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## **Southeast Europe** Fintech and Innovations

2018



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# Southeast Europe Fintech and Innovations

Industry Report 2018

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## Key findings

- 1 Slovenia and Croatia ranked highest in ICT development in Southeast Europe (SEE) in 2017, data from International Telecommunication Union's study Measuring the Information Society Report shows.
- 2 Bulgaria is the second most innovative upper-middle income country in the world, the most innovation efficient country and the top innovation achiever in SEE together with Moldova, according to the Global Innovation Index 2017.
- 3 SEE countries are strong in the ICT infrastructure component in innovation with Serbia as a regional leader.
- 4 With 70 enterprises Bulgaria has the highest number of fintech companies in SEE.
- 5 The development potential of fintech companies in SEE is closely related to collaboration with banks and financial institutions.
- 6 The fintech market in Bulgaria, Romania, Slovenia and Croatia stood at combined EUR 371 mln in 2017.

# ICT sector in SEE

By Tsvetan Ivanov, SeeNews

## Macroeconomic overview

All economies in Southeast Europe (SEE) grew in real terms in 2017 as reported by their national statistical offices. Romania's GDP marked the fastest increase, of 7.0% y/y, well ahead of Slovenia, which came second with a 5.0% rise. GDP growth rates ranged widely throughout the other SEE countries – from 0.02% in Macedonia to 4.5% in Moldova. Growth was driven predominantly by exports and improving domestic consumption.

The combined SEE annual GDP growth rate of 3.7% made it the fastest grow-

ing region in Europe in 2017, comparable with the growth rate of the global economy of 3.5%, according to data by Italy-based UniCredit Group. Bulgaria is the leader in the region in terms of forecast average real GDP growth rate in 2018 and 2019 with 4.3% annually, followed by Romania with 4.0%, Slovenia with 3.7% and Bosnia and Herzegovina, Serbia and Croatia moving up by 2.8% to 3.3%. Driven mainly by domestic consumption, GDP growth in SEE will accelerate compared to 2017 in all countries except Romania and

Slovenia and will remain almost twice as fast as the Eurozone average of 2.1%.

The International Monetary Fund (IMF) forecasts that SEE economies will continue to grow in the 2018-2022 period. However, the growth will be slower than in 2017 in the region's EU members, while the other countries will tend to catch-up by higher growth rates.

## ICT rankings

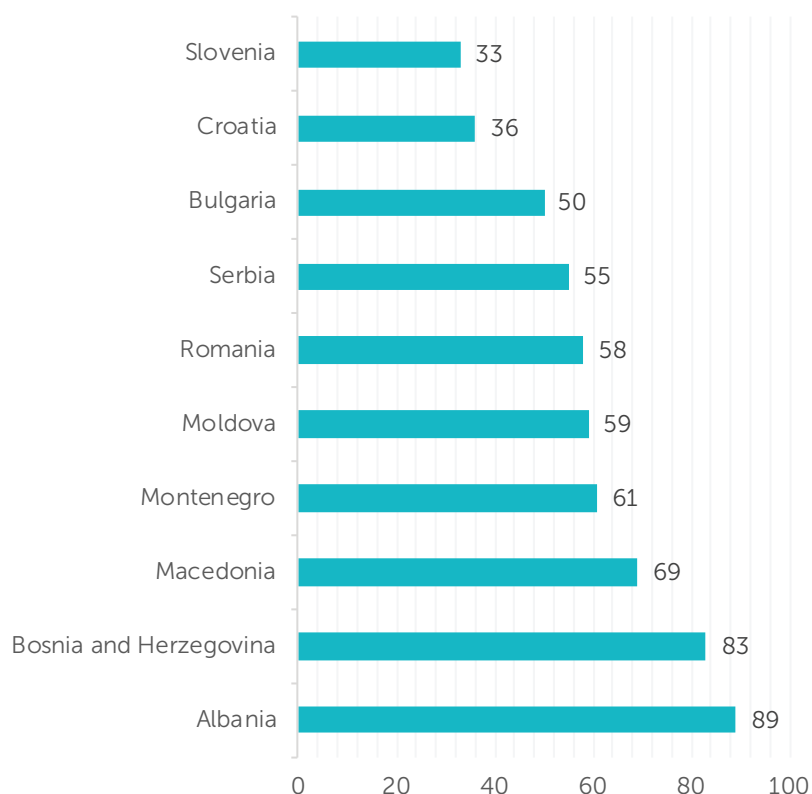
Slovenia and Croatia topped the SEE ranking in terms of ICT development, according to a study by the International Telecommunication Union. Croatia was the country to record the big-

gest annual improvement in the region – to 36<sup>th</sup> from 42<sup>nd</sup> spot in the 2016 ranking. Bulgaria, Romania and Moldova also climbed with several positions, each taking a place between 50<sup>th</sup> and

60<sup>th</sup> in the global ranking. Montenegro was the biggest loser, falling to 61<sup>st</sup> from 56<sup>th</sup>, while the bottom ranked, but still within the world's Top 100, Bosnia and Herzegovina and Albania maintained their positions in 2017.

## Global ICT Development Index 2017 rankings of SEE countries

Source: International Telecommunication Union, Measuring the Information Society Report 2017



In most countries the crucial factors for the ICT sector development were **the penetration and usage of internet** by the population and the government policies. The countries with highest proportion of internet users in the total population (above 72%), Slovenia and Croatia, ranked as the best developed ICT economies in SEE. However, Bulgaria and Romania with internet usage rates below 60% due to the ageing population, scored much better in the ranking than Macedonia and Bosnia and Herzegovina, where rates exceeded 70% and were on par with the leading regional ICT countries.

**Government support** was the other major pillar for the development of national ICT sectors. Bulgaria and Serbia have long ago declared IT as a priority sector, while Moldova, Albania and Bosnia and Herzegovina benefited from national government strategies and measures and European Union development programmes.



## Innovation rankings

SEE countries occupied the middle ranks in Europe in terms of innovations, but the best placed Slovenia still remained outside Top 20 on the continent, according to The Global Innovation Index 2017. In global aspect, all countries in the region made it in Top 100, even the least innovative country Albania. With the exception of Slovenia and Croatia, which are considered high income countries, and Moldova, regarded as lower middle income country, all other SEE states were denoted as upper middle income countries. Bulgaria was the second best innova-

tion performer in the world after China in this category. Romania and Montenegro were also among the 10 most innovative upper middle income countries worldwide. On the minus side of the ranking were Serbia, Bosnia and Herzegovina and Albania, all of them outpaced even by the lower-income Moldova.

Two SEE countries were ranked as innovation achievers, or countries with total innovation score higher than expected based on their GDP per capita. Bulgaria is the only innovation achiever in the global ranking from the up-

per-middle income group. Moldova, from the lower-middle income group, has been innovation achiever seven years in a row since 2010.

Global innovation rankings are closely related to the countries' innovation efficiency. It is defined as the ratio between innovation output and innovation input, where the output comprises knowledge and technology creation and diffusion and the input denotes a combination of institutions, infrastructure, human capital and research and market and business sophistication.

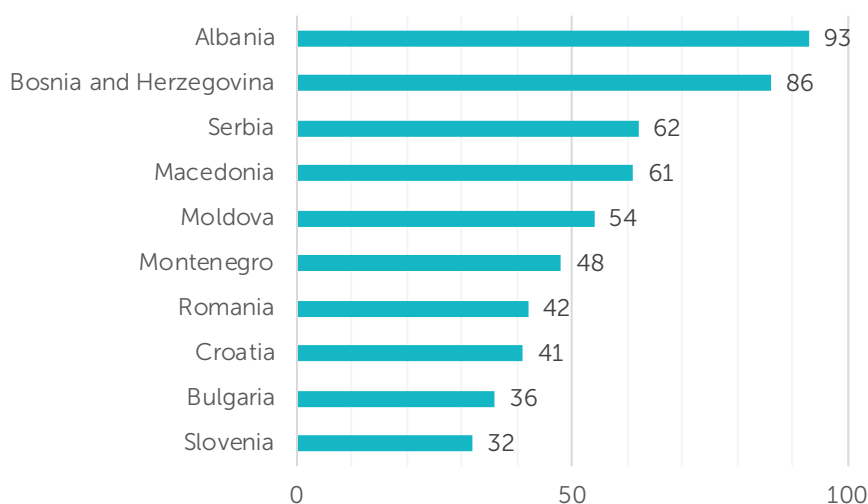
Bulgaria was undisputedly the SEE leader and 15<sup>th</sup> in the world as far as efficiency is concerned. With the third highest input in the region, even behind Slovenia and Croatia, Bulgaria produced the best innovation output. Moldova on the other hand surpassed only Bosnia and Herzegovina by input, but scored higher than all SEE countries except Bulgaria and Slovenia in output, which granted the country 22<sup>nd</sup> rank among the most innovation efficient economies worldwide.

Bosnia and Herzegovina and especially Albania were seeded among the least innovation efficient countries in the world, occupying 112<sup>th</sup> and 122<sup>nd</sup> positions respectively. They achieved disappointing output with comparatively decent (ranked in Top 75) innovation input.

In the ICT infrastructure innovativeness component of the Global Innovation Index 2017, most SEE countries positioned themselves higher than in the overall ranking. Slovenia still ranked highest, but Serbia followed closely with 31<sup>st</sup> place, compared to 62<sup>nd</sup> in terms of overall innovativeness. The other countries with distinguished ICT-driven innovativeness were Albania and Croatia. Bulgaria, Romania and Moldova, on the other hand, scored substantially worse in ICT infrastructure compared to their innovations in other indicators. As a whole, SEE was the most innovative in ICT use and e-participation of the population and least innovative, with the exception of Slovenia and Serbia, in government's online services.

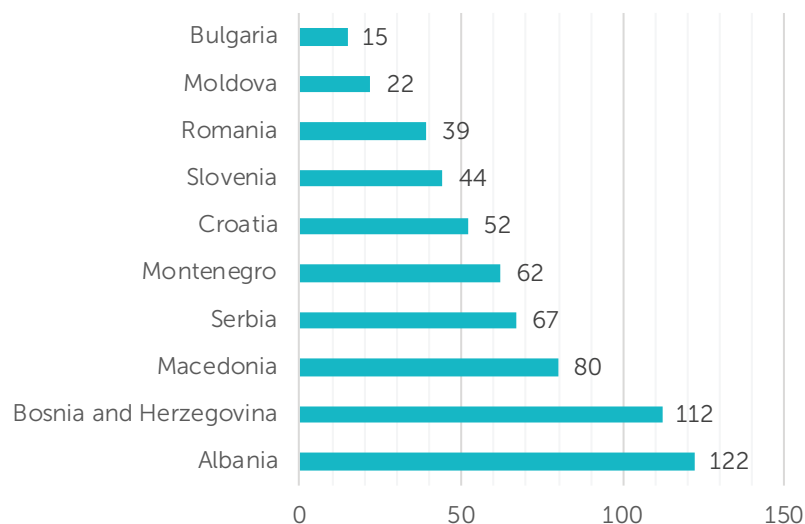
### Global Innovation Index total scores

Source: The Global Innovation Index 2017, Tenth edition



### Innovation efficiency ranking of SEE countries

Source: The Global Innovation Index 2017, Tenth edition



# Country analysis of ICT and fintech

According to European Commission data, the European software market is expected to significantly grow by 2020 and reach EUR 280 bln, up by EUR 30 bln compared to 2017. The low level of IT spending can be distinguished as a downside of the SEE region. In 2017

only three SEE countries ranked in the upper half of the world's computer software spending as a share of GDP ranking. The Global Innovation Index 2017 data shows. Montenegro recorded the highest share of GDP spent on software – 0.4%, followed by Bulgaria and Romania with 0.3% each. All other SEE countries spent around or less than 0.1% of their GDP on computer software.

High-tech exports, excluding re-exports, formed a significant part of SEE countries' total external trade. Romania and Slovenia were the region's top high-tech exporters with high-tech products forming 6.0% and 5.0% of their total exports respectively. Croa-

tia and Bulgaria followed with close to 4.0% each, while the other SEE countries lagged behind with less than 2.0%.

**Fintech** is both the fastest growing IT branch and the segment with the highest number of startups. The collaboration between fintech companies and banks and financial institutions, initially viewed as competitors, boosted the development of the segment worldwide. Most popular services offered by SEE fintech companies include digital banking and services related to transactions, management of resources, and investments.

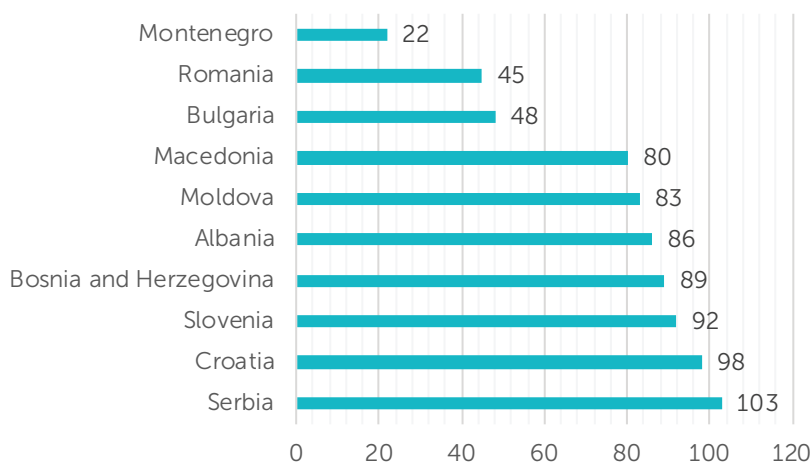
More than 91% of Europe's fintech companies are based in Western Europe, while Central and Eastern Europe (CEE) accounts for only 9.0%. The number of new fintech companies established in CEE stood at 40 in 2017, which is the lowest level since 2011 and more than twice lower than the peak years between 2012 and 2015. The drop can be partially explained with the market saturation in the countries with most developed fintech sectors.

The two largest fintech segments in the region, each comprising a quarter of all fintech companies, are payment transactions and financing. The first one includes traditional (cards and direct debit) and innovative (e-money) electronic payments, while financing comprises crowdfunding and peer-to-peer lending. The investment and asset management segment, including trading platforms, alternative investing and analysis of personal finance, accounts for 12% of the total number of fintech companies in the region, closely followed by the cryptocurrency segment with 10%. The remaining 28% of the companies operate in expense tracking, insurance technology, risk management, fraud prevention and analytics.

The market size of the fintech segment in the four EU-member states in the region, Bulgaria, Romania, Slovenia and Croatia, was estimated at EUR 371 mln in 2017. Although it still represents a very modest part of the IT sector in all countries, fintech is the most dynamic segments and is growing at the highest annual rates, significantly outpacing the IT sector as a whole. Slovenia enjoys the advantage of its early entry and boasts the largest and most mature SEE fintech market. Bulgaria is the country with the biggest development potential. Its fintech market is still three times narrower than in Slovenia and Romania, but the unmatched number of fintech companies and the best startup environment in the region promise rapid growth.

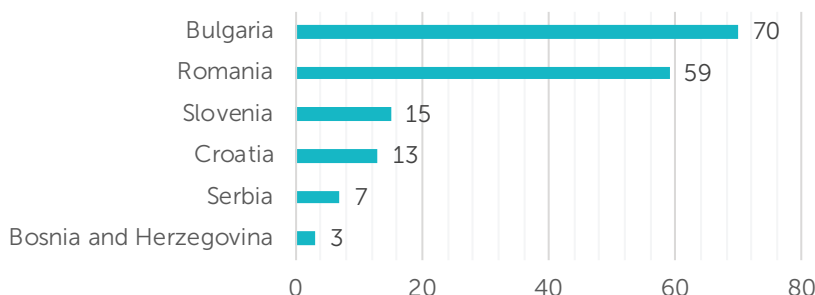
## Computer software spending as a share in GDP - rankings of SEE countries (position)

Source: The Global Innovation Index 2017, Tenth edition



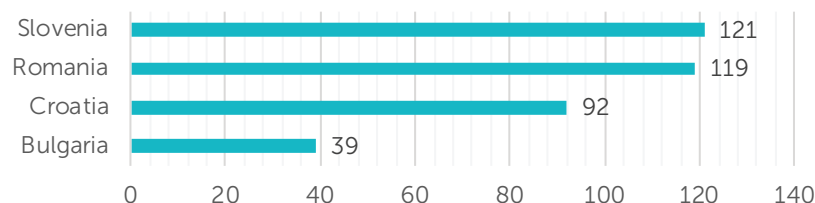
## Number of fintech companies in 2017 by country

Source: UniCredit Group



## SEE countries Fintech market size in 2017 (EUR mln)

Sources: UK Department for International Trade, Deloitte Poland



## Bulgaria – innovation leader and booming fintech market

Bulgaria ranked fourth in Europe in terms of five-year innovation dynamics in the 2017 EU innovation ranking – one in five Bulgarian companies implemented technology innovation during the period. In 2017 the turnover of the Bulgarian ICT industry exceeded EUR 2.5 bln, a threefold rise compared to seven years earlier.

According to a study by UniCredit Group, in 2017 there were 70 fintech companies registered and operating in Bulgaria. Thus, the country has the largest number of fintech companies in Central and East-

ern Europe, ahead of the Czech Republic, Romania and Slovakia. In the SEE region alone, Bulgaria is the undisputed leader with twice as many companies as all other SEE countries together, excluding Romania. The company with the highest accumulated funding in the region is also based in Bulgaria with EUR 25 mln and is active in the financing and risk management segments.

The majority of banks in Bulgaria are foreign-owned and the technology they use is that used by their group. The financial

IT market is dominated by major global players, with only a few niche competitors, due to the low penetration of internet and mobile banking. Inadequate trust in the local banking system makes customers more conservative about adopting innovative products, especially from unknown companies. However, there are Bulgarian companies focusing on specific fintech areas such as consumer loans, debt collection and insurance.

## Romania – struggling fintech amid growing IT market

Romania is an attractive and established IT destination in SEE, especially in outsourcing and shared services. The talent pool and sizeable domestic market are prerequisites for the development of the fintech subsector, which is still emerging.

In 2017 the ICT sector in Romania recorded a turnover of EUR 4.1 bln, an annual growth rate of 13.6%. Forecasts project growth of 15.9% y/y in 2018, and market volume is expected to stand at EUR 6.3 bln in 2020. In 2017 Romania's ICT industry employed 90,380 people, up from 65,900 in 2013. It is expected to count 113,850 by 2020. While the annual growth rate of IT exports remains steady at more than 18%, the domestic growth rate stands at a mere 0.5%. However, it is

expected to accelerate and reach 9.0% in 2018 and 11.4% in 2020.

In 2017 the software industry was estimated at 6.0% of Romania's GDP, a proportion that could potentially rise to 10% in the coming years. The consolidation of companies has been a steady trend in the corporate structure of the sector in the last five years. While in 2012 SMEs generated most of the industry's revenue, in 2017 the 40 largest players dominated the market with 36% of the total turnover, and, despite their growing number, the share of micro firms and SMEs shrank considerably. This trend is expected to persist and even intensify. As of September 2017, more than 19,000 software

companies operated in Romania, up from 17,400 in 2016 and 11,000 back in 2012.

The number of startups is still low compared to other less specialised IT fields.

Emerging fintech players concentrate on collaboration with existing banks and financial services providers to solve issues such as reducing the regulatory reporting burden, and the facilitation of cloud services. Entering a high-volume, low-margin business, fintech companies struggle to gain significant market share and be profitable and turn to offering corporate banking services. In consumer finance, fintech companies compete with banks and other players in the area of customer experience in specific niche segments.

## Serbia – IT as a government priority

The Serbian ICT market was estimated at EUR 1.7 bln in 2017, more than half of which generated from telecommunications. It generated 6.0% of the country's GDP. The sector is characterized by slow growth and dominance of IT imports over exports. Cloud computing is the most dynamic segment of Serbia's IT sector with annual growth rate exceeding 30%.

Between 50,000 and 100,000 new jobs in the ICT sector in Serbia are planned to be

created by 2020 in addition to the 6,000 existing in 2016. The state has announced its goal to export EUR 1.0 bln of ICT products and services in 2020. However, Serbia's IT investment per capita stood at EUR 60 in 2016, more than 13 times lower than the EU average of EUR 800. The rest of the SEE countries also stood far below the average – Bulgaria and Romania registered similar values as Serbia, Macedonia, Montenegro and Bosnia and Herzegovina

trailed behind. Croatia was the sole country to invest more in IT – close to EUR 200 per capita.

Over the next three-year period, the Serbian government plans to invest EUR 65 mln in IT infrastructure. The country's IT sector is a major driver of economic growth, and in 2017 exports of IT sector services and products reached EUR 900 mln.

## Croatia – the next SEE fintech destination

In 2017 the Croatian ICT market grew by 6.0% on the year and stood at EUR 2.1 bln. Over the same period, software exports represented 2.0% of the total exports of the country. There were about 30,000 ICT professionals in 2016 and the Association of Croatian Independent Software Exporters forecasts that by 2020 the number would double, mainly through jobs opened by IT startups. In the Adriatic region, Croatia accounts for around 40% of IT spending. It is the largest market in the region, ahead of Slovenia and Serbia.

The large banks and insurers have invested heavily in IT departments and internal development capability, focused on e-banking and mobile banking solutions, such as online branches, credit requests and calculators. The government facilitates fintech penetration by allowing users with accounts from e-banking solutions to use them for e-government services. The fintech market in Croatia is still in its early phase of development, characterised by considerable potential for innovative ideas, but also by regulatory obstacles.

## Slovenia – SEE's Bitcoin centre

Slovenia entered the global fintech market as a provider of Bitcoin technology and established itself as SEE's Bitcoin hub. Other major products in Slovenia include banking core systems and applications and mobile bill-payment platforms. Due to the small size of the market, Slovenia has not been a leading target for international corporations. However, as technology becomes more available and domestic players gear up for change, consumers can expect the landscape to change significantly in years to come – both in terms of new providers and existing providers that change the way they co-operate.



# Trends and Forecasts

Beside widely profiled IT skills, in-depth knowledge of payment methods and systems is essential. The lack of such expertise deters many entrepreneurs from entering the fintech startup market and keeps the number of companies low.

## Bulgaria

- 1 | Low technological maturity of Bulgarian society, as measured by smartphone and internet penetration, weak domestic demand and low average income could slow down the development of the fintech sector.
- 2 | Banks have strong focus on mobile technologies, CRM systems, data and analytics solutions and virtualisation.
- 3 | Strong growth is anticipated in the Bulgarian online payments market.
- 4 | Well developed e-banking systems despite low online banking penetration are available.

## Croatia

- 1 | ICT sector features low level of internet inclusion and limited domestic demand
- 2 | Croatia has SEE's highest proportion of enterprises that use cloud services
- 3 | Local players provide a considerable share of core IT systems in Croatia
- 4 | Host card emulation (HCE) technology is on the rise
- 5 | Online banking penetration is the lowest among SEE's EU members
- 6 | IT development in the insurance sector is based on in-house departments and solutions provided by established local and regional vendors

# Trends and Forecasts - Continued

## Romania

- 1** | While the market for banking IT solutions is dominated by large players, there are also some successful vendors from the local IT industry
- 2** | A decrease in interchange fees and the favourable dynamics of e-commerce are expected to stimulate significant growth in card payments
- 3** | ATMs in Romania serve multiple purposes, making up for the shortage of bank branches and becoming an important distribution channel for banks
- 4** | Borrowers in Romania are price-sensitive and online lending with price-comparison functionality is becoming popular

## Slovenia

- 1** | Most banks in Slovenia have reached technological maturity
- 2** | Slovenia has emerged as a SEE Bitcoin hub
- 3** | Increasing popularity of e-wallet that allows consumers to make semi-automated payments
- 4** | IT systems are mainly provided by local players. In the case of foreign-owned banks, such systems are implemented by global vendors
- 5** | A lack of personal finance management functionality in Slovenian e-banking systems and mobile apps is driving the emergence of start-ups providing their own mobile PFM solutions
- 6** | Innovations by Slovenian banks are based mainly on solutions that are already popular in most banks in Western Europe, such as mobile and contactless cards





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