

IT Market in Eastern Europe:

Full Overview of Top Software
Development Destinations



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Today's technological revolution fundamentally alters the way we live, work, and communicate. It creates ample business opportunities and brings disruption to every sector of the economy.

The transformation is driven by an exponential increase in computing power and growing amounts of data. AI, robotics, big data, blockchain, Internet of Things, autonomous vehicles, 3D printing, VR and other technological breakthroughs offer endless possibilities to businesses.

Companies are leveraging digital technologies to automate production, boost productivity, penetrate new markets, and satisfy ever-changing consumer needs.

Digital skills are becoming the key to success of any organization. No wonder the demand for talented tech professionals rises along with the overwhelming need to embrace technological innovations.

The change is global. Yet the IT resources organizations need today are spread unevenly. That's why, businesses often struggle to find the necessary expertise in the USA, the UK, the Nordic countries, India etc. This report aims to find out whether Eastern Europe can close this gap.

An abstract graphic at the bottom of the page consisting of a network of white lines connecting various points. Some points are highlighted with orange and white circles, resembling a digital or neural network structure.

The world's data stock is doubling every 20 months, the number of Internet-connected devices has reached 20 billion, and mobile payments will soon top the \$1 trillion mark.

About this report



The main purpose of this report is to give a comprehensive overview of the Eastern European IT industry as one of the most productive sectors of the region's economy.

The scope of the report uncovers the latest trends in the industry and examines the current state of information technology in Ukraine, Poland, Belarus, Hungary, România, the Czech Republic, Bulgaria, Moldova and in the Baltic region. It aims to help businesses, investors and decision-makers choose the most advantageous IT destination for mutually beneficial cooperation.

N-iX has provided a wide array of software development services and cooperated with international clients for over a decade. Therefore, we understand how challenging it is to navigate a global IT market.

In this report, we try to cover major outsourcing trends and present a comprehensive overview of the IT industry dynamics in the Eastern European and Baltic countries.

We have collected the data from various sources including reports and surveys by PwC, Deloitte, Bloomberg, Tholons, A.T. Kearney, and more to inform you about the latest trends and challenges of the major software development destinations in this region.



Business strategies in the digital age: how to access global talent

N-iX

Choosing an effective method of accessing talents is one of the most strategically important decisions for any business. If companies are successful in this decision, they may unleash a whole world of new digital possibilities. With this in mind, organizations weigh up all [the pros and cons of outsourcing and insourcing](#) as the most widely-used strategies.

Deloitte's Global outsourcing survey states that 2012 was marked by the major shift towards insourcing while 2014-2016 showed a dramatic increase in outsourcing consumption. This is represented by 3 major trends:

- ① **Outsourcing is now more than just a simple cost-cutting solution.** Businesses increasingly see outsourcing providers as partners for introducing innovations.
- ② **Companies are redefining the ways they enter into outsourcing relationships and manage the ensuing risks.** Cyber security and industry regulations are now major risks outsourcing vendors manage to mitigate while fostering innovation.
- ③ **Companies are changing the way they are managing their relationships with outsourcing providers.** More and more often, they enter into mutually beneficial partnerships enabling more transparent cooperation.

In what way is outsourcing bringing value to businesses?

- creating a vibrant pathway for driving innovation;
- allowing companies to focus on core competencies;
- giving flexibility to change the size and scope of any IT activity;
- offering a perfect price to quality ratio;
- creating possibilities for implementing digital technologies;
- presenting vast availability of all kinds of IT resources;
- enabling easier and faster project scaling.

According to Statistics MRC, Global IT Outsourcing Market is expected to reach \$481 billion by 2022 growing at a CAGR of 6.2%

IT Market Overview: Eastern Europe



In today's highly competitive and dynamic business environment, few decisions are as critical to the success of an organization as selecting a trustworthy partner. Most entrepreneurs, at some point, consider [outsourcing to Eastern Europe](#) to create fresh momentum by accessing skilled labor, reducing costs and pursuing new growth opportunities.

Eastern Europe remains one of the most vibrant software development destinations due to constant growth and development of its IT sector and a high level of digital technologies adoption. Countries like Ukraine, Poland, Hungary, Belarus, Romania have already defined IT as a major catalyst for their sustainable growth and technological advancement.

A strong educational system that yields highly skilled workforce, capacity for innovation, favorable business climate, modern infrastructure, and moderate costs of services are some of the prime considerations that influence the choice of an outsourcing provider.

So which country has the biggest talent pool and the strongest technological expertise for delivering projects of any scope and complexity?

UKRAINE

Ukraine has emerged as one of Europe's leading and fastest growing destinations for global software development services. According to PricewaterhouseCoopers, the country's **software development sector grew by 15-20% in 2016** and is progressing steadily year by year.

The country offers a wide array of benefits — from its vast IT talent pool and extensive expertise, to cost effectiveness and strong technical education.

Over **1,000 companies** in Ukraine provide a myriad of IT-related services. More than **230,000 IT professionals** have developed strong expertise in different verticals ranging from fintech, healthcare and telecom automotive, manufacturing and agritech.

The country is home to more than **100 R&D subsidiaries** of international companies from a variety of industries including software, gaming, telecoms, and e-commerce. Global companies like Microsoft, Samsung Electronics, Apple, Wargaming, Boeing, Skype, eBay, Siemens, IBM opened their R&D centers in Ukraine.

Ukraine's vibrant IT industry was recognized in a lot of recent reports and ratings. The country was included in Gartner's top 30 offshoring and outsourcing destinations. It was also named number one in Europe in the sector of IT-outsourcing in 2016 according to IT Outsourcing News. What's more, 12 Ukrainian IT companies, including N-iX, were featured in 2017 Global Outsourcing 100 list by the International Association of Outsourcing Professionals as the best outsourcing providers.

IT cities

Kyiv
Odesa
Lviv
Kharkiv
Dnipro

230,000

IT professionals



Leading
IT companies



15,000

IT graduates annually



N-iX

softserve

eleks®

GlobalLogic®

LOHIKA



POLAND

IT cities



Wrocław

Poznań

Krakow

Warsaw

140,000+

IT professionals



Leading
IT companies



15,000

IT graduates annually



N-iX

exadel

Cleveroad

QBurst

STXNEXT
python powerhouse

Poland is one of Eastern European fastest growing economies, which makes it an attractive software development destination for various organizations overseas. The country has the largest working population in Central Europe, comprised mostly of people under 34 years old.

Over 140,000 Polish professionals are involved in the IT sector along with 450 IT companies offering software outsourcing services.

Additionally, around 15,000 IT graduates enter the Polish software development market annually.

The country's IT services market is expected to reach USD 6,8 million by 2020 with a growth rate of 5.9% CAGR. Moreover, Poland was ranked 9th in Tholons Top 100 Outsourcing Destinations 2016 with Krakow and Warsaw as the major centers of the country's IT development.

In addition, Polish R&D activities are becoming increasingly financed by the private sector thus fostering interest among global market players. For instance, such companies as ABB, Google, Siemens, Motorola, Delphi Automotive, Intel, and McKinsey opened their R&D centers in Poland.

CZECH REPUBLIC

The Czech Republic is one of Europe's top locations for outsourcing IT-related services. Around **156,000 professionals** are employed in its information and communication sector.

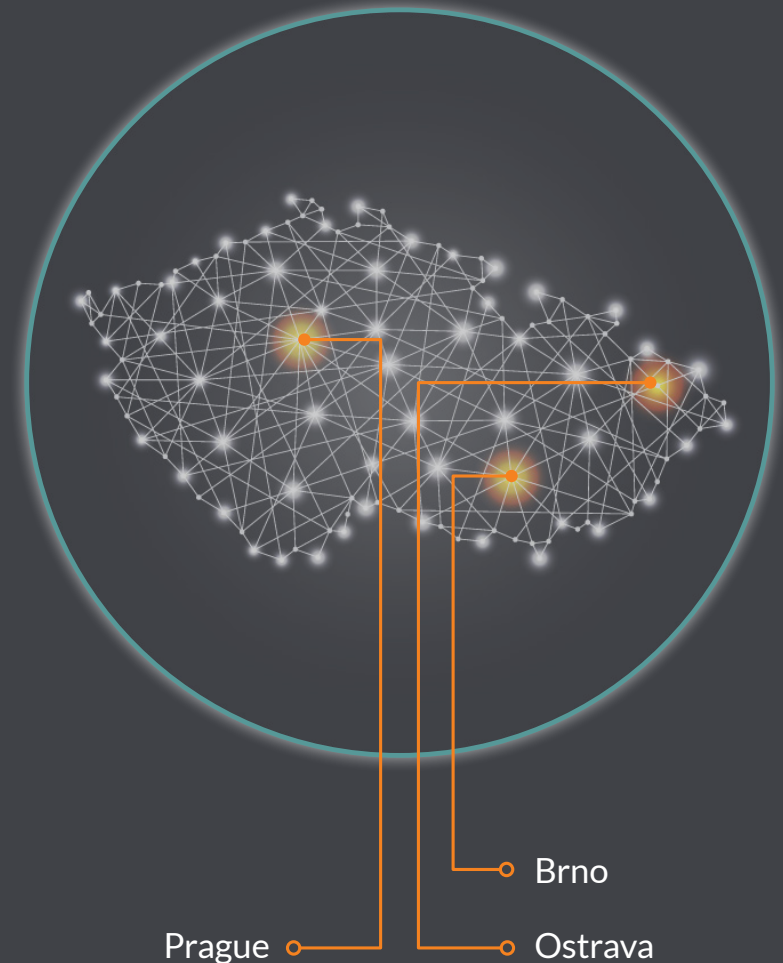
Every year approximately **9,000 technical graduates** enter the Czech IT market driving rapid industry development.

The country is experiencing **10% increase** in IT outsourcing year over year. Czech IT industry growth is fueled by the strong inflow of high-

value-added projects of the local IT companies and interest of global investors.

Such world-leading companies as Google, Microsoft, Oracle, IBM, CA, RedHat, Microsoft, Skype, NetSuite, Tieto, and IBM chose the country for both direct investment and outsourcing. The investment in Czech IT R&D amounted to €336 million in 2013. Moreover, internationally recognized IT brands such as Avast, AVG and Socialbakers were started in the Czech Republic.

IT cities



156,000+

IT professionals



**Leading
IT companies**



9,000

IT graduates annually



ROMANIA

IT cities



Timisoara
Cluj-Napoca
Bucharest
Brasov

The IT industry in Romania employs over **95,000 IT professionals** and boasts **15% annual growth rate**. The sector's development is mainly based on service exports which reached EUR 2bn in 2015 with **an increase of 31%** and are expected to reach EUR 4 bn by 2019.

According to Romanian Software and Services Association, accelerated the IT industry growth accelerated and added UR 3.6 bn to Romania's GDP EUR 3.6 bn, representing **5% GDP growth**.

After Romania joined the EU in 2007, its IT business has prospered and attracted global

companies like Hewlett-Packard, Huawei, Ericsson, and Gameloft. Moreover, regional department of Microsoft in Romania runs two global business support centers in Bucharest and Timisoara and makes a significant contribution to the development of country's tech industry. Additionally, Oracle employs more than 3,000 Romanian specialists.

Romanian government actively supports IT industry development by exempting software developers from the **16% income tax** and introducing a number of incentives for local IT companies.

95,000+
IT professionals



**Leading
IT companies**



32,500
IT graduates annually



THINSLICES

IntelligentBee

TECH
SERV[US]

T-Me Studios

HUNGARY

The Hungarian software development industry is one of the most dynamic sectors, representing about 6% of the country's economy. The country has a **25% share of outsourcing** within the IT market in Eastern Europe with around **80,000 specialists** employed in the IT sector.

According to Hungary Information Technology Report, IT services sales are expected to grow from **USD 760 mln** (in 2016) to **USD 993 mln in 2020**. Budapest remains the driving force behind the country's development and is ranked 24th in Tholons Top 100 Outsourcing

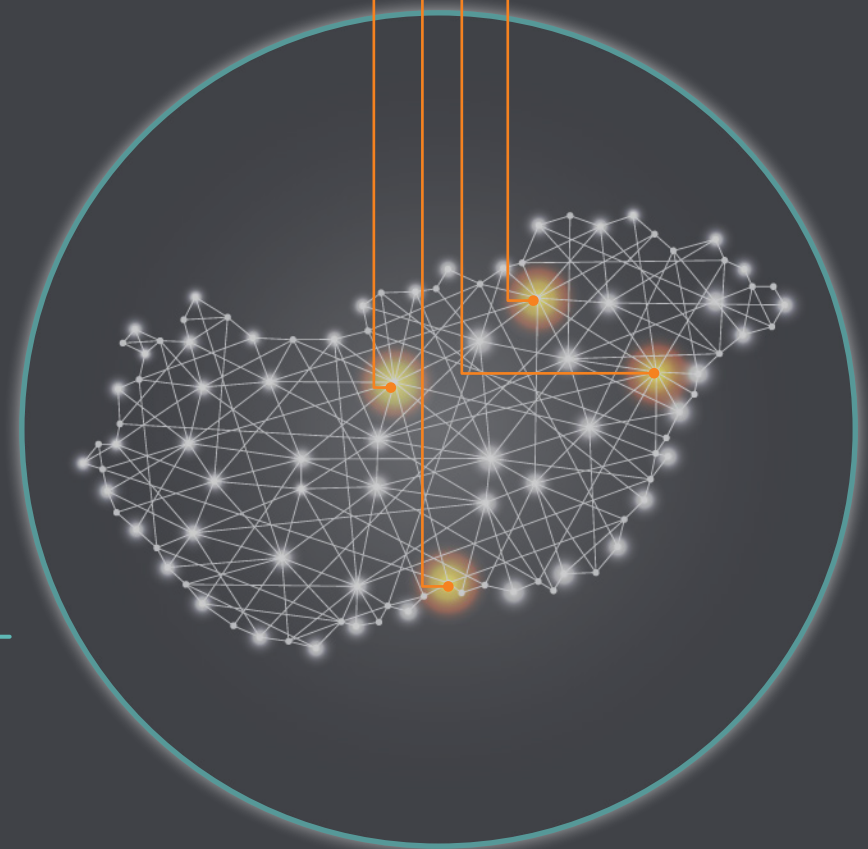
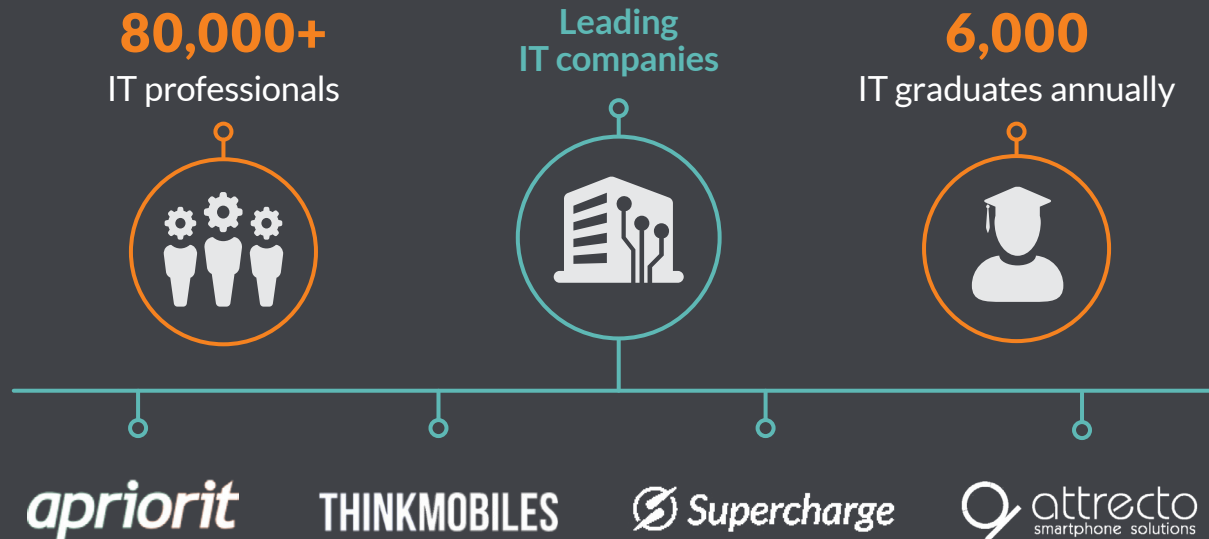
Destinations 2016.

In addition, the country has attracted a number of multinational companies such as Siemens, Microsoft, Deloitte, Ericsson, Nokia and TATA to establish their R&D centers.

The Hungarian government has doubled the amount of financial support for R&D sector for the 2016-2020 period and launched a number of incentives, giving fast access to technical knowledge by means of regular workshops, meetups, and conferences.

IT cities

Szeged
Budapest
Debrecen
Miskolc



BELARUS

IT cities

Minsk — Homel
— Mogilev

35,000+
IT professionals



Leading
IT companies



4,000
IT graduates annually



ittransition

Cleveroad

ScienceSoft
PROFESSIONAL SOFTWARE DEVELOPMENT

iTechArt

Belarus hosts around **1,000 IT companies** with over **35,000 employees** providing quality outsourcing services to multinational companies. The country's IT talent pool is constantly expanding with approximately **4,000 new software engineers** graduating from 54 higher educational establishments every year.

The total production and sales revenue of the IT industry in Belarus amounted to **USD 1,120 mln**

in 2015. The exports of IT services in the country have been steadily growing over the recent years at an **annual pace of 10%.**

What's more, some of the Belarusian IT companies were included in the Software Magazine's Software500 ranking of the world's largest software and service providers and were recognized by the International Association of Outsourcing Professionals (IAOP).

BULGARIA

Bulgaria is ranked **8th in the world** for the total number of IT them and 53% of specialists are ICT certified. Bulgarian IT market capacity comprises **400 companies** employing around 24,000 professionals and this number is expected to reach **30,000 by the end of 2017**. The country also benefits from the presence of the global IT giant — Hewlett-Packard, which employs more than 6,000 IT specialists.

Approximately **3,500 IT graduates** enter the market annually and more than 220 educational establishments offer diverse opportunities for technical students.

The country's IT outsourcing sector generated **USD 250M income** to the state budget in 2016 and it has been showing a double-digit revenue increase for the fourth consecutive year and reached **1.86% of the GDP**.

Bulgaria has a large number of R&D offices of multinational IT corporations such as HP, SAP, Johnson Controls, Oracle, VMware, CISCO, ProSyst, and Atos. Moreover, in 2015, the country was named "Offshoring Destination of The Year" by the UK's National Outsourcing Association (NOA). Overall, the BPO sector's contribution to the country's economy amounts to 3%.

24,000+

IT professionals



**Leading
IT companies**



3,500

IT graduates annually



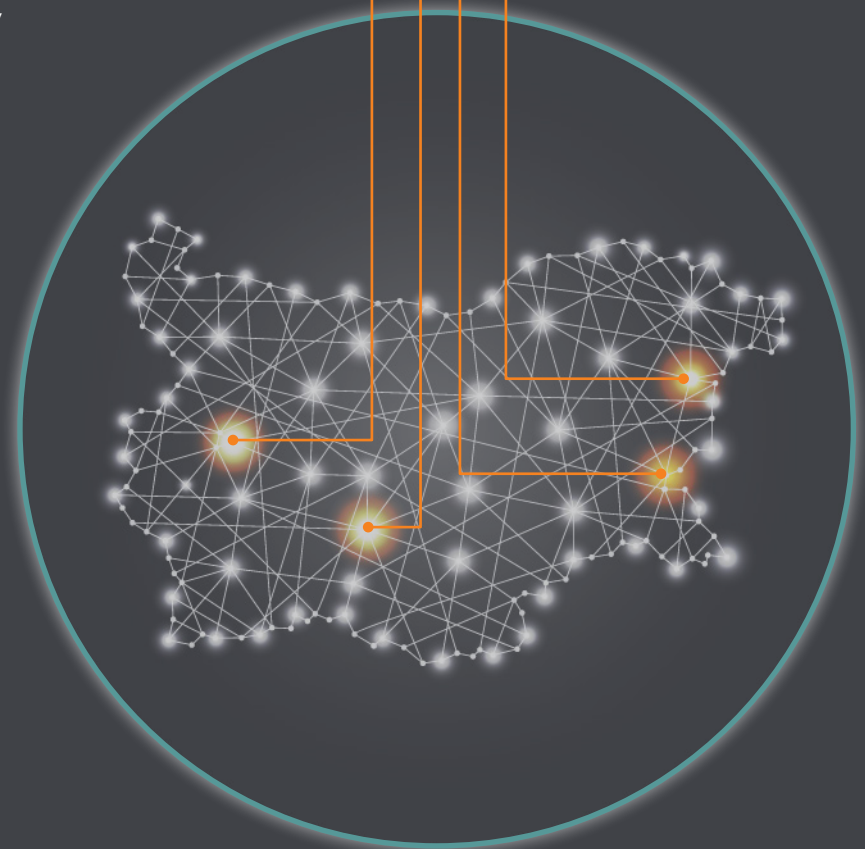
IT cities

Plovdiv

Sofia

Burgas

Varna



MOLDOVA

IT cities



The Moldovan IT industry is one of the most dynamic sectors of the country's economy so it remains the priority area for development and expansion for the Moldovan government. According to the Biroul National de Statistica, the contribution of ICT to the national GDP was **5,8% in 2015**, which resulted in the creation of high value working places and improvement of employee retention within the country.

More than 21,000 specialists are involved in the IT sector with around **1,500 students** graduating

from Moldovan universities with degrees in computing or a related field every year.

According to IDC, IT services market in Moldova is expected to grow at a **6.8% CAGR of through 2018**. Moreover, the total value of outsourcing services reached USD 56 million in 2013, and by 2018 it is expected to grow at a **CAGR 14.5%**. The ICT services exports surpassed 200 million USD in the same period and are likely to double in the upcoming years.

21,000+

IT professionals



Leading
IT companies



1,500

IT graduates annually



Titanium
Software



IT in Baltic Countries

The Baltic region is recognized as one of the most economically stable locations in Europe, boasting high levels of digital solution adoption and effective legislation that creates favourable business climate. The launch of e-programs, ease of doing business, strict cyber security policies and low corruption rates foster IT industry development in the region.

Nevertheless, the pace of software development market growth and digital technologies adoption in Estonia, Latvia, Lithuania are still moderate compared to the Eastern European market leaders. The main reason behind this is a much smaller talent pool. So let's take a closer look at the engineering resources these countries can offer.



ESTONIA

The ICT sector in Estonia employs around **23,000 specialists** with approximately 1,150 people graduating with degrees in technical disciplines every year. The industry constitutes 5.5% of the country's GDP and its contribution **increased by 1.6%** compared to 2015 due to the value added in software development services.

IT is expected to become the leading sector of the economy and will constitute **20% of the country's total exports**. Two major cities contribute the most to the development of the Estonian IT industry — Tallinn taking the lead (67.5%) and Tartu as a runner-up (12.5%).

Estonia is known as the birthplace of Skype and TransferWise along with other influential startups including Pipedrive, Cloutex, Click & Grow, Grabcad, Erply, Fortumo, Lingvist, etc. Moreover, the country attracted such global market players as Microsoft, SAP, Acronis, Parallels to open their R&D centers.

According to Statistics Estonia, 17% of local enterprises have a formally defined ICT security policy and around 42% of them are engaged in the IT sector. The policy was developed mainly to avoid the potential risk of destruction or corruption.

IT cities

Tallinn

Tartu

Narva



23,000

IT professionals



Leading
IT companies



1,150

IT graduates annually



Qulix
SYSTEMS

OCSI.co[®]
also known as OUTSOURCE Consulting Services, Inc.[™]


MOONCASCADE

BAMBOO GROUP

IT cities

Vecļiepāja ○ Rīga
Daugavpils



Latvian ICT sector employs more than **28,000 specialists** in **5,000+ companies**. Approximately 5,900 computer science students graduate every year from Latvian universities thus accelerating industry growth.

According to the Bank of Latvia findings, in the first half of 2016, the turnover of software development services **increased by 20.8%**. As a result, the information and communication technologies (ICT) sector has become the third

largest exporter in Latvia, following timber and food products sectors.

The evolution of the Latvian IT market led to the birth of such large IT service providers in the country such as Tieto, Evolution, Accenture Latvia, and Lattelecom Technology. Moreover, international companies including IBM, PwC, Accenture, KPMG, Siemens, ABB, and others. Opened their R&D centers in Latvia.

28,000
IT professionals



**Leading
IT companies**



5,900
IT graduates annually



ARTEZIO

ms-idi

intechnic

MAGEBIT

LITHUANIA

Around **27,900 specialists** are employed in the ICT industry in Lithuania, with additional **1,700 future experts** graduating every year.

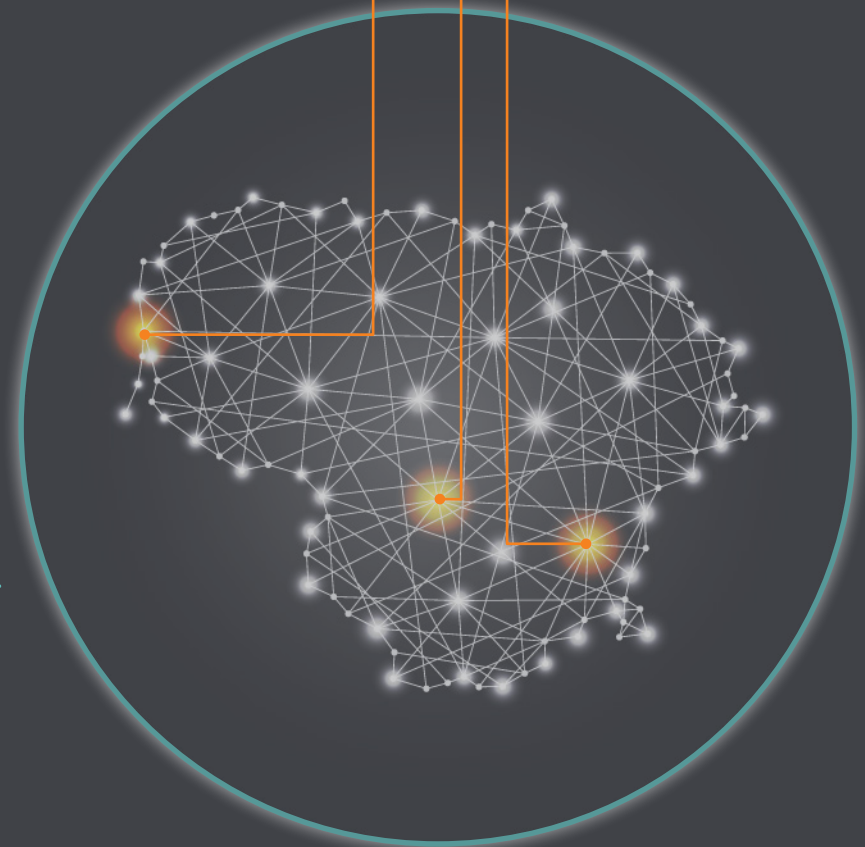
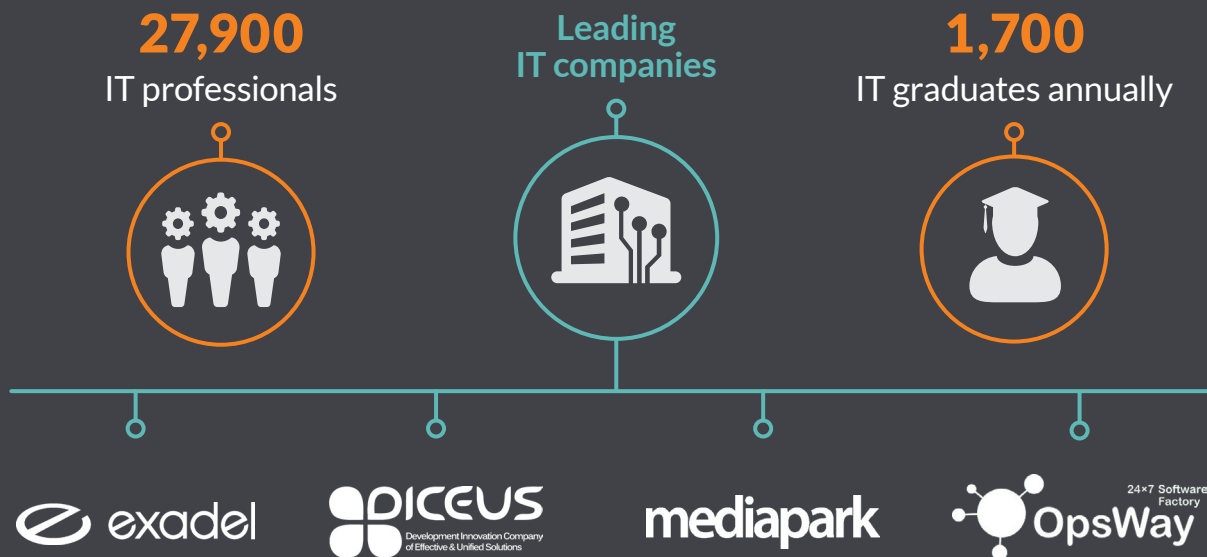
Google, AIG, and Nasdaq have recently set up their regional development centers in the country. Moreover, such global companies as Uber, IBM, Wix, HP, Virtustream, Exadel, and Unity have already opened their R&D and IT development centers in Lithuania.

On the whole, IT companies in Lithuania received more than **USD 100 million** in investment over the past year, which stimulated the growth and development of the IT industry within the country.

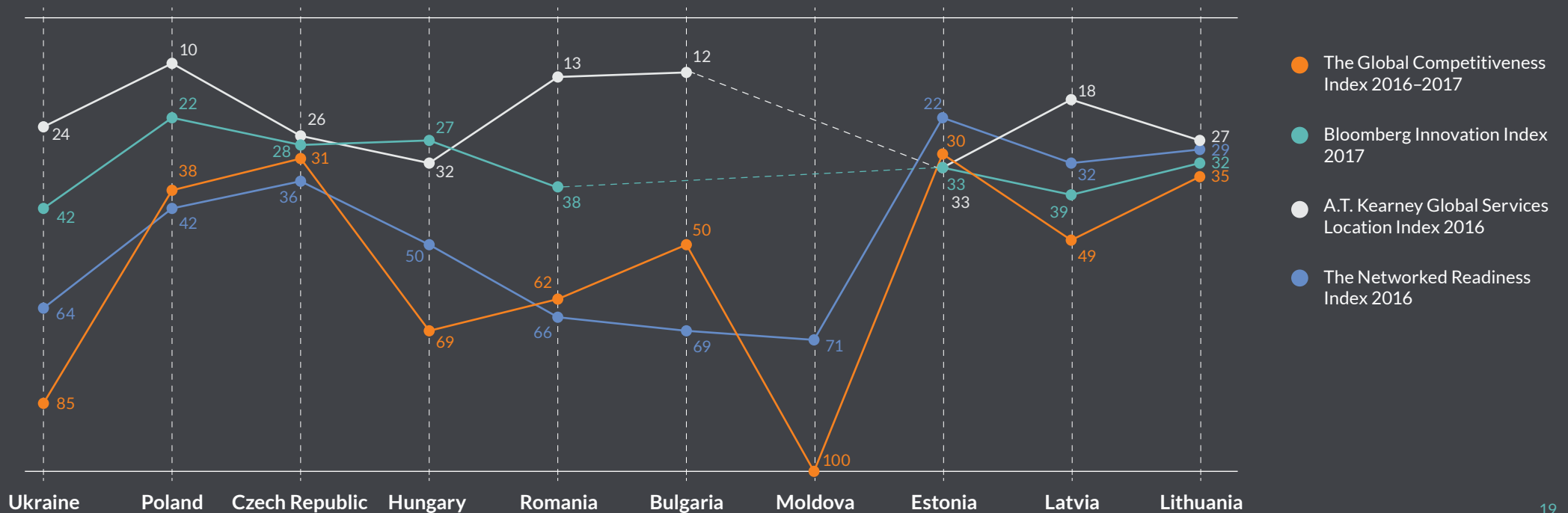
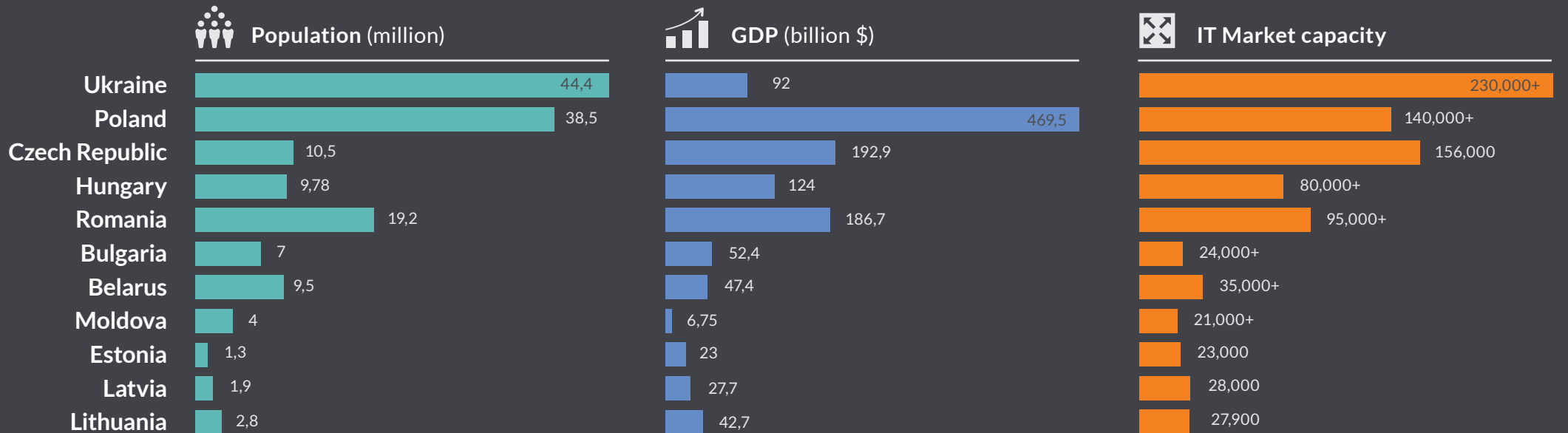
In addition, 3 Lithuanian companies were included in 2016 Deloitte Technology Fast 50 report which brought together the fastest growing tech companies in Europe.

IT cities

Klaipeda
Kaunas
Vilnius



Leading Eastern European destinations in numbers



The collected data reflects dynamic growth of the IT market across Eastern European countries. This region has become a number one choice for many global companies looking for a software development partner due to its large talent pool, technological excellence and great price-quality ratio.

Countries like Ukraine, Poland and Romania are taking the lead offering a myriad of cutting-edge technology-related services. Ukraine remains one of the leading IT outsourcing destinations in Europe boasting the biggest talent pool with around 230,000 IT professionals and estimated IT market growth of 15-20% year by year. Whereas Poland has more than 140,000 IT specialists in its arsenal and Romania 95,000 accordingly. The Czech Republic and Hungary have also attained a competitive position among top 5 Eastern European outsourcing destinations thanks to their high IT market capacity and annual industry growth rate of 10-15%.

On the contrary, countries like Moldova, Bulgaria, and Belarus are falling behind market leaders in terms of innovation adoption and overall technological capacity. Nevertheless, they've introduced a number of incentives to attract foreign investments and foster IT industry development. Meanwhile, Baltic countries launched a number of e-programs and created a favourable business environment in the region.

Key Takeaways:

- Eastern Europe remains one of the most attractive outsourcing destinations due to the constant growth of the IT industry and strong technological expertise.
- Countries like Ukraine, Poland, Romania and the Czech Republic are taking the lead in the Eastern European software development market, offering a vast availability of IT resources.
- Ukraine has the largest IT talent pool in Europe and is ranked 4th globally by the number of IT specialists according to Colliers International.
- Starting from 2014, we have witnessed a dramatic increase in outsourcing consumption due to its flexibility and perfect price-quality ratio.
- IT outsourcing to Eastern Europe is now viewed as a major business enabler of digital transformation rather than just an attractive cost-cutting option.

About N-iX



N-iX is one of the leading Eastern European software development vendors with development centers in Poland (Krakow) and Ukraine (Lviv, Kyiv), and offices in the USA (Florida) and Sweden (Malmo). With more than 15 years of experience and over 700 technical experts, the company has developed diverse technological expertise.

N-iX partners with technology leaders across a variety of industries encompassing Fintech, Telecom, Healthcare, Insurtech, Automotive, Hospitality, Media & Entertainment, Aviation and others to help them effectively implement digital transformations.

N-iX provides a wide array of services in different verticals such as big data analytics, data science, BI, AI, blockchain, cloud solutions, VR & AR, enterprise mobility, embedded software, SAP and OpenText consulting, and much more.

The company has formed strategic partnerships with a number of global businesses including Lebara (renown telecom brand), Currencycloud (global payments platform), Gogo (world's leading in-flight connectivity provider), to name a few. N-iX has cooperated with over 50 clients across the globe such as OpenText, StreamServe, Novell, Anoto, RateSetter, HotSchedules etc.

The accumulated expertise allows N-iX to offer innovative software solutions to its clients enabling them to reach their digital ambitions.

For more information, [connect with our experts.](#)

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