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Policy Brief

Shared Intellectual Services

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1. INTRODUCTION

This policy brief on the shared intellectual services sector in Georgia has been developed by Policy and Management Consulting Group (PMCG) under the USAID Economic Security Program. Its aims are to identify the key economic policy challenges in Georgia existing in this sector, and to facilitate dialogue between private and public sectors including a wide spectrum of civil society and political representatives.

First, the policy brief provides an overview of the shared intellectual services (SIS) sector in the Georgian economy.

Second, it analyzes policy challenges in this sector in Georgia from the perspectives of different stakeholders, including representatives of the private sector, government, donor organizations, and business associations/clusters. Moreover, it overviews the Georgian government's responses to the existing challenges in the sector.

Third, it analyzes the impact of the COVID-19 pandemic on the SIS sector in Georgia from the perspectives of different stakeholders (including government, the private sector, business associations/clusters, and donor organizations).

The document concludes by presenting recommendations to address existing challenges in the SIS sector in Georgia.

2. METHODOLOGY

The SIS sector analyzed in this document includes the sub-sectors prioritized by USAID Economic Security Program and Enterprise Georgia:

- Business Process Outsourcing (BPO) – foreign-language call centers, back-office processes (finance, HR), architecture, and design;
- ICT; and
- E-commerce.

In the course of the research, the following methods have been applied:

- Desk research (analyzing relevant statistics, studies, etc.); and
- Field research (in-depth interviews).

2.1 DESK RESEARCH

To provide an overview of the SIS sector in Georgia, at the first stage secondary data were gleaned from different sources, including the National Statistics Office of Georgia (Geostat) and the National Bank of Georgia. Moreover, existing studies and reports were also analyzed.

2.2 FIELD RESEARCH

The desk research was followed by fieldwork, which consisted of in-depth interviews with different stakeholders engaged in the SIS sector.

In the course of conducting the research, stakeholder mapping in the SIS value chain was carried out. This endeavor involved the following steps:

- Consultations with the USAID Economic Security Program team to identify key private sector stakeholders (industry leaders, business associations/clusters, etc.) and relevant government agencies and donors;
- Conducting desk research to identify government and donor agencies working in the SIS sector; and
- With the support of PMCG's network and the PMCG team's experience in PPD projects, identifying relevant stakeholders in the private sector, government, and donor organizations.

After mapping was completed, in-depth interviews with various stakeholders in the SIS sector (including representatives of the private sector (companies and associations) and government and donors) were conducted during July-August 2020.

A special questionnaire was developed for this purpose, covering the following topics:

- The most important economic policy issues in the SIS sector; and
- The impact of COVID-19 on the SIS sector.

In total, 19 interviews were conducted (detailed information is provided in Annex 1: List of interviews).

Table 2.1 Distribution of in-depth interviews according to stakeholder type

	Stakeholder Type	Number of Interviews
1	Private Sector (companies and associations)	13
2	Government	4
3	Donor	2

2.3. Working Group Consultations

According to the project methodology, a working group was created, the aim of which was to prioritize challenges.

The working group (WG) was created based on the stakeholder mapping and the in-depth interviews conducted with sector representatives. WG members, of which there were 36 in total, included representatives of the private sector, government, and donor organizations (a detailed list is provided in Annex 2).

Table 2.2 Distribution of WG members by stakeholder type

	Stakeholder Type	Number of Representatives
1	Private Sector	24
2	Government	10
3	Donor	2

On September 15, a WG meeting was held online in which the results of the research were presented to, and discussed with, WG members.

3. OVERVIEW OF THE SIS SECTOR IN GEORGIA

3.1 OVERVIEW OF THE BPO SECTOR IN GEORGIA

Business process outsourcing (BPO) is the delegation of one or more business processes to an external provider that, in turn, owns and manages the selected processes based on defined and measurable performance metrics. The global BPO market grew over the period of 2015-2018 at an annual rate of 4%, and it is forecasted to grow by 5% per year until 2022 (Deloitte, EG: 2018). To gain a competitive advantage in the BPO sector, it is preferrable for a country to have either low wages, favorable business environment and high-skilled workforce, or a combination of those factors. Deloitte's global outsourcing survey on BPO and shared service center (SSC) sectors in 2017 revealed key factors affecting the decision to establish a service center. These factors were generally derived from success stories, location, availability of a skilled labor force, and infrastructure (Deloitte, EG: 2018).

Table 3.1 Decisive factors and their components in establishing BPO centers and SSCs

Decisive Factor	**Component**	**% Of Respondents to Name the Factor as One of the Most Important**
Location	Existing subsidiary	**90%**
	Geographic area	
	Time zone difference	
BPO/SSC Success Stories	Presence of global companies in the relevant sectors	**70%**
Human Resources	Highly skilled and multilingual workforce	**65%**
	Extensive pool of higher-education graduates	
	Hard-work-oriented business culture	
Infrastructure	Well-developed and cheap communication and IT infrastructure	**40%**
	Average internet speed	
	Existence of A-class office spaces at affordable prices	
	International airports, railway and highway infrastructure	
	Well-developed banking system	

Source: Deloitte, EG: 2018

Other crucial factors mentioned by the respondents included "country profile and economic indicators" and "legal environment." Key concerns for investors when establishing the centers included

"data security," "performance resilience," "labor sustainability," and "compliance with laws and regulations"

Meanwhile, skilled labor force and infrastructure, as well as stable economic environment and low costs were the main reasons cited for the expansion of investments in service centers in the 2000s in the Baltic States, Romania, and Bulgaria (Deloitte, EG: 2018).

Georgia has several strengths with respect to the BPO sector, which could be turned into a competitive advantage if combined and marketed well. These strengths include:

- Low wages and rent compared to other countries in Central and Eastern Europe, including wages for BPO service providers;
- Being ranked in 7th place in the World Bank's Ease of Doing Business Index[1];
- Convenient location in terms of time difference with main client countries;
- Effective government initiatives aimed at developing the BPO sector;
- Favorable regulatory and tax environment; and
- High unemployment rate among youth.

Building upon the above-listed strengths, the BPO sector in Georgia has been gaining traction in recent years. The Ministry of Economy and Sustainable Development (MoESD), Enterprise Georgia (EG) and Georgia's Innovation and Technology Agency (GITA) represent the main institutions supporting the SIS sector's development in Georgia. The MoESD defines the ICT policy and coordinates the development of digital economy in the country. EG's Export Department supports the ICT sector in developing export competitiveness, while its Investment Department aims to attract FDI to the BPO sector. BPO became a priority in FDI attraction as of 2016, with dedicated measures launched in 2019. EG prioritizes the following directions of BPO:

- Customer Relationship Management (CRM)[2] - According to USAID's "Value Chain Prioritization and Gaps Assessment" report developed in 2019, CRM accounts for 90% of employment in the Georgian offshore services value chain, with call centers the most common CRM service offering in Georgia.
- Finance and Accounting (F&A)[3] – In Georgia, there are a huge number of registered finance and accounting firms, however they mainly serve domestic clients as demand for these services is high. Moreover, it is generally harder for F&A companies to offer offshore services because of differences in countries' tax codes and regulatory environments, making it more difficult to enter new markets for F&A firms (USAID, 2019).
- Human Resources Management (HRM) – HR remains the smallest sub-sector of BPO services. Georgian HR companies mainly serve domestic clients, and foreigners wishing to locate in Georgia. Thus, the market size for this sub-sector is limited.
- Architecture, Design and Engineering (ADE) – The ADE sector is well-developed in Georgia, with both, local and international firms operating in the market, serving both domestic and international clients. Architecture firms in Georgia that export their services take advantage of low wages (4-5 times lower than in Western Europe) (USAID, 2019).

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[1] Georgia Ranks 7th in the World for Ease of Doing Business, says Latest World Bank Study. (2019, October 24). World Bank. https://bit.ly/3eHdz4y

[2] CRM centers provide customer support activities, in most cases, via call centers.

[3] This type of business process outsourcing center provides financial and/or accounting services to their clients.

- Information Technology Offshoring (ITO) – The IT sub-sector is unique, as it is both a service in itself which can be outsourced, and it also acts as an enabler for other BPO sub-sectors which rely on cloud-based software and databases. In Georgia, IT firms are engaged in application development, IT support, database support, and web design for domestic clients, while for international clients they mostly provide infrastructure for other offshored services, application integration, and application development based on cost efficiency, especially with respect to wages (USAID, 2019).

Georgia has already achieved success in attracting FDI to the BPO sector. Multinational companies Majorel and Evolution Gaming are operating in Georgia and expanding their business. The country aims to build upon success achieved to date, and to attract more BPO companies. Since entering Georgia, these companies have doubled the number of individuals employed in the sector (Deloitte, EG: 2018).

However, the sector in Georgia is still in an early stage of development. According to the study by Deloitte (Deloitte, EG: 2018), in 2018 there were 131 BPO centers with an estimated total turnover of USD 20.5 million, employing approximately 2 500 full-time employees. The large number of companies in the sector are concentrated in Tbilisi and are focused on domestic market needs, however, there are also a number of large players in the sector that provide services exclusively for international clients.

3.2 OVERVIEW OF THE ICT SECTOR IN GEORGIA

According to UNESCO's definition, ICTs is a "diverse set of technological tools and resources used to transmit, store, create, share or exchange information." Countries with a highly developed ICT sector have high-quality internet, wireless networks, mobile networks and an ICT toolbox which enables engagement in a major network of modern technologies, which ultimately fosters cooperation, accessibility, and creativity.

3.2.1 GOVERNMENT STRATEGIES AND INITIATIVES FOR THE ICT SECTOR DEVELOPMENT

In January 2020 the Government of Georgia approved the National Strategy for the Development of Broadband Networks 2021-2025 and its implementation action plan[4]. The strategy was developed in the framework of EU digital market harmonization project - HDM/EU4Digital, with the expert assistance of World Bank. The strategy aims to address digital divide and implement digital economy and information society development policies and regulations in line with the best EU and international practice. For the 2025, the strategy aims to

- Cover 99% of Georgia's territory with 4G connection and piloting 5G in at least 3 municipalities
- Ensure access to 1 gigabyte-second connection to all institutional subjects
- Ensure access to high speed (100 megabyte-second) broadband network to all households

For the implementation of the strategy, with the support of the World Bank the "Log-in Georgia" project was launched. It includes three components: 1. Increase the access to broadband internet; 2. Support the use of digital services connected to the high-speed internet; 3. Support the adoption of the project. With the increase of high-speed internet coverage of rural areas and training and capacity development programs the project will support the use of digital services. The project will also enhance

[4] საქართველოს ეკონომიკისა და მდგრადი განვითარების სამინისტრო. (2020, იანვარი). საქართველოს ფართოზოლოვანი ქსელების განვითარების 2020–2025 წლების ეროვნული სტრატეგია და მისი განხორციელების სამოქმედო გეგმა [Georgia's 2020-2025 National Strategy for the Development of Broadband Networks and Action Plan for Its Implementation]. https://bit.ly/3xWqlys

digital financial services, e-commerce, e-government services and the development of distance learning and telemedicine.

In the framework of the strategy and "Log-in Georgia" project, the state internetization programme is being implemented. It aims to provide the access to internet to 1000 villages, including settlements in the high mountainous regions. In the period of 2017-2019, the Government of Georgia implemented the community internetization projects in the several mountainous regions.

The MoESD work on the digital transit hub development connecting Europe and Asia, that will support the development broadband transit fiber optic infrastructure and create attractive environment for the creation of data centers of international technological companies such as Google, Facebook, Amazon, Microsoft and etc.

Currently, the GoG with the support of the World Bank works on the long-term strategy for Digital Economy and Information Society Development and its implementation plan. The strategy will define directions and activities for digital economy and information society development, that will support the development of e-services in public and private sectors, digital literacy, formation of digital society, export of high technology products, research and innovation development and improvement of Georgia's competitiveness in global digital economy.

3.2.2 USE OF ICT TOOLS IN GEORGIA

3.2.2.1. Network Readiness Index (NRI)

NRI is an index developed by the World Economic Forum in 2002, and its latest edition (2019) ranked a total of 121 economies based on their performance across 62 variables. The aim of the index is to measure countries' capacity to exploit ICT opportunities.

Georgia ranks 68th (out of 121 countries) in the NRI, with a score of 48.8 out of a possible 100. Over the four pillars of the index, Georgia's worst ranking (84th out of 121) for impact, meaning that impact of its ICT networks is still limited. Meanwhile, it ranks highest in the technology pillar (57th out of 121). When sub-pillars of the index are analyzed, Georgia is ranked first in the world in terms of internet access in schools, with a score of 100. Georgia also has comparatively high 4G coverage (ranked 15th), high cybersecurity (ranked 20th), and a good ICT regulatory environment (ranked 20th). Georgia also has one of the highest adult literacy rates (ranked 13th) and a high reading proficiency level in schools (ranked 24th).

Some of the sub-pillars in which Georgia lags the most include its high software piracy rate (ranked 89th), high handset prices resulting in lower access (ranked 81st), and low intellectual property receipts (ranked 87th). Georgia ranks extremely low in the inclusion sub-pillar, which measures the digital divide between different socio-economic groups within the country. More specifically, rural areas of Georgia lag behind in use of digital payments, while there is a high socioeconomic gap in use of digital payments, low e-participation rates, and low availability of content online, with a rank higher than 71st (out of 121) for each of these categories. In terms of the gender gap in internet usage, Georgia does slightly better and is ranked 49th.

Overall, Georgia has been doing well in terms of literacy and internet access, but has been lagging behind in terms of inclusion and high-tech.

3.2.2.2. Indicators of ICT use in households

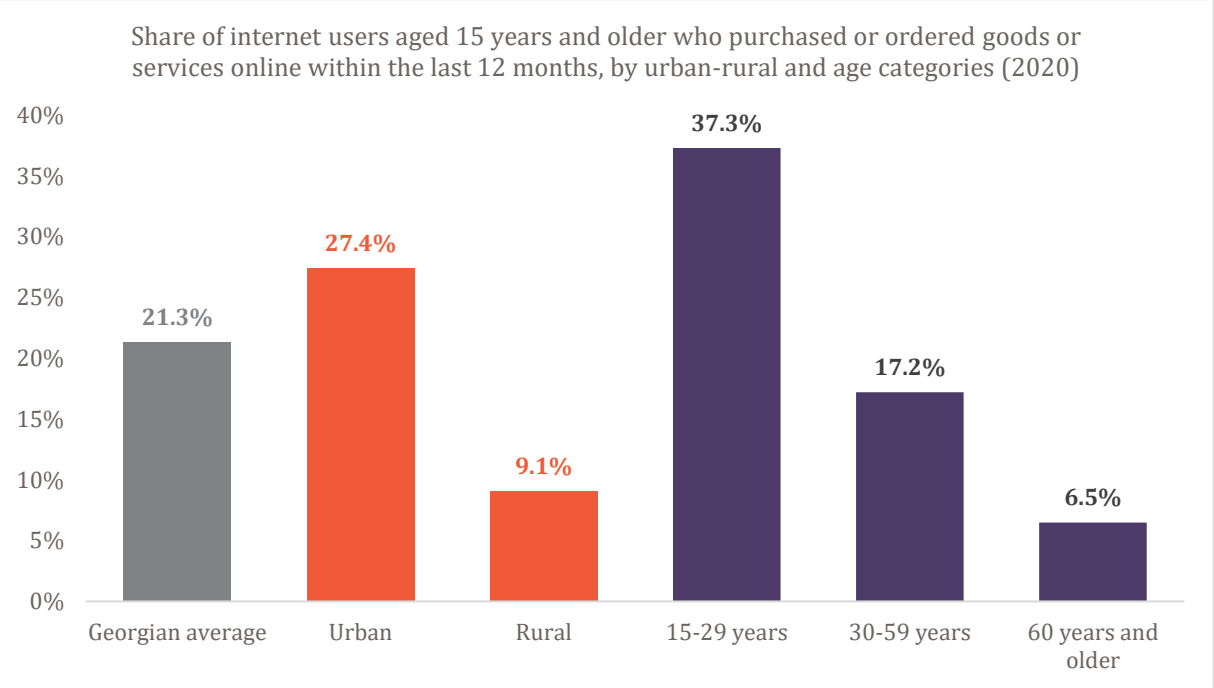
The National Statistics Office of Georgia (Geostat) conducts a survey about the usage of ICT tools in Georgian households. One of the main insights from the results of its 2020 survey is that internet access is high overall (83.3% of the population), however, there is an urban/rural disparity, as 90.7% of urban households have access to the internet, opposed to 74.5% in rural households. This gap is especially pronounced in the mountainous regions of Georgia.

A decomposition of internet usage according to the age of respondents shows that while 97.2% and 92.2% of 15-29 and 6-14 years old people, respectively, had used the internet over the past three months, the corresponding figure is just 32.5% for people aged over 60.

While more than 94% of Georgian households (in both in urban and rural areas) tend to use the internet to engage in social media, just 14.2% of them had used the internet for the purpose of job searching. This figure is higher in urban areas (17.1%) compared to rural areas (8.4%). More importantly, just 17.9% of the population had used the internet over the previous three-month period to download a software application (apart from mobile games). In urban areas, this figure amounts to 21%, which is twice that of rural areas (10.5%).

E-commerce makes up a low proportion of commerce in Georgia, with only 21.3% of the population using the internet to purchase or order a good or service within the last 12 months[5]. This share is almost identical for males and females, and an urban/rural gap is once again pronounced, with 27.4% of the population in urban areas engaging in e-commerce, and just 9.1% of the rural population doing so. The age group with the highest level of engagement in e-commerce was 15-29, with 37.3% of them having used the internet over the past year to purchase a product.

Graph 3.1 Share of internet users aged 15 years and older who purchased or ordered goods or services online within the last 12 months, 2020



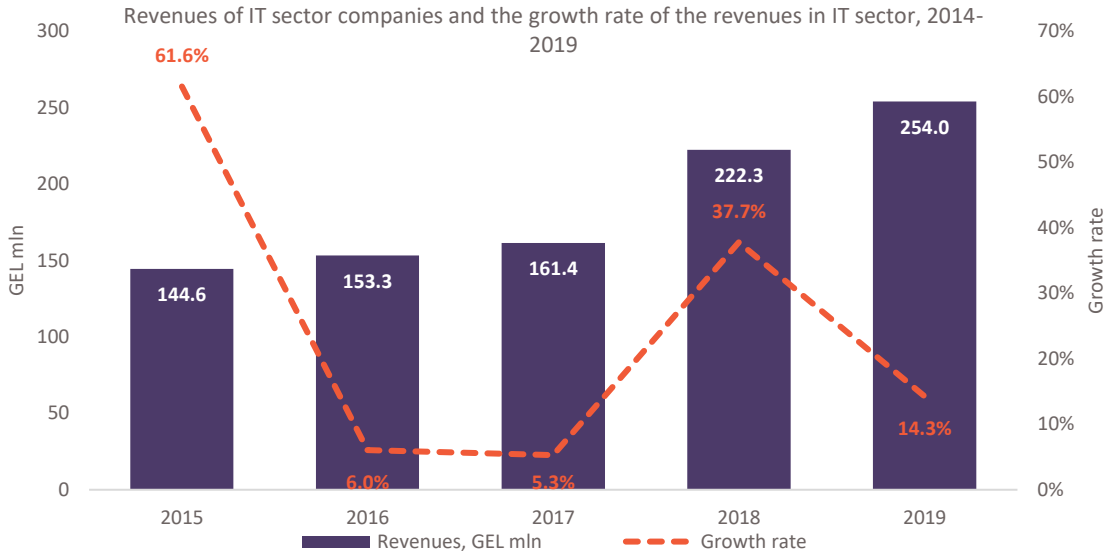
Source: National Statistics Office of Georgia

[5] It is expected that this figure will increase in 2020, as COVID-19 related lockdowns induced more use of e-commerce.

3.2.3 DYNAMICS OF IT SECTOR IN GEORGIA

The IT sector has been growing in Georgia over the past decade. The analysis of the main economic indicators of firms engaged in the IT sector[6] over the period of 2015-2019 reveals an upward sloping trend in the revenues of the IT sector companies, increasing from GEL 144.6 mln in 2015 to GEL 254 mln in 2019 (a 75% increase). Yearly growth was registered in each of the five years, and the average yearly growth rate for the period amounted to 25%.

Graph 3.2 Revenues of IT sector companies and the annual growth rate of the revenues in IT sector

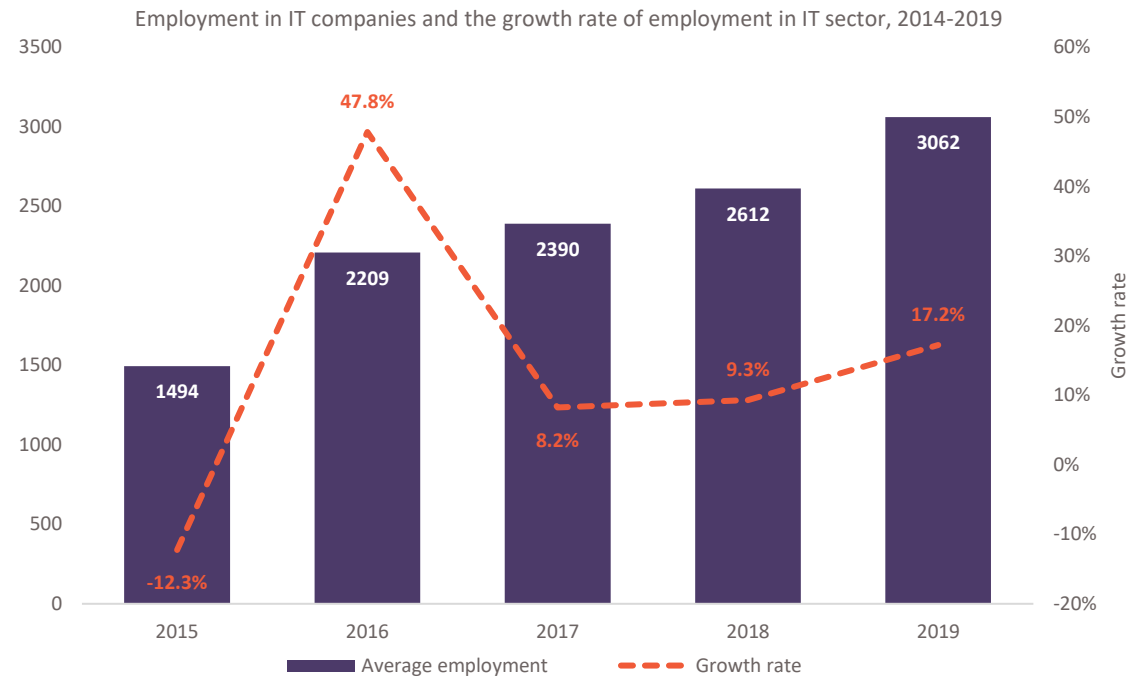


Source: National Statistics Office of Georgia

Employment in the IT sector has also increased significantly in the analyzed period. In 2019, compared to 2015, it had more than doubled, employing 1 494 people in 2015 and then 3 062 people by 2019. In 2015, the number of people employed decreased by 12.3% compared to 2014, but this was the only year in the period in which a negative growth rate was registered. In fact, the average yearly growth rate over the 5-year period amounted to 14.1%.

[6] IT sector companies are defined as firms/entities engaged in "Computer programming, consultancy and related activities" (NACE rev. 2 code 62). Please note that firms engaged in "Software publishing" had to be excluded from the analysis, because of the unavailability of data on the respective NACE code.

Graph 3.3 Employment in IT companies and the annual growth rate of employment in IT sector



Source: National Statistics Office of Georgia

Moreover, investments in fixed assets have grown significantly, registering a six-fold increase from GEL 4 mln in 2014 to GEL 23.7 mln in 2018.

In 2016, both investments in fixed assets and the number of employees increased substantially compared to the previous year, by 177% and 48% respectively.

Overall, the main economic indicators show that the sector is in the growth stage of its development.

3.2.4 IT EDUCATION IN GEORGIA

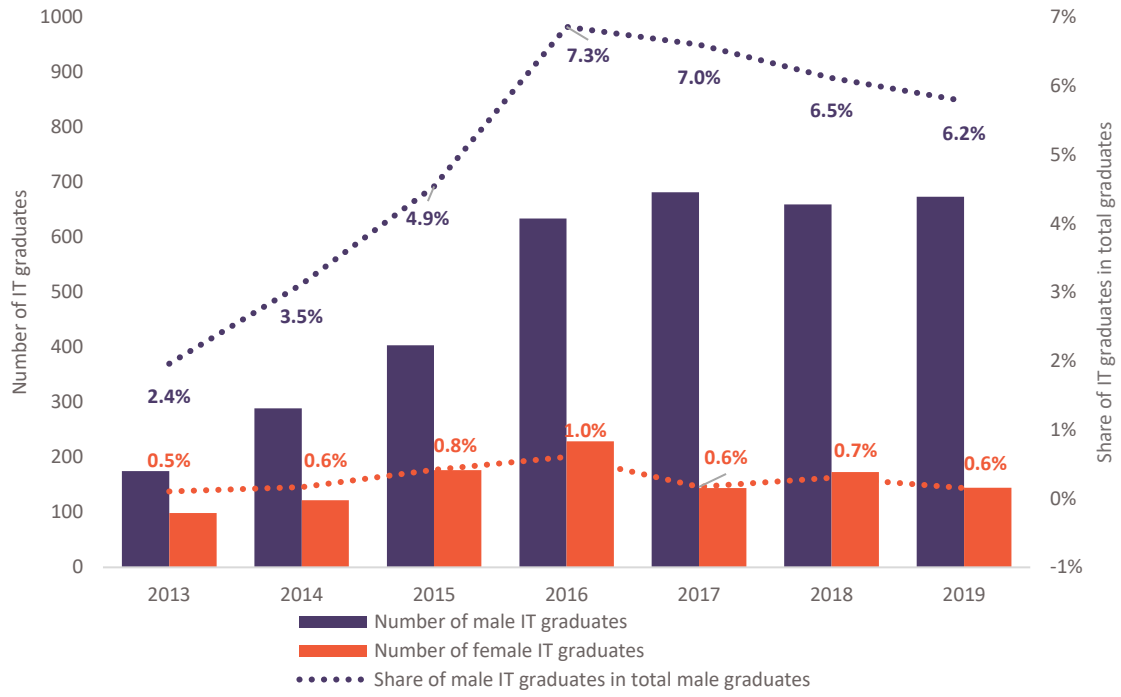
The analysis of graduates in Georgia over the period of 2013-2019 reveals some interesting observations. The average share of IT graduates in total graduates over the analyzed period equals 2.8% for higher education institutions, while for VET institutions this reaches 9.53%. Moreover, the absolute number of graduates of VETs in IT field is 1.5 times higher than the number of graduates in the IT field from higher education institutions. There might be various factors behind a higher number of graduates from VET programs compared to those from higher education institutions. Main possible reasons include minimal background requirements for admission; ease of access to the VET colleges; lower cost of obtaining VET education; and the short duration of the VET programs.

The analysis of disaggregated gender data hints at a general imbalance in the IT sector. Over the period of 2013-2019, male graduates outnumber females by 3 to 1 in higher education, and by 4 to 1 in VET institutions. At the same time, the total number of female graduates in higher education institutions is 1.5 times higher than males, while in the case of VETs the gender balance holds.

In the graphs below, the dynamics of the number of graduates in the IT field, both from higher education institutions and VET institutions, are presented. The changes in shares of male and female IT graduates in total graduates are also presented. Notably, the share of female IT graduates in total female graduates was stagnant over the analyzed period. On average, just 0.7% of female graduates in higher education institutions studied IT, while the corresponding figure for VETs is 4.1%.

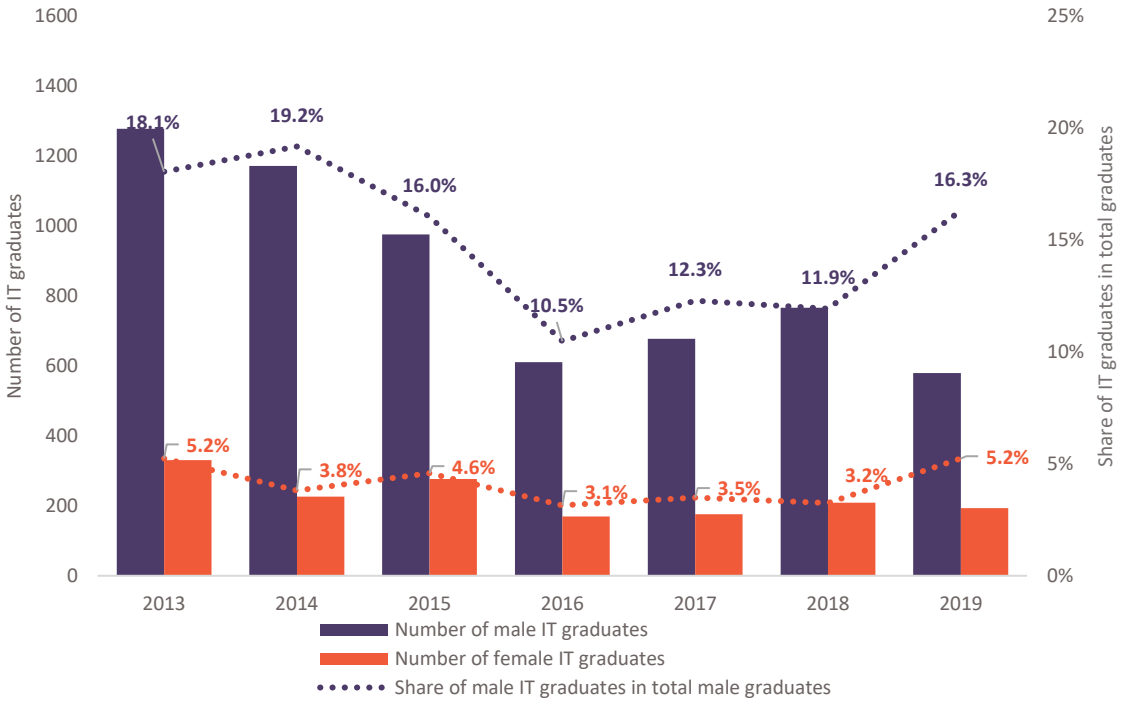
The relative unpopularity of the IT field among girls can be explained by an existing stigma that math- and science-related careers are not manageable or desirable for them to pursue.

Graph 3.4 Number of graduates from higher education institutions in the IT field and the share of male and female IT graduates in total male and female graduates, respectively.



Source: Emis.ge; Ministry of Education, Science, Culture and Sport of Georgia.

Graph 3.5 Number of graduates from VET institutions in the IT field and the share of male and female IT graduates in total male and female graduates, respectively



Source: Emis.ge; Ministry of Education, Science, Culture and Sport of Georgia.

4. POLICY CHALLENGES: STAKEHOLDERS' PERSPECTIVES

This chapter includes all of the challenges mentioned during the field research by the respondents in each group (private sector, public sector, donor organizations, and business associations/clusters). Each table below includes the groups of challenges highlighted by different stakeholders (private sector (companies and associations), public sector and donor organizations), the main problems/challenges in each group, the description of the challenges, and the respective sectors where these challenges exist.

4.1 PRIVATE SECTOR PERSPECTIVE

Group of Challenges Highlighted by the Private Sector Representatives	Main Problems/Challenges Highlighted by the Private Sector Representatives	Description of Challenges	Sector
Human resources	Skilled labor shortage	Workforce skill level represents the key challenge for the SIS sector. Usually, graduates from Georgian universities and VET colleges need additional trainings and coaching to meet the requirements of the companies. According to the conducted research by project team under this study, most students in Georgian universities are provided only with theoretical knowledge, not practical. For ICT companies, it is very difficult to find specialists in the Georgian market, due to the lack of, and high demand for, such specialists. Some of them claimed that one of the reasons they were not expanding is the shortage of skilled labor. Apart from ICT, the problem of skilled labor exists in other areas of the SIS sector. For example, in the architectural sector, there is also a challenge related to qualified staff, as companies have to retrain staff, while knowledge of international norms and programs in the field of architecture is also a problem.	Shared Intellectual Services: BPO and ICT

		Furthermore, this problem also exists in accountancy and financing. The problem of skilled labor is even more challenging in regions, making the regional development of this sector difficult. In Georgia, there is a lack of quality educational programs in ICT and BPO[7]. According to the ICT sector representatives, there are almost no programs in Georgia to provide potential ICT specialists with necessary skills. The respondents generally claimed that the implemented programs in Georgian universities need frequent updates, due to the rapid pace of the sector's development. However, the syllabuses that universities use were developed years ago and have not been adjusted to today's reality. The companies see private sector involvement as important in the development of ICT and BPO programs. The GITA is planning to launch a project on the capacity-building and re-training of 3000 ICT specialists in Georgia. In the 1st stage of the project, 500 specialists will be re-trained. Recently, EG's Export Department sent questionnaires to ICT companies to identify recent challenges and the elaboration of EG's action plan for supporting sectors in addressing challenges. On the basis of questionnaire analysis, EG will develop an action plan for 2020-2021. Traditionally, one of the main directions EG supports in the ICT sector is improving cooperation with educational institutions.	
Infrastructure	Low-quality internet in regions	According to the interviewed companies, one of the constraints for regional development of their businesses is the quality of internet in the regions.	BPO
	Problems related to electricity supply in regions	According to the interviewed companies, one of the constraints related to regional development is the non-reliability of electricity supply.	BPO

[7] Source: Georgian ICT Sector, David Kiziria, 2018.

Government policy towards ICT development	The role of public procurement in ICT sector development	According to the conducted research, in Georgia the main potential consumers for ICT services are the Government, large private enterprises, and small and medium sized enterprises (SMEs). While large enterprises tend to develop ICT services in-house, SMEs do not have the resources to finance their own IT services. According to the representatives of the ICT sector, in Georgia the Government is the largest potential consumer of ICT services provided by the private sector. Every year, the Georgian government actively spends money on ICT infrastructure. However, ICT services are developed in-house by the Government and the innovation potential of the private sector is less exploited. In countries with strong ICT sectors, the development of such programs is outsourced. This enhances competition and supports the overall growth of the sector. It would be beneficial to initiate dialogue with the Government. Communication with the business ombudsman on this issue has already been initiated. ICT companies had ideas about and projects for the development of a COVID-19 application, but the GoG procured and imported an application developed overseas instead.	ICT
Women's involvement	Lack of interest among women in the ICT sector	As the ICT sector representatives stated, there is less interest among women to be involved in the ICT sector. This is mainly due to cultural factors.	ICT

Access to finance	Lack of tailored funding opportunities	Problems related to collaterals - According to the representatives of the ICT sector, when applying for financial assistance to commercial banks, they are required to provide collateral. However, due to the work specifics of these companies, they mostly do not own non-movable assets. Therefore, they find it difficult to access banking loans. Lack of alternative finance (AF) apart from banking - According to the interviewed representatives of the SIS sector, there is a lack of alternative financial possibilities for businesses beyond traditional banking loans, like crowdfunding, P2P lending, marketplace lending, business angels, etc. Currently, in Georgia only donation-based crowdfunding exists rather than equity- or loan-based crowdfunding. Although, national regulation on crowdfunding is not yet in place, GITA has initiated the discussions on amending Law of Georgia on Securities Market in 2018. The intended amendment deals with the establishment of regulatory framework of equity and loan-based crowdfunding. There has been an ongoing internal communication about the draft law document between GITA and the regulatory body, NBG. In addition, GITA with the help of the Economic Security Program started working on assessment of FinTech development perspectives in Georgia. Government programs - There is a lack of government programs financing the ICT sector. According to the respondents, the GITA's programs are mainly oriented toward start-ups. Meanwhile, the latest program implemented by the GITA provides enterprises with grants (GEL 650 000) is oriented exclusively toward exporter companies. Moreover, there is a lack of programs financing the digital transformation of enterprises; the existence of such programs would increase the demand of companies for ICT sector services. Lack of FDI in the ICT sector – Although the business environment is preferential for foreign investors, there is still a lack of FDI in the direction of ICT. According to the interviewed companies, this sector's popularization is limited. Lack of tax incentives for ICT - According to the interviewed ICT companies, the tax burden is high, which makes it difficult for them to compete with foreign competitors, who have more resources for their operations. Companies would generally prefer that income	ICT

		tax be decreased for ICT companies from 20% to 5%. Accordingly, the GoG has responded with an initiative which came into effect in October 2020 and was influenced by the experience of Belarus. The newly adopted government decree identifies sectors which are eligible for the status of international enterprise, one of which is ICT sector. It incorporates number of tax benefits for eligible international enterprises, including: • To decreased income tax to 5% from 20% • To decrease profit tax to 5% (instead of 15%) • To exempt eligible firms from property tax.	

Access to global markets	Limited impact of government support measures in popularization of Georgia's ICT sector companies in global markets	According to the conducted interviews, the Government organizes events in foreign countries with the aim of connecting Georgian companies with potential clients. However, some respondents claimed that, these events do not have big impact.	ICT
	Non-development of exportable services	According to the interviewed ICT company representatives, cooperation with the EU (under the DCFTA) presents a good opportunity to export ICT services. However, this potential has not yet been realized. Companies find it difficult to create exportable services, as to develop in this field it is first necessary to develop products in local markets. The prospect of the latter is minimal, as the main consumers of ICT services in the local market (the Government and large enterprises) are developing such products in-house. According to the interviewed companies, the services provided by the Government are not of sufficient quality to be exported, while large companies (like financial institutions and telecommunication firms) only seek to develop ICT products for themselves, mainly in the form of integrating globally-implemented solutions rather than creating new ones.	ICT
The level of digitalization and innovation in the private sector	Lack of awareness in the Georgian private sector about the importance of digitalization and innovation	According to the respondents from the ICT sector, there is a lack of awareness among Georgian companies about the implementation of ICT solutions. This problem is even more noticeable in the regions of Georgia. More specifically, the results of Geostat's survey on the innovation activity of enterprises revealed that in 2018, just 3.2% of enterprises introduced new or improved products in their business activity, while another 3.2% introduced new or improved services. The GITA has expressed its readiness to support the digitalization of Georgian companies through voucher support and plans to engage donor organizations in the process.	ICT

Legislation	Incomplete regulatory framework - absence of e-commerce law	The absence of e-commerce legislation represents a challenge for the development of e-commerce businesses in Georgia. The MoESD plans to submit a draft law at the autumn session of the Parliament, but the E-Commerce Association of Georgia has not participated in the discussions on this draft e-commerce law.	E-commerce
Access to services	Need of acquisition of different products and services from several suppliers for launching and operation of e-commerce activities (making the process time-consuming and expensive)	Businesses aiming to develop e-commerce conduct separate searches for payment providers, as well as ICT and accounting solutions. This may include store software, hosting services, security tools, backups, inventory management, delivery management, shipping software, fintech solutions, payment gateways, and other services tailored to the specificity and unique features of the products entering the -e-commerce area. It would be beneficial to have unified services available instead.	E-commerce
COVID-19	Challenges created by the pandemic/crisis	COVID-19 has presented both challenges and opportunities in the SIS sector. Most companies faced challenges during the first period of COVID-19, when they had to adjust to a new reality. There was uncertainty in the market, as some of their clients stopped working, while other continued working partially. Companies which were working on projects in the hospitality industry found the COVID-19 period the most difficult, as projects in this area stopped. However, according to these companies, the situation has been improving since August 2020. Apart from a decreased number of projects, companies have also faced some administrative constraints. Office spaces were closed, and companies have had to mobilize staff to work remotely and provide them with necessary equipment. For some companies, communications with coworkers and hiring new staff has been complicated. During a WG meeting, private sector representatives of the BPO sector stated that the main problem for the BPO sector had been the absence of international fairs during the COVID-19 crisis. This makes it impossible for firms to market and popularize their services to potential customers.	ICT

4.2 GOVERNMENT PERSPECTIVE

Group of Challenges Highlighted by the Public Sector Representatives	Main Problems/Challenges Highlighted by the Public Sector Representatives	Description of Challenges	Sector
Government policy towards ICT development	The role of public procurement in ICT sector development	In-house development of ICT products by public institutions remains a serious bottleneck in the improvement of the competitiveness of the ICT sector. The position of the GoG is that outsourcing the process would be costly for the State, while law enforcement and military institutions emphasize problems associated with confidentiality.	ICT
Access to finance	Scarcity of financial products	Limited range of financial products for the private sector companies to enable their growth and development. Thus, the creation of new financial products supporting sector growth and development is necessary.	ICT
	Lack of private sector investors	Scarcity of private investors and negative cooperation experiences between Georgian investors and start-ups.	ICT
Human resources	Mismatch between demand for and supply of human resources	The education sector is not capable of supplying enough competitive ICT specialists to the private sector. Thus, ICT companies mostly develop their human resources in-house, and they cannot compete with such sectors as commercial banks or gambling businesses so face difficulties in hiring or retaining qualified ICT specialists. To address the current challenges of the sector related to human resources, the GITA and EG are working in these directions. Recently, the GITA launched a project on the capacity-building and re-training of 3000 ICT specialists in Georgia, while EG is supporting companies to improve their cooperation with educational institutions.	ICT
	Need for massive re-training and skills development	To attract large BPO multi-national corporations, massive re-training and skills development of the labor force is needed. In the BPO sector, there is an increasing demand for German-language speakers and there is also a need for active cooperation between the Ministry of Education, Science, Culture and Sport of Georgian and the	BPO

		MoESD/EG. At this stage, Georgia is not ready to supply even 100-200 developers to BPO MNCs.	
Visibility	Low visibility of Georgia among potential investors	The country needs more international BPO companies to increase its credibility. Attracting MNCs is a time-consuming process and, on average, it takes two years to achieve a result in this regard. An exact evaluation of the scale of projects that Georgia can absorb has not been undertaken. However, Georgia's international visibility in the BPO sector should be increased. According to respondents, Germany is an important market for the attraction of BPO companies.	BPO
Incentives	Absence of financial support and sector-incentive packages	The elaboration of financial support mechanisms and sector-incentive packages for MNCs has become even more important in the COVID-19 era. Offers of competitive and flexible incentive packages would be beneficial at this time. BPO sector companies generally favor Georgia's business environment and its business operation costs, but some costs represent a challenge. Meanwhile, there is ongoing discussion about the participation of EG in re-training of human resources.	BPO
Access to internet	Corporate internet costs	Corporate internet costs are high and may play a negative role in the attraction of MNCs.	BPO
International companies	Presence of international companies on the Georgian market	The absence of large multinational IT corporations on the Georgian market represents a challenge for the development of the ICT sector.	ICT
Infrastructure	Lack of access to office spaces adjusted to sectoral needs	Office spaces are not generally adjusted to the needs of the BPO sector. The prices of office spaces are also not in line with the quality and expectations of BPO companies.	BPO
ICT brand	Non-existence of a Georgian ICT brand	The creation of Georgia as an ICT brand and its promotion on international markets would support further development of the ICT sector.	ICT
COVID-19	Challenges created by the pandemic/crisis	The BPO and ICT sectors face difficulties in maintaining and paying full-time workers. They also encounter difficulties in paying office rents and taxes. In addition, constrained business travel opportunities limit their chances of finding new customers overseas. There is therefore a need for a new strategy and a new business model.	ICT/BPO

		In the BPO sector, the business operations of MNCs operating in Georgia have not stopped during the COVID-19 pandemic as companies moved to a remote working mode. This has been supported by good-quality internet. The demand for BPO services has not decreased and some companies even plan to enlarge their operations in Georgia. At the same time, companies have been presented with new opportunities to develop new solutions with respect to remote working and online education. Both, BPO and ICT sectors have created a huge demand for new products and services.	

4.3 DONORS' PERSPECTIVE

Group of Challenges Highlighted by the Representatives of Donor Organizations	Main Problems/Challenges Highlighted by the Representatives of Donor Organizations	Description of Challenges	Sector
Development trajectory of the ICT sector	Lack of coordination	According to international donors, the ICT sector in Georgia is mostly developing through inertia and donor assistance. It lacks government support and the economic impacts of digitalization and ICT sector development are not fully understood. The donor community faces difficulties in identifying decision-makers in the sector, while there is weak communication and coordination between the ministries and agencies responsible for the development of the ICT sector. If these issues are not addressed in the nearest future, Georgia will face some difficulties in catching-up with peer countries with more advanced ICT industries.	ICT
Lack of resources in the private sector	Lack of resources for the re-arrangement of businesses	In a short time period, it is difficult to mobilize the resources necessary to re-arrange businesses. The COVID-19 crisis has revealed the necessity of digitalization for the private sector.	ICT
Women's employment in the ICT sector	Lack of female access to ICT jobs	The quantity of women studying STEM (science, technology, engineering, and math) disciplines is low. More targeted programs for women's employment in ICT should be designed; targeted advertisements of ICT job opportunities for women are necessary; and awareness of the creation and development of digital business among women should be improved.	ICT
COVID-19	Challenges created by the pandemic/crisis	In a short time period, it is difficult to mobilize the resources necessary to re-arrange businesses. The pandemic/crisis has revealed the importance of the ICT sector as well as the necessity of digitalization for private sector entities.	ICT

5. LIST OF SELECTED CHALLENGES

Based on a sector overview, desk research, and in-depth interviews with sector representatives, the major challenges constraining the sector's development have been identified for each sub-sector: BPO, ICT, and E-commerce.

5.1 LIST OF SELECTED CHALLENGES IN BPO

Group of Challenges	Main Problems/Challenges
Human resources	Skilled labor shortage.
Infrastructure	Low-quality internet in regions.
	Lack of access to office spaces adjusted to sectoral needs.
Georgia´s visibility among BPO MNCs	Lack of visibility of Georgia as a BPO brand among BPO MNCs.

5.2 LIST OF SELECTED CHALLENGES IN ICT

Group of Challenges	Main Problems/Challenges
Human resources	Skilled labor shortage.
Government policy towards ICT development	The role of public procurement in ICT sector development.
Access to finance	Lack of tailored funding opportunities.
Women's involvement	Low level of women's involvement in the ICT sector.
Coordination	Lack of coordination in the ICT sector (Lack of vision with respect to ICT sector development).
The level of digitalization and innovation in the private sector	Lack of awareness of the Georgian private sector about the importance of digitalization and innovation.

5.3 LIST OF SELECTED CHALLENGES IN E-COMMERCE

Group of Challenges	Main Problems/Challenges
Regulatory framework	Incomplete regulatory framework and an absence of e-commerce law.
Service delivery	Need of acquisition of different products and services from several suppliers for launching and operation of e-commerce activities (making the process time-consuming and expensive)

5.4 SELECTED CHALLENGES DURING WORKING GROUP (WG) CONSULTATIONS

During the WG meeting, a special questionnaire was sent to the WG members to rank the challenges identified by the research. Members were each asked to rank the challenges, assigning 1 to the issue they considered to be the lowest priority for the SIS sector and assigning 5 to the issue they deemed the highest priority.

To assure a level playing field for different groups of stakeholders, three groups - public sector representatives, private sector representatives[8], and donors - were separated and equal weights were assigned. For each challenge, the scores assigned by each group were added up and a weighted average was calculated accordingly. Based on this, the priorities for each sub-sector (BPO, ICT, and E-commerce) were identified. In total, 19 representatives filled out the questionnaire.

The top challenges for each sub-sector are presented in the table below (detailed scores are given in Annex 3).

Sub-Sector	**Main Challenges**
BPO	Skilled labor shortage. Georgia´s visibility among BPO MNCs.
ICT	Skilled labor shortage. Lack of coordination in the ICT sector. Lack of awareness among the Georgian private sector about the importance of digitalization and innovation.
E-Commerce	Need of acquisition of different products and services from several suppliers for launching and operation of e-commerce activities (making the process time-consuming and expensive)

The recommendations for the prioritized challenges are presented in the following section of the brief.

[8] Included private sector companies and associations.

6. RECOMMENDATIONS

ICT

Policy Challenge	Proposed Policy Change	Proposed Activity
Skilled labor shortage	Commission a regular study once every four years on the demand for future ICT skills	• Analysis of the anticipated demand for future ICT skills for a four-year period will support matching the supply of skilled ICT professionals with corresponding demand. As a result: ○ The ICT industry, education sector, and governmental institutions will have accurate information based on which they can adjust their strategies, curricula and policies. ○ Cooperation opportunities will be revealed as will PPP formats necessary to address challenges on the ICT labor market. ○ The Skills Agency in Georgia that envisages the establishment of an institution via PPP may be used as a platform for planning and conducting such studies for the ICT sector. **Best Practices** ➢ In Ireland, similar studies are conducted by the Expert Group on Future Skills Need (EGFSN), which reports to the Minister of Education and Skills and the Minister of Jobs, Enterprise and Innovation. The aim of the study is to forecast demand over a medium-term period. The studies conducted in 2013[9] and 2017[10] examined computing skills (e.g. computer software, computer programming, and multi-media gaming) and electronic and electric engineering skills (e.g. communication and mechatronics, and electric/computing engineering). The research methodology includes desk research, interviews with stakeholders (foreign-owned and indigenous ICT companies, and other ICT stakeholders), workshops with the participation of companies, employer institutions, sectoral associations, educational organizations and institutions, research institutions, IDA Ireland, and Enterprise Ireland. To assess the demand for high-level ICT skills, a proprietary skills demand model developed by the International Data Corporation (IDC) has been deployed. Normally, the Irish studies develop three scenarios with respect to demand for ICT skills: the baseline/most likely scenario; the high-growth scenario; and the low-growth scenario.

[9] Expert Group on Future Skills Needs (EGFSN) & Forfás. (2013, November). Addressing Future Demand for High-Level ICT Skills. EGFSN/Forfás. http://www.skillsireland.ie/media/04112013-addressing_ict_skills-publication.pdf

[10] Expert Group on Future Skills Needs (ESFSGN) & National Skills Council. (2019, March). Forecasting the Future Demand for High-Level ICT Skills in Ireland, 2017- 2022. EFSGN/National Skills Council. http://www.skillsireland.ie/all-publications/2019/high-level-ict-skills-demand-analysis.pdf

		➢ According to the ILO[11], emerging economies such as the Republic of Korea and Singapore have deployed future-oriented skills strategies for their productive development and have achieved notable results in a relatively short period of time. ➢ In 2016, to respond to the challenges of developing and transitional countries in the area of skills-matching and anticipation, the ILO, the ETF and Cedefop joined forces and combined their institutional experience to publish a compendium of methodological guidance for the anticipation and matching of skills supply and demand[12]. The compendium comprises the following six volumes: ✓ Using Labor Market Information ✓ Developing Skills Foresights, Scenarios and Forecasts ✓ Working at Sector Level ✓ The Role of Employment Service Providers ✓ How to Develop and Run an Establishment Skills Survey ✓ Carrying Out Tracer Studies
	Develop an ICT skills action plan	• Develop a medium-term (4-year) ICT skills action plan through collaborative action on the part of the ICT industry, the Government, and the education sector. The document should reveal the priority areas for the medium-term period and implementation timeline, including financial resources, responsible institutions, and delivery deadlines. **Best Practices** ➢ Since 2012, Ireland has practiced the elaboration and implementation of 4-year ICT Skills Action Plans[13]. The plans are the product of collaborative work and consultations of the Ministry of Education and Skills and the Ministry of Jobs, Enterprise and Innovation, as well as state agencies such as the Higher Education Authority (HEA), the Industrial Development Authority (IDA), Enterprise Ireland (EI), the National Policy Advisory Body for Enterprise and Skills (FORFAS), and the Science Foundation Ireland (SFI). Moreover, higher education institutions and industry stakeholders are actively involved in the process. The document is signed by the Minister of Education and Skills and the Minister of Jobs, Enterprise and Innovation. Priority actions defined by the plan are based on the studies conducted on ICT skills demand, while the action plan also defines strategic priorities and actions. It outlines actions/tasks, the lead institutions responsible for its implementation, success criteria/outputs, timeframe, and the inputs anticipated from the ICT industry.

[11] Anticipating and matching skills and jobs. (2015, November 5). https://www.ilo.org/skills/areas/skills-training-for-poverty-reduction/WCMS_534307/lang--en/index.htm
[12] Skills needs anticipation. (2016, November 7). https://www.ilo.org/employment/Whatwedo/Projects/WCMS_534345/lang--en/index.htm
[13] Department of Education and Skills. Technology Skills 2022 | Ireland's Third ICT Skills Action Plan. https://www.education.ie/en/Publications/Policy-Reports/technology-skills-2022.pdf

	Enhance programs to attract foreign ICT professionals	• As a short- and medium-term solution, it would be advisable to pro-actively seek out possibilities to attract and employ foreign ICT specialists in Georgia. Complex and diverse support measures, like those implemented in Estonia and Ireland, should be applied. The activities of the GoG and the private sector in this area should correspond to the current workforce needs of the ICT sector and anticipated future demand revealed by conducted studies. Georgia is well-positioned to implement activities in this area: it has an attractive business and investment environment, it is a popular country for tourism, it has a cheap and attractive working and living environment, and it has good connectivity with the EU, CIS and Gulf States. **Best Practices** ➢ For companies active in Estonia who are willing to hire foreign citizens, Enterprise Estonia implements a program entitled "Work in Estonia." The goal of the program is to attract 2000 foreign ICT specialists in Estonia by the end of 2020. It comprises the following elements and services: ✓ International House of Estonia – a service center providing information and consultation to interested employers and prospective foreign employees; ✓ WorkinEstonia portal - provides an overview and information for foreign specialists and Estonian employers; ✓ Foreign Recruitment Grant Scheme - supports employers by covering the costs of foreign recruitment; ✓ Distribution of employers' job offers on WorkinEstonia portal, social media, and newsletters; ✓ Developing support materials – "Relocation Guide" handbook, videos about working in Estonia, case-studies of foreigners working in Estonia; ✓ Guidelines on foreign recruitment; ✓ Recruitment campaigns in target markets in cooperation with employers; ✓ Organization of joint stands entitled "Work in Estonia" at international events; and ✓ Careers counselling for spouses of foreign specialists. ➢ Tech/Life Ireland represents a national initiative to make Ireland an attractive destination for pursuing a career in technology. The program is funded by the Ministry of Jobs, Enterprise and Innovation and is delivered by Enterprise Ireland, IDA Ireland, and the technology industry of the country as a whole. Initially, the program aimed to attract 40 000 technology specialists for a 5-year period. In the period of 2016-2017, the demand for ICT professionals in Ireland was partially met by the attraction of foreign talent. Overall, 3180 ICT employment permits were issued in 2016, and a further 3442 such permits were granted in 2017. ➢ The educational center opened in Georgia by *Strategeast* and the leading American engineering company EPAM Systems in cooperation with the GITA can be considered as a good practice. The main goal of the educational center is to increase the number of qualified personnel in the IT field. The students at educational center are chosen based on the entrance exams in math. The educational center includes five professions adjusted to the needs of the global market: front-end developer, ASP.NET developer,

	Design and launch innovative initiatives and institutions for enhancing ICT skills	JAVA developer, Android app developer, and QA engineer. The training program is conducted according to the world standards by the EPAM teachers and provide graduates with the opportunity to receive highly paid work in the IT field worldwide upon graduation. • Georgia needs new initiatives to be elaborated and implemented in a PPP format to enhance ICT education and to respond to the skills demand on the market. A tri-patriate initiative with the involvement of public sector, private sector, and educational establishments should create mechanisms and platforms to address current and future needs of the ICT sector. **Best Practices** ➢ Singapore's Tech Skills Accelerator project is an initiative of the Media Development Authority in strategic partnership with the Governmental Agencies Workforce Singapore, Skills Future Singapore, and in cooperation with ICT industry representatives. The program's objective is to support training and placement opportunities in the ICT sector through the facilitation of upskilling and reskilling individuals according to the industry's needs. The program is designed for individuals (ICT graduates, existing ICT professionals, and aspiring ICT professionals with an ICT or non-ICT background) and employers (ICT and non-ICT companies). The project has the following dimensions: ✓ Company-Led Training (CLT) Programme ✓ Critical Infocomm Technology Resource Programme Plus (CITREP+) ✓ Professional Conversion Programme (PCP) for the ICT Sector ✓ SkillsFuture Earn and Learn Programme (ELP) ✓ Skills Framework for Infocomm Technology (ICT) ✓ SkillsFuture Study Award for the ICT Sector ✓ Tech Immersion and Placement Programme (TIPP) ✓ TeSA pilot immersive
In-house development of most ICT products and services by public institutions	Re-consider the ICT product development model in the public sector towards outsourcing the procurement of more ICT products and services and allocating increased budgetary	• Initiate public-private dialogue with the participation of line ministries, ICT clusters, business associations, and donor organizations to identify ICT products and services that may be outsourced and procured via public tenders. • Elaborate a flexible employment scheme for public sector employees; in order for the Government to retain talent and knowledge, a shift towards a more flexible employment scheme is recommended. More specifically, government agencies should allow their employees to work on more flexible, result-oriented terms, engaging in both public and private sectors. **Best Practices** ➢ Public procurement plays an important role in the development of an indigenous ICT industry. According to the UNCTAD, for developing countries, providing services to the local market is a natural entry point

	resources for this purpose	for local ICT enterprises and governments often represent one of the larger buyers of IT services. Therefore, public sector procurement of IT services can have a major influence on the evolution of the local IT services industry[14]. Based on the UNCTAD, there are many opportunities for ICT companies to participate in public tenders, especially in: ✓ Projects requiring local language proficiency, a local presence, and a partnership of local and foreign companies ✓ System integration contracts ✓ Bespoke IT systems ✓ Low-value contracts ➢ In 2008, Singapore outsourced IT systems worth US$768 million to the private sector through a PPP format. Accordingly, the Government of Singapore owns the content, defines the quality of service standards and indicators, commissions independent performance audits, and pays for the service, while providers from the private sector own the hosting environments, pay for capital and operational costs, and are responsible for the quality of services. By implementing the outlined policy, the Government of Singapore supported local IT companies to develop state-of-the-art solutions and, at a later stage, promoted these products to the international markets through government-to-government partnerships. Several companies such as CrimsonLogic, IDA International, NCS, novaCITYNETS and Ecquaria were launched and became international actors in this period. ➢ The National Innovation and Science Agenda of the Australian Government envisioned the development of a digital marketplace and the standardization and breaking into component parts of the ICT products and services to be procured by the Government to make the participation of local ICT companies easier. On average, the Government of Australia spends US$5 billion annually on ICT.
Lack of coordination in the ICT sector (Lack of vision towards development of ICT sector)	Shift from disseminated support for specific activities in targeted categories of ICT sector companies by different agencies, towards a comprehensive strategy for the development of	In order to make the shift happen, a comprehensive national strategy for the development of the ICT sector should be developed, including a long-term vision and a detailed medium-term strategy. The action plan should list detailed actions and respective activities under strategic objectives.[15] The main considerations while working on the document, in order to ensure clear understanding of the role of every party from the perspectives of donors and the private sector are as follows:

[14] United Nations Conference on Trade And Development (UNCATD). (2013). Promoting Local IT sector Development through Public Procurement. https://unctad.org/es/node/27006

[15] Led by the department of "Communications, Information and Modern Technologies" at MoESD, a special intergovernmental working group has already started working on "Digital Georgia", a national strategy of the development of the ICT sector. As stated by representatives of MoESD, the process will include all relevant stakeholders of the sector. In addition, this document will be complemented by MoESD's "Broadband Infrastructure Development Strategy and Implementation Plan for Georgia", and other relevant sectoral action plans.

	the ICT sector as a whole	• There must be clear-cut differentiation of responsibilities between government agencies, with each agency/unit made responsible for specific activities according to the action plan, based on their core competencies; • Clear communication to donor organizations and the private sector about the responsibilities of each state unit and agency should be ensured; and • Regular (annual or semi-annual) sessions with the private sector and donor community should be conducted, with relevant state units and agencies discussing the progress of planned activities. **Best Practices** Framework for successful intergovernmental cooperation: The State Services Commission of New Zealand has developed a framework for effective coordination of state agencies[16]. The framework highlights nine success factors under the following three inter-related dimensions: mandate, systems, and behaviors. These three dimensions can be summarized as follows: ➢ Mandate: to ensure successful cooperation, leaders have to emphasize the importance of effective coordination, and must commit to making this work by making coordinated activity within an all-of-government context a priority. All relevant civil servants have to agree on a clearly-defined joint outcome of their focused effort. ➢ Systems: to ensure successful cooperation, appropriate governance, and accountability, frameworks have to be in place and the responsibilities and contributions of each agency must be documented and well-understood. Sufficient and appropriate resources and systems must therefore be available to deliver the required tasks and an effective process for measuring performance from established baselines should be in place. ➢ Behaviors: to ensure successful cooperation, the relevant agencies must be represented by civil servants who have the appropriate authority and competencies to work in collaboration with each other. Clear leadership should be established within the group and each agency's organizational culture should foster coordination.
Lack of awareness among the Georgian private sector about the importance of	Organize effective ICT awareness-raising campaigns for SMEs	• Identify international and local case-studies, clearly showing the positive impact(s) of ICT integration within the business activity on a company's financials, and develop an informational brochure based on the case-studies. • Development of an intuitive and simple handbook for SMEs by the GITA, in collaboration with EG. The handbook should educate participants about the possible benefits of integrating their products and services

[16] State Services Commission - New Zealand Government. (2008, February). Factors for Successful Coordination - A Framework to Help State Agencies Coordinate Effectively (ISBN 978–0-478-30327-8). State Services Commission. https://www.publicservice.govt.nz/assets/Legacy/resources/Factors-publication_0.pdf

digitalization and innovation		with ICT services, such as engaging in e-commerce, automating their financial management, or using social networks for marketing. • Provide consultation sessions with all beneficiaries of the GITA and EG, as part of already-existing training sessions within their programs. The trainings should be based on the already-developed handbook for SMEs. • The GITA should develop and conduct specific trainings for firms, designed to educate the private sector about promising opportunities that come with integrating their products or services with the ICT sector. The trainings should be conducted not only in Tbilisi, but also in regional techparks and innovation centers of the GITA. • Use existing online platforms, or establish new platforms, in order to disseminate information, such as materials from training sessions, the handbook, and all relevant literature and/or videos. **Best Practices**[17] ➢ Finland's EASKEL program included 2-5 days of consultations for SMEs from external experts, with 85% of consultation costs covered by the Finnish government. ➢ The ILO developed a handbook for SMEs from Latin America and Caribbean, named "Can ICTs help me improve my business?"[18] ➢ AUSe.NET was a platform in Australia, which developed a series of three-hour face-to-face workshops to help SMEs to understand the why use of ICT and e-commerce is important to their business. The website also included guidance on how to buy a computer, how to get connected and set up a website, and also included different reports on ICT and e-commerce. ➢ Netherlands Go Digital supported trade organizations in the development of an ICT strategy to stimulate the adoption of the internet and e-commerce among their members. National branches and 250 consultants helped SMEs to prepare and implement their ICT action plans. ➢ The SVEA program in Sweden was aimed at raising awareness of commercial possibilities of e-commerce and how e-business can be used in different parts of the business process. It included seminars, case-studies, and access to ICT solution providers. ➢ UK Online for Business encouraged and helped UK businesses to improve their business performance through the effective use of ICTs, based on partnership between government and industry. The program consisted of a coherent framework of activities designed to raise awareness of the potential benefits of e-business and provided specific advice and support in the adoption and use of ICT through a national network of over 70 centers.

[17] OECD (2004), "ICT, E-Business and Small and Medium Enterprises", OECD Digital Economy Papers, No. 86, OECD Publishing, Paris, https://doi.org/10.1787/232556551425.

[18] International Development Research Centre (IDRC). *Can ICTs help me improve my business? A brief handbook for micro and small entrepreneurs from Latin America and the Caribbean. https://www.oitcinterfor.org/sites/default/files/canicthelp.pdf*

	Promote the use of ICT tools by creating collaborative voucher schemes between ICT and other sectors	• To promote digitalization, develop and implement collaborative digital voucher schemes supporting strategic cooperation between the ICT value chain and other sectors of the economy (for instance, restaurant and cafe services). In Estonia, an innovation voucher scheme enables SMEs to develop innovative solutions for development, and to gather knowledge on technologies. Beneficiaries can thereby benefit from expert advice to implement changes. Supporting activities here include consulting on product and service development, production and technology, carrying out feasibility and cost-benefit research, as well as the development and implementation of technology solutions[19]. In order to apply for support, entrepreneurs must define a development obstacle that requires expert advice and/or technology to overcome. In the next stage, the entrepreneur selects a cooperation partner from a pre-selected list, develops a project plan in cooperation with the selected partner, fills out an application form, and submits an e-application to the Enterprise Estonia e-portal. • The short- and medium-term policy response to addressing digitalization challenges might entail: (1) special grant schemes for the development and adaptation of smart ICT solutions; and (2) innovation voucher schemes designed for tourism value chain actors, supporting them to cover expenses associated with the creation and development of online content and developing smart solutions. With the assistance of innovation vouchers, tourism sector companies may hire ICT companies or freelance professionals to assist them, while the vouchers would be co-financed by the State and payable to the suppliers of ICT services.

BPO

Policy Challenge	Proposed Policy Change	Proposed Activity
Skilled labor shortage	Enhance cooperation between ministries, educational and VET institutions and BPO private sector companies, and develop skills anticipation and matching	• Strengthen cooperation and coordination between ministries, providers of educational programs (e.g. universities, VET colleges, and training centers), private companies and donor organizations. The Skills Agency may be used as a platform for establishing strong cooperation among different stakeholders. • Develop skills anticipation and matching systems[20] in architecture and design, finance, and HR, which would involve:

[19] Innovation voucher. (2021, March 16). EAS. https://www.eas.ee/teenus/innovation-voucher/?lang=en
[20] New Skills for New Jobs, European Commission, 2010.

	systems, and tailored training programs	○ Discussing skills needs with existing BPO private sector companies in the fields of architecture and design, finance, and HR[21]; ○ Implementing a long-term forecasting approach (makes long-term forecasts on future demand for and supply of skills)[22]; and ○ Involving potential contributors, including statistical offices, employment agencies, research organizations, NGOs, sectoral associations, and skills bodies in anticipation of skills needed. • Develop more tailored training programs in architecture and design, finance, and HR, which would involve: ○ Establishing more active cooperation and engagement of BPO private sector companies regarding developing educational programs in architecture and design, finance, and HR at universities and VET colleges to narrow/abolish the skills gap; ○ Updating the existing training programs in architecture and design, finance, and HR at universities and VET colleges to narrow/abolish the skills gap and to meet the needs of international markets, and ensuring the learning process to include the teaching of modern computer programs; ○ Ensuring the private sector is actively involved in the design of programs with respect to architecture and design, finance, and HR; ○ Supporting private sector companies to accredit their training programs; ○ Providing continuous training for teaching staff at vocational schools and higher education institutions in architecture and design, finance, and HR; and ○ Promoting cooperation with foreign universities through student and staff exchanges in architecture and design, finance, and HR. **Best Practices** ➢ The ILO has developed guidelines with regard to measuring skills mismatches, skills assessment, and anticipation systems[23]. Using both quantitative and qualitative data sources in a country's assessment of current and future skill needs is considered to be the best practice here (ILO, 2015; OECD, 2016)[24].

[21] International Labour Organization. (2019). Skills shortages and labour migration in the field of information and communication technology in India, Indonesia and Thailand (ISBN: 978–92-2-133280-0). Document and Publications Production, Printing and Distribution Branch (PRODOC) of the ILO. https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_710031.pdf ;
NESsT. (2017). Closing the Skills Gap in Poland: Leveraging the Promise of Social Enterprise and the BPO Industry (ISBN 978–1-930363-49-6). JPMorgan Chase Foundation. https://static1.squarespace.com/static/58d072963e00bea07a2ca2da/t/59a03b643e00be724a576095/1503696845527/2017_ENG_Closing_the_Skills_Gap_in_Poland.pdf
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		➢ In Canada, the Canadian Occupational Projection System (COPS) identifies the potential level, composition, and source of labor demand and labor supply for the future labor market in Canada, and highlights occupations and skills where potential labor market imbalances could arise. Detailed 10-year labor market forecasts are published every two years by Employment and Social Development Canada (ESDC). The Canadian labor market forecast is considered one of the best in this sphere[25]. ➢ The United States Bureau of Labor Statistics (BLS) conducts occupational forecasting every two years through the Employment Projections (EP) program[26].
Georgia´s visibility among BPO MNCs	Increase visibility of Georgia as a BPO brand and provide investment incentives	• Improve the visibility of Georgia's investment environment by: o Enhancing the active popularization of the strengths of Georgia's investment climate among potential investors (more active communication with potential investors about the situation regarding infrastructure, labor force, and the real estate market); o Enhancing active popularization of the strengths of Georgia's investment climate among advisor companies (who support investors to choose locations for FDI); and o Advertising best practices by increasing advertisements of successful BPO companies in Georgia in finance, HR, architecture and design, and call centers. • Provide investment incentives for BPO companies (as the BPO sector is investment-driven, such incentives would stimulate this sector in Georgia).

E-commerce

Need of acquisition of different products and services from several suppliers for launching and operation of e-commerce activities (making the process time-consuming and expensive)	Support consolidation of various services provided by different service providers	Companies launching e-commerce activities need to acquire and operate store software, hosting services, security tools, backups, shipping software, data and system-services integration, payment gateways, and other services tailored to the specificity and unique features of the products entering the e-commerce area. Hence, the companies here face some difficulties in searching and negotiating with different service providers: the process is time-consuming, expensive, and might cause difficulties in the maintenance and operation of a complex system. Hence, a support tool motivating different service providers to combine resources and supply unified products to companies launching e-commerce sales would support the e-commerce development in the country. • Start-up and innovation matching grant programs administered by the GITA may support the companies offering combined or individual services for e-commerce solutions. The existing schemes may be deployed and re-designed to address the needs of e-commerce business operations.

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		• The introduction of an e-commerce voucher scheme would support the development of e-commerce solutions for companies. The voucher should be granted to companies launching e-commerce business plans and co-financing 50% of the costs associated with the development of a tailored e-commerce platform. The State should re-imburse 50% of eligible costs to the providers of e-commerce services only in cases when different service providers supply services as a consortia, and receive one payment for their products and services.

ANNEX 1: LIST OF INTERVIEWS

	Name	Sector	Position
1	Shota Saganelidze	Private sector, BPO	Executive Director, Base4
2	Thea Romanova	Private sector, BPO	HR manager, Majorel
3	Giorgi Khatsakvadze	Private sector, BPO	Partner of Nexia TA and Director of business process and technology department, Nexia TA
4	Givi Sartania	Private sector, ICT	Founder, Wandio
5	David Ramishvili	Private sector, ICT	Founder, High-Tech Solutions
6	Irakli Gogoladze	Private sector, ICT	Founder, ICT i-know
7	Davit Kiziria	Private sector, ICT	Founder, Innovative Systems Management
8	David Japaridze	Private sector, ICT	Founder, Azry
9	Anatoly Motkin	Private Sector, ICT	Founder, StrategEast
10	Giorgi Chugoshvili	Private sector, E-commerce	Founder, Phubber
11	Amiran Sherozia	Private sector, E-commerce	Head of TBC Bank Ecosystems
12	Ana Tabatadze	Private sector, E-commerce	Founder, Digital Area
13	Maia Kheladze; Natia Ninikelashvili	Non-governmental, E-commerce	Founders, E-commerce Association of Georgia
14	Mariam Sumbadze	Non-governmental, ICT	Director of Georgia's ICT Cluster
15	Nino Samvelidze	Donor organizations, ICT	Programme Manager for Digital Economy, EU Delegation to Georgia
16	Tamar Buadze	Donor organizations, E-commerce	Expert, USAID
17	Natia Parekhelashvili	Public sector, BPO	Senior Investor Relations Manager, Enterprise Georgia
18	Keti Kebuladze	Public sector, ICT	Export Portfolio Manager
19	Mariam Lashkhi	Public sector, ICT	Deputy Director, GITA
20	Nikoloz Gagnidze	Public sector, ICT	Deputy Chairman, Digital Governance Agency

ANNEX 2: LIST OF WORKING GROUP MEMBERS

	Name	Position	Organization
	Government		
1	Natia Parekhelashvili	Senior Investor Relations Manager	Enterprise Georgia
2	Keti Kebuladze	Export Portfolio Manager	Enterprise Georgia
3	David Tavlalashvili	Deputy Head of The Investment Department	Enterprise Georgia
4	Mariam Lashkhi	Deputy Director (former)	GITA
5	Tornike Jobava	Digital Economy Skills Development Program Coordinator - World Bank Project	GITA
6	Annie Vashakmadze	Head of Donor Relations and International Relations Department	GITA
7	Ekaterine Kubusidze	Head of Telecommunications, Information and Modern Technologies Department	Ministry of Economy Development of Georgia
8	Giorgi Dapkviashvili	Head of ICT Development Division	Ministry of Economy Development of Georgia
9	Nikoloz Gagnidze	Deputy Chairman (former)	Digital Governance Agency
10	Sesili Verdzadze	Head of Innovations at ServiceLab (former)	Public Service Development Agency
	Donors		
11	Nino Samvelidze	Program Manager for Digital Economy	EU
12	Tamar Buadze	Expert	USAID
	Private Sector (Companies, Associations)		
13	Mariam Sumbadze	Director	Georgian ICT Cluster
14	Maia Kheladze	Founder	E-commerce Association of Georgia
	BPO		
15	Helen Tsomaia		Georgian Service Group
16	Shota Saganelidze	Executive Director	Base 4
17	Irina Darovskaya	Executive Director	K.Call
18	Giorgi Khatsakvadze	Partner/Director of business process and technology department	Nexia TA
19	Rezo Lomtatidze	Managing Partner	Solveit llc.
20	Thea Romanova	HR manager	Majorel
	ICT		

21	Nikoloz Berelidze	Director	Innotec
22	Givi Sartania	Founder	Wandio
23	Davit Kiziria	Founder	Innovative Systems Management
24	David Japaridze	Founder	Azry
25	Gvantsa Khunashvili	Project Manager	Embedded Lord
26	Giorgi Mzhavanadze	Founder	De Sou Management
27	Shota Murtskhvaladze	Managing Partner	LTD Mindworks
28	Irakli Gogoladze	Founder	I-Know
29	David Bolkvadze	Director	Greentest
30	Giorgi Kananashvili	Director	LTD Monrem
31	Revaz Lomtatidze	Managing Partner	Solve IT
32	Giorgi Keshelashvili	Partner & CEO	Boxwood
33	Zura Tutberidze	Partner & CEO	Embedded Lord
34	David Ramishvili	Founder	High-Tech Solutions
35	Giorgi Tarielashvili	Director	Mobility

ANNEX 3: SCORES FOR EACH CHALLENGE GIVEN BY WORKING GROUP (WG) MEMBERS

Scores for challenges in BPO

Challenge	Score
Skilled labor shortage	3.64 (highest priority)
Low-quality internet in regions	2.38 (lowest priority)
Lack of access to office spaces adjusted to sectoral needs	2.66
Georgia´s visibility among BPO MNCs	3.61

Scores for challenges in ICT

Challenge	Score
Skilled labor shortage	4.3 (highest priority)
The role of public procurement in ICT sector development	3.7
Lack of tailored funding opportunities	3.8
Low level of women's involvement in the ICT sector	3.5 (lowest priority)
Lack of coordination in the ICT sector (lack of vision towards development of the ICT sector)	4.1
Lack of awareness among Georgian private sector about the importance of digitalization and innovation	4.1

Scores for challenges in E-commerce

Challenge	**Score**
Incomplete regulatory framework - absence of e-commerce law	3.56
Need of acquisition of different products and services from several suppliers for launching and operation of e-commerce activities (making the process time-consuming and expensive)	3.57 (highest priority)