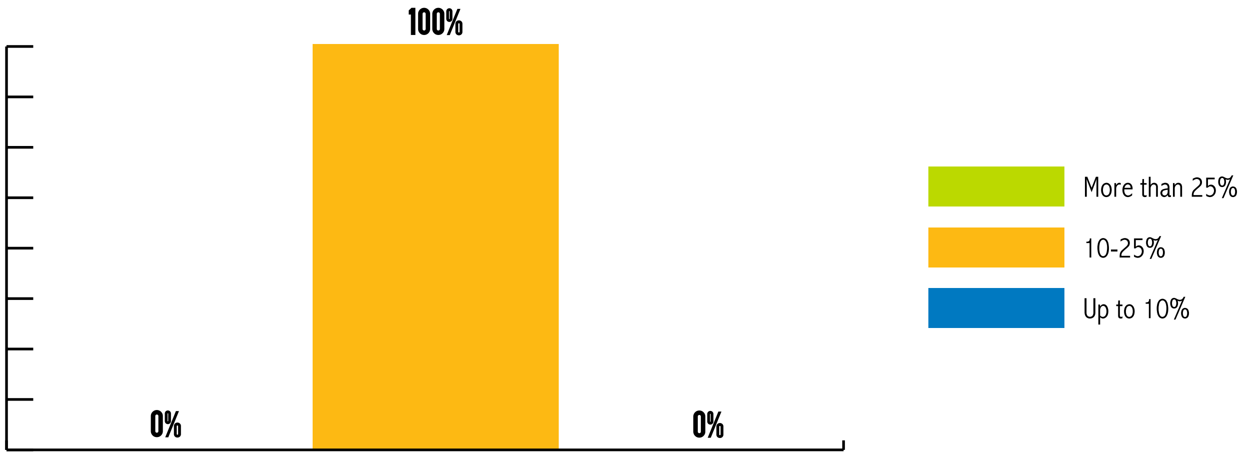


What is the total number of your employees and associates-2015?

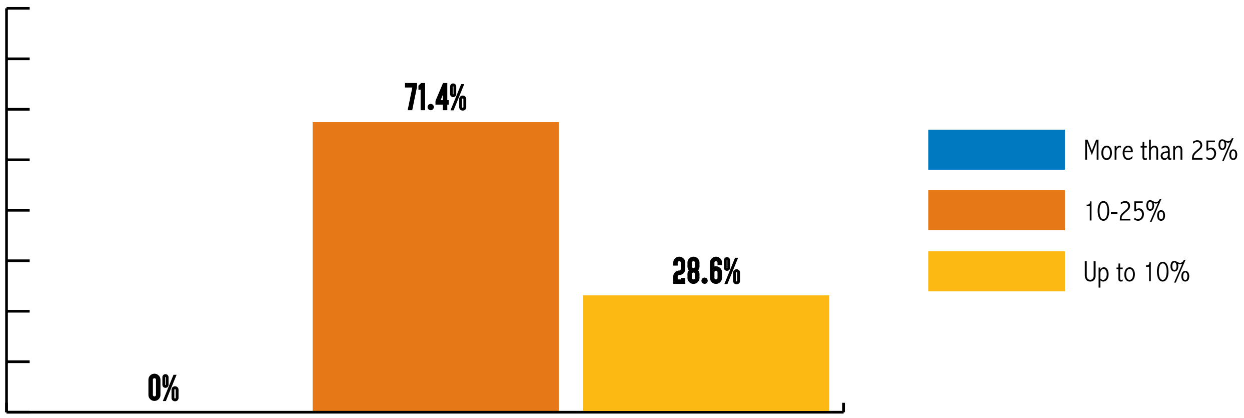


EMPLOYEES WHO LEFT COMPANIES

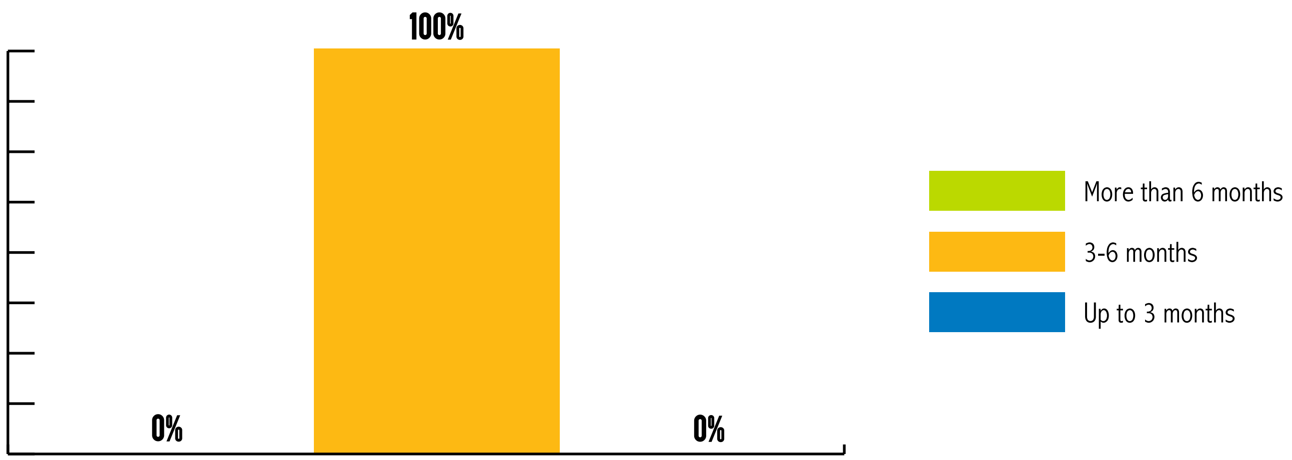
Specify the number of employees who leave the company on an annual basis 2016



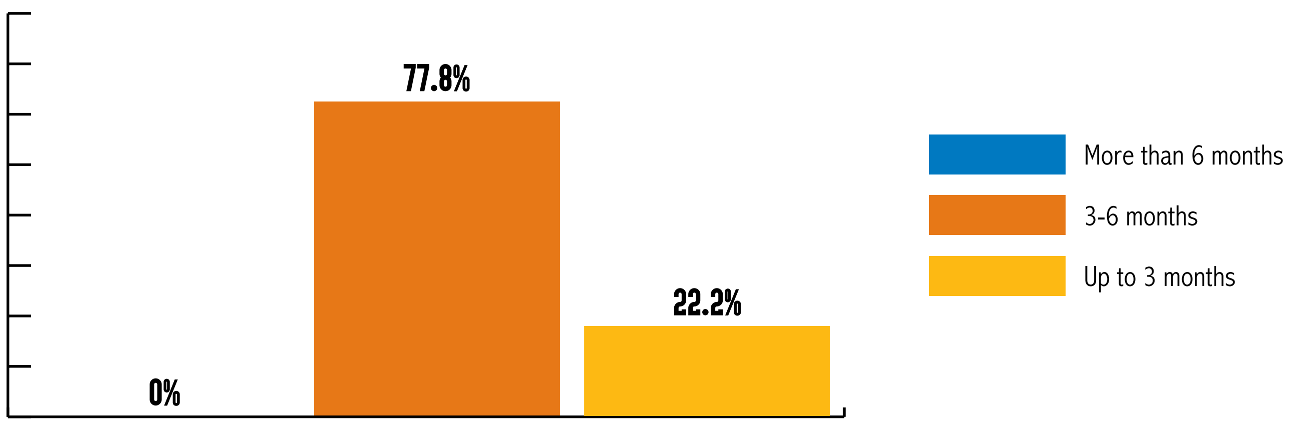
Specify the number of employees who leave the company on an annual basis 2015



What is the average length of time required for a change of employees who leave the company 2016?

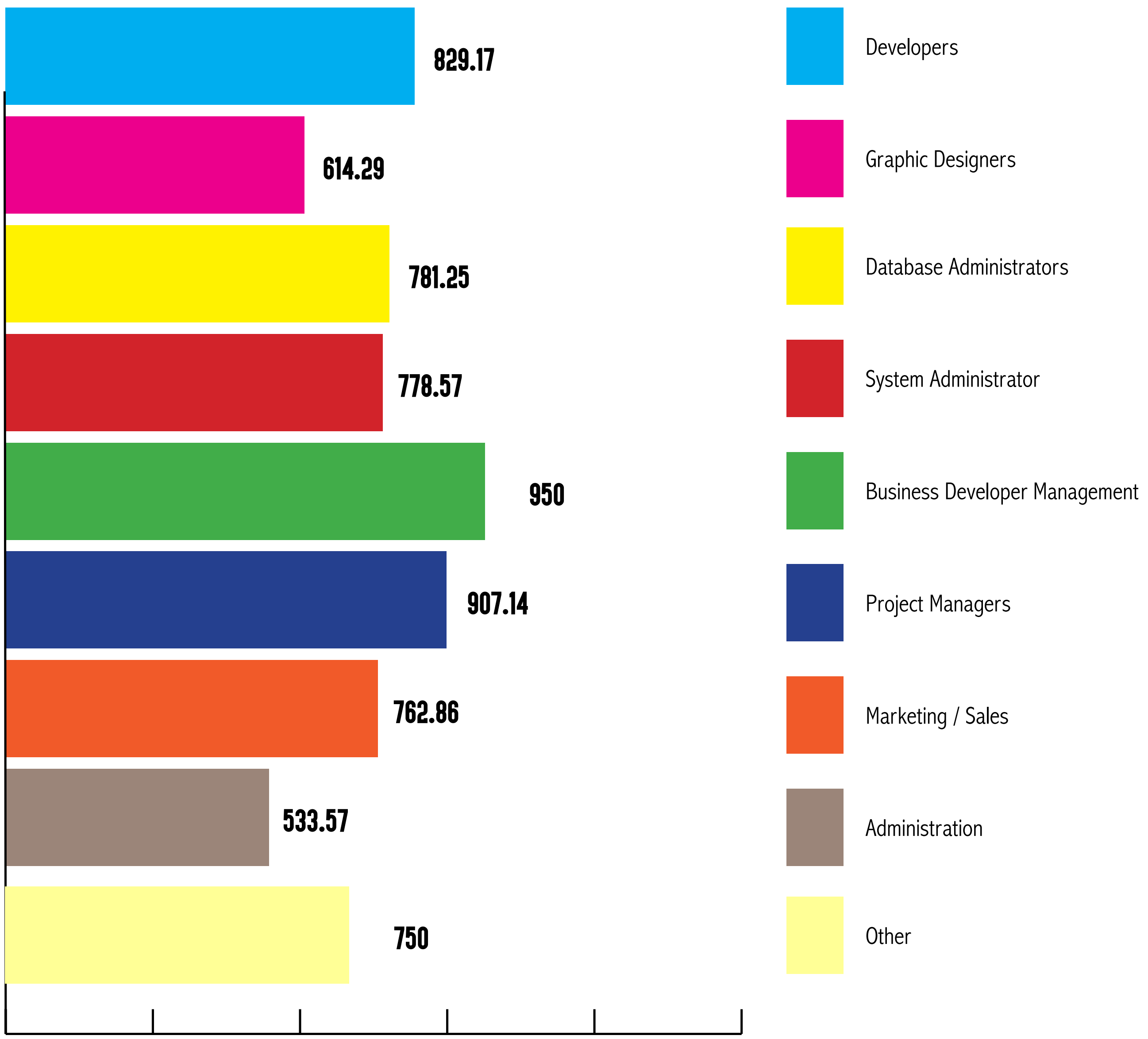


What is the average length of time required for a change of employees who leave the company 2015?

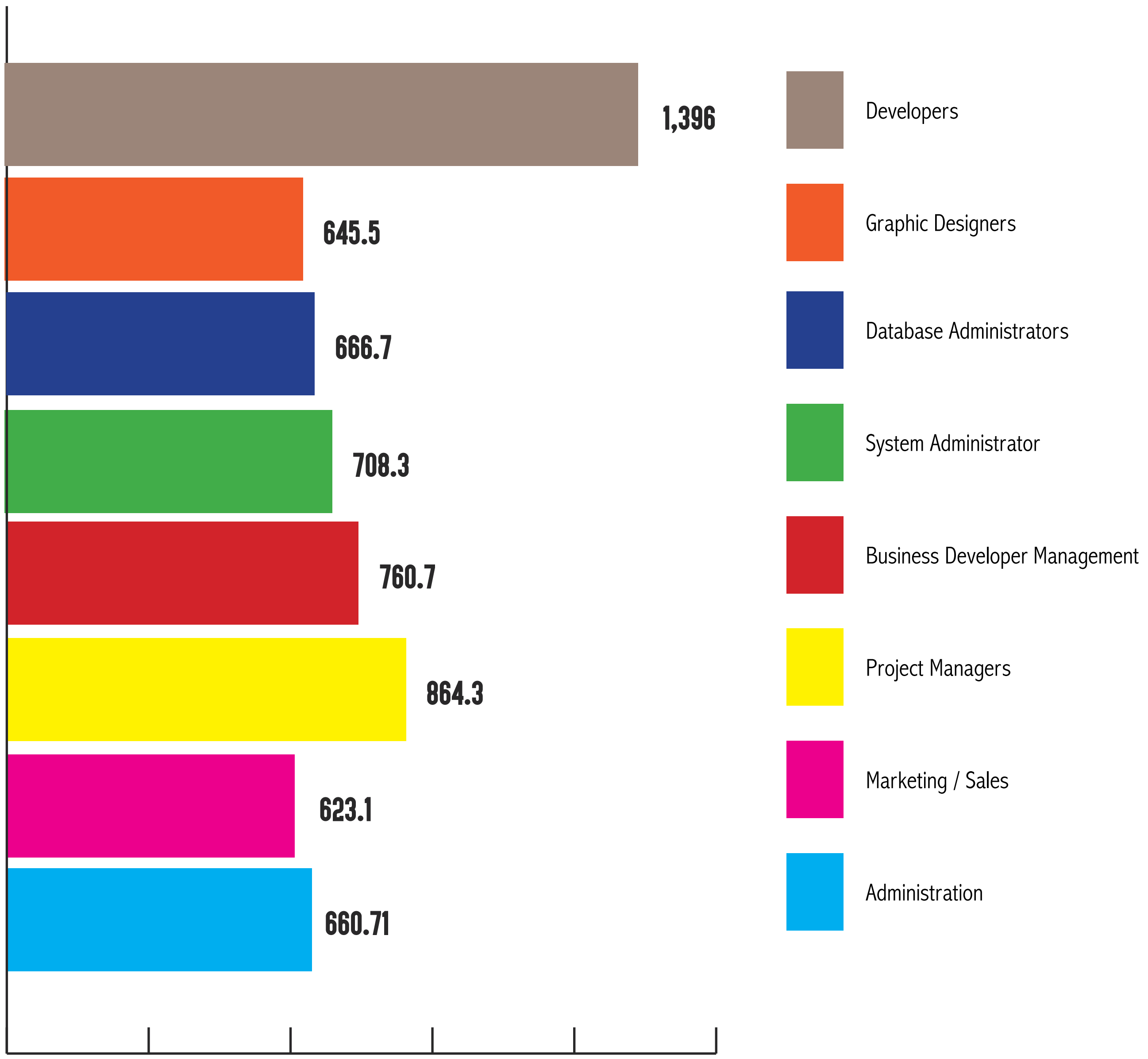


AVERAGE MONTHLY SALARIES IN 2014 AND 2015

Average monthly salary in 2015 (eur)



Average monthly salary in 2014 (eur)



2.5. FORECASTS

EXPECTATIONS/NUMBER OF EMPLOYEES

ICT companies from Kosovo expect an increase of up to 10-25% of their employee number.

EXPECTATIONS/SALARIES

50% of ICT companies expect salaries to increase for 10% in future period.

EXPECTATIONS/BUSINESS ENVIRONMENT

66.7% of ICT companies consider national economic situation as major negative impact on business.

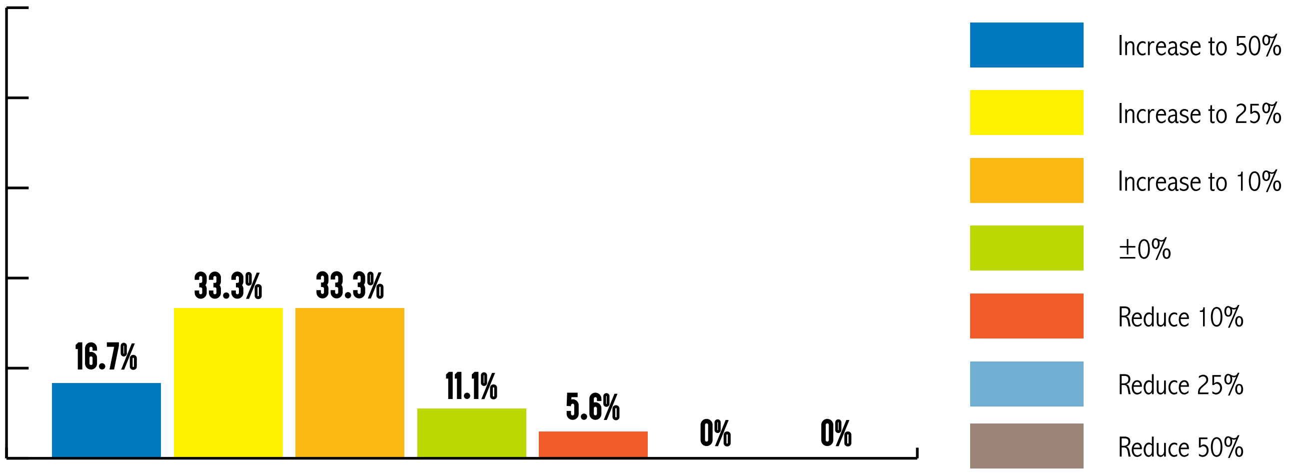
BRAIN DRAIN

73.7% of ICT companies think that brain drain has negative influence on their business activities.

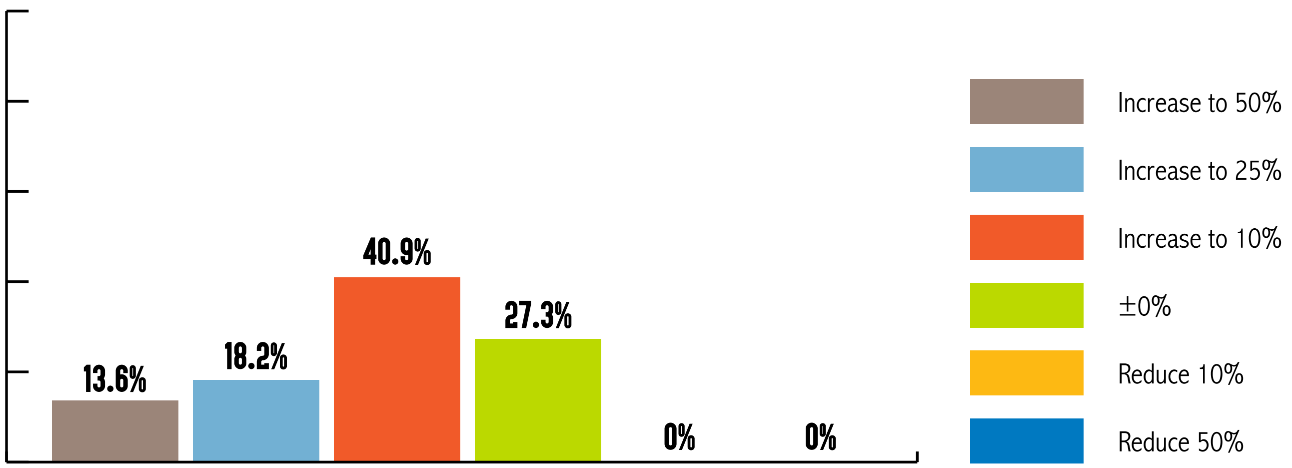
SKILLED/QUALIFIED WORKFORCE

94.7% of Kosovo ICT companies believe that the lack of skilled/qualified workforce is a key barrier for the business operations.

EXPECTATIONS / NUMBER OF EMPLOYEES

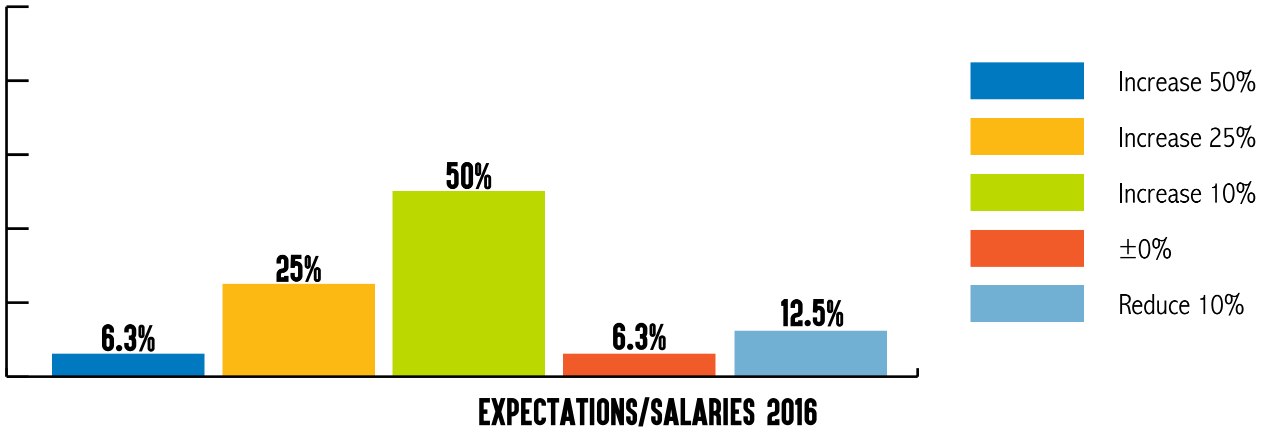


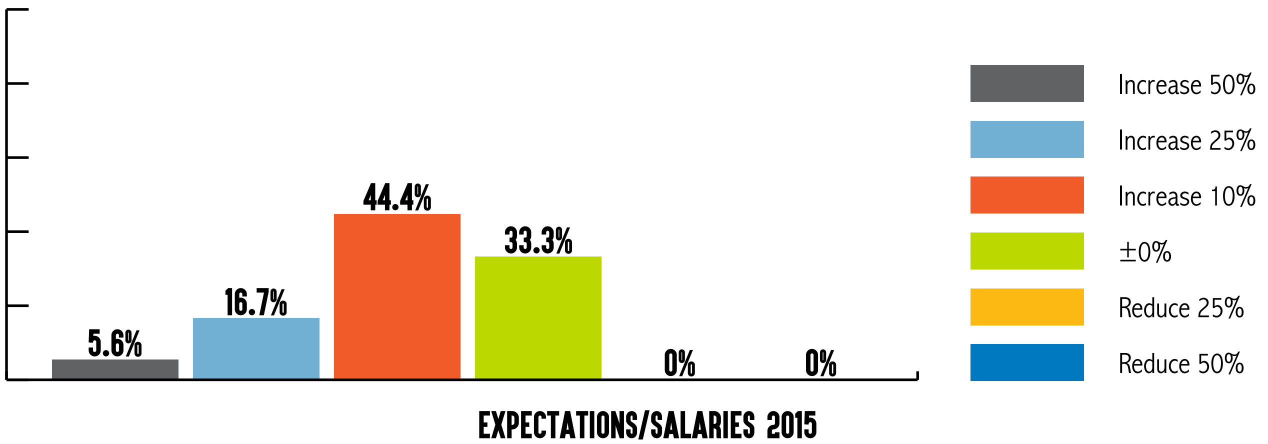
EXPECTATIONS/NUMBER OF EMPLOYEES – 2016



EXPECTATIONS/NUMBER OF EMPLOYEES – 2015

EXPECTATIONS / SALARIES



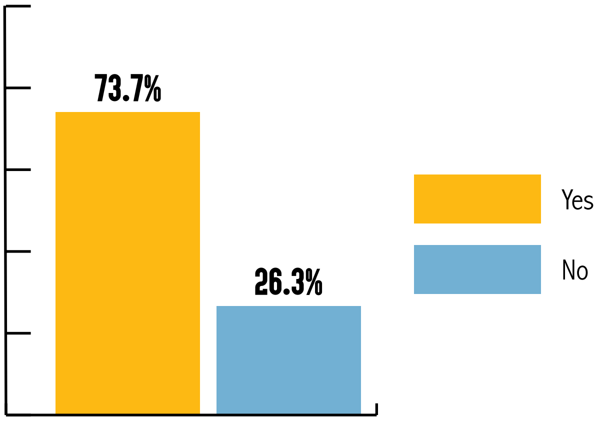


EXPECTATIONS / BUSINESS ENVIRONMENT

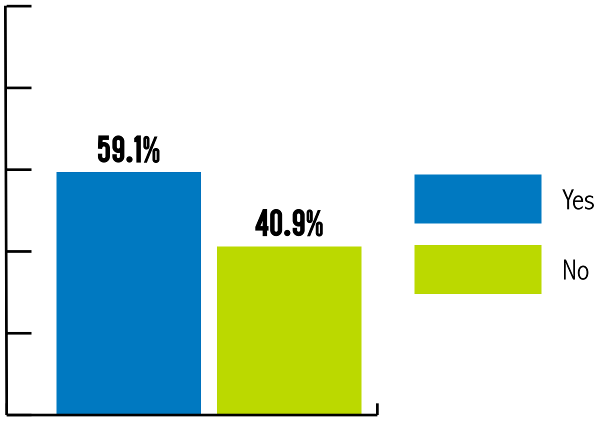
How do you assess the impact of the following factors on business?

	Negative	Neutral	Positive
Global Economic situation	31.6	63.2	5.3
National Economic situation	66.7	27.8	5.6
HR Market	61.1	22.2	16.7
Intensified Competition	33.3	50	16.7
Government policy	50	44.4	5.6

BRAIN DRAIN

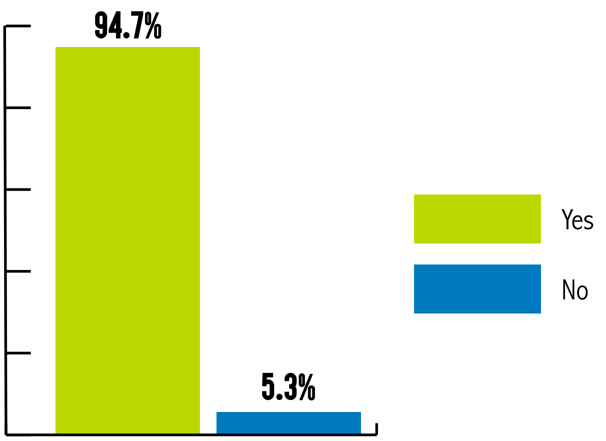


Is brain drain influencing negatively your business in 2016?

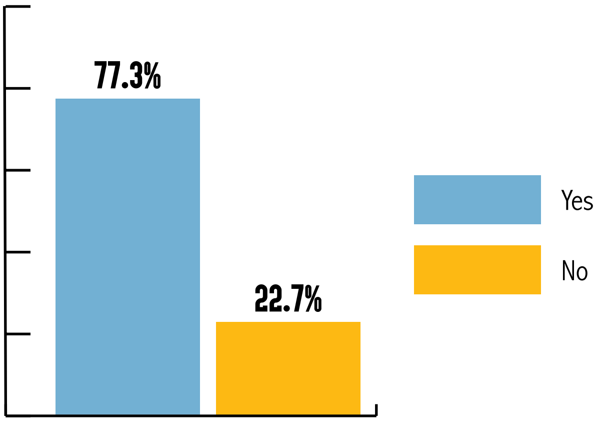


Is brain drain influencing negatively your business in 2015?

SKILLED/QUALIFIED WORKFORCE



Do you think there is a deficit of skilled/qualified workforce in your country in 2016?



Do you think there is a deficit of skilled/qualified workforce in your country in 2015?

CONCLUSIONS

“South East Europe IT industry barometer” main goals are to support the export capacity of ICT companies in South East Europe. Project aims to collect basic information on ICT companies in the Western Balkan region and to provide an insight into the value of the national ICT markets as well as their competitiveness.

Comparative analysis is done following trends through the years and based on:

- 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 has shown that companies in all targeted countries have similar trends of development, products, projections, and general structure. Most used operating system is Windows, but with growing importance of IOS in Kosovo. There are persistent trends in programming languages used (Java/JavaScript and HTML/XML) and database technologies (MSSQL, mSQL/MySQL and SQL).

At the same time, when analyzing data about export and trends in that area it can be seen some differences. Even if almost all companies in Kosovo have clients from abroad, they cooperate with those within their countries not by exporting products. Export is mainly done through direct contact with client abroad, but in the last year there is growth of export done through the internet.

Regional analysis shows few different trends considering domestic clients of companies in targeted countries. Through the years, most dominant clients in Serbia and Kosovo were from sector of IT services and outsourcing, while in Albania they come from sector of education. In Macedonia and Montenegro there are changing, and divided trends. Very important aspect for export and strengthening export capacity are core competitive advantages of companies, or to be precise what are things that can give them additional recognition on international market. Companies from targeted countries on average they considered those are price, quality and technical know-how. Additionally, there is trend that as the country becomes more active in terms of export, it put more emphasize on quality of service (technical know-how) as its strongest point.

Major issues for companies to overcome are barriers for their business, including export barriers. For ICT companies in targeted countries most important barriers for building their export capacities, through the years were: lack of branding of the local IT industry abroad, lack of business contacts in target markets, as well as lack of market information. But there are also some more basic barriers: visa requirements or culture and language barriers or even costs of exporting and experienced staff to conduct that kind of activities. All these are problems that have not been solved yet, and that need to be faced in the near future, so that these companies can use full potential of one of the most profitable industries. Looking into the plans and projections of ICT companies in targeted countries shows that they have growth plans, and that they are seriously looking into their strengths and weaknesses. They all recognize “brain drain” as one of most important problems for additional development and major negative impact on their business, and what it is worrisome that this is seen as growing problem for them. It is very important for “brain drain” to be faced not only on local but on state level, and to develop efficient policies to at least lower it.

Positive trend that analysis has shown, and this was growing through the years, is that within their expansion plans companies project additional employment of IT experts as well as raise of salaries for those employees. Also, there is very strong trend of growth of revenues for ICT companies in almost all the targeted countries. This additionally confirms underlying potential of ICT industry and growing demand for its services, which can significantly influence employment levels, but at the same time they see national economic situation as important setback for their development.

Finally, analysis has shown that ICT companies are very ambitious and they have expansion plans, but there is still highly unused export potential. They have growing focus on different foreign markets, but still most of their business is done by cooperation with international clients within domestic market not by exporting their services and products. Considering export, and promotion of export, they are faced with significant barriers which should be targeted on the country level by 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	15.8	5.3		21.1	26.3	31.6
Austria	16.7	5.6	5.6	27.8	16.7	27.8
Switzerland	21.1		5.3	26.3	15.8	31.6
United Kingdom	15.8		10.5	26.3	26.3	21.1
France	23.5	5.9	17.6	23.5	23.5	5.9
BeNeLux (Belgium, The Netherlands, Luxemburg)	22.2	5.6	16.7	27.8	16.7	11.1
Scandinavian countries	22.2	5.6	11.1	27.8	5.6	27.8
Southern Europe (Italy, Spain, Portugal)	22.2	11.1	33.3	16.7	11.1	5.6
Regional (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Montenegro, Romania, Serbia, Slovenia)	10.5		15.8	26.3	31.6	15.8
Central and Eastern Europe	23.5	17.6	17.6	17.6	11.8	11.8
North America (USA, Canada)	33.3	5.6	5.6	5.6	11.1	38.9
Middle East and Africa	50	16.7	11.1	5.6	5.6	11.1
East Asia	66.7	11.1	5.6		5.6	11.1

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)	11.8	11.8	29.4	25.5	17.6	5.9
Costs of exporting	64.7	17.6	5.9	5.9		5.9
Finding the right business partner	11.1	22.2		27.8	22.2	16.7
Lack of interest/awareness among foreign companies	16.7	11.1	11.1	27.8	27.8	5.6
Lack of technical skills	22.2	11.1	27.8	27.8	5.6	5.6
Lack of export marketing skills & know-how	17.8	11.8	29.4	23.5	11.8	5.9
Lack of branding of the local IT industry abroad	11.8	17.6	23.5	11.8	17.6	17.6
Culture & language barriers	41.2	35.3	5.9	11.8		5.9
Lack of support by government institution (export financing schemes, etc.)	11.8	17.6	23.5		23.5	23.5
Lack of export-oriented trainings and business development / consulting services	17.6	5.9	29.4	29.4	17.6	
Technical standards and requirements (ISO, CMMI, specific technologies, etc.)	35.3	5.9	23.5	23.5	5.9	5.9
Legal aspects (contract law in other countries, legal requirements, etc.)	23.5	17.6	11.8	11.8	29.4	5.9
Visa requirements	16.7	5.6	27.8		22.2	27.8
Lack of qualified staff to conduct export activities	29.4	11.8	17.6	17.6	17.6	5.9
Lack of business contacts in target markets	16.7	11.1	11.1	11.1	38.9	11.1

CLIENTS ENTERPRISE / DOMESTIC MARKET (%)

Aerospace	16.66
Automotive	8.33
Defence	16.67
Education	16.67
Financial services	50.00
Gaming and Entertainment	8.33
Healthcare Services	33.33
Households-domestic market	
Industry	8.33
IT Services and Outsourcing	33.33
Press and Media	
Manufacturing, Distribution, Retail	25.00
Marketing and Communications	8.33
Publishing house-domestic market	
Non-profit organizations	8.33
Public sector (E-Government)	58.33
Real Estate	8.33
Services (HR, accounting, legal)	16.66
Technology	25.00
Telecommunications (wireless and mobile)	16.67
Telematics	8.33
Tourism and Hospitality	
Trade, transport and logistics	8.33
Utilities	8.33
Other	8.33

CLIENTS ENTERPRISE / INTERNATIONAL MARKET (%)

Aerospace	
Automotive	
Defence	
Education	15.79
Financial services	21.05
Gaming and Entertainment	15.79
Healthcare Services	5.26
Household	10.53
Industry	5.26
IT Services and Outsourcing	52.63
Manufacturing, Distribution, Retail - domestic market	10.53
Publishing house	21.05
Press and Media	10.53
Non-profit organizations	
Public sector (E-Government)	10.53
Real Estate	15.79
Technology	31.58
Services (HR, accounting, legal)	15.79
Telecommunications (wireless and mobile) - domestic market	26.32
Telematics	
Tourism and Hospitality	
Trade, transport and logistics	5.26
Utilities	10.53
Other	5.26

ANNEX 3

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

Business Intelligence / Data Warehousing	21.05
Business Process Optimization	21.05
Corporate Security	10.53
Custom Development / Outsourcing	42.11
Customer Management (CRM)	26.32
Document Management	15.79
E-Commerce	36.84
Embedded Engineering and Development	
ERP / Supply Chain	15.79
IT Consulting	31.58
IT Project Management	42.11
Knowledge Management / Operations	
Navigation Applications	5.26
Mobile Solutions	36.84
New Media Production (Multimedia / Web animations)	15.79
Product maintenance, Support and Customization	36.84
Software Quality Assurance	15.79
Tools / COTS	
Web design; development	36.84
Other	

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

Business Intelligence / Data Warehousing	21.05
Business Process Optimization	21.05
Corporate Security	10.53
Custom Development / Outsourcing	42.11
Customer Management (CRM)	26.32
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Knowledge Management / Operations	
Navigation Applications	36.84
Mobile Solutions	5.26
New Media Production (Multimedia / Web animations)	15.79
Product maintenance, Support and Customization	36.84
Software Quality Assurance	15.79
Tools / COTS	
Web design; development	36.84
Other	

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

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

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

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

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 mounts
- < 6 mounths
- 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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