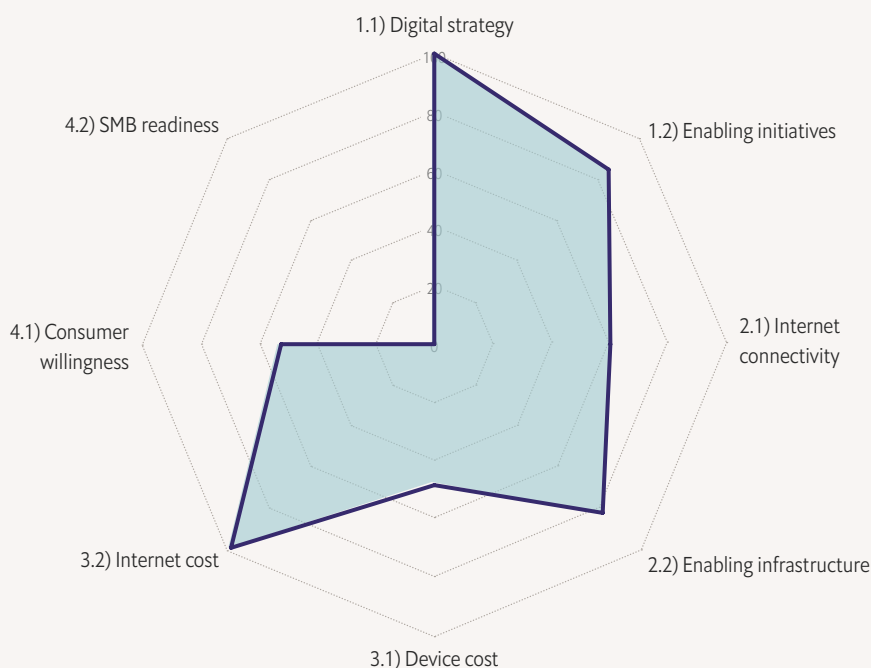


# Kazakhstan

- Kazakhstan performs well on digital economy policies, with a strong digital strategy and enabling initiatives in place.
- Among the top challenges to access to the digital economy is the uneven infrastructure across urban and rural areas.

**Figure 1: Category-level scores for Kazakhstan**



### Embracing creativity to drive digital growth

Kazakhstan is an emerging, upper-middle-income economy that is highly dependent on commodity exports for growth.<sup>1</sup> Diversification remains a challenge as revenue from oil and gas account for more than a third of GDP. Key

challenges include slow productivity growth, wealth inequality, limited job opportunities, rising living costs and weak institutions.<sup>2</sup>

Over the past decades, Kazakhstan has made significant progress in advancing its digital economy. But there is much more to be gained.

<sup>1</sup> EIU, Kazakhstan Country Report 2022. Available at: <https://store.eiu.com/product/country-report/kazakhstan>

<sup>2</sup> The World Bank, Kazakhstan Country Overview, last updated in 2022. Available at: <https://www.worldbank.org/en/country/kazakhstan/overview#3>

A 2020 study<sup>3</sup> on Kazakhstan's digital economy showed a close relationship between the pace of development of the ICT industry and the country's GDP growth.<sup>4</sup> In 2021, the ICT market in Kazakhstan was estimated at US\$2.3bn, representing 3% of GDP.<sup>5</sup> Digital transformation in the region could provide enterprises with unparalleled opportunities to improve profitability and increase the efficiency of administrative processes in public sectors.<sup>6</sup>

The Kazakh government has made notable efforts in improving the country's digital infrastructure and affordability, which score 70.0 and 68.8 out of 100, respectively. This was achieved through effective policy and regulation (92.5 out of 100 in the scorecard).<sup>7</sup> However, geopolitical factors seem to majorly influence practices, failures and successes within the digital economy. Moreover, there are substantial geographic differences in how regions within the nation access, use and gain support to participate in the digital economy. We explore these trends in more depth below.

### Access gaps limit digital development

The Kazakh government has published a national digital transformation strategy, Digital Kazakhstan 2018-2022, aimed at accelerating the pace of development through digital technologies. The country has also set an ambitious goal of 100% coverage of high-quality internet by 2025.<sup>8</sup>

City-level disparities in infrastructure are also a challenge. Lyaila Uzakova, cofounder and partner of RedQoo, explains that "the most

**Figure 2: Infrastructure indicator scores for Kazakhstan**

	Score
INFRASTRUCTURE PILLAR	70.0
<b>2.1) Internet Connectivity</b>	60.7
2.1.1) Network Coverage of 4G	81.3
2.1.2) Fixed-line broadband subscribers	14.0
2.1.3) 5G deployment/rollouts	50.0
2.1.4) Average fixed broadband latency	91.6
2.1.5) Average mobile latency	94.6
2.1.6) International internet bandwidth per internet user	3.3
<b>2.2) Enabling infrastructure</b>	82.1
2.2.1) Smartphone penetration	70.2
2.2.2) Account ownership at a financial institution or with a mobile money-service International provider	81.0
2.2.3) Access to electricity	100.0
2.2.4) Financial institution account ownership	81.0

Source: Economist Impact  
Note: Higher scores correspond with high levels of digital economy accessibility

difficult thing now is the quality of internet services which differs between cities. People from different cities of Kazakhstan noticed more problems with the quality of internet services for several months in 2022. Although the Kazakh population has full access to electricity, around 80% of people can access LTE/WiMAX, and fixed broadband subscriptions are 13.96 per 100 inhabitants, this masks differences at the city level. Our survey of consumers in the country reveals that 34% are restricted by a lack

<sup>3</sup> Alimbetov US et al. 2020. IOP Conference Series, Available at: <https://iopscience.iop.org/article/10.1088/1757-899X/940/1/012120>

<sup>4</sup> Based on the study, a factor analysis revealed that the correlation coefficient between Kazakhstan's GDP and the volume of products and services produced by Kazakhstan's ICT industry in a year is 0.994, which indicates a high degree of significance of the relationship that these elements share.

<sup>5</sup> ITA, Kazakhstan - Country Commercial Guide, 2022. Available at: <https://www.trade.gov/country-commercial-guides/kazakhstan-information-and-communication-technologies#:~:text=The%20total%20Kazakhstani%20ICT%20market,services%20totalled%20about%20USD%201.5.>

<sup>6</sup> UN ESCAP. Realizing Digital Potential in North and Central Asia. 2020. Available at: [https://unece.org/sites/default/files/2020-12/E\\_Background\\_paper\\_-\\_Realizing\\_digital\\_potential\\_in\\_North\\_and\\_Central\\_Asia.pdf](https://unece.org/sites/default/files/2020-12/E_Background_paper_-_Realizing_digital_potential_in_North_and_Central_Asia.pdf)

<sup>7</sup> Please note that due to limitations in survey fielding, the scorecard for Kazakhstan does not have an SMB readiness and overall Readiness score.

<sup>8</sup> <https://astanatimes.com/2022/08/building-a-digital-kazakhstan-kazakhstan-seeks-to-provide-100-percent-of-population-with-internet-by-2025/>



of available high-speed and reliable internet. The digital divide is narrower in metropolitan areas, explains Ms Uzakova, but the quality of internet services differs between cities.

Partnerships with telecommunications companies will play a vital role in closing these connectivity coverage and usage gaps. For example, under the national Digital Kazakhstan strategy, the government has implemented the '250+' programme through which three telecommunications companies—Beeline Kazakhstan, Kcell and Tele2—will extend high-speed internet to all villages with a population of 250 or more.<sup>9</sup> Moreover, policymakers could accelerate the deployment of alternative connectivity channels, such as satellite internet. Such technology could

play a notable role in reaching remote areas. The government is already considering this, looking to providers such as OneWeb O3b and Starlink. The government is also working on amending Kazakhstan's tax code to legalise non-geostationary satellite orbit systems.<sup>10</sup>

### **Creativity and collaboration as the way to digital literacy**

"Increased digital literacy, in middle, technical and vocational, and higher education" is one of the strategic objectives of Kazakhstan's national digital transformation strategy. Digital literacy begins at a young age. However, according to Ms Uzakova, it is important that digital training is tailored to the local context. Kazakhs prefer engaging training materials that entertain as well as educate. This calls for a different approach to training. Ensuring training is engaging, informative and entertaining will make accessing the digital economy more attractive for SMBs and consumers. Local private and public sector collaborations should be transparent and accountable in bridging the existing gaps in access to the digital economy.

Looking at Kazakhstan's current digital economy, there is a clear path for further progress. The key lies in resilience, of both the people and infrastructure. Upskilling people will be essential in mobilising digital entrepreneurship but will require creative solutions catered to the Kazakh population. Meanwhile, strengthening local connectivity infrastructure through less conventional channels will drive further digital transformation and enable equal access.

<sup>9</sup> <https://www.veon.com/media/media-releases/2020/beeline-kazakhstan-supports-rural-broadband-rollout/>

<sup>10</sup> <https://astanatimes.com/2022/08/building-a-digital-kazakhstan-kazakhstan-seeks-to-provide-100-percent-of-population-with-internet-by-2025/>

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