

## Digital transformation of the economy: A mixed picture

The Ukrainian economy is entering the digital age in dual speed: While the country is home to a booming IT sector, digital transformation of the general business sector is lagging behind. Growth in the IT sector has been outpacing other sectors in the past year. The sector's share in national employment has grown from around 2% in 2015 to just under 3% in 2019. With a strong emphasis on programming activities, the sector now contributes 5% to Ukraine's total exports. At the same time, companies in the sector are increasingly moving from providing outsourcing services to developing and offering their own products. Digital transformation of companies outside the IT sector is less advanced, as a GET study based on a representative survey of companies reveals. Both the market pressure and current state of digitalisation of companies lags behind Germany. As market pressures will increase in future years, more awareness and action is needed. Government efforts to support the transition to a digital economy should address the key bottlenecks for digital transformation, mainly the scarcity of qualified staff and gaps in regulation.

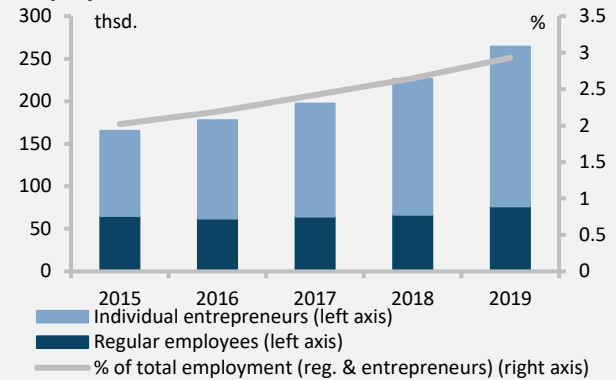
### IT sector is an emerging strength

One of the strongest growing sectors of the Ukrainian economy in the past years has been the IT sector. Centred around outsourcing companies such as SoftServe or EPAM that offer programming services to business clients, this sector has grown its share in national Gross Value Added (GVA) from 2.0% in 2015 to 3.1% in 2019. Our definition of the sector excludes communications activities, which are usually counted together with IT services as the "ICT sector" (5.2% of GVA in 2019), but have little in common with IT. On the other hand, we include IT-related retail trade and manufacturing in order to give a comprehensive picture of all IT-related activity in the economy. These activities are however small when compared to IT services (mainly programming), which make up 85% of the sector's GVA.

### Strong employment and high wages in IT sector

Employment in the IT sector has grown similar to GVA and accounted for almost 3% of total employment by 2019. Due to favourable tax treatment, most workers in the sector operate legally as "individual entrepreneurs" although they de-facto work as employees. Growth of the sector by now appears to be driven more by quality rather than cheap labour. According to surveys, average incomes of programmers are now well above USD 2,000 per month. That is more than four times the national average, making the IT sector perhaps the single most attractive employer for talented graduates.

### Employment in the IT-sector



Source: Ukrstat, own calculations

### Strong international orientation of IT sector

High wages in IT are driven by two main factors: First, programmers are internationally sought after and need to be offered good enough wages in order to stay in Ukraine. At the same time, Ukrainian IT companies and programmers take advantage of the location-independence of IT and work mainly for international clients, which permits them to pay high wages. IT exports, overwhelmingly services, have become an important part of the country's export basket. In 2020, they already made up 5% (ca. USD 3 bn) of Ukraine's total goods and services exports. This is a very positive development but also highlights the IT sector's relatively limited interaction with the rest of the economy.

### Digital transformation in the business sector

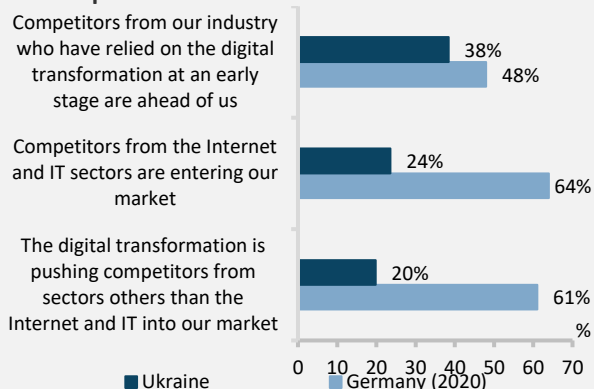
A representative survey of 500 companies across all sectors of the economy commissioned by the German Economic Team provides further insights into digital transformation in the broader economy. Overall, optimism prevails: 92% of Ukrainian companies consider digital transformation to be an opportunity rather than a risk for them (in a comparable survey in Germany, this share was at 98%). However, only 17% consider themselves rather a forerunner than a latecomer in digital transformation in Ukraine, compared to 28% in Germany.

### Competitive pressures limited but set to rise

When comparing company perceptions of the pressure to digitally transform, the picture becomes yet clearer: In Ukraine, new players from the digital economy have not yet entered conventional markets nearly as much as in Germany. Pressures are mainly felt because existing competitors on the same markets are gaining an edge because of faster adaptation of new, digital ways.

Companies in Ukraine do not yet need to be as advanced in digital transformation as companies in more developed markets.

**Market pressures in the business sector**



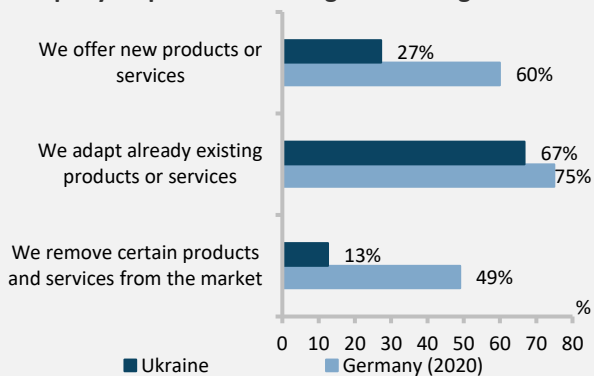
Source: Own survey, BitKom Research

However, pressure will rise in the near future as international tech companies will not pass by the Ukrainian market for long. Ukrainian companies should hence drive their digital transformation now to be prepared for what is to come.

**Limited digital innovations of companies**

Indeed, companies in Ukraine appear to be at relatively early stages of adaption to the digital age. Takeup of new digital tools is concentrated on the simpler ones, such as electronic invoices and websites, rather than more advanced tools such as enterprise resource planning or cloud computing.

**Company responses to the digital challenge**



Source: Own survey, BitKom Research

On the side of their product portfolios, companies in Ukraine also follow a more incremental approach. Compared to companies in Germany, they rather adapt existing products than developing new and removing old ones from the market.

**Companies need to assign responsibility**

Both companies and the government should persevere in their efforts to drive digital transformation in Ukraine forward. Awareness about the importance of the need to seize the opportunities of the digital age is of paramount importance and should be promoted among companies to prevent complacency. A key lesson from our survey is that companies need to internally assign

responsibility for digital transformation: Companies with a digitalisation coordinator or unit were for example clearly more likely to have invested in digital transformation in the past years.

**Policy should focus on the skills gap**

The Ukrainian government is already supporting the digital transformation with programmes such as the initiatives under the “Diia” umbrella. Such work should be continued and special attention be paid to specific obstacles to digital transformation mentioned by companies. The main constraint both on the general business sectors and the IT sector is the scarcity of sought-after IT skills in the workforce. While policy measures in this regard take time to yield results, they should still be undertaken now.

In addition, gaps in e-government and regulation relevant to digital transformation should be addressed. Examples include the functioning of an electronic signature and the recognition of digital documents by public authorities and the protection of digital data and property rights.

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This newsletter is based on the [Policy Study 04/2021](#) and the [Policy Briefing/10/2021](#)

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