IT CASE:

UKRAINIAN IT-SERVICES FOR NORWEIGAN START-UPS

NUCC Young Entrepreneurs 2017

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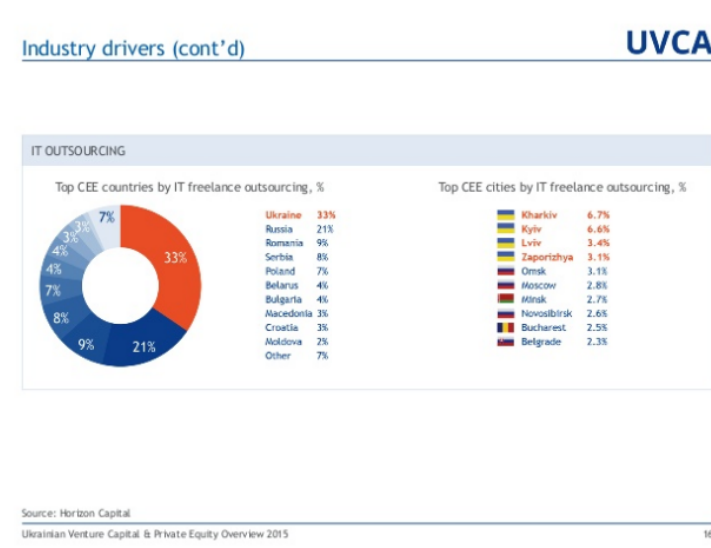
Ukrainian IT supply

Оглавление

Market Overview (volumes, values,2010-2016)

According to the PWC research, Ukrainian IT outsourcing market is about **$3 billion**. To say that, in 2017 already 13 Ukrainian outsource providers have joined the list of world's TOP-100 companies in this field according to IAOP rate - The 2017 Global Outsourcing 100. Among of those, the best-rated ones are SoftServe (over 4000 employees, head office in Lviv), Luxoft (over 3000 employees in Ukraine, head office in Switzerland) and Ciklum (over 2000 employees in Ukraine, head office in Kiev), which has become the first Ukrainian IT company invested by American billionaire and investor George Soros.

Even despite the stereotype that Ukraine is an outsourcing country is being very spread, it doesn't mean all. When obviously in comparison with Ukrainian IT-products market capacity it looses, in terms of market's capitalization, product startups for sure take the leadership – today there are around 3000 Ukrainian startup companies being developed on different stages. Considering the catalyst impact of growing number of investors dealing with Ukrainian products developers, that's more than just promising.

According to the research by dou.ua, the total number of the Ukrainian **IT specialists** is approximately **99 940** people. This number includes not only developers, but QA and PM specialists as well. In 2015 the number of people involved in the IT market was 89 300 people, so the market has grown up by 12%. Interesting fact, that one of the biggest Ukrainian IT company employs more than 4 500 people (as for July 2016).
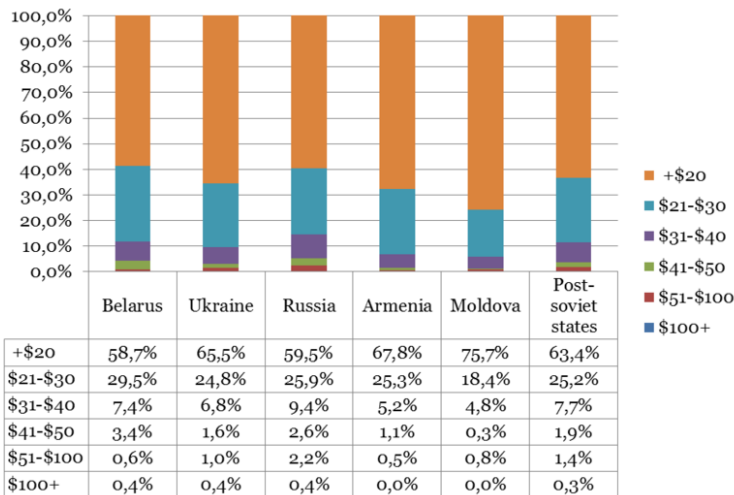
Рост ИТ рынка и доля ТОП-25
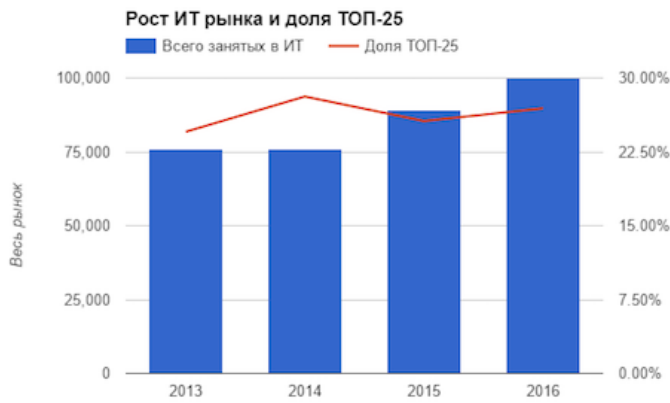
Almost half of all IT workers live and work in Kyiv, while **80%** of all Ukrainian IT specialists are living live in top **5 largest** Ukrainian **cities** – Kyiv, Kharkiv, Lviv, Dnipro, and Odesa.

Prices/Quality

While making this report we came to a conclusion that the more developers there are in a particular country or region, the better the value for money of the service found there. This can be explained by the economic concept of emulative consumption, or the struggle to possess and outdo your neighbor.

One of our first observations about the post-Soviet region is that prices are distributed unevenly across the constituent countries. The chart below shows how exactly the pricing landscape specific to a particular country looks.

	Belarus	Ukraine	Russia	Armenia	Moldova	Post-soviet states
+$20	58,7%	65,5%	59,5%	67,8%	75,7%	63,4%
$21-$30	29,5%	24,8%	25,9%	25,3%	18,4%	25,2%
$31-$40	7,4%	6,8%	9,4%	5,2%	4,8%	7,7%
$41-$50	3,4%	1,6%	2,6%	1,1%	0,3%	1,9%
$51-$100	0,6%	1,0%	2,2%	0,5%	0,8%	1,4%
$100+	0,4%	0,4%	0,4%	0,0%	0,0%	0,3%

We can see that the most popular price for IT services in post-Soviet countries is in the $20/hour range, whereas the highest cost, over $100, is charged by only 0.3% of the respondents. Russia is the only country in the region with more than 1% of companies and individuals (2,2%) charging $51-$100 per hour of work. At the same time, a vast majority of the region's representatives, about 90%, charge $30/hour or less per hour of work.

In order to calculate the average price for IT services in these countries, we took the following steps:

- Excluded extreme prices (both the lowest and the highest)

- Distinguished the middle value for price ranges (for example, for the $31-$40 category the mid-value is $35/hour)

- Multiplied the mid-value by the total number of representatives of a particular pricing category

- Summed up all the results and divided them by the total number of IT companies and individuals

- Deducted/added 20% from/to a given average price in order to have a price interval, specific to a particular region.

You can see the results of these calculations in the chart below:

	Belarus	Ukraine	Russia	Armenia	Moldova	Post-soviet states
Moderate	$24,3	$24,5	$26,1	$23,5	$24,0	$25,1
High-quality	$35,0	$35,3	$37,6	$33,8	$34,6	$36,2
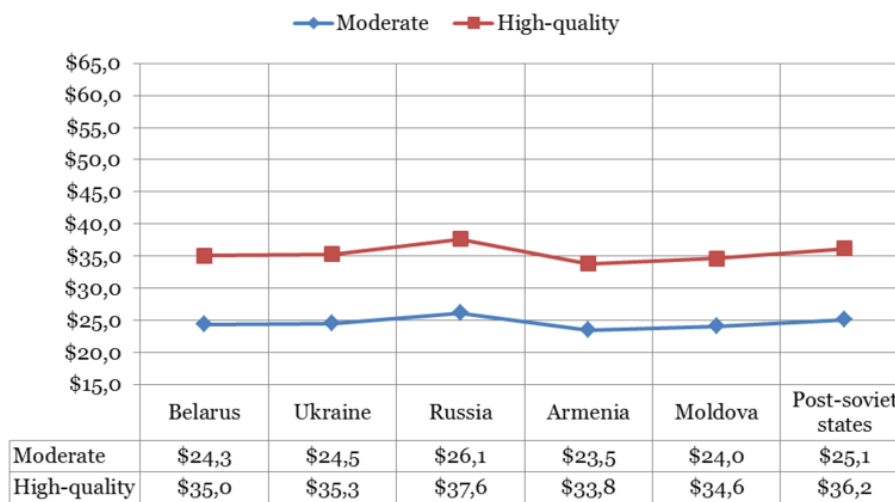
[Chart 2 – average prices for IT services in post-Soviet states]

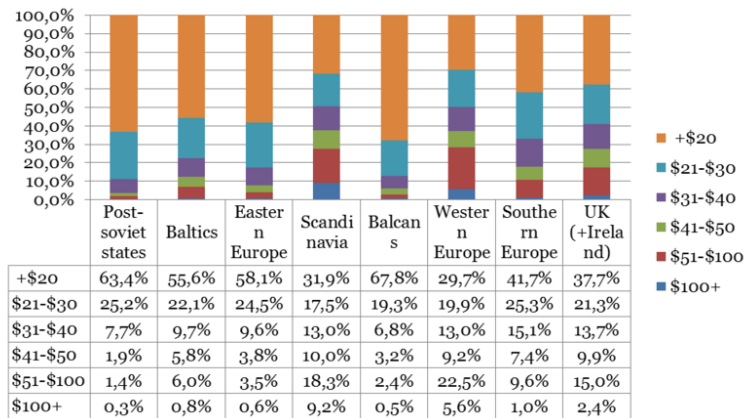We can see from Chart 2 that the average price for IT services in post-Soviet countries ranges from between $25/hour and $35/hour. The blue line on the graph corresponds to a supposedly moderate quality of IT services, whereas the upper red line reflects a price "above average", which relates to higher-quality services.

If you are looking to outsource software development to post-Soviet states, we strongly recommend you work with individuals who charge within or above the $31-$40 an hour price range.

Overall, the cheapest regions in Europe in terms of software development services are post-Soviet countries and the Balkans, while the most expensive are Scandinavia, Central and Western Europe, and the UK.

For now, the post-Soviet area is the most competitive market for companies and individuals engaged in outsourcing, since there are almost twice as many representatives of the IT sphere there as in any other region.

The fact that there are so many specialists in the region is partially a result of its large number of technical universities, most of which were inherited from the Soviet Union, and partially because of the unsatisfactory conditions of the labor market. The current problems in heavy industry, metallurgy, and other technical sectors in post-Soviet states has freed many qualified engineers who can easily learn programming and become part of a competitive work force.

|	Post-soviet states	Baltics	Eastern Europe	Scandinavia	Balcans	Western Europe	Southern Europe	UK (+Ireland)
+$20	63,4%	55,6%	58,1%	31,9%	67,8%	29,7%	41,7%	37,7%
$21-$30	25,2%	22,1%	24,5%	17,5%	19,3%	19,9%	25,3%	21,3%
$31-$40	7,7%	9,7%	9,6%	13,0%	6,8%	13,0%	15,1%	13,7%
$41-$50	1,9%	5,8%	3,8%	10,0%	3,2%	9,2%	7,4%	9,9%
$51-$100	1,4%	6,0%	3,5%	18,3%	2,4%	22,5%	9,6%	15,0%
$100+	0,3%	0,8%	0,6%	9,2%	0,5%	5,6%	1,0%	2,4%

The country has a rather strong educational system. 87% of high school graduates go to colleges and universities, and 35% of those students choose IT related subjects. About 30,000 IT students graduate from the universities each year. The most popular ones are National Taras Shevchenko University of Kyiv, National Technical University of Ukraine "Kyiv Polytechnic Institute", Lviv Polytechnic National University etc.

Ukraine is also famous for its achievements in science and tech such as Antonov An-225 – the largest aircraft in the world, Sikorsky helicopter, launching the first artificial satellite into orbit, the invention of X-Ray etc.

The literacy rate is really high and constitutes 99.7%. Ukraine is a country with moderate English proficiency as it holds 34th place in EF English proficiency index 2015. According to Developers.org.ua, the number of IT developers with fluent English skills has increased to 40.2% and 38.6% of respondents have an intermediate level.

English knowledge

|	
Elementary	21.2%
Intermediate	38.6%
Fluent	40.2%
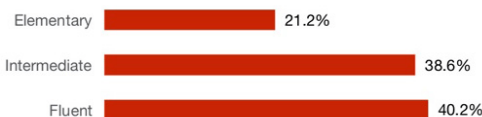
Source: dou.ua

Ukraine holds the 1st place in Europe in terms of IT specialists. Around [90,000 people work in the sphere](#) now, and by 2020, this number is expected to reach 200,000. Not only does Ukraine take the lead in the availability of workforce, it is also the country with highly skilled engineers. Many IT professionals in Ukraine have the international education or job experience abroad. Suffice to say that the country holds the 4th place for the number of certified IT specialists worldwide (after the USA, India and Russia).

Most Ukrainian IT companies dedicate much attention to the professional development of their employees, so they organize trainings, workshops, English classes, they entice them to get certifications and take part in international events.

Yet the main reason for outsourcing software development has always been cutting costs. Ukraine has been seriously hit by a recent crisis and inflation of the currency. So the dollar equivalent of an average

monthly salary now constitutes merely $300. The average salary of a Ukrainian programmer is $2,000 a month so you may imagine how many young people are willing to build a career in the sphere. Based on labour costs alone, companies outsourcing software to the country save up to 60 percent. Ukraine offers an access to large IT resources for the salary approximately 10-20% of an American or European IT engineer.
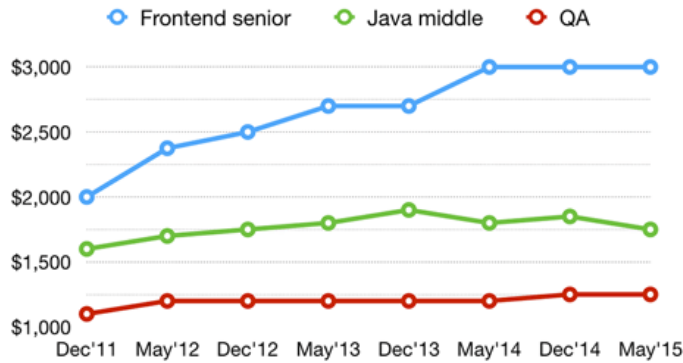
The U.S. is the main target market for Ukrainian IT firms, with an estimated 80% of exported software development services. It is also Ukraine's largest partner for R&D activities, followed by the EU countries and Israel. The industry comprises more than 500 outsourcing service providers and over 100 global R&D centres of such big brands as Oracle, Cisco, Samsung, NetCracker, Magento, Huawei, War Gaming, Playtech and Gameloft etc.

AVERAGE SALARIES AND THEIR EVOLUTION

Evolution of management salaries, 2011-2015
(gross salaries, in thousand USD)

Source: Dou.ua Salaries Report 2015

Evolution of QA salaries, 2011-2015
(gross salaries, in thousand USD)
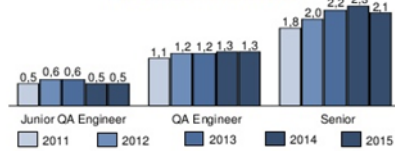
Source: Dou.ua Salaries Report 2015

Average gross salary by city in 2015
(in thousand USD)

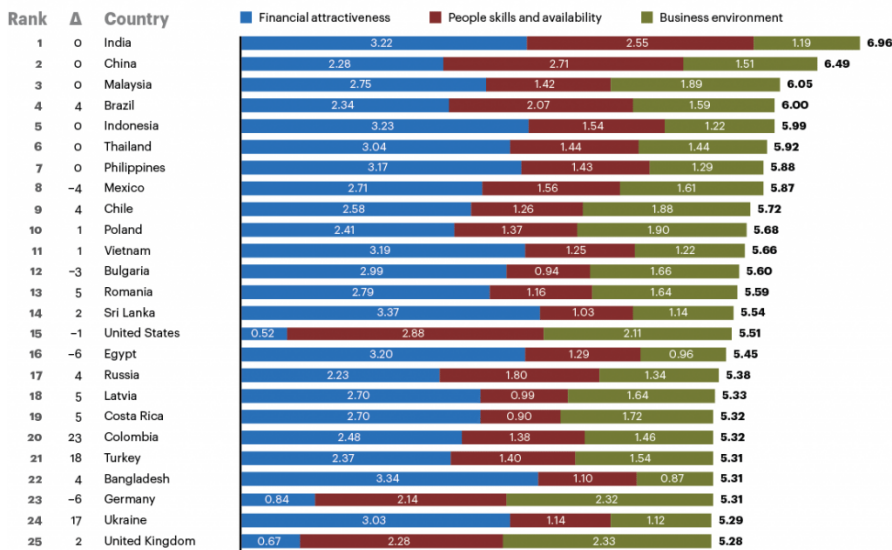| City	Salary
Kyiv	$2.180
Odesa	$1.723
Lviv	$1.500
Kharkiv	$1.613
Dnipropetrovsk	$1.500
Remote	$2.166

Sources: Lviv IT Cluster (Lviv); Dou.ua and Djinni.co (other areas)

Competitors overview

T. Kearney research also indicates that Ukrainian currency depreciation led to a major gain in its compensation cost score, accompanied by the improvement in the competitiveness of its tax and regulatory costs. The increase in political risk is partly eliminated by the government's implementation of reforms that boosted the country's competitiveness. As a result, Ukraine has moved up 17 positions in the [Global Services Location Index.](#)
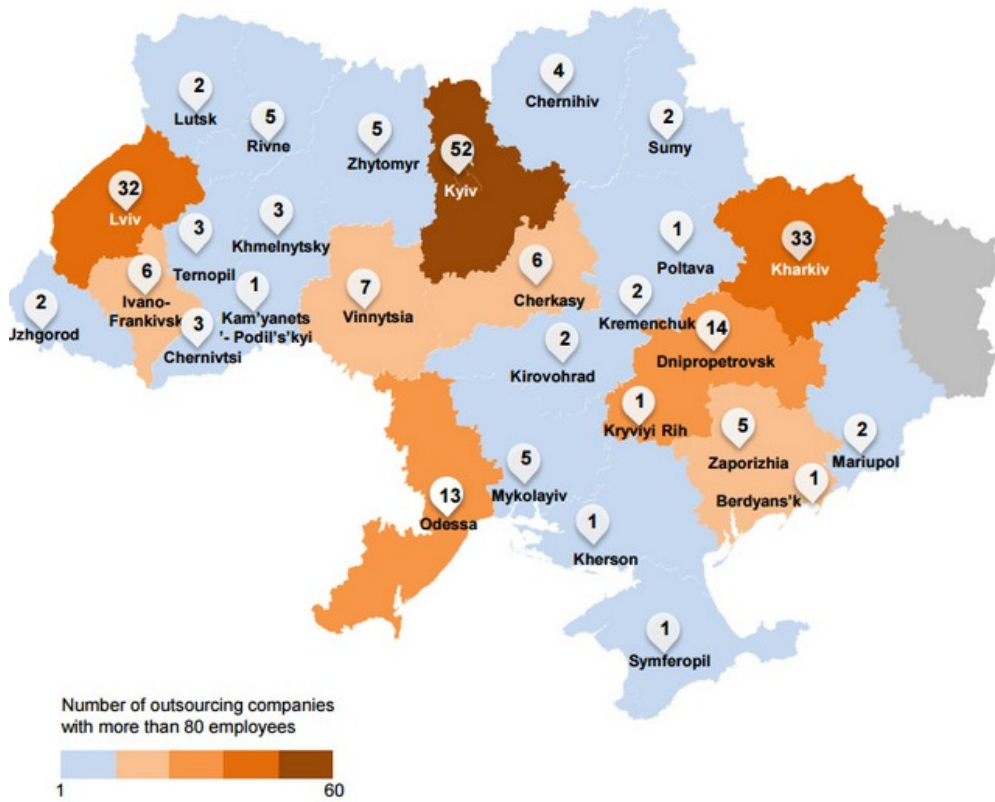
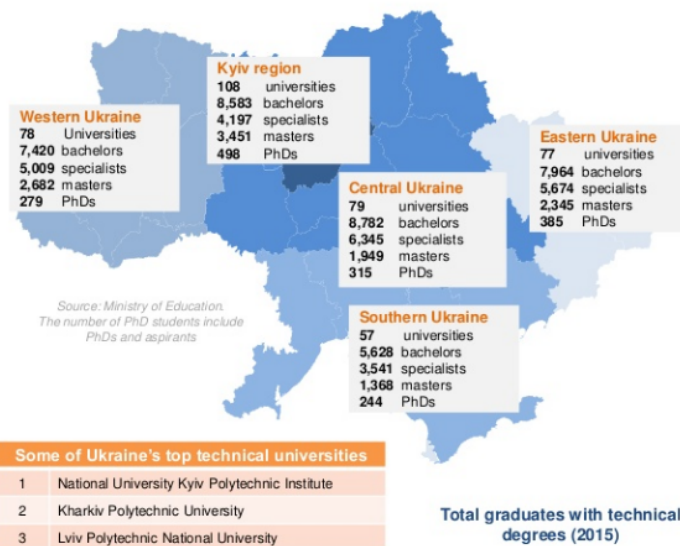Figure 1
2016 A.T. Kearney Global Services Location Index™

Rank	Δ	Country	Financial attractiveness	People skills and availability	Business environment	Total
1	0	India	3.22	2.55	1.19	6.96
2	0	China	2.28	2.71	1.51	6.49
3	0	Malaysia	2.75	1.42	1.89	6.05
4	4	Brazil	2.34	2.07	1.59	6.00
5	0	Indonesia	3.23	1.54	1.22	5.99
6	0	Thailand	3.04	1.44	1.44	5.92
7	0	Philippines	3.17	1.43	1.29	5.88
8	-4	Mexico	2.71	1.56	1.61	5.87
9	4	Chile	2.58	1.26	1.88	5.72
10	1	Poland	2.41	1.37	1.90	5.68
11	1	Vietnam	3.19	1.25	1.22	5.66
12	-3	Bulgaria	2.99	0.94	1.66	5.60
13	5	Romania	2.79	1.16	1.64	5.59
14	2	Sri Lanka	3.37	1.03	1.14	5.54
15	-1	United States	0.52	2.88	2.11	5.51
16	-6	Egypt	3.20	1.29	0.96	5.45
17	4	Russia	2.23	1.80	1.34	5.38
18	5	Latvia	2.70	0.99	1.64	5.33
19	5	Costa Rica	2.70	0.90	1.72	5.32
20	23	Colombia	2.48	1.38	1.46	5.32
21	18	Turkey	2.37	1.40	1.54	5.31
22	4	Bangladesh	3.34	1.10	0.87	5.31
23	-6	Germany	0.84	2.14	2.32	5.31
24	17	Ukraine	3.03	1.14	1.12	5.29
25	2	United Kingdom	0.67	2.28	2.33	5.28

IT OUTSOURCING
Ukraine vs. Poland

Ukraine

Population - 45 mln
Total area - 603,500 km2 (1st largest country in Europe)
GDP- $347.885 billion
Currency - hryvnia
Time zone - EET (UTC+2)

Largest IT cities -
Kyiv, Lviv, Kharkiv, Dnipro, Odessa

230,000 IT professionals

Average developer's salary -
$2.000 a month

30,000 IT graduates enter the market annually

Ranks 34th in EF English proficiency index 2015

$2.5 billion - export volume of Ukraine's IT industry

US and Western European companies are expecting to save up to 60% of their total IT expenses

Poland

Population - 38 mln
Total area - 312,679 km2 (7th largest country in Europe)
GDP- $1.051 trillion
Currency - zloty
Time zone - CET (UTC+1)

Largest IT cities -
Warsaw, Krakow, Łódź, Wroclaw

160,000 IT professionals

Average developer's salary -
$3.000 a month

15,000 IT graduates enter the market annually

Ranks 9th in EF English proficiency index 2015

IT outsourcing - $7.9 billion industry

US and Western European companies are expecting to save up to 50% of their total IT expenses

Geography

Number of outsourcing companies with more than 80 employees

1 — 60

2015 year

Number of graduates with technical degrees (2015)

Kyiv region
108 universities
8,583 bachelors
4,197 specialists
3,451 masters
498 PhDs

Western Ukraine
78 Universities
7,420 bachelors
5,009 specialists
2,682 masters
279 PhDs

Eastern Ukraine
77 universities
7,964 bachelors
5,674 specialists
2,345 masters
385 PhDs

Central Ukraine
79 universities
8,782 bachelors
6,345 specialists
1,949 masters
315 PhDs

Southern Ukraine
57 universities
5,628 bachelors
3,541 specialists
1,368 masters
244 PhDs

*Source: Ministry of Education.
The number of PhD students include
PhDs and aspirants*

Some of Ukraine's top technical universities	
1	National University Kyiv Polytechnic Institute
2	Kharkiv Polytechnic University
3	Lviv Polytechnic National University

Total graduates with technical degrees (2015)

LOCATION OF R&D CENTERS

1 Chernihiv

2 Sumy

1 Zhytomyr

15 Lviv

50 Kyiv

11 Kharkiv

1 Uzhgorod

6 Vinnytsia

1 Cherkasy

2 Kirovohrad

15 Dnipropetrovsk

1 Kryviyi Rih

2 Zaporizhia

1 Mariupol

3 Mykolayiv

1 Berdyansk

13 Odessa

2 Kherson

1 Symferopil

The R&D centers of international companies are located throughout Ukraine with Kyiv, Lviv, Dnipropetrovsk, Odessa and Kharkiv being the most frequent locations. Most engineers work on innovation in software, gaming, telecommunication and e-commerce.

Number of Top Outsourcing Companies

0   60

1.3.4. UKRAINE COMPARED WITH NEIGHBORING COUNTRIES

	Ukraine	Poland	Czech Republic	Bulgaria	Belarus	Slovakia
Labor force	22m	18.5m	5.3m	2.5m	4.5m	2.7m
Ease of doing business* (out of 189 countries)	83	25	36	38	44	29
Ease of starting a business** (out of 189 countries)	30	85	93	52	12	68
Living Costs** (New York = 100)	19	25	27	21	29	29
English Proficiency**	Moderate	very high	high	n/a	n/a	moderate

*Sources: *,** World Bank, "Doing business 2016. Measuring Regulatory Quality and Efficiency. Ranking out of 189 countries" – *** Numbeo Cost of Living Index 2015 – **** EF English Proficiency Index 2015*

Although weaker on English proficiency and ease of doing business, Ukraine's core advantages are its big labor (including engineering) workforce as well as its competitive salary range. Ukraine has become one of the cheapest countries to live and operate a business in following the hryvnia's dramatic fall against the dollar in 2014-2015. The salaries or IT professionals start at $400/month, those of QA specialists at $300/month, while those of project managers may be above $1,000/month.

Ukraine's cost of living is the cheapest in Europe according to Numbeo Index, taking into account consumer goods and rent price level. At the same time, the country has improved the ease of starting a business this year by reducing business registration procedures and eliminating business registration fees. Today the country ranks 30th in the world, up from 89th last year.

> While there are cheaper outsourcing destinations like India, Philippines or China, Ukraine provides a superior price/quality ratio.

While there are cheaper outsourcing destinations – like India, the Philippines or China – Ukraine provides a superior price/quality ratio. Not only are Ukrainian engineers generally skilled at business process outsourcing and quality assurance services, they are also able to solve complex technical problems in which deep expertise and innovative approaches may be required. Ms. Stetsenko of Indigo tech recruiting agency describes a typical engineering profile as "very young, IT is his hobby, he likes the challenge of solving difficult problems and offering creative solutions." Thus on top of traditional IT services, a number of Ukrainian companies offer extensive high tech R&D services as well as develop and commercialize their own products. In addition, many western and Ukrainian startups make use of Ukraine's outsourcing capacities for initial product prototyping and testing.

A range of managerial, cultural, political and economic factors, as well as Ukraine's legal and tax systems are further analyzed in the section "Pros and Cons of Doing Business in Ukraine".

Technologies offered/services

Most popular industries

Industry	Number of companies
Data management	26
Telecommunications	19
Cloud	18
Gaming	16
E-commerce	16
Media	12
Financial	12
Healthcare	8
Travel	6
Retail	6
Sercurity	5

Number of companies covering each field
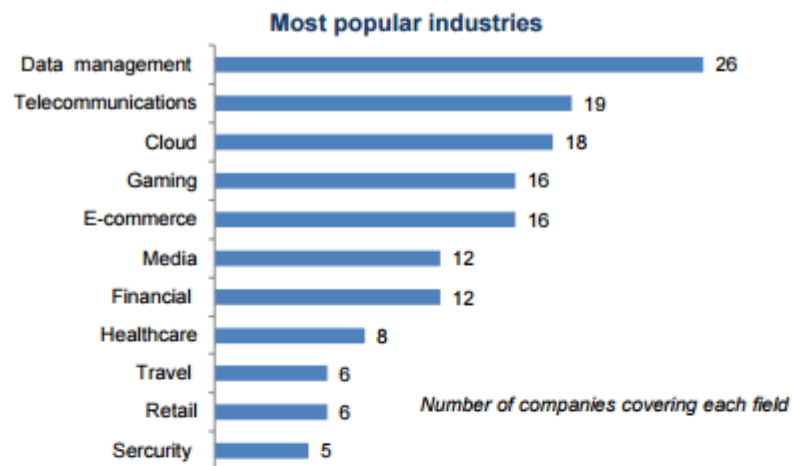
Project types

Ukrainian developers often work on mobile, software, enterprise and web projects. A range of IT service companies have build their reputation in solving complex engineering tasks. One may also find in Ukraine excellent resources for front-end development, UI/UX design, QA and other tasks.

Where Ukrainian IT outsourcing companies are headquartered

Region	Percentage
Israel	2%
North America	22%
Europe	13%
Ukraine	63%
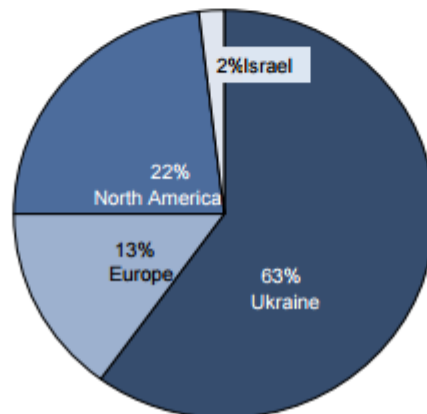
Operational business models

According to the World Bank Group, Ukraine ranks 83rd out of 189 economies in the world by ease of doing business in 2015 – a 16-point improvement compared to the previous year. For starting a business, Ukraine ranks 30th, ahead of Bulgaria (52), Slovakia (68), Poland (85) and the Czech Republic (93). While some government bodies, like Ukraine's broken legal system, need to be redesigned, others function in a satisfactory way and already present potential benefits when compared with neighboring countries.

Pros	Cons
• Ukraine has the cheapest and largest engineering labor force in Europe. Average developer salary is $1,600 (see Section 1.3.2). Manufacturing wages are at $1.2/hour, twice lower than China	• As of late 2015, the country was experiencing significant political and economic challenges after the recent revolution and geopolitical crisis in the region. However, the military conflict was contained to only 3% of Ukrainian territory in the eastern part of the country
• Lowest operating costs in Europe	• High level of corruption across most government bodies. However, some progress has been noticed since the 2014 revolution
• Ease of recruiting and laying-off employees in the absence of strong legal restrictions or trade unions	• Cumbersome legal entity registration and closure laws
• Highly educated population (100% literacy rate), strong presence of higher educational establishments (317 colleges and universities)	• Legal loopholes in commercial, financial an technological fields
• European mentality	• Little efficient IP protection legislation for companies and individuals. However, legislation is to be harmonized with EU rules (see Section 1.5 and Part 6).
• No-visa regime and easy work permit regime for foreigners from most countries	• Except VAT exemption for software development service companies, IT companies and startups do not enjoy tax breaks (see Part 6)
• Favorable geographic position for globally operating business. Ukraine is one-hour flight away from Poland, 2 hours from Germany, 5 hours from Dubai, 9 hours from New York or Beijing	• Cases of arbitrarily-led tax police inspections in IT companies (see Section 1.5)
• The individual income tax is at 18% with most independent contractors paying only 4%	
• Well-developed and developing IT infrastructure, with a fast-growing innovation ecosystem.	

Comparison of payroll expenses in Ukraine and neighboring countries, based on $2,000 monthly salary

	Value
Romania	2455
Poland	2415
Ukraine*	2294
Bulgaria	2244
Belarus	2171

■ Net salary
■ Employee's taxes
■ Employer's taxes

Source: EF English Proficiency Index 2015
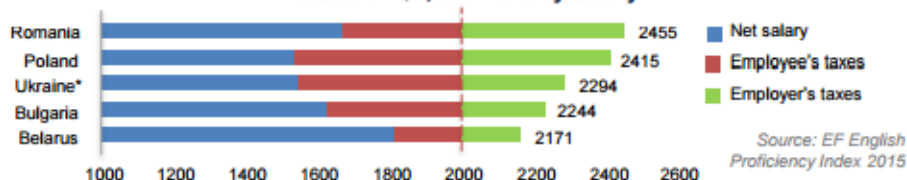
*Calculations for Ukraine are based on newly proposed rate for Social Security charge: 36.76%*0.4 = 14.704%

Regulation (legal, IPR, tax)

TAXATION WHEN PURCHASING IT SERVICES FROM UKRAINIAN ENTITIES OR FREELANCERS The following applies only to the purchase of IT services from a Ukraine-registered legal entity or individual freelancer – not to cases when the Ukrainian service provider operates via an entity registered in another country, with work subcontracted to a Ukrainian entity or Ukrainian freelancers. ♣ IT services purchased directly from a Ukrainian entity If the client is a non-resident entity, IT services are generally not subject to Ukrainian VAT, since under Ukrainian law the place of supply is not in Ukraine but where client is located. In particular this applies to R&D services, software testing, data processing, consulting on informatization, and related functions. ♣ IT services purchased from Ukrainian independent contractors (freelancers) These services are also not subject to Ukrainian VAT. Ukrainian freelancers are mostly registered under the "unified tax regime" and thus liable for the "unified tax," with a rate ranging from 2% to 4% of their earnings. Foreign clients may face tax issues, however, due to the lack of flexibility of payment methods. For example, it is still not possible to use PayPal to send money to a Ukrainian resident. (This restriction is expected to be lifted in 2016.) TAXATION OF RESIDENT ENTITIES As

companies established in Ukraine, subsidiaries of foreign companies involved in IT software development will be liable to certain Ukrainian taxes. Generally, salary outlay is the most significant expense for Ukrainian IT companies (up to 60% of a company's total expenditures). Salary taxes comprise a unified social security contribution (USCC) of up to 40% (mostly on top of net salary) and personal income tax (PIT) up to 20%. Pursuant to the high tax rates, the tax base is capped at approx. 23,000 hryvnias (approx. $1,000 as of November 2015) for the USCC. The lower rate of PIT is applied to salaries below 12,000 hryvnias (approx. $500 as of November 2015). Salaries above this threshold are taxed at 20% PIT. As a temporary measure, all salaries are also subject to a military assessment of 1.5%, which is applied to the gross amount without the cap. Many companies want to reduce these costs by hiring freelancers as opposed to full-time staff. In this case, the salary tax burden could be reduced to approx. 4% -5%. However, such a structuration requires careful tax and legal analysis. 136 Most of the services provided by the subsidiary to its mother company will not be subject to Ukrainian VAT, as the place of their supply is not in Ukraine. Furthermore, software development services within the territory of Ukraine are exempt from VAT. This special incentive is valid through 1 January 2023. Therefore, IT companies enjoy a favorable VAT rate on most services. VAT may only affect such related costs as office rent, etc. The corporate income tax rate is 18%. Usually these types of businesses operate on a cost-plus model, so the margin that an IT company will earn will be taxed at 18%. In addition to the above, Ukrainian companies are liable to anti-avoidance regulations, namely currency control and transfer pricing (TP) rules: • Currency control: 75% of foreign currency income must be converted into Ukrainian currency. • TP rules: If a company's transactions fall under TP control, the company must submit a TP report and provide TP documentation upon request from the tax authorities. If the annual earnings of an IT company (or any other company) do not exceed 20 million hryvnias (approx. $865,000 as of November 2015), the company can be registered as a unified taxpayer. Unified taxpayers pay the unified tax at the rate of 2% or 4% (depending on the VAT regime) instead of the corporate income tax. TP rules are not applicable to unified taxpayers. Moreover, the salary taxes paid by the employer are significantly lower than the standard rates. POTENTIAL CHANGES IN TAX REGIMES Current discussions of tax reform may lead to significant changes in Ukrainian tax legislation. In particular, lowering the annual earnings limit to benefit from the unified tax regime is being considered, with the aim of stimulating the development of small businesses. On the other hand, some lawmakers are considering putting an end to the VAT exemption for IT companies. Moreover, a draft bill inspired by the Estonian tax legislation might lead to significant changes in the corporate income tax regime in Ukraine. Under this proposed variant, corporate income tax would apply only to distributed profit, such as dividends and 'quasi dividends.' Profit reinvested in the company would be exempt from taxation.

Forecast

According to the PWC research, Ukrainian IT outsourcing market is very likely to grow to $ 5-7 billion. Today there are around 3000 Ukrainian startup companies being developed on different stages, in a few years there can be 5000 startups.
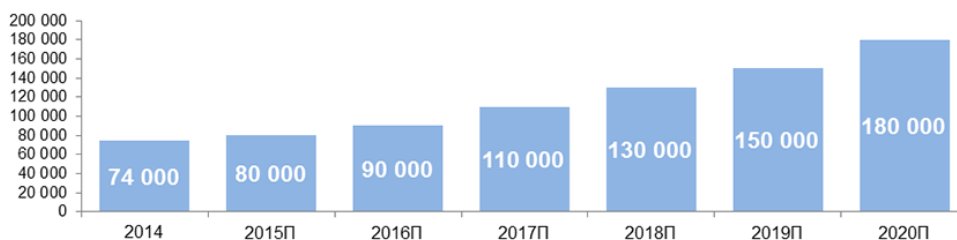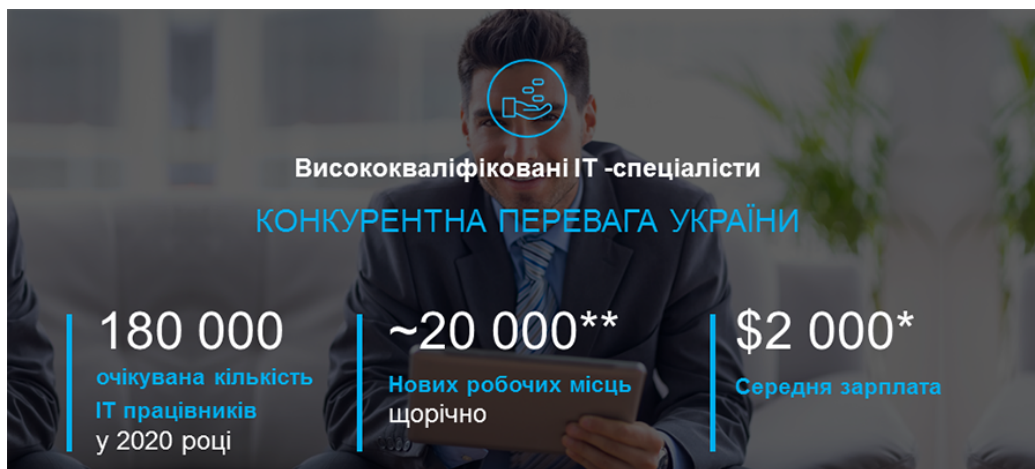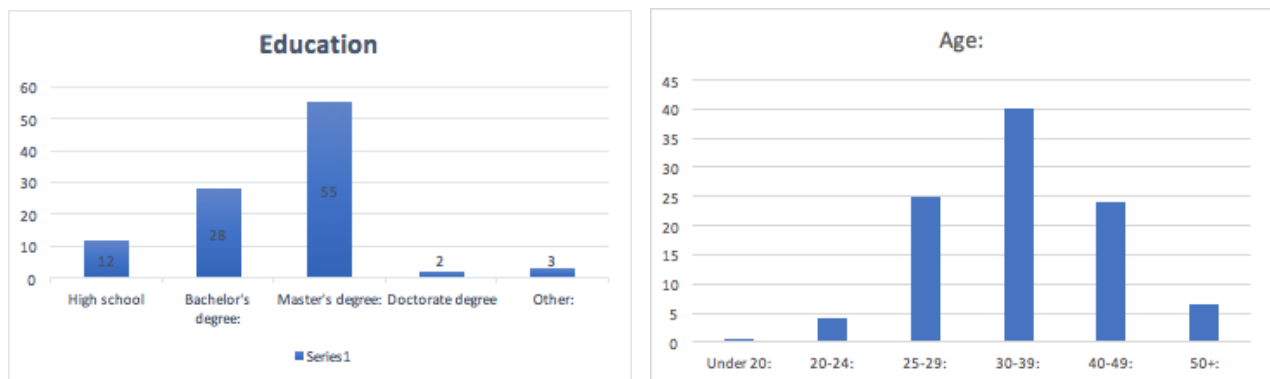
The Norwegian startup market

Part one: Analyzing the needs in the Norwegian market

Norway has experienced an exponential growth in the Norwegian Startup scene[1] and is now the fastest growing startup scene in Scandinavia. Looking at the investments in startups in Scandinavia from 2015 to 2016, we see that investments in Norwegian startups has increased with 12%, from 5% to 17%[2].
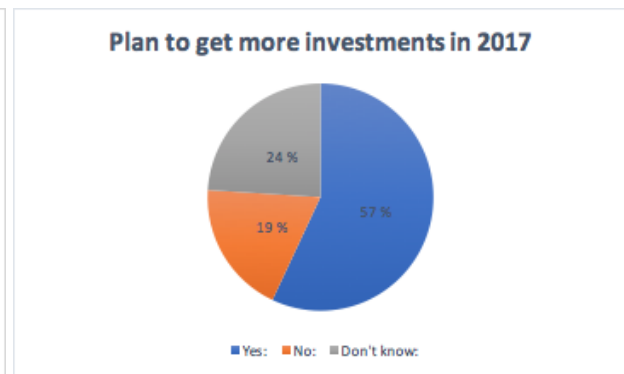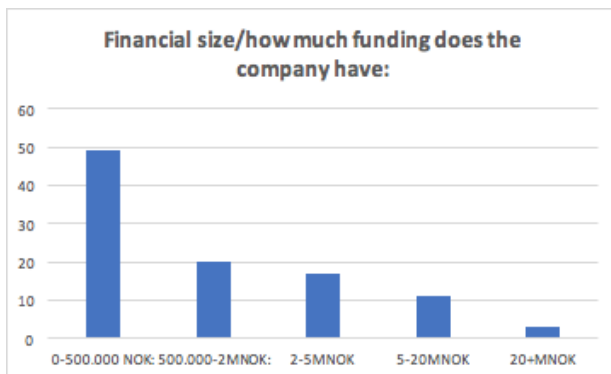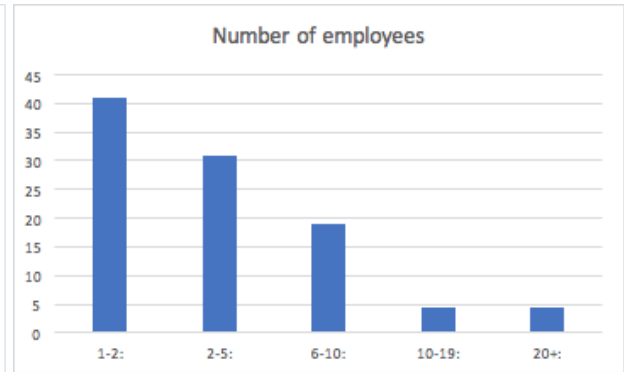

Description of the Norwegian startup market

A survey conducted by ICT Norway in cooperation with Startup Norway done in 2016 gives us the following description of the Norwegian startup scene (based on with 182 respondents):

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[1] http://www.dn.no/grunder/2016/07/25/2031/grnderveksten-tar-av
[2] https://thenordicweb.com/

Company stage

- Idea/concept:
- Beta/prototype:
- Early revenue:
- Growing revenues:
- Expanding to new markets:

16 % · 2 % · 30 % · 32 % · 20 %

Number of employees

1-2:	2-5:	6-10:	10-19:	20+:
41	31	19	5	5

Financial size/how much funding does the company have:

0-500.000 NOK:	500.000-2MNOK:	2-5MNOK	5-20MNOK	20+MNOK
49	20	17	11	3

Plan to get more investments in 2017

- Yes:
- No:
- Don't know:

57 % · 19 % · 24 %

What are the main obstacles for growth in Norway?

Access to capital:	Access to talent and ...	Regulation/tax/options	Small market:	Other:
41	27	12	7	12

How much capital do you plan to raise in 2017

0-500.000 NOK:	500.000-2MNOK:	2-5MNOK	5-20MNOK	20+MNOK
8	33,5	17,5	27	14

Series 1

Key findings:

- 88% of the founders have higher education such as a bachelor degree or higher
- 70% of the startups have founders that are over 30 years
- 46% of the startups are in the idea or beta phase with no revenue
- 57% of the startups plan to raise money in 2017, where 58,5% is raising more than 2 million NOK (212 000€)
- The second largest obstacle in order to grow is access to talents and competence

This underlays that Norway is a highly educated country and that a lot of these startup companies has founders with good industry experience due to their age. Still, almost one third of the respondents report have challenges finding talent and competence.

This confirms our hypothesis that a there is a need to access great talent and competence, and we believe there lies a great potential in enabling the norwegian startup scene to access IT talents and competence.

Questionnaire - Understanding the demand

In order to better understand the demand and need for Ukrainian IT services, we made a questionnaire and distributed it to the Norwegian startup network. Based on the responses we have identified success factors, most important barriers and thoughts on how to find the right outsourcing partner.

77,8% of the respondents said they have been considering outsourcing some IT services, which confirms our belief that there is a market for outsourcing and possibilities to take advantage of. The reasons why companies want to outsource is shown in the graph below.

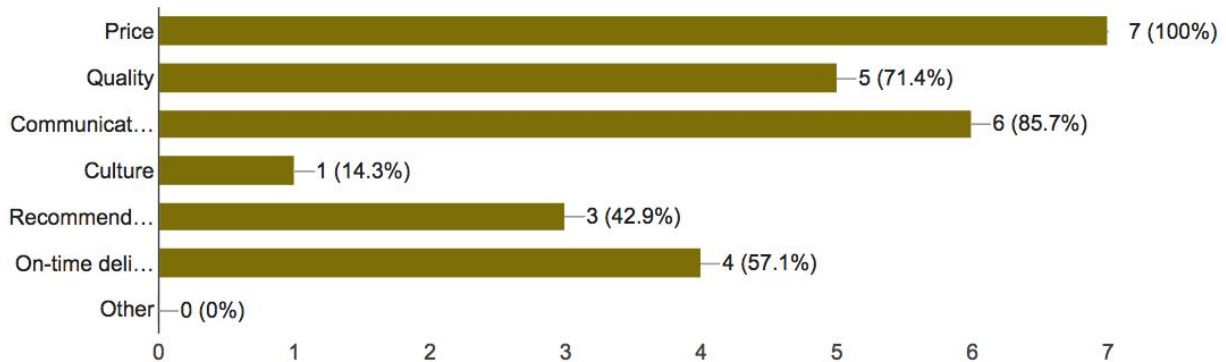### What services have you outsourced/would you like to outsource?
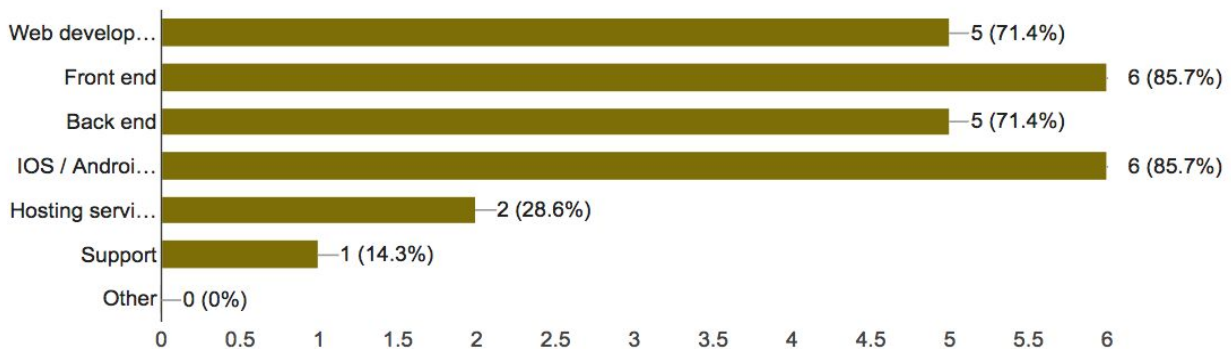
Success factors
The key to gain the Norwegian companies' interest is to know what they look for when taking the step to outsource. As expected, price is the number one factor that triggers outsourcing. Good communication and quality in the delivery are next on the list. Where the outsourcing partner comes from, or what culture they have, seem to be less important.

What has been or would be important for you if you were to outsource IT services?
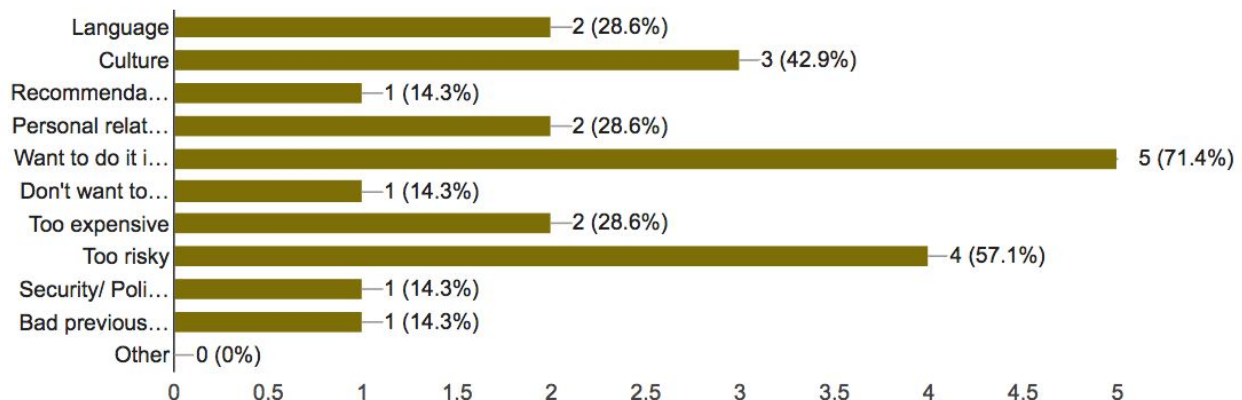
7 responses

Price	7 (100%)
Quality	5 (71.4%)
Communicat…	6 (85.7%)
Culture	1 (14.3%)
Recommend…	3 (42.9%)
On-time deli…	4 (57.1%)
Other	0 (0%)

Most important barriers

As we can read from the statistics below, the main barrier to outsource IT services is as simple as that they rather want to things themselves. Especially for some companies where IT is their core business, it is important to show their customers that they have the knowledge in-house. Higher risk and security/ policy issues are other barriers one should be aware of when approaching Norwegian customers.

## What are your main barriers to outsource IT services?

7 responses

Language	2 (28.6%)
Culture	3 (42.9%)
Recommenda…	1 (14.3%)
Personal relat…	2 (28.6%)
Want to do it i…	5 (71.4%)
Don't want to…	1 (14.3%)
Too expensive	2 (28.6%)
Too risky	4 (57.1%)
Security/ Poli…	1 (14.3%)
Bad previous…	1 (14.3%)
Other	0 (0%)

How do Norwegians find their outsourcing partner?

Asking one's own network is clearly the most popular way to find an outsourcing partner for Norwegian companies. When using a term like "own network", we do not necessarily just think of the people closest to you, this could also include 2nd or 3rd connections when for example

asking for recommendations on LinkedIn. From this, we can conclude that Ukrainian companies that build a good relationship with their Norwegian customers, hence getting a good reputation, will have the best chance to succeed in the long run.

How would you proceed to find an outsourcing partner?

7 responses
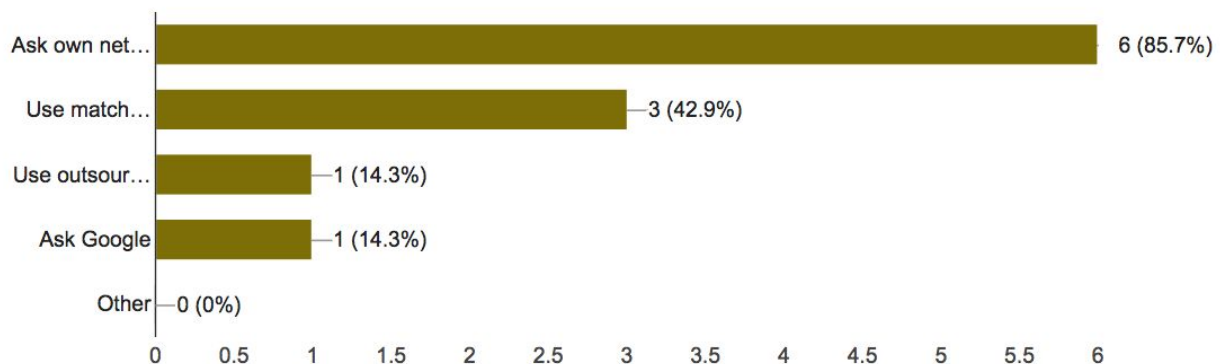
The full questionnaire is added in the appendix.

Qualitative interviews - a deeper understanding

To get a deeper and more qualitative understanding of the situation, we have conducted three interviews with different Norwegian startup companies on top of the questionnaire:

- Goontech - Bjarte Sebastian Hansen, CEO
- SeniorDevonly - Olav Balandin, CEO
- Fintech Neo - Dag Asheim, CEO

Fintech Neo and Goontech have no outsourcing experience but have considered it. SeniorDevOnly is an outsourcing company utilizing Ukrainian developers, which gives the interviewed group some diversity in their experience and expectations. All the companies are within IT.

Key points from the interviews:
- Both Goontech and Fintech Neo have considered outsourcing, but as IT is vital for their core business they're very restrictive and scared to outsource this part. This is the reason that they have not used outsourcing and confirms our finding from the questionnaire.
- Both Goontech and Fintech Neo said it would be easier to outsource "easy" tasks. Meaning tasks that are not vital to their core, but more routine work. Meaning they would like to have ad-hoc resources helping them out with minor routine work.

- If Goontech and Fintech Neo was to outsource, they would start using their network in order to find a potential companies or partners.
- SeniorDevOnly explains that the main reason for outsourcing is that you find the talent and competence you need quickly. In Norway you can try to recruit for 12 months, but in Ukraine you can have the expert in place within a month.
- SeniorDevOnly further explains that they only do projects with a 3 million NOK minimum budget. It is hard to deliver up to expectations on smaller projects as you want good resources to work on bigger projects. Meaning that the clients need to really want it and with good quality, not a cheap and fast project.
- SeniorDevOnly: Communications is vital to succeed. They recommend having a person locally to handle this.

What we see here is that the qualitative interviews confirms most of the findings from the questionnaire, but it also add more color to several aspects. It confirms that the Norwegian startups experience a risk with outsourcing. Because IT and technology is often close to the core business, startups want have control over this inhouse. Following this we also see that they want help with certain task, such as front end and IOS/android development and they would start using their personal network for finding potential partners.

Outsourcing - The Norwegian Startup market vs the mature market:

Questionnaire[3] conducted among Norway's 500 biggest companies in 2009 shows that 60% of the companies uses outsourcing among the respondents (31,4%)
- The average turnover pr company was: 1048MNOK (€118,5 millions) with a average result of 107MNOK (€12 millions)
- 52% of the respondents says that outsourcing is an important part of the company's strategy and business model.

- The main reasons for outsourcing among the respondents:
    1. Reduced personal costs
    2. Redesign of business models based on cost savings
    - An interesting observation: From a similar survey conducted in 2007, the most important reason for outsourcing was the ability to access skilled people.
    - **Challenges with outsourcing for norwegian companies**

Based on the survey from 2009, they list the following challenges with outsourcing, unfortunately the factors are not weighted against each other.

- Culture differences
- Time difference

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[3] https://www.finansforbundet.no/Documents/Rapporter/Outsourcing%2029%2010%202013.pdf

- Language
- Geographical distance
- Knowledge about country, education, political system etc.
- Political instability, corruption, network etc
- Less possibilities for control
- Less possibilities for knowledge transfer
- Bigger need for more detailing of the different deliverance
- Harder to estimate the "hidden" costs.

- **Important factors for successful outsourcing based**

There are many that recur between what we found among the startup companies and the mature companies, which forms a hypothesis that these are universal and it is not depended if you are a small company or a large company. Westner and Strahringer (2010b)[4] explains the following success criterias for outsourcing:

- Critical mass of own knowledge, the ability to be a good and demanding customer
- Critical mass of resources, the ability to handle down swings with the supplier
- Anchored in the top management
- Ability to choose and evaluate different suppliers.
- Detailing degree: The more, the better
- Contract length, the shorter, the better. Biggest risk with small contracts with long term scope
- Communication: Trust, rules, openness in communication, cooperation, common processes and knowledge about each other
- Success in previous cases, success fosters success.

More details about the mature market can be found in the appendix.

Proposed solution based on the analyse of the Norwegian Startup Market:

For a startup with limited resources and network, the successfactors described by the literature might be hard to fulfil. This might also be the reason why the many of the startups that has conducted outsourcing only rate the experience 2 out of 5. Still, almost 80% of the startups we have asked, said that they have considered outsourcing which means that there is a big gap here.

In order to succeed with this based on the analysis conducted on the Norwegian Startup Market, we have to implement a term that we have chose to call: Rightsourcing.

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[4] Westner, M. and Strahringer, S. (2010b). Determinants of success in IS offshoring projects: Results from an empirical study of German companies, *information & Management,* 47, 291-299

Rightsourcing implies helping companies understand the success criterias and aid them where they fall short. For startups this means helping them to gain knowledge, assess suppliers and follow up the process.

Based on our findings we propose a matchmaking platform to allow Norwegian startups to access and address the different outsourcing partners. A good starting point is the list offered by NUCC but in order for this to be successful, the following criterias is proposed:

- **Active rating system**: It needs to be actively managed, meaning that Norwegian and Ukrainian companies should be able to post their different project with their different partners together with a rating on essential criterias such as:
    - Quality
    - Time delivery
    - Communication
    - Comment

    Through such a system Ukrainian companies would gain more trust in the Norwegian market and this platform would serve them as a marketing platform. This will benefit both Norwegian and Ukrainian companies. This is especially important for Norway as it is a country built on trust.

- **RIGHTSOURCING - The platform should offer a local project manager:** As success is heavily dependent on communication and experience, having a local project leader could help decrease the risk and also be a way for the platform to earn money.

    By meeting these criterias, the platform has the potential to fill a gap in the marketplace and offer a sustainable product. If successful, such a platform could become a market leader in regards to outsourcing, or the Google for outsourcing for Norwegian companies one might say.

APPENDIX

1. Norwegian Mature Industries

- **Market overview (volumes, values, 2010-2016)**

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- Drivers for outsourcing for the mature industries:

    After the financial crisis in 2009 there has been an increased focus on outsourcing as a mean to cut costs, streamlining of business models and Improvement of customer and supplier relationship.

- Common outsourcing challenges and common underestimations related to outsourcing:
    → Underestimation of bid (anbud)
    → Transferring of people and knowledge
    → Monitoring/follow up of the supplier

    The reason for these underestimations is explained by being:
    - High and unrealistic expectations
    - Cost gets reduced but the learning and knowledge development gets reduced
    - Expensive to move outsourced functions back again

A published conducted by Simula from 2013 investigated 800.000 ICT projects that had been outsourced from 187 different countries.

- The countries with the lowest failure rate was from best to worst: Argentina, Ukraine, Romania, Canada, Egypt, USA, India, Bangladesh and Pakistan.
- Outsourcing projects from India compared to Ukraine had a twice as high failure rate.

- Outsourcing is demanding in regards to competence and follow-up
- Choosing a supplier with more similar culture reduces the risk of failure
- Middlemen/straddlers seems like to be a good solution, but there is a problem in finding them

- **Price/Quality**

The survey from 2009 concludes that price is the main factor along with fast project payback and high quality.

- **Challenges with outsourcing for norwegian companies**

Based on the survey from 2009, they list the following challenges with outsourcing:

- Culture differences
- Time difference
- Language
- Geographical distance
- Knowledge about country, education, political system etc.
- Political instability, corruption, network etc
- Less possibilities for control
- Less possibilities for knowledge transfer
- Bigger need for more detailing of the different deliverance
- Harder to estimate the "hidden" costs.

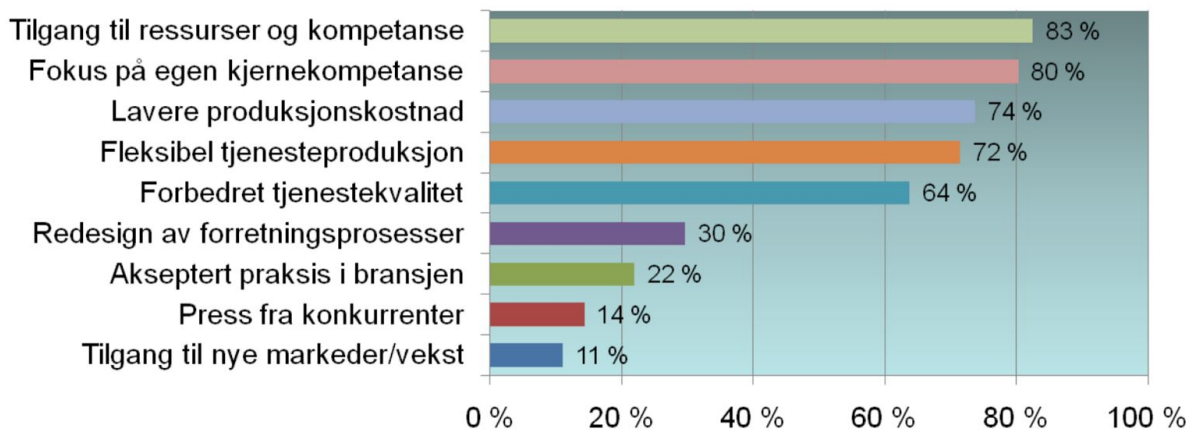- **Important factors for successful outsourcing based**

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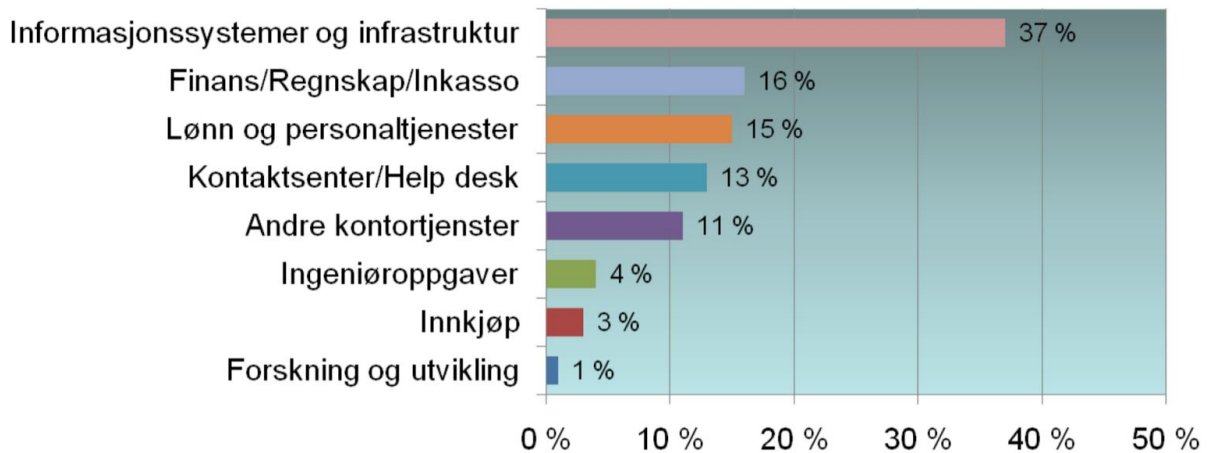- Success in previous cases, success fosters success.

- **Forecast (2017-2022 demandm technology perspective**
- More and more tasks will be streamlined and efficient through new technology
- New technology will offer new ways of offering products and services that will be less labor intensive, which will lead to reduced workforce.
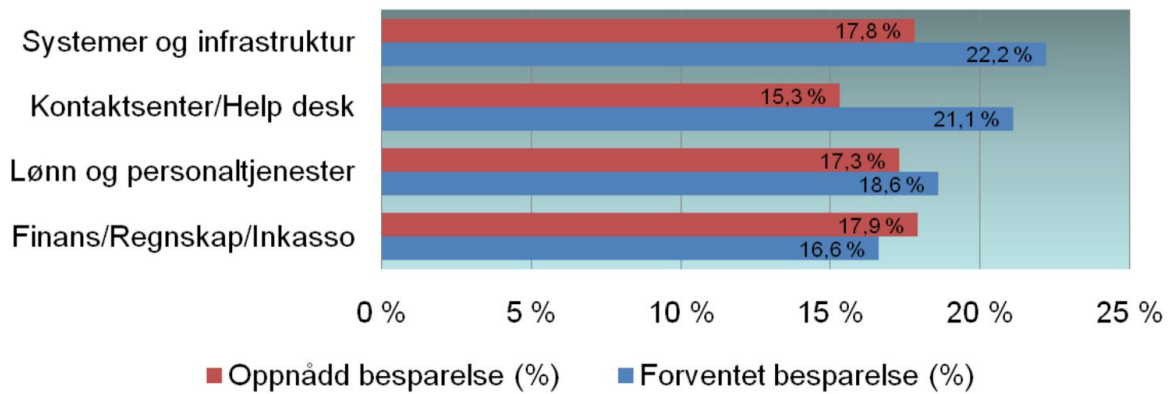- Simplification of customer handling as the customer will be done more by the customer

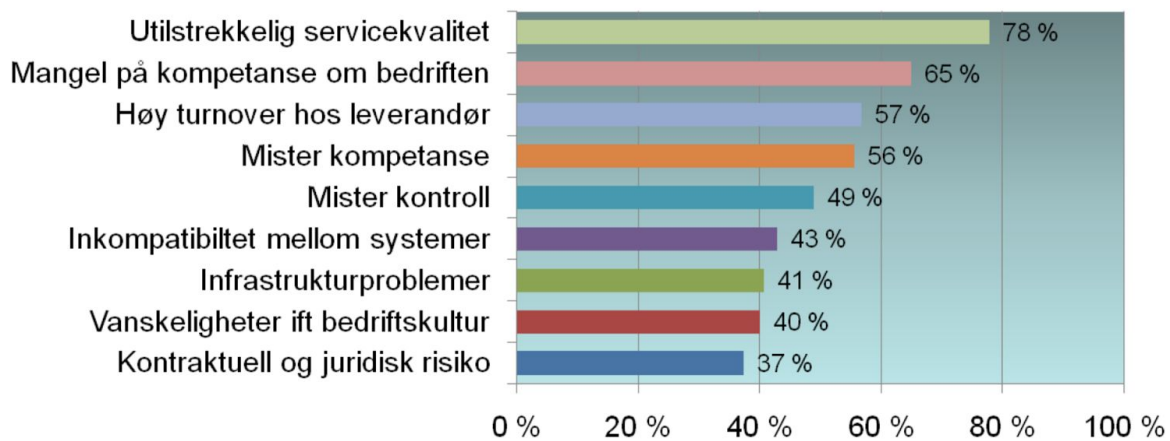- **Some results from the survey conducted in 2009 among the 500 largest companies**

Strategiske drivere ved outsourcing

Graden av outsourcing av enkelte tjenester

Systemer og infrastruktur	17,8 %	22,2 %
Kontaktsenter/Help desk	15,3 %	21,1 %
Lønn og personaltjenester	17,3 %	18,6 %
Finans/Regnskap/Inkasso	17,9 %	16,6 %

■ Oppnådd besparelse (%)   ■ Forventet besparelse (%)

Forventet og oppnådd besparelse

|	
Utilstrekkelig servicekvalitet	78 %
Mangel på kompetanse om bedriften	65 %
Høy turnover hos leverandør	57 %
Mister kompetanse	56 %
Mister kontroll	49 %
Inkompatibiltet mellom systemer	43 %
Infrastrukturproblemer	41 %
Vanskeligheter ift bedriftskultur	40 %
Kontraktuell og juridisk risiko	37 %

Risiko ved outsourcing

2. Questionnaire for the Norwegian Startup market

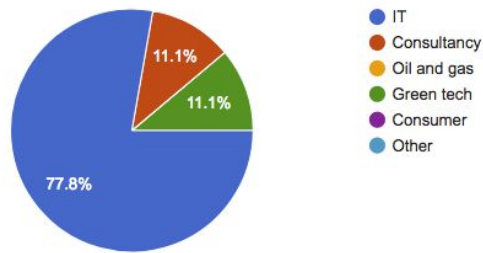# Outsourcing IT services for the Norwegian market

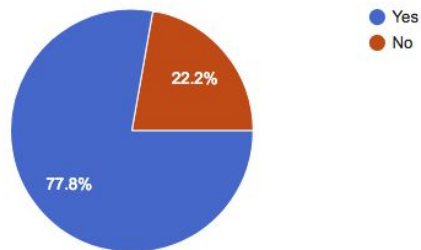9 responses

How old is your company? (9 responses)

- Planning phase
- 1 - 2 years
- 3 - 5 years
- 5 + years

77.8%
11.1%
11.1%
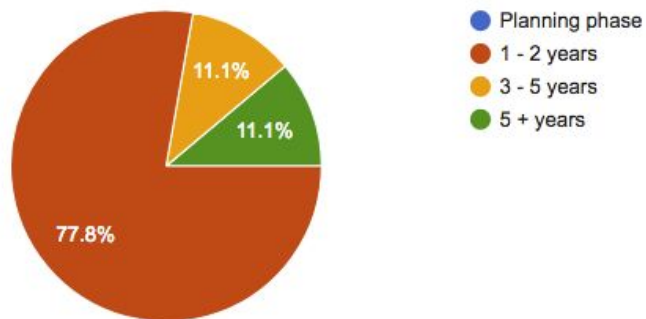
How many full time employees are in the company? (9 responses)

- 1-2
- 3-5
- 5-10
- 10+
- 50+

88.9%
11.1%
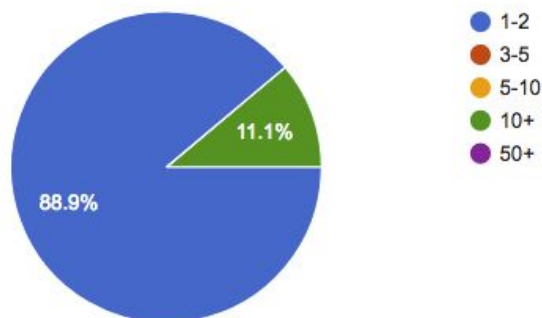
What industry are you in? (9 responses)

- IT
- Consultancy
- Oil and gas
- Green tech
- Consumer
- Other

11.1%
11.1%
77.8%

Have you considered outsourcing IT services? (9 responses)

- Yes
- No

22.2%
77.8%

Not considered outsourcing IT services

What are the main barriers for not outsourcing? (2 responses)

We can do…	2 (100%)
Don't want…	1 (50%)
Too expens…	0 (0%)
Too risky	0 (0%)
Security/ P…	1 (50%)
Other	0 (0%)
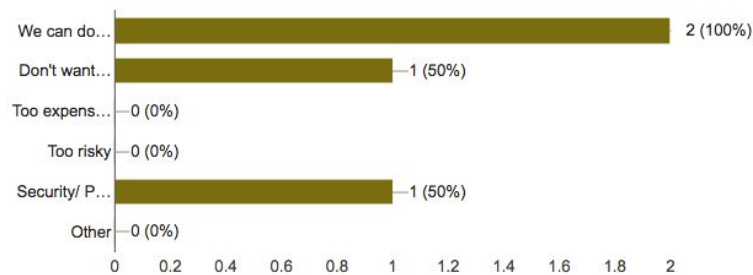
Have you outsourced IT services before? (7 responses)

- ● Yes, but only to Norwegian companies
- ● Yes
- ● No

28.6%
57.1%
14.3%
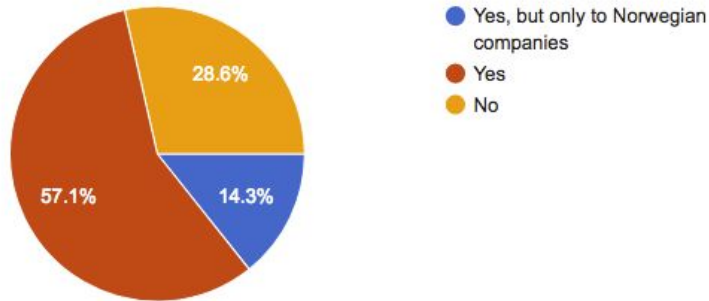
What countries have you outsourced to? (4 responses)

Russia	1 (25%)
Russia, Ukraine, Pol...	1 (25%)
Ukraine	2 (50%)
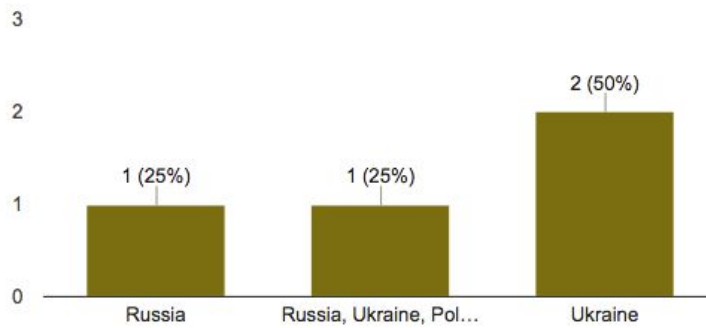
What is your experience with outsourcing?

Legend: ■ 1 ■ 2 ■ 3 ■ 4 ■ 5

Price · Quality · Delivery (On time) · Over all
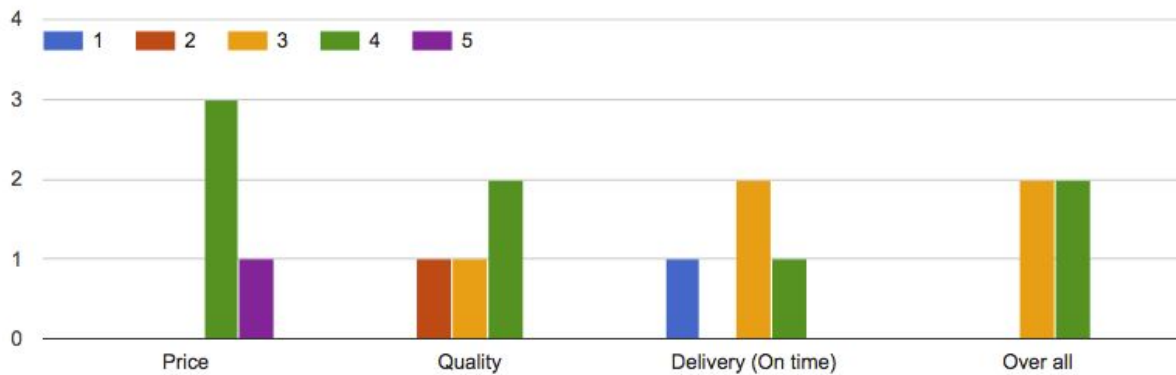
What services have you outsourced/would you like to outsource?

(7 responses)
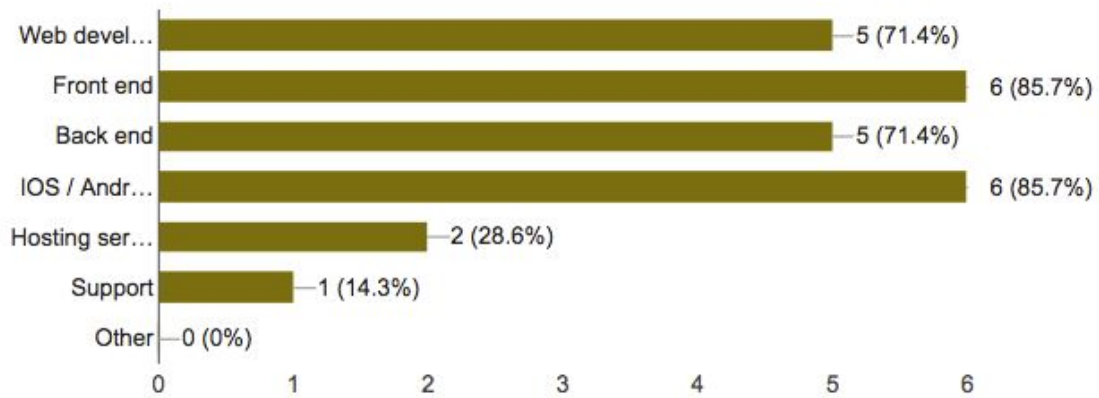
Category	Value
Web devel…	5 (71.4%)
Front end	6 (85.7%)
Back end	5 (71.4%)
IOS / Andr…	6 (85.7%)
Hosting ser…	2 (28.6%)
Support	1 (14.3%)
Other	0 (0%)

What has been or would be important for you if you were to outsource IT services?

(7 responses)

Category	Value
Price	7 (100%)
Quality	5 (71.4%)
Communic…	6 (85.7%)
Culture	1 (14.3%)
Recommen…	3 (42.9%)
On-time de…	4 (57.1%)
Other	0 (0%)

What are your main barriers to outsource IT services?
(7 responses)

Category	Value
Language	2 (28.6%)
Culture	3 (42.9%)
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Want to do it...	5 (71.4%)
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Too expensive	2 (28.6%)
Too risky	4 (57.1%)
Security/ Po...	1 (14.3%)
Bad previou...	1 (14.3%)
Other	0 (0%)

How would you proceed to find an outsourcing partner?
(7 responses)

Category	Value
Ask own n...	6 (85.7%)
Use match...	3 (42.9%)
Use outsou...	1 (14.3%)
Ask Google	1 (14.3%)
Other	0 (0%)
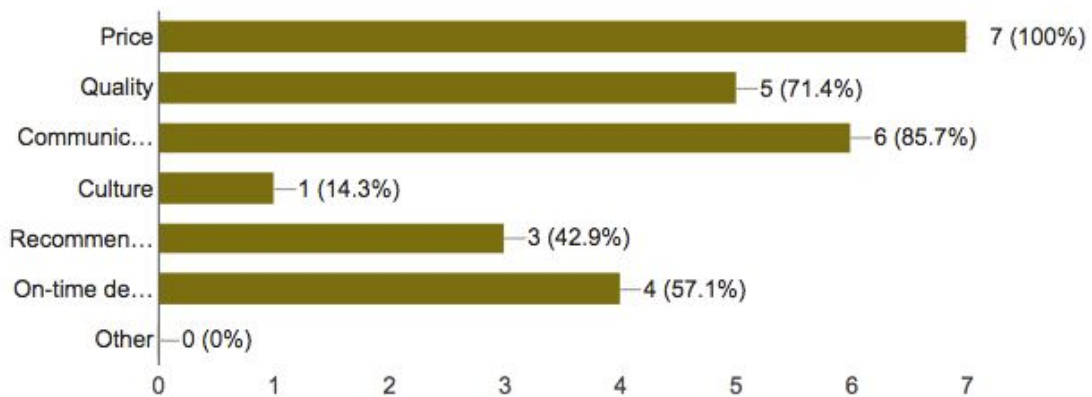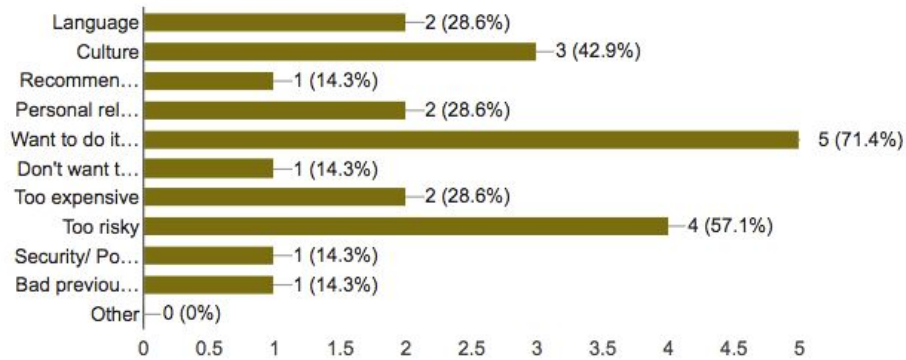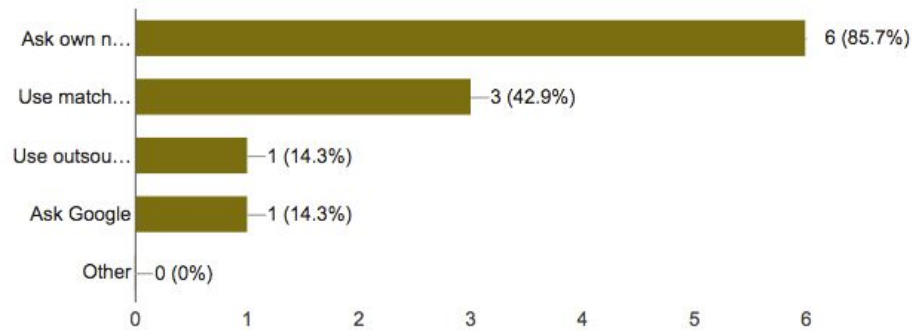
How would you like to co-operate with your outsourcing partner?
(7 responses)

Category	Value
Shared offi...	5 (71.4%)
Norwegian...	2 (28.6%)
Order fixed...	0 (0%)
Develop to...	5 (71.4%)
Other	0 (0%)
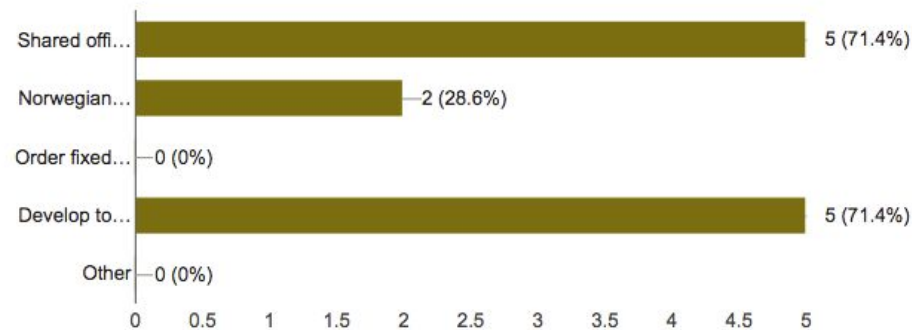
To which country would you look first when looking for an international outsourcing partner?

(6 responses)

Eastern European countries
Ukraine
Ukraine, because i have friends that have used good developers from there
Anywhere
Ukrine
Ukraine or Russia