

## **Title Promoting Enterprise Digitalisation in Azerbaijan**

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## **Corrigendum**

### **Page 23 and 24**

#### **Incorrect Original text**

Another risk associated with digitalisation is the growing digital divide between firms that accelerate the development of their digital culture and those that do not. With broadband connection being a pre-requisite for businesses to be a part of the digital community, firms that are less connected (for instance, those that do not have access to the internet, via either fixed or mobile connections) fall behind their better-connected rivals. Given that a sizeable number of firms in Azerbaijan do not have a web presence (such as a website) or access to the internet, blanket policies for digitalisation of firms put smaller firms with less financial capacity to adopt these solutions at risk of losing customers and falling out of the market. With the growing reliance on e-commerce and online platforms for business operations, there is a growing concern that the push for digitalisation can be disruptive, leading to a more polarised economy and an uneven playing field, with large firms reaping the benefits (EIB, 2020<sub>[20]</sub>).

#### **Corrected Text**

Another risk associated with digitalisation is the growing digital divide between firms that accelerate the development of their digital culture and those that do not. With broadband connection being a pre-requisite for businesses to be a part of the digital community, firms that are less connected (for instance, those that do not have access to the internet) fall behind better-connected competitors. Given that a sizeable number of firms in Azerbaijan do not have an online presence or access to the internet, blanket policies for digitalisation of firms put smaller firms with less financial capacity at risk of losing customers and falling out of the market. With the growing reliance on e-commerce and online platforms for business operations, there is a growing concern that the push for digitalisation can be disruptive, leading to a more polarised economy and an uneven playing field, with large firms reaping the benefits (EIB, 2020<sub>[20]</sub>).

#### **Incorrect Original text**

In 2015, Azerbaijan has launched 12 Strategic Roadmaps to ensure economic diversification and sustainable economic growth. Digitalisation and digital transformation of the economy was embedded in this strategic reform agenda and a number of related reforms to promote digitalisation of the economy were implemented between 2016 and 2020. Digitalisation was covered under the Strategic Roadmap for Development of Telecommunications and Information Technologies (ICT Roadmap) and the Strategic Roadmap for the Production of Consumer Goods at the Level of Small and Medium Enterprises in the Republic of Azerbaijan (SME Roadmap).

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the Strategic Roadmap for the Production of Consumer Goods at the Level of Small and Medium Enterprises in the Republic of Azerbaijan (SME Roadmap).

**Incorrect Original text**

The ICT Roadmap, which was implemented under the supervision of the Ministry of Digital Development and Transport (MDDT), identified three strategic targets and 10 policy priorities aimed at improving governance structures, supporting productivity growth and digitising government services (see Table 3 for all policy priorities).

**Corrected Text**

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[...]

**Incorrect Original text**

In addition the ICT Roadmap, measures under the SME Roadmap have also potential to boost digital transformation of Azerbaijan's economy, and its SME sector in particular. For example, SMBDA was established to provide SMEs with financial and non-financial support including in the area of SME digitalisation. Policy initiatives to support SME access to finance, such as the Entrepreneurship Development Fund and Mortgage and Credit Guarantee Fund, can ease SME access to digital technologies and provide SMEs with financial resources needed to undergo digital transformation. Business incubators and initiatives promoting entrepreneurial thinking and entrepreneurship skills can build digital awareness and boost abilities of entrepreneurs to implement digital solutions.

**Corrected Text**

In addition to the ICT Roadmap, there are a number of measures under the SME Roadmap aimed at boosting the digital transformation of Azerbaijan's economy, and its SME sector in particular. For example, SMBDA provides SMEs with financial and non-financial support including in the area of SME digitalisation. Policy initiatives to support SME access to finance, such as the Entrepreneurship Development Fund and Mortgage and Credit Guarantee Fund, can ease SME access to digital technologies and provide SMEs with financial resources needed to undergo digital transformation. Moreover, business incubators can help build digital awareness and boost abilities of entrepreneurs to implement digital solutions.

**Incorrect Original text**

The digital transformation is also envisaged Azerbaijan 2030: National Priorities for Socio-Economic Development, a strategic policy document approved in February 2021. The document identifies 5 priority areas: i) Sustainable growth and competitive economy, ii) Society based on inclusive and social justice, iii) Competitive human capital and innovations, iv) Stronger development of Azerbaijan's territories and, v) Clean environment and green growth. The document outlines the overall vision and should be followed by a set of five-year strategy documents and policy action plans, which should detail policy objectives and actions across different policy areas. It is expected that digitalisation of the public and the private sector will be high on the reform agenda and planned SME development strategy 2021-2025 will define a set of policy intervention to promote uptake of digital technologies among SMEs and general population.

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areas. It is expected that digitalisation of the public and the private sector will be high on the reform agenda and planned SME development strategy 2021-2025 will define a set of policy intervention to promote uptake of digital technologies among SMEs and general population.<sup>2</sup>

**(Footnote number 2 (this is a new footnote) added on page 24)**

**Footnote 2:** Digitalisation is also embedded in a number of presidential decrees and orders, such as 1) on “Improvement of management in the field of digital transformation”; 2) on “Improvement of management in the field of digitalization, innovation, high technologies and communication”; 3) on “approval of State Programme on enhancement of digital payments in the Republic of Azerbaijan in 2018-2020 years”.

## Page 26:

### Incorrect Original text

Azerbaijani Service and Assessment Network (ASAN) and ASAN Support for Family Business (ABAD) operating under the State Agency for Public Services and Social Innovations (SAPSSI) provide e-government services for SMEs and the general population and support development of family-run businesses located primarily in the rural areas of Azerbaijan. In addition, Centre of Development of Electronic Government, also functions under the State Agency for Public Services and Social Capital Innovations and aims to improve the electronic services, particularly those related to government-to-business (G2B) and business-to-government (B2G).

### Corrected Text

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## Page 29:

### Incorrect Original text

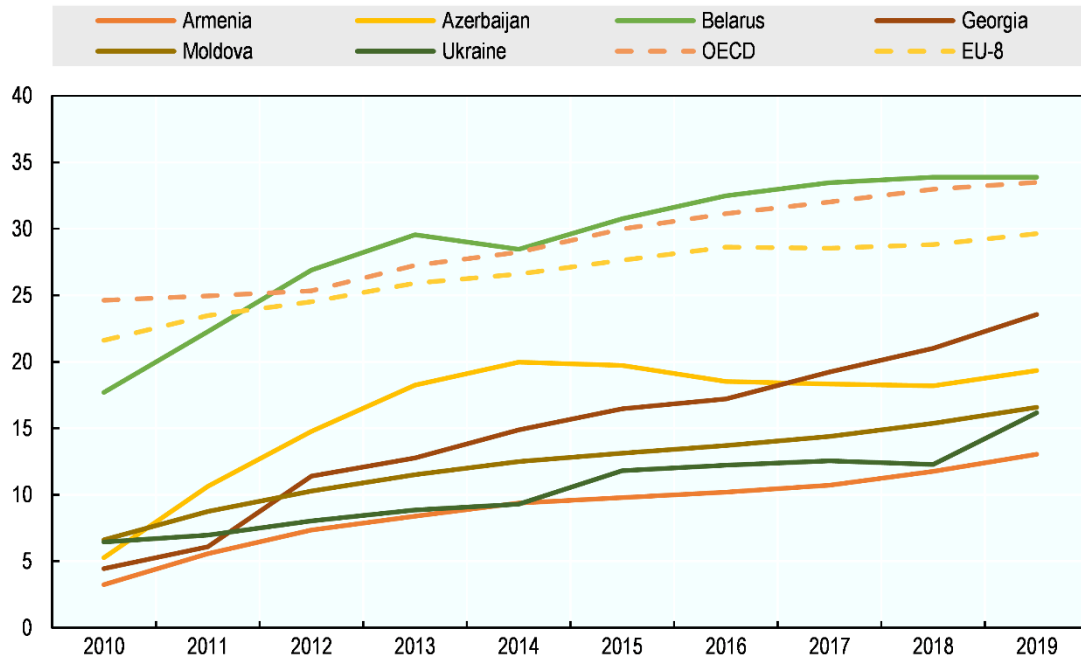
Access to broadband internet in Azerbaijan improved over the last decade, increasing from 5.26 per 100 population in 2010 to 19.34 in 2019 (see Figure 11).

### Corrected text

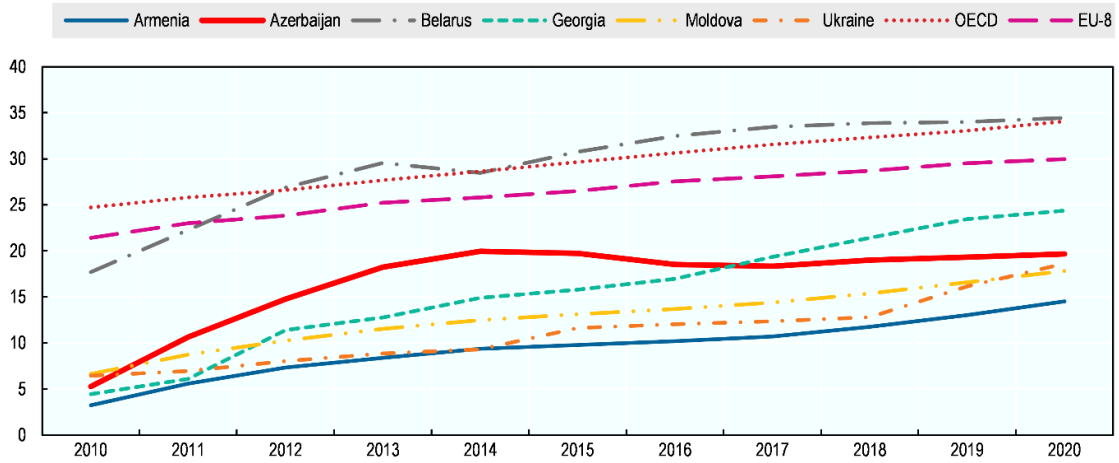
Access to broadband internet in Azerbaijan improved over the last decade, increasing from 5.26 per 100 population in 2010 to 19.68 in 2020 (see Figure11).

# Page 30:

## Incorrect Original Figure 11



## Corrected Figure 11



## Page 31:

### Incorrect Original text

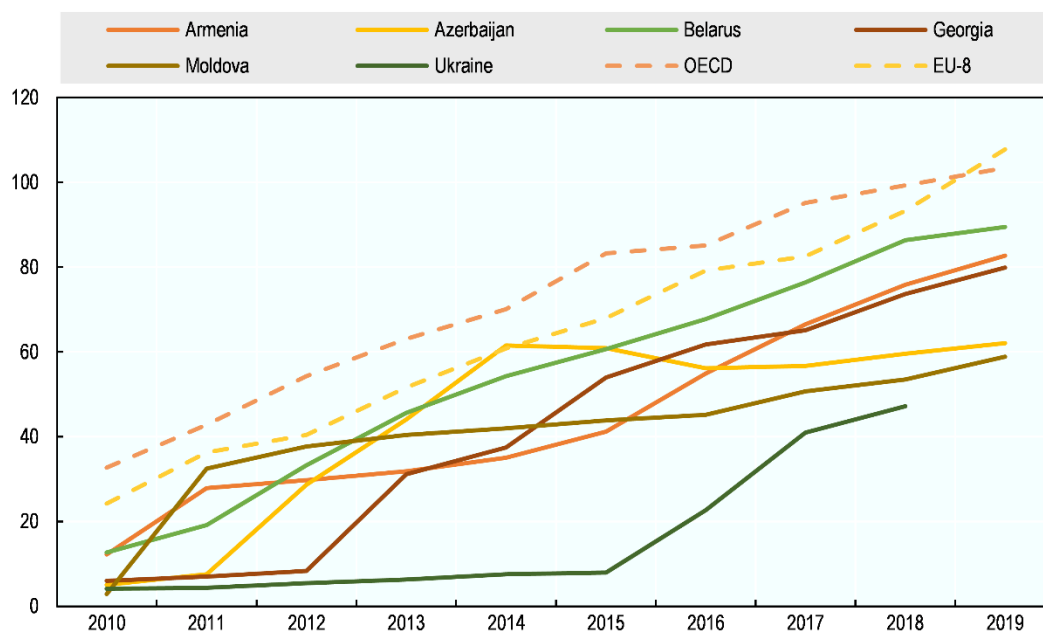
Even though mobile broadband subscriptions have increased substantially over the last decade and 99% of households have access to mobile phones, Azerbaijan has only 62 mobile broadband subscriptions per 100 population, well below the OECD average (103) (see Figure 13).

### Corrected Text

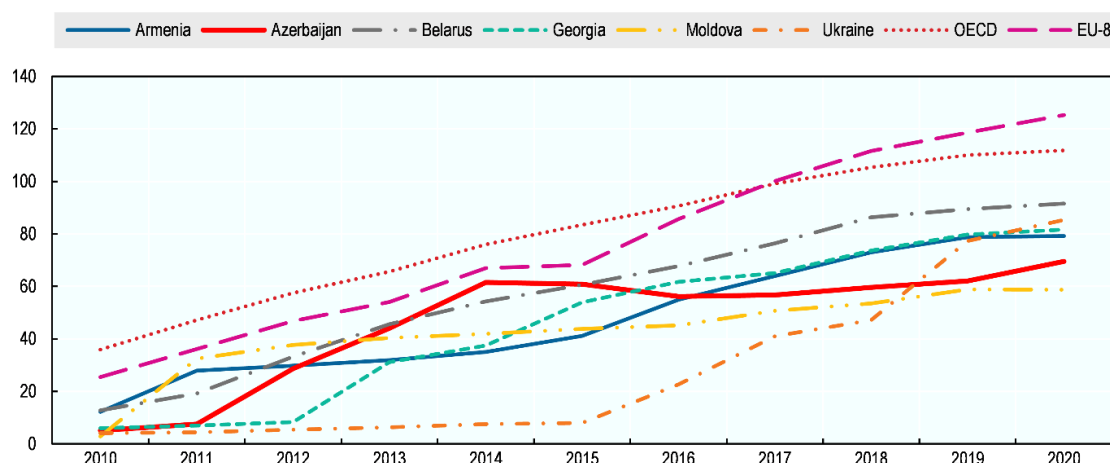
Even though mobile broadband subscriptions have increased substantially over the last decade and 99% of households have access to mobile phones, Azerbaijan has only 70 mobile broadband subscriptions per 100 population, well below the OECD average (112) (see Figure 13).

## Figure 13 change

### Incorrect Original Figure 13



Corrected Figure 13



## Page 32:

(Footnote number 3 (this is a new footnote) added on page 32)

In October 2021, Azerbaijan established the Information and Communication Technologies Agency which acts as a national regulatory authority under the Ministry of Digital Development and Transport.<sup>3</sup> It is essential to ensure that the Regulatory Authority is independent, meaning it is not affected by political or market influence and obtains funding through legislative and budgetary allocations, which in turn allows for transparency in identifying budget requirements and allocating finances. It is also important for promoting market openness (ITU, 2020<sup>[27]</sup>).

**Footnote 3:** The Information and Communication Technologies Agency is a public legal entity that carries out certification, accounting, regulation and control in the field of information and communication technologies (including quality control), as well as regulation of interconnection between telecommunication operators and radio spectrum management.

## Page 33 and 34

(Footnote number 4 (this is a new footnote) added on page 33)

Azerbaijan ranks 40<sup>th</sup> in the Global Cybersecurity Index 2020 published by the International Telecommunication Union. Its highest scores are for Legal Measures and Co-operative Measures, while its lowest is Organisational Measures (see Figure 15). Overall, Azerbaijan is the best performer among the EaP countries and ranks third in the CIS region (after Kazakhstan and Russian Federation) (ITU, 2021<sup>[25]</sup>).

Azerbaijan has not adopted a national cybersecurity strategy, but some policy objectives in this field are defined in the National Strategy on the Development of the Information Society (2014 -2020) as well as in the ICT Roadmap (2016-2020). Currently, there is not any strategic policy document in place that would define mid-term policy priorities in the area of cybersecurity. The preparation of the National Strategy on information Security and Cyber security for 2022-2027 years is ongoing.<sup>4</sup>

**Footnote number 4:** In September 2009, Azerbaijan signed the Convention on Cybercrime, also known as the Budapest Convention. The Budapest Convention is a framework that permits practitioners from the Parties to share experience and create relationships that facilitate cooperation.

### **Incorrect Original text**

In terms of the institutional framework, the Electronic Security Service established in 2012 under the Ministry of Digital Development and Transport is the main public entity responsible for policy co-ordination, awareness raising and prevention of cyberattacks. The Electronic and Security Centre (ESC) collects and analyses information from users, software and hardware producers, notifies about the cybersecurity risks, implements preventive measures and provides recommendations and instructions on cybersecurity.

The Computer Emergency Response Centre under the Special Communication and Information Security State Service of the Republic of Azerbaijan plays an important role in the fight against cyber threats. It gathers information about cyberattacks and renders assistance to public and private sector to prevent them. The Centre also provides information support about existing cyber risks.

In terms of programmes to promote digital security, most activities are related to the organisation of public events and workshops. For example, the annual International Cyber Security Week organised by the Ministry of Digital Development and Transport aims at creating a platform to promote implementation of digital security measures by companies and public sector entities, increasing digital security awareness, creating appropriate methodological tools to implement cyber-security measures and improving co-ordination between the private and public sectors in this field (Azintelecom, 2020[28]). In 2015, the Ministry of Digital Development and Transport also established the Cyber Academy – an initiative promoting cyber-security awareness and skills among companies, workers and the general population. There are also a number of private sector initiatives that are aiming to build awareness and foster implementation of digital security measures. However, public institutions do not currently implement comprehensive programmes that would provide SMEs with the tools and skills required to effectively face cybersecurity challenges as existing initiatives are either one-off or low-scale and do not have the ability to reach a critical mass of SMEs.

### **Corrected text**

In 2012, the Electronic Security Service (ESS) was established under the Ministry of Digital Development and Transport as the main public entity responsible for policy co-ordination, awareness raising and prevention of cyberattacks. The ESS co-ordinates the activities of information infrastructure entities in the field of cyber security, takes measures in cases of illegal collection, processing and non-protection of personal data, informs the country about current and potential electronic threats, educates public, private and other organizations in the field of cyber security and provides them with methodological assistance. It also collects and analyses information from users, software and hardware producers, notifies about the cybersecurity risks, implements preventive measures and provides recommendations and instructions.

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## Page 35

(Footnote number 5 (this is a new footnote) added on page 35)

Please note that the paragraph starts at page 34 but **the number<sup>5</sup> and the footnote are on page 35**

Between 2011 and 2020, a total of 245 848 e-signature certificates were issued through the centre, to citizens, government agencies and legal entities. The majority of certificates were issued to government entities, while private citizens made up the smallest percentage of those having received e-signature certificates, indicating limited use of e-signature among entrepreneurs and the general population (National Certification Services Centre, 2018<sup>[30]</sup>).<sup>5</sup>

**Footnote number 5: In the framework of the new e-Government infrastructure of Azerbaijan, the “ASAN Login” system was developed, a Single Sign-On System created by the E-GOV Development Center (EGDC) to facilitate access to e-services provided by public and private organizations through one integrated portal.**

## Page 37

**Incorrect Original text**

Azerbaijan started to implement a number of measures to support the uptake of e-commerce under the *State Programme on Expansion of Digital Payments in the Republic of Azerbaijan in 2018-2020*. For example, the central bank launched an instant payment system, which should improve access to online payment services and a new law on Law on Payment Services and Payment Systems is expected to create a sound legal framework (Central Bank of Azerbaijan, 2021<sup>[36]</sup>). In addition, measures were implemented to increase the potential of “Azerpost” (<https://www.azerpost.az>) for accurate and timely delivery of items purchased by customers from the internet by integration with worldwide sales networks such as Amazon and Alibaba, as well as world’s leading transport and logistics companies such as DHL and TNT. In addition, under the Azexport platform (<https://azexport.az/>), Azerbaijan is developing cross-border digital trade through partnerships with some of the world’s largest e-commerce companies.

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## Page 40

Footnote number 2 became footnote number 6 since we added new footnotes before.

## Page 42

(Footnote number 7 (this is a new footnote) added on page 42)

In terms of promoting digital skills development, the Strategic Roadmap for Development of Telecommunication and Information Technologies acknowledges the necessity of enhancing digital skills. It envisages converting to e-schools, meaning a more extensive use of electronic books and seminars, open-access educational materials, distance learning and website-based exams; creating ICT courses for teachers to keep up with the rapidly increasing demand for digital skills, and updating the evaluation of ICT skills of graduates and teachers. The Ministry of Education has also created a digital teaching material platform that contains electronic versions of books and other curriculum materials, as well as a curriculum management information system. It has also introduced a digital skills pilot programme at secondary schools, aiming to introduce coding and programming languages as part of compulsory curriculum for students. Table 4 provides examples of initiatives promoting digital skills development in Azerbaijan.

**Footnote number 7:** The “Strategy on social-economic development for 2022-2026” was developed in the context of “Azerbaijan 2030: National Priorities on the social-economic development”. Encouraging the increase of competitive human capital and of space for modern innovations was identified as a priority, and one of the main related goals is fostering a “creative and innovative society”. Moreover, on the basis of the Decree of the President of the Republic of Azerbaijan on “Improvement of the management in the sphere of digital transformation” dated 27 April 2021 No 1325 the Ministry of Digital Development and Transport elaborated the project “the Conception of digital transformation in the Republic of Azerbaijan”.

## Table 4

Incorrect Original table

Initiative	Responsible Institution	Description
Digital Skills Project	Ministry of Education	Skills project for students in secondary schools involved 6 500 students in 45 schools in Baku in the 2017-2018 academic year. In 2019, 26 000 5 <sup>th</sup> and 6 <sup>th</sup> grade students from 71 schools were involved in the project in Baku and Ganja. Also under this project, 23 500 students from 65 different schools in Baku and 2 500 students from 6 schools in Ganja are studying computer science in an updated format, which gives students a solid foundation of algorithmic thinking and logic, design skills and programming.
Information-Communication Technologies Application and Training Centre	Ministry of Digital Development and Transport	Provides training and ICT application services to the population, as well as to public and private enterprises. In 2017, the Centre established the “E-Government” project for young people, and in 2019 the number of students studying at the Centre exceeded 1 000. The Centre provides four types of training programmes: certified trainings (Microsoft, Cisco, Oracle, CompTIA); professional trainings (MS Office, Project Management, ICT Network/System; Programming); corporate trainings (digital skills and other programmes); and ICT lab organised corporate training programmes.
Innovation and Digitalisation Agency Azerbaijan	Ministry of Digital Development and Transport	Offers STEM courses to children and students. Courses provide participants with fundamental skills in robotics, science, technology, engineering, chemistry, mathematics, programming and digital art. The Agency has been operating since 2012, having been established by the decree of the President of Azerbaijan with the purpose of ensuring sustainable development and competitiveness of the economy, and the expansion of Azerbaijan’s ICT sector.
Public-private initiatives	n.a.	BP, Alqoritmika and leading banks operating in Azerbaijan play an important role in digital skills development through supporting ICT training programs and establishment of their own IT academies.

## Corrected Table

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Public-private initiatives	n.a.	BP, Alqoritmika and leading banks operating in Azerbaijan play an important role in digital skills development through supporting ICT training programs and establishment of their own IT academies.

## Page 46

### Incorrect Original text

While SMBDA significantly boosted the provision of training and consulting services for SMEs, interviews with SME policy makers and experts conducted by the OECD indicated that awareness of SMEs’ training needs continues to be limited. This could be partly related to the lack of a systematic approach to the identification of SME needs and growth barriers, including those related to SME digitalisation. Even though SMBDA conducts an annual survey of SMEs to identify overall needs and development priorities, this cannot replace a company-specific needs diagnostic. Moreover, companies that received support are not monitored, resulting in lack of evidence on effectiveness of support provided by the SME Development Centres.

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## Page 52

Footnote number 3 became footnote number 8 since added new footnotes before.

## Page 53

Footnote number 4 became footnote number 9 since added new footnotes before.

## Page 58

### Incorrect Original text

Azerbaijan could boost the adoption of digital solutions by SME by improving their ability to access external financing. The Entrepreneurship Development Fund and SMBDA could consider expanding their existing financial support programmes or launch new initiatives targeting SME digitalisation specifically. For example, the Entrepreneurship Development Fund could provide loans with preferential interest rates for SMEs that aim to purchase digital software and hardware and SMBDA could provide small grants for companies that want to establish an online presence or launch an e-commerce initiative. Box 6 outlines the grant scheme provided by Enterprise Estonia to boost adoption of digital solution by Estonian SMEs.

### Corrected text

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## Page 60

(Footnote number 10 (this is a new footnote) added on page 60)

For services provided by public institutions, but outsourced to consultants and external providers, responsible institutions should ensure that selected external providers meet qualification criteria to deliver the tasks in required quality. For example, the SMBDA is entirely outsourcing management and delivery of support services provided by SME Development Centres. Moreover, providers of the Centres have relative autonomy in identifying type and scale of provided services. While this gives them flexibility to react to local specificities and SME needs, it calls for the SMBDA to ensure that services provided by SME Development Centres are aligned with national SME and digitalisation policy priorities. The SMBDA could also provide SME development Centres with methodological guidelines what should be covered by training programmes and, if relevant, provide them with training materials and know-how. To ensure that services in the SME Development Centres are provided according to high-quality standards, the SMBDA could impose minimum quality requirements for consultants delivering services in the Centres.<sup>10</sup> **Error! Reference source not found.** outlines the quality assurance system for consultants implemented by Austrian SME Development Agency.

**Footnote 10:** Currently, the SMBDA surveyes the entrepreneurs to identify their needs. On the basis of the information collected, the Agency determines the scope of work and the terms of reference

for the activities, and a tender is held. The winning operator companies are selected to organize the activities of SME Development Centers.

## **PAGE 61**

**Footnote 11 has been deleted.**