



**ESWATINI  
COMMUNICATIONS  
COMMISSION**

# **INFORMATION AND COMMUNICATION TECHNOLOGY SECTOR REPORT 2022**





## Vision

To be a dynamic regulator of communications services in Eswatini that facilitates the delivery of affordable, sustainable and quality services.



## Mission

To derive maximum socio-economic benefits for all Eswatini from ICTs through the effective regulation of telecommunications, broadcasting and postal services in Eswatini.



## Values



Integrity



Transparency



Teamwork



Accountability



Innovation

# FOREWORD MESSAGE FROM THE CHIEF EXECUTIVE



**Mvilawemphi  
Dlamini**

CHIEF EXECUTIVE

**O**n behalf of the Eswatini Communications Commission (ESCCOM), it is an honour and privilege to present the Information and Communication Technology Sector Report for the Kingdom of Eswatini for the 2021/22 Financial Year.

In his speech from the throne on the occasion of the official opening of the Fourth Session of the 11<sup>th</sup> Parliament

on 04 February 2022, His Majesty King Mswati III emphasised the important role that ICT plays in the development of the economy and the significance of digital transformation in the entire economic value chain. The rapid pace of transformation, which accelerated in the wake of the Covid-19 pandemic, has compelled individuals, businesses, and governments to 'go virtual' in order for them to meaningfully participate in the economy and society.

**About 99.1% of the population have access to 3G network coverage, which shows the commitment government has undertaken to improve the sector.**

The role played by ICT in the economy extends through the various sectors of the economy from agriculture, education and health to trade, industry and entrepreneurship. Numerous critical operations and services in the country hinge on ICT, for example, the accessing of government's services using technology (e-gov services). ICT has surely become a fundamental pillar in the economy, as it avails means of delivering services to the Kingdom's citizens while also being a medium of social and business interaction.

In the quest for advancement in ICT, Eswatini has been undertaking reforms in the ICT market to ensure a competitive industry. Through the Department of Research, Science, Technology and Innovation (RSTI), the government established the Royal Science and Technology Park (RSTP) in 2012 to spearhead all issues pertaining to Research, Science, Technology and Innovations. Furthermore, the introduction of ESCCOM in 2013 to regulate communications services in Eswatini has registered significant milestones in developing the sector.

These milestones include the licencing of operators with technology neutral licences, enactment of regulatory and legislative instruments, enabling of competition, and most importantly, reducing the cost of communication to affordable levels for Eswatini, amongst others.

In the National Development Plan 2019/20 – 2021/22, ICT was identified as a driver for economic growth and sustainable development. This called for more investment in a supportive policy framework for ICT development as well as promotion of the use of ICT to increase efficiencies across sectors of the country.

In response to the gaps noted, the country is currently working various strategies to enable and guide the sector, one of which is the Eswatini Digital Strategy (EDS). The EDS aims to achieve a connected, participatory, innovative and inclusive digital economy through targeted and coordinated efforts to unlock and increase digitalisation. The strategy is centred on the pillars of digital: health, agriculture, education, trade, economy, fintech and entrepreneurship. These pillars are to be enabled through digital infrastructure, skills, trust and security, institutions, policy and governance. The country is further working on the National Cybersecurity Strategy, which is aimed at availing a safe, secure and resilient Cyberspace in Eswatini.

Regarding growth of the industry, communications coverage in the country has taken significant strides in the last few years. For instance, Mobile Cellular Market Penetration increased from 101% in 2020 to 131% in 2022, with Mobile

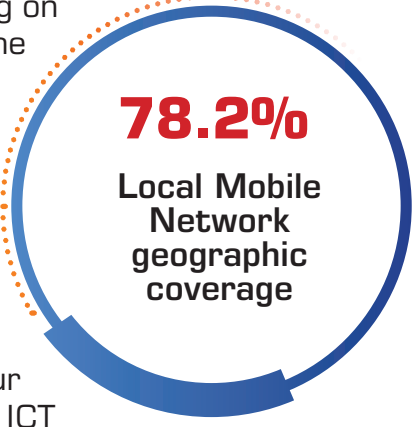
Broadband Penetration increasing from 75% to 119% in the same period. Mobile network geographic coverage stands at 78.2%, with 3G coverage accessible to 99.1% while 4G coverage stands at 80.4%, which shows the commitment that government has undertaken to improve the sector. Government is also working on initiatives for rolling out broadband networks to schools and hospitals, as well as ensuring communication services access is available to all citizens of the country, particularly the unconnected through the Universal Access and Service Fund.



**30%  
increase**  
Mobile Market  
Cellular Penetration  
in 2022

The country successfully implemented a number of projects that will impact the ICT sector positively, in the review period. These include: conclusion of the Price Benchmarking Study; development of Broadcasting Guidelines (Content guidelines, Digital Terrestrial Television guidelines and Classification guidelines); and the issuing of the Postal and Courier Licensing Guidelines, amongst other projects. Data is being gathered for the Eswatini Information Communications and Technology Access and Use Survey (ICTAUS), while measures are being undertaken to implement the National Addressing and Postcode Systems Project. Such initiatives are anticipated to influence the development of the sector and benefit consumers of ICT services.

ICTs undeniably play an important role in enabling business and economic development. With the increasing uptake of digital services brought about by the aftermath of the pandemic, the nation is gradually embracing the use of technology. The telecommunications industry is unquestionably leveraging on digital transformation and boldly re-positioning itself for the future. As such, ESCCOM will continue to play an active role in enabling and regulating the sector to ensure its growth. These efforts, amongst others detailed in the report, seek to ensure that the market is dynamic and open, with competition and innovation at the core of its evolution.



**78.2%**  
Local Mobile  
Network  
geographic  
coverage

May I conclude by emphasising that, as the Commission is entrusted with safeguarding the sector, it is our promise to put more focus and effort on enabling the ICT environment. This will ensure that the country's citizens experience the impact of regulation through the delivery of affordable, sustainable and quality services.



# LIST OF ABBREVIATIONS

<b>ADSL</b>	- Asymmetric Digital Subscriber Line
<b>CIT</b>	- Company Income Tax
<b>AI</b>	- Artificial Intelligence
<b>COVID-19</b>	- Coronavirus Disease
<b>CRASA</b>	- Communications Regulators' Association of Southern Africa
<b>EMF</b>	- Electro-Magnetic Field
<b>EPTC</b>	- Eswatini Posts and Telecommunications Corporation
<b>ERS</b>	- Eswatini Revenue Service
<b>ESCCOM</b>	- Eswatini Communications Commission
<b>ESM</b>	- Eswatini Mobile
<b>FTE</b>	- Full-Time Equivalent
<b>FY</b>	- Financial Year
<b>GDP</b>	- Gross Domestic Product
<b>GSMA</b>	- Global System for Mobile Communications Association
<b>ICT</b>	- Information and Communication Technology
<b>ISDN</b>	- Integrated Services Digital Network
<b>ISPs</b>	- Internet Service Providers
<b>ITU</b>	- International Telecommunications Union
<b>LTE</b>	- Long Term Evolution networks / 4G
<b>MNOs</b>	- Mobile Network Operators
<b>MTN</b>	- Mobile Telephone Network
<b>OIT</b>	- Other Income Tax
<b>OTTs</b>	- Over-the-Top Technologies
<b>PAYE</b>	- Pay as You Earn
<b>PSTN</b>	- Public Switched Technology Network
<b>SADC</b>	- Southern African Development Community
<b>SIM Card</b>	- Subscriber Identity Module Card
<b>SMMEs</b>	- Small Medium and Micro Enterprises
<b>SMS</b>	- Short Message Service
<b>SZL</b>	- Swaziland Lilangeni
<b>UAS</b>	- Universal Access and Service
<b>USD</b>	- United States Dollar
<b>VAT</b>	- Value Added Tax
<b>VoIP</b>	- Voice-over-Internet Protocol
<b>WLL</b>	- Wireless Local Loop

# DEFINITIONS AND INTERPRETATIONS<sup>1</sup>

**Asymmetric Digital Subscriber Line (ADSL) Internet Subscriptions** refers to the number of internet subscriptions using asymmetric digital subscriber line (ADSL) services to access the internet, at downstream speeds greater than or equal to 256 kbit/s. ADSL is a technology for bringing high-bandwidth information to homes and small businesses over ordinary copper telephone lines.

**Broadband** is defined as a high-speed internet access service providing download speeds of at least 256 kbit/s (ITU definition).

**Company Income Tax (CIT)** represents the proportion of CIT payments for the Electronic Communications Sector to total CIT payments received by the Eswatini Revenue Service (ERS).

**Financial Year (FY)** refers to a fiscal year (or financial year, or sometimes budget year) used in government accounting, which varies between countries, and for budget purposes. It is also used for financial reporting by businesses and other organizations. For purposes of this report, the financial year runs from 01 April 2021 to 31 March 2022.

**Fixed Broadband Subscriptions** refers to fixed (wired and wireless) subscriptions to internet speeds access at downstream speeds greater than or equal 256 kbit/s, excludes mobile-broadband subscriptions where users can access a service throughout the country wherever coverage is available. It includes both residential and organisations' subscriptions.

**Fixed Broadband Subscriptions per 100 Inhabitants** refers to Fixed Internet

Broadband Subscriptions divided by the population and multiplied by 100.

**Fixed Telephone Subscriptions** refers to the number of active number of analogue fixed-telephone lines and fixed wireless local loop (WLL), ISDN voice-channel equivalents and fixed public payphones subscriptions.

**Fixed Telephone Subscriptions per 100 Inhabitants** refers to the sum of Fixed Telephone Subscriptions, divided by the population and multiplied by 100.

**Fibre-To-The-Home (FTTH)/Building Internet Subscriptions** refers to the number of internet subscriptions using Fibre-To-The-Home (FTTH) or Fibre-To-The-Building (FTTB), at downstream speeds equal to, or greater than, 256 kbit/s.

**International Internet bandwidth** refers to the total used capacity of international internet bandwidth, in megabits per second (Mbit/s). It is measured as the sum of used capacity by Mobile Networks (MTN and Eswatini Mobile) and ISPs as leased from and offered by EPTC, as the only entity offering international bandwidth. In this report, capacity is asymmetric (i.e., more incoming (downlink) than outgoing (uplink) capacity).

**Mobile Broadband Subscriptions** refers to the sum of standard mobile-broadband and dedicated mobile broadband subscriptions to the public Internet, namely 3G and 4G connections.

**Mobile Broadband Subscriptions per 100 Inhabitants** implies the total number of mobile broadband subscriptions divided by the population and multiplied by 100.

<sup>1</sup>Definitions and Interpretations were sourced from the ITU Telecommunications Indicators Handbook

# DEFINITIONS AND INTERPRETATIONS

**Mobile Cellular Telephone Subscriptions** refers to the number of subscriptions to a public mobile-telephone service that provides access to the PSTN using cellular technology.

**Mobile Cellular Subscriptions per 100 Inhabitants** implies the total number of mobile cellular subscriptions divided by the population and multiplied by 100.

**Other Income Tax (OIT)** represents the proportion of OIT payments for the Electronic Communications Sector to total OIT payments received by the Eswatini Revenue Service (ERS).

**PAYE (Pay as You Earn)** represents the proportion of PAYE payments for the Electronic Communications Sector to total PAYE payments received by the Eswatini Revenue Service (ERS).

**Public Switched Telephone Network (PSTN)** is a combination of telephone networks that provides infrastructure and services for public telecommunication. The PSTN is the aggregate of the world's circuit-switched telephone networks that are operated by national, regional, or local telephony operators. These consist of telephone lines, fiber optic cables, microwave transmission links, cellular networks, communications satellites and undersea telephone cables, all interconnected by switching centres which allow most telephones to communicate with each other. Originally a network of fixed-line analog telephone systems, the PSTN is now almost entirely digital in its core network and includes mobile and other networks, as well as fixed telephones.

**Quarter (Q1, Q2, Q3, Q4)** refers to the three-month interval period on the Financial Year beginning from April (in the previous year) to March (in the subsequent year).

**Quarter-on-Quarter (QOQ)** compares a change in performance between one fiscal quarter and the previous fiscal quarter.

**SMS** refers to a text messaging service component of most telephone, internet, and mobile device systems. It uses standardised communication protocols that allow mobile devices to exchange short text messages.

**Telecommunications Employment** refers to the total number of persons/staff, in full-time equivalent (FTE) units, employed by telecommunication operators in the country for the provision of telecommunication services, including fixed-telephone, mobile-cellular, internet and data services. This excludes staff working in broadcasting businesses that offer only traditional broadcasting services. Part-time staff is expressed in terms of FTE.

**Telecommunications Services Revenue** refers to revenue earned from retail fixed-telephone, mobile-cellular, internet and data services offered by telecommunication operators (both network and virtual) offering services within the country.

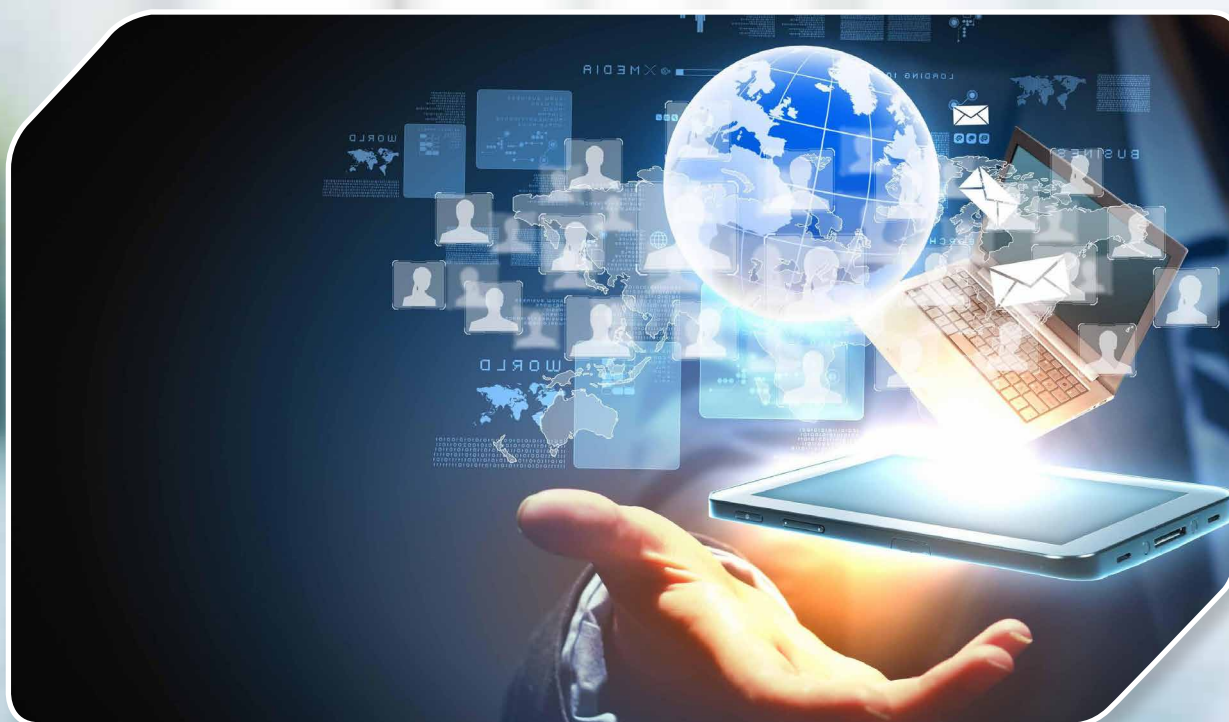
**VAT (Value Added Tax)** represents the proportion of Value Added Tax payments for the Electronic Communications Sector to total VAT payments received by the Eswatini Revenue Service (ERS).

**Wireless-Broadband Subscriptions** refers to the sum of satellite broadband and terrestrial fixed wireless broadband subscriptions to the public internet.

**Year-on-Year (YOY)** compares a change in performance in one period with those of a comparable period on an annualised basis.



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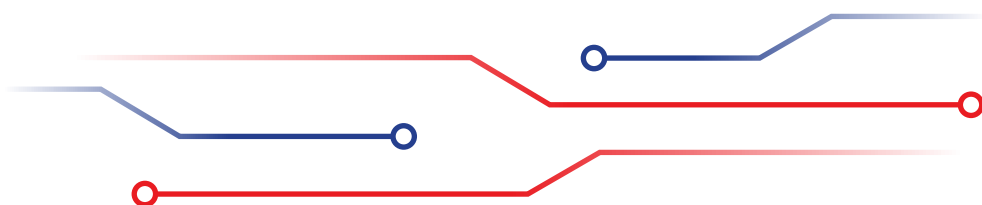
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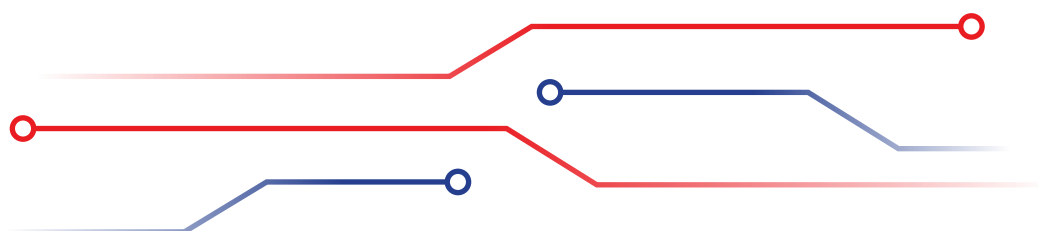
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## EXECUTIVE SUMMARY

**A**side from the negative impact of the Covid-19 pandemic on the national economy, the ICT sector continued to experience growth in the year under review. Total mobile cellular subscriptions grew by **19.2%** to **1 524 629** connections, with total mobile broadband subscriptions surging by **24.7%** to **1 379 526**.

Fixed broadband subscriptions also increased, by **7.9%** to **29 784** as a result of high demand that was observed. However, a decline was observed in Fixed Telephone subscriptions, of **14.6%** to **38 537**. The mobile penetration rate stood at **107%**, with mobile network geographic coverage at **78.2%** while population coverage standing at **99.1%**.

The Kingdom of Eswatini had **twenty three (23)** valid licensees in the Electronic Communications Sector as at end of March 2022. These consisted **five (5)** broadcasters, **three (3)** telecommunications operators and **fifteen (15)** Internet Service Providers (ISPs). The process for licencing postal and courier operators was ongoing at the close of the reporting period. Telecommunications operators comprise two providers of mobile communication services (MTN and Eswatini Mobile) and one provider of fixed telecommunication services (Eswatini Posts and Telecommunications Corporation).

The Kingdom of Eswatini had the following number of Base Transceiver Stations

## EXECUTIVE SUMMARY

(BTS) for Mobile Telecommunications as at the end of March 2022: **640** sites for 2G; **641** sites for 3G; and **486** sites for 4G networks. Network infrastructure among communication service providers is shared, as such, co-location arrangements exist between operators. Radio coverage stands at **95%** while Television (TV) coverage is at **86%**. There are **two (2)** operational TV stations in Eswatini (1 national and 1 commercial broadcaster), **three (3)** licensed radio stations (1 national, 1 commercial broadcaster and 1 educational), and one (1) Pay TV service provider.

Annual growth in the mobile cellular market penetration<sup>2</sup> rate advanced by **25.4%** from **104.6%** in March 2021 to **130%** in March 2022, with mobile broadband penetration correspondingly progressing by **22.2%** from **95.8%** to **118%**. Penetration in the fixed telephone market declined by **0.8%** to **3.7%**, whilst fixed broadband market penetration grew by **0.19%** to **2.5%**. There was a slight shift in fixed broadband market share, in favour of fixed-wireless broadband network service providers over fixed-wired service, with fixed-wireless market share rising to **50.4%** while fixed-wired internet connections market share stood at **49.6%**.

Domestic voice traffic increased by **14.8%** to **3.89 billion** minutes, while International voice traffic shrank by **5%** to **43 million** minutes. Mobile voice traffic grew by **4.84%** whereas Fixed voice traffic dropped by **12.1%**. Additionally, total roaming voice traffic surged by **44.9%** to **14 373 402** minutes.

Consistently, telecommunications revenue grew by **7.6%** to **E2 209 679 592 (E2.2**

**billion)**, primarily driven by the increase in demand for data, voice and leased line services. Data Services revenue grew by **15.5%** to **E894 037 390**. On the other hand, Voice Services revenue declined by **3.7%** to **E804 351 440**. Short Message Service (SMS) revenue also decreased, by a significant **32.1%** to **E10 928 213**.

Total national domestic tax payments collected by Eswatini Revenue Service (ERS) in the reporting period amounted to **E10 786 960 753**, an **8.5%** increase from the previous year's collections. Tax contribution by licensees in the telecommunications industry stood at **E463 839 312**, which is **4.3%** of the total national domestic tax revenue. This shows a **0.4%** improvement.

The number of people employed in the telecommunications industry increased by **4.84%** to **1 451**, which is made up of **879** males and **572** females. Males' employment declined by **0.45%** to **879** while females' employment advanced by **14.2%** to **572**. Employment by MNO's grew by **46.5 %** to **728** while employment in Fixed Network Operations decreased by **18.5%** to **723**.

Trends in the postal sector showed a decline where Domestic Mail volumes i.e. registered and unregistered letters (sent and received) dropped by **23.4%** to **1 049 611**, and International Mail volumes (outbound and inbound - packets and parcels) also shrank, by **7.1%** to **18 497**. On a positive note, there was an improvement in the Packets and Parcels sent and received, realising a growth of **7.4%** to **741 212**. The number of Postal boxes rented declined by **7%** to **145 750**.

<sup>2</sup>The mobile phone/cellular penetration rate shows the number of SIM cards used in a given country. The data is presented as a percentage and thus may exceed 100% if the number of SIM cards in the country is higher than the actual population number.



# 1

## INTRODUCTION

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## INTRODUCTION

**A**s the country emerges from the pandemic and social and economic activities begin to recover, connectivity will continue to play a vital role in the way people live and businesses' operations. Digital services, underpinned by high speed and high-performance networks, are set to become more integral to society in a post-pandemic world. In essence, the unconnected segments of the population will be at greater risk of exclusion from many life-enhancing services available online.

The mobile industry has been instrumental in extending connectivity to people around the country and world over during this period. The pandemic had slowed progress around the country, its effects exacerbating existing social and economic inequalities. With lockdown restrictions and social distancing measures in place, people predominantly relied on mobile networks to stay connected and access life-enhancing services. Resultantly, mobile adoption continued to increase in the reporting period, despite sluggish economic growth and its negative effects on consumer incomes. Mobile technology therefore played a central role in these efforts, from improving access to education and healthcare to addressing issues of poverty and inequality.

It is apparent that the devastating impacts of the Covid pandemic threw a sharp focus on global connectivity, impacting all countries worldwide. The pandemic turned out to be worse than ever thought, affecting most sectors of economies adversely. Worth emphasis is that digital services became a critical enabler of connectivity, facilitating the continuity of regular life and connecting people more than ever before.

With the government enacting lockdowns to restrict the movement of the people in efforts to curb the pandemic, more people turned to electronic means as a lifeline. Remarkably, the Electronic Communications Sector was able to mitigate the pandemic's adverse impacts through rapid innovation, which centred mostly on migrating services and activities to online platforms. Accordingly, most telecommunications sector indicators exhibited increases over the period, signifying growth of the sector. However, trends in the postal and broadcasting markets continued to display declines.

In pursuit of connectivity to the internet for accessing online services, the reduction in the cost of communication is key for ease of affordability. The Price Benchmarking Study was concluded in the review period, which investigated the impact of regulatory interventions, namely the Price Transformation Programme, aimed at reducing wholesale leased line and internet tariffs in Eswatini.

The outcomes of the study informed regulation of wholesale pricing for electronic communication services. The study was done in terms of Section 7(t) of the ESCCOM Act, 2013, which empowers the Commission to determine issues concerning monopoly and discriminatory practices, through undertaking market studies periodically.

According to the ITU's Measuring Digital Development: Facts and Figures 2021 report which offers a snapshot of the most important ICT indicators worldwide, the pandemic led to revised growth forecasts for the global economy with a broad impact on economic activity.



The impact ranged from substantially diminished consumer discretionary spending to a freeze on business and essential operational activities.

## 1.1 AIM OF THE REPORT

The report details the performance of the Electronic Communications Sector, particularly ICT access and usage. The performance is analysed from the trends in the indicators used for tracking progress and growth in the different market that the Commission regulates. The report focuses mainly on the Telecommunications (Telecoms), Broadcasting, and the Postal and Courier Markets. The report further gives an account of the initiatives undertaken over the FY 2021/22, aimed at regulating, enabling and improving the ICT sector.

An analysis of the Mobile and Fixed telecoms markets indicators is presented in the report, which include: subscriptions; penetration; traffic; coverage; revenue; and employment, amongst others. Moreover, the impact of these trends (growth or decline) on the national economy is deciphered. Supply-side market data collected from the licensees is used for tracking the trends of the indicators. The data is also utilised to: benchmark the local market against regional peers; ensure compatibility with global metrics; and also supplied to various stakeholders for their unique uses. The outcome of the analysis is based on the micro-level data collected as well as any other drivers that explain observed patterns at the national level. Additionally, current market dynamics and limitations that require redress in the sector are discussed.

Supplementary data and insight used in compiling the report is gathered from various entities who include: providers of ICT services; Government Ministries and

Departments; Central Bank of Eswatini (CBE); Eswatini Revenue Service (ERS) and online resources. These sources are complemented with information generated internally by the Commission.

Over and above that, the report presents interventions undertaken in the sector, to: efficiently enable and regulate it; safeguard against anti-competitive practices; develop and expand the sector; maximise consumer welfare thus eliminating associated deadweight losses and unnecessary costs to society. This is done to achieve market efficiency through ensuring that supply and demand in the ICT markets are in equilibrium and that interests of both service providers and consumers are aligned. Furthermore, the initiatives undertaken in the period, projects completed, frameworks implemented for proper regulation and reviews of legislation for guiding the sector are detailed. The phrases “Commission” and ESCCOM, and also ICT sector and Electronic Communications sector are used interchangeably throughout the report.

## 1.2 ESCCOM MANDATE

The Eswatini Communications Commission (ESCCOM) is the regulatory authority for the information and communication technology sector in Eswatini. The Commission was established in 2013 by the Eswatini Communications Act, No. 10 of 2013 (the Act), to licence and regulate telecommunications, radio communications, broadcasting and postal services in Eswatini. Its scope extends to regulating the use and allocation of the radio frequency spectrum, administer cybersecurity and incidental matters to it, ensuring data protection and regulating electronic transactions. The Commission therefore plays a critical role in the management and development of the sector.

## INTRODUCTION

Within this mandate, the Commission's responsibility extends to include the collection of information and statistics on the Electronic Communications sector to monitor, report and ensure that regulatory interventions into the markets it regulates are fact-based. This is done to ensure that all citizens of the country have access to affordable, sustainable and quality services.

### 1.3 METHODOLOGY

Access to a comprehensive and timely set of ICT indicators is vital for the proper regulation of the markets within the sector. As such, up-to-date data is requested from licensees in the sector in terms of Section 38(c) and 39 of the Act. A customised data collection template is utilised to gather data from telecoms and postal services providers, whilst a questionnaire is employed for collecting data from broadcasting licensees.

The data is collected over a 12-month period ending 31<sup>st</sup> March each year. For confidentiality reasons, the information gathered is aggregated to conceal stakeholder-specific information. The data is then utilised to compile the Information and Communications Technology (ICT) report, which is published on the Commission's website on an annual basis, beginning with this inaugural report.

Users of the report should note that figures have been rounded off to the nearest decimal. Owing to the rounding of figures, the sum of separate items will sometimes differ in the final digit from the total shown, and data in the tables are subject to revision from time to time as more current information becomes available.

### 1.4 LIMITATIONS

Users of the report should be further aware when interpreting the information that data contained in the report is self-reported by licensees. This therefore ultimately requires a more rigorous data-validation process.

### 1.5 STRUCTURE OF THE REPORT

The report is structured as follows: Section 1 is the Introduction; Section 2 presents Global Developments in the ICT Sector; Section 3 analyses the Performance of the Eswatini Electronic Communications Sector; Section 4 reviews Selected Developments in the Electronic Communications Sector; Section 5 discusses Key Trends Shaping the Industry in the Review Period and Section 6 provides an Outlook for the Sector whilst Section 7 is the Conclusion. An Appendix tabulating all the indicators discussed in the report with the associated percentage changes is included in Section 8.

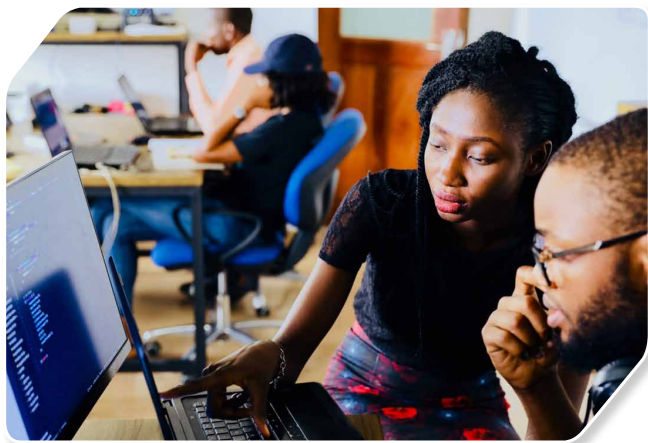


# 2

## GLOBAL DEVELOPMENTS IN THE ICT SECTOR

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## GLOBAL DEVELOPMENTS IN THE ICT SECTOR



### 2.1 ACCELERATION OF INTERNET UPTAKE DURING THE PANDEMIC

The internet has long been a source of countless opportunities such as value creation, personal fulfilment and professional development, amongst many uses within the consumer market. With the pandemic in full swing during the review period, data became a vital necessity for working, learning, accessing basic services and keeping in touch.

The latest ITU<sup>3</sup> data show that data uptake in the world accelerated during the period of the pandemic. For instance, in 2019, 4.1 billion people (54% of the world's population) were using the internet. Since then, the number of data users surged by 800 million to reach 4.9 billion people in 2021, or 63% of the world population.

Even so, the ITU reports that 2.9 billion people remain offline, 96% of whom live in developing countries. Those who remain

unconnected face multiple barriers, including a lack of access. Approximately 390 million people worldwide are not yet covered by a mobile broadband signal.

In Eswatini, mobile broadband subscriptions surged by 24.7% to 1 379 526, with Fixed broadband subscriptions also increasing, by 7.9% to 29 784 at the backdrop from the improved data uptake observed in the year under review.

### 2.2 INTERNET UTILISATION MOVES CLOSER TO GENDER PARITY

Globally, at the beginning of 2021, 62% of all men were using the internet, compared with 57% of all women. Gender parity is deemed to be achieved when the gender parity score<sup>4</sup> stands between 0.98 and 1.02. Parity has been achieved in most developed countries and in the Americas, and almost achieved (parity score between 0.95 and 0.98) in the Commonwealth of Independent States (CIS) region<sup>5</sup>, the Small Island Developing States (SIDS)<sup>6</sup> and Europe. The divide remains wide in: The Least Developed Countries (LDCs), where only 19% of women are using the internet (12 percentage points lower than men); the Landlocked Developing Countries (LLDCs) (27% of women compared to 38% of men); Africa (24% versus 35%); and the Arab States (56% versus 68%). In Eswatini, there are currently 60.5% males employed in the telecoms industry compared to 39.5% females.

<sup>3</sup>Measuring Digital Development, Facts and Figures 2021 Report. ITU Publications.

<sup>4</sup>Gender Parity score is defined as the female percentage divided by the male percentage.

<sup>5</sup>The Commonwealth of Independent States (CIS) is a regional intergovernmental organization in Eastern Europe and Asia, formed following the dissolution of the Soviet Union in 1991. At present the CIS unites: Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan and Ukraine.

<sup>6</sup>Small Island Developing States (SIDS) are a distinct group of 38 UN Member States and 20 Non-UN Members/Associate Members of United Nations regional commissions that face unique social, economic and environmental vulnerabilities. The three geographical regions in which SIDS are located are: the Caribbean, the Pacific, and the Atlantic, Indian Ocean and South China Sea (AIS).



### 2.3 THE YOUTH IS MORE DIGITALLY CONNECTED THAN THE REST OF THE POPULATION

According to the ITU, 71% of the world's youth (aged between 15 and 24 years) were using the internet, compared with 57% of the other age groups in 2021. On the global scale, young people were thus 1.24 times more likely to connect than the rest of the population.

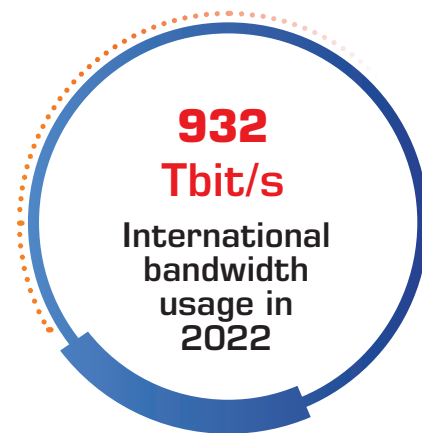
In developed countries, where 90% of the population is already online, the ratio was smaller at 1 to 1.14. In developing countries, the difference stood at 1.32 and in the LDCs it reached 1.53, as 34% of young people were connected compared with only 22% for the rest of the population. For Africa, the ratio was 1.47 and for the Asia and the Pacific region, it was 1.35. For Eswatini, the ongoing ICT Access and Usage Survey 2022 will unearth the statistics regarding youth involvement in ICT activities.

The greater uptake among young people bodes well for connectivity in areas where the demographic profile is skewed towards youth, such as the LDCs, where half of the population is less than 20 years old. This means that the future workforce will become more connected and technology-savvy as the young generation joins its ranks, which in-turn would improve the development prospects of ICT within these regions.

### 2.4 SHARE OF INTERNET USERS IN URBAN AREAS TWICE AS HIGH THAN IN RURAL AREAS

Globally, people in urban areas are twice more likely to use the internet than those in rural areas. In Africa the gap is wider, with one-half of urban dwellers already online compared to just 15% of the rural population. And in the LDCs, urban

dwellers are almost four times as likely to use the internet as are people living in rural areas (47% compared to 13%). For the Kingdom of Eswatini, the ongoing ICT Access and Usage Survey 2022 is anticipated to unearth findings regarding internet usage in urban and rural areas. Where connectivity is close to universal, the urban-rural gap disappears. Thus, in the developed economies, the connectivity rate in urban areas (8%) is only four percentage points higher than in rural areas.



### 2.5 INTERNATIONAL BANDWIDTH CONTINUES TO GROW

International bandwidth usage in 2021 reached a worldwide total of 932 Tbit/s, up from 719 Tbit/s in 2020<sup>7</sup>. This is a 30% increase, and it follows a similar increase to that of the previous year.

The highest regional total for international bandwidth use is in the Asia-Pacific region at over 400 Tbit/s, twice as high as in Europe (204 Tbit/s) or the Americas (180 Tbit/s).

### 2.6 THE GLOBAL MOBILE ECONOMY AT A GLANCE

According to GSMA<sup>8</sup>, at the end of 2021 there were 5.3 billion unique mobile subscribers across the globe, translating to a penetration rate of 67%, with a

<sup>7</sup>Ibid

<sup>8</sup>GSMA. The Mobile Economy Report, 2022.



## GLOBAL DEVELOPMENTS IN THE ICT SECTOR

**The global mobile industry's contribution to GDP stands at \$4.5 trillion, which is 5% of global GDP. This contribution is expected to grow to \$4.9 trillion by 2025.**

forecasted Compound Annual Growth rate (CAGR) of 1.8% between 2022 and 2025. Similarly, there were 4.2 billion global mobile internet subscribers, with a penetration rate of 53% and a CAGR of 4.5%. Regarding SIM connections, there are 8.3 billion SIM connections in the world, with a penetration rate of 104% and a forecasted CAGR of 1.5%. In terms of smartphones, the percentage of connections stand at 75%, whilst there are 15.1 billion total connections to the Internet of Things (IoT) applications. Operator revenues and investment stood at \$1.08 trillion at the end of 2021 with operators' Operating Expenditures (OPEX) projected at \$620 billion between 2022 and 2025. It is predicted that 85% of this OPEX will be on 5G technologies.

The global mobile industry's contribution to GDP stands at \$4.5 trillion, which is 5% of global GDP. This contribution is expected to grow to \$4.9 trillion by 2025. In terms of employment, there are approximately 12 million jobs directly supported by the mobile ecosystem, with an additional 14 million jobs supported indirectly.

For Eswatini, tax payments by licensees in the telecommunications industry in the review period contributed 4.3% to total national domestic tax revenue payments collected by the Eswatini Revenue Service.

### **2.7 5G ACCELERATES AS 4G ADOPTION BEGINS TO DECLINE**

Fifth Generation networks (5G) adoption continue to grow rapidly in pioneer markets, with the total number of connections set to reach 1 billion by the end of year 2022. Momentum has been boosted by a number of factors, including the economic recovery from the pandemic, rising 5G handset sales, network coverage expansions and overall marketing efforts by mobile operators.

Meanwhile, a new wave of 5G roll-outs in large markets with modest income levels (such as Brazil, Indonesia and India) could further incentivise the mass production of more affordable 5G devices, which in-turn could further bolster subscriber growth. By the end of 2025, 5G is projected to account for around a quarter of total mobile connections, and more than two in five people around the world will live within reach of a 5G network.

The 4G/LTE network still has room to grow in most developing markets, particularly in Sub-Saharan Africa, where 4G adoption is still below a fifth of total connections with operators stepping up efforts to migrate existing 2G and 3G customers to 4G networks. However, rising 5G adoption in leading markets, such as China, South Korea and the US, means that 4G adoption on a global level is beginning to decline. Globally, it is predicted that 4G adoption will account for 55% of total connections by 2025, down from a peak of 58% in 2021.

In Eswatini, operators are undertaking pilot tests for the 5G network which is a positive step towards its introduction.



# 3

## PERFORMANCE OF THE ESWATINI ELECTRONIC COMMUNICATIONS SECTOR

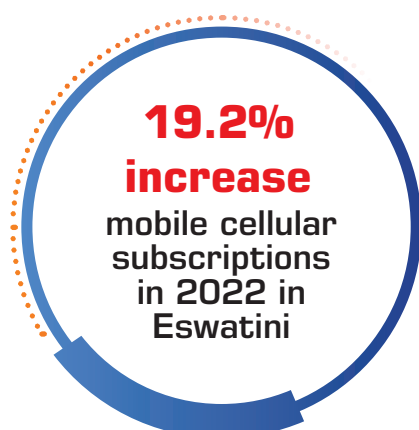
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## PERFORMANCE OF ESWATINI ELECTRONIC COMMUNICATIONS SECTOR



### 3.1 MOBILE NETWORK CONNECTIVITY

According to the Ministry of Economic Planning and Development, yearly Economic Performance Report of 2021, the advent of the pandemic accelerated the demand for ICT services, which saw the sector record an increase in output by 14.4%. Most notably, the country's economy rebounded from a 1.6% decline in GDP in the year 2020 to record a 7.9% growth in 2021<sup>9</sup>, with the ICT sector among the top 10 contributors to GDP, as it contributed 4.0% to the growth. There was an observed positive growth in both connectivity and economic indicators, mainly driven by the increased demand for broadband services.



#### 3.1.1. Mobile Market Subscriptions

Mobile cellular technology in Eswatini is the primary mode of connection in the country, accounting for almost 98% of telecommunications subscriptions. In the 2021/22 Financial Year, mobile cellular subscriptions increased by 19.2% from 1 279 599 to 1 524 629, with mobile cellular penetration consequently rising from 112% to 131%. Mobile broadband connectivity also improved, by 25% from 1 105 987 to 1 379 525. Accordingly, mobile broadband penetration advanced from 96% to 119% in the period.

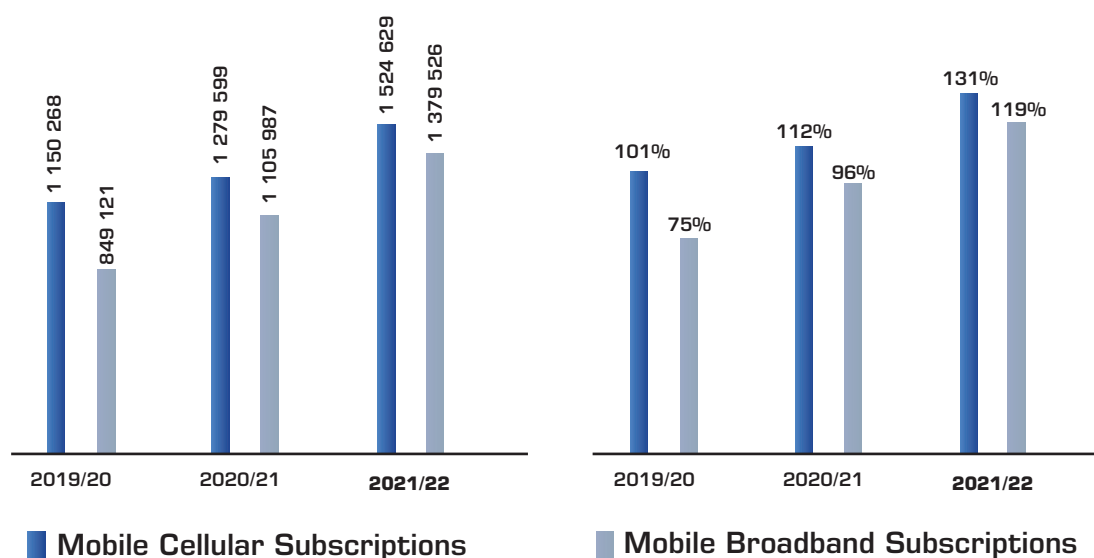
Growth in mobile connectivity was mainly attributed to the increased uptake of products and services tailored to cater for the work-from-home and blended-learning arrangement, which were launched into the market at the height of Covid-19 enforced lockdowns. The surge in demand for mobile internet services amongst consumers was the causal effect behind increased broadband connectivity, as most activities moved online. Additionally, the work-from-home and online schooling adopted by businesses, organisations and educational institutions aided the upward trajectory in the uptake and usage of data.

Furthermore, the increase in connectivity is attributable to the expansion of mobile network infrastructure undertaken by operators, which led to increased coverage and wider access to mobile network services.

**Figure 1** depicts trends for Mobile Cellular and Mobile Broadband subscriptions while the graph on the right show trends for market penetration.

<sup>9</sup>Central Statistics Office Economic Report, 2022.

Figure 1: Mobile Subscriptions and Market Penetration



### Eswatini Population Projections

According to the UNCTAD Digital Economy Report 2021, the increase in mobile subscriptions, that is, the uptake of new sim cards and additions to the subscriber base can also be explained by the gradual growth of the population in a country.

In the local context, the Government of Eswatini, through the Central Statistics Office (CSO) produced population projections from 2018 to 2038 for the country based on the 2017 Eswatini Population and Housing Census. The projections hinge on different assumptions about the future trends in fertility, mortality, international and internal migration.

Table1: Eswatini Population Projections 2018-2038

Eswatini Population Projections				
Period	Male	Female	Total	% Change
2017	538 957	567 494	1 106 451	
2018	545 452	574 640	1 120 092	1.2%
2019	551 905	581 617	1 133 522	1.2%
2020	558 399	588 504	1 146 903	1.2%
2021	564 997	595 365	1 160 362	1.2%
2022	571 756	602 258	1 174 014	1.2%
2023	578 711	609 245	1 187 956	1.2%
2024	585 899	616 386	1 202 285	1.2%
2025	593 339	623 702	1 217 041	1.2%
2026	600 982	631 172	1 232 154	1.2%



## PERFORMANCE OF ESWATINI ELECTRONIC COMMUNICATIONS SECTOR

Table1: Eswatini Population Projections 2018-2038 - continued

Eswatini Population Projections				
Period	Male	Female	Total	% Change
2027	608 767	638 765	1 247 532	1.2%
2028	616 695	646 469	1 263 164	1.3%
2029	624 767	654 272	1 279 039	1.3%
2030	632 974	662 169	1 295 143	1.3%
2031	641 314	670 158	1 311 472	1.3%
2032	649 782	678 235	1 328 017	1.3%
2033	658 386	686 409	1 344 795	1.3%
2034	667 130	694 685	1 361 815	1.3%
2035	675 993	703 044	1 379 037	1.3%
2036	684 995	711 505	1 396 500	1.3%
2037	694 140	720 074	1 414 214	1.3%
2038	703 457	728 778	1 432 235	1.3%

Source: Central Statistics Office, 2021

From the data in Table 1, the country's population growth rate is approximated to be steady over the projection period, at around 1.2% and 1.3% per annum.

This projection is based on declining birth rates and corresponding death rates, less net international migration rates. The main reasons for the theoretical postulations behind the projections are expected decreasing crude birth rates from 28.9% in 2017 to 21.6% in 2038 and declining crude death rates from 8.8% in 2017 to 7.9% in 2038.

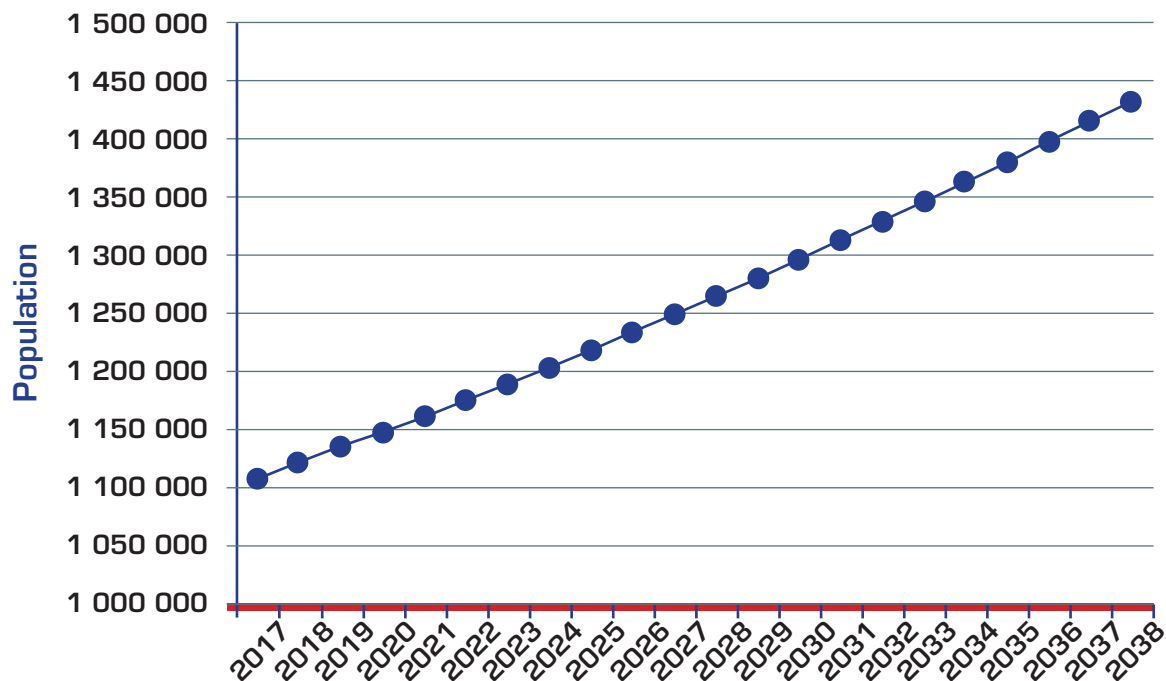
Crude birth rates<sup>10</sup> decline steadily through the projection period as a result of increased level of education of women while in the case of death rates, declines result from expanded access to Antiretroviral drugs (ARVs) for the management of HIV infection and improved health care system, which increases life expectancy at birth. Net international outmigration reduces population growth, but not by much. The estimated crude rate of international net migration rates was estimated to decline from negative -7.71 per thousand in 2017 to -1.04 per thousand in 2038, *ceteris paribus*<sup>11</sup>.

<sup>10</sup>Crude birth rate indicates the number of live births per 1,000 midyear population. Crude birth rate indicates the number of live births occurring during the year, per 1,000 population estimated at midyear. To determine the crude birth rate, the number of live births in a year is divided by the population size, and this result is then multiplied by 1,000. The birth rate is referred to as crude because it does not consider age or sex differences amongst the population.

<sup>11</sup>Holding other factors constant. This is necessary to isolate effects and formulate results with predictive or explanatory power. The amount of the decrease mentioned gives insight into the explanatory power of the model (modelled variance) employed. As such, other factors that were statistically significant but did not improve the explanatory power of the model were not considered in the projections.



Figure 2: Eswatini Population Projections 2018 – 2038

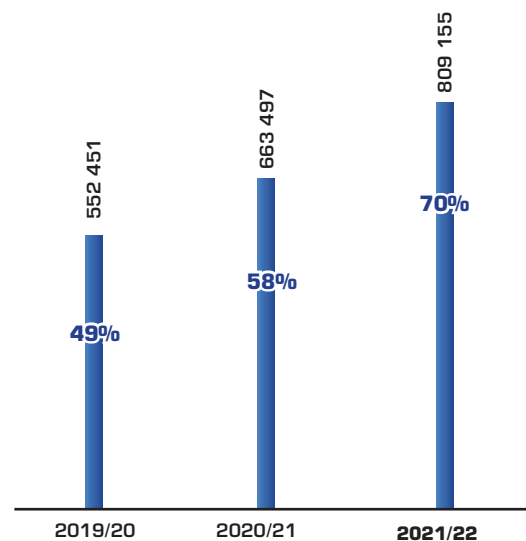
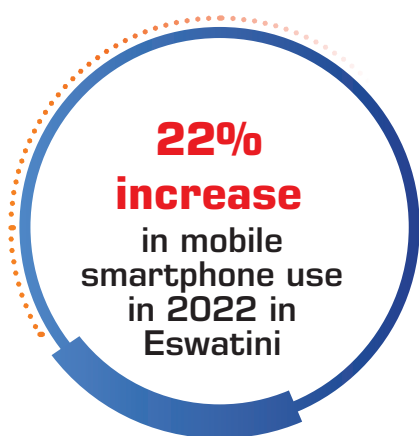


Source: Central Statistics Office, 2021

On another note, the increase in demand and use of digital services was demonstrated by the growth in smartphone connectivity on mobile networks, as shown in Figure 3. The number of mobile smartphones in use increased by 22% from 663 497 to 809 155, with smartphone penetration consequently advancing from 58% to 70%.

Given the rise in smartphone penetration, positive spin-offs are anticipated in the medium to long-term such as an improvement in digital inclusion, availing access of services to the previously unconnected segments of society.

Figure 3: Mobile Smartphone Connectivity and Penetration



Source: ESCCOM, 2022

## PERFORMANCE OF ESWATINI ELECTRONIC COMMUNICATIONS SECTOR

An increase in mobile cellular and broadband market penetration results in positive outcomes which impact economic growth meaningfully.

### 3.2 FIXED NETWORK CONNECTIVITY

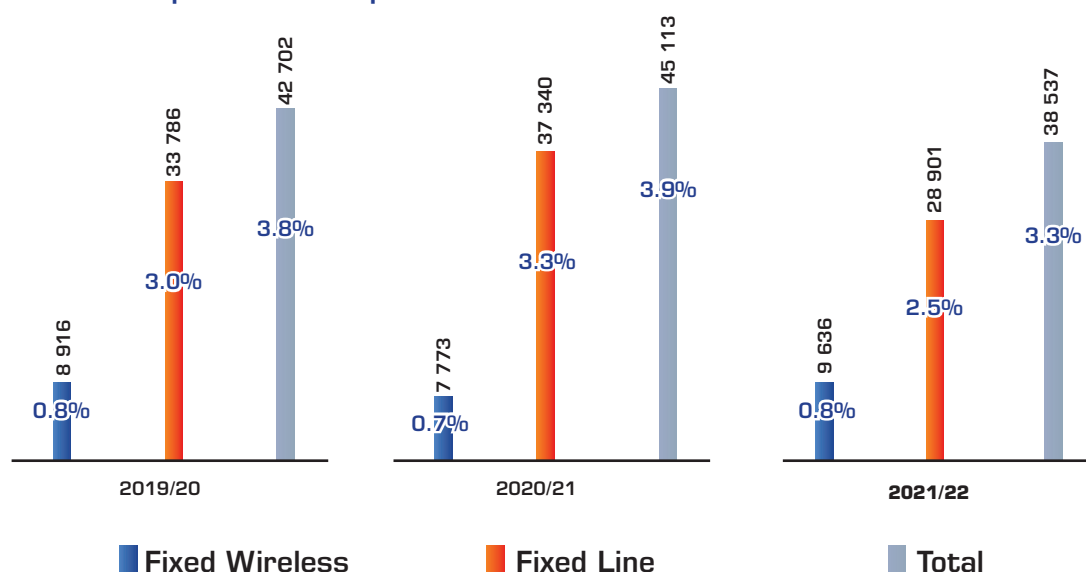
#### 3.2.1. Fixed Telephone Subscriptions

Fixed voice services declined as they continue to be substituted by the use of digital platforms that offer Voice over Internet Protocol (VoIP). Overall fixed telephone subscriptions shrank by 14.6% from 45 113 to 38 537, which is a net-

effect from a decline in fixed-wired telephone subscriptions by 22.6% from 37 340 to 28 901 despite an increase in fixed-wireless telephone subscriptions by 24% from 7 773 to 9 636. Resultantly, fixed telephone penetration shrank by 0.6% to 3.3% over the twelve months to March 2022.

**Figure 4** depicts trends for the Fixed Telephone markets. Absolute figures represent Subscriptions while percentage figures are for Market Penetration.

**Figure 4: Fixed Telephone Subscriptions and Market Penetration**



Source: ESCCOM, 2022

The decline in fixed-line subscriptions is attributable to the theft of copper cable, which continue to disrupt connectivity and has led to both business and household consumers switching to fixed-wireless services. Furthermore, the deactivation of inactive subscribers from operator networks revised the fixed-line subscription numbers downward.

#### 3.2.2. Fixed Broadband Subscriptions

Broadband availability remains a key enabler for economic growth as articulated in the Eswatini government's National Roadmap Plan for 2019 - 2023. Therefore, ensuring accessibility to all citizens remains a high priority to allow for general communication, online-schooling, business continuity as well as social endeavours and entertainment.

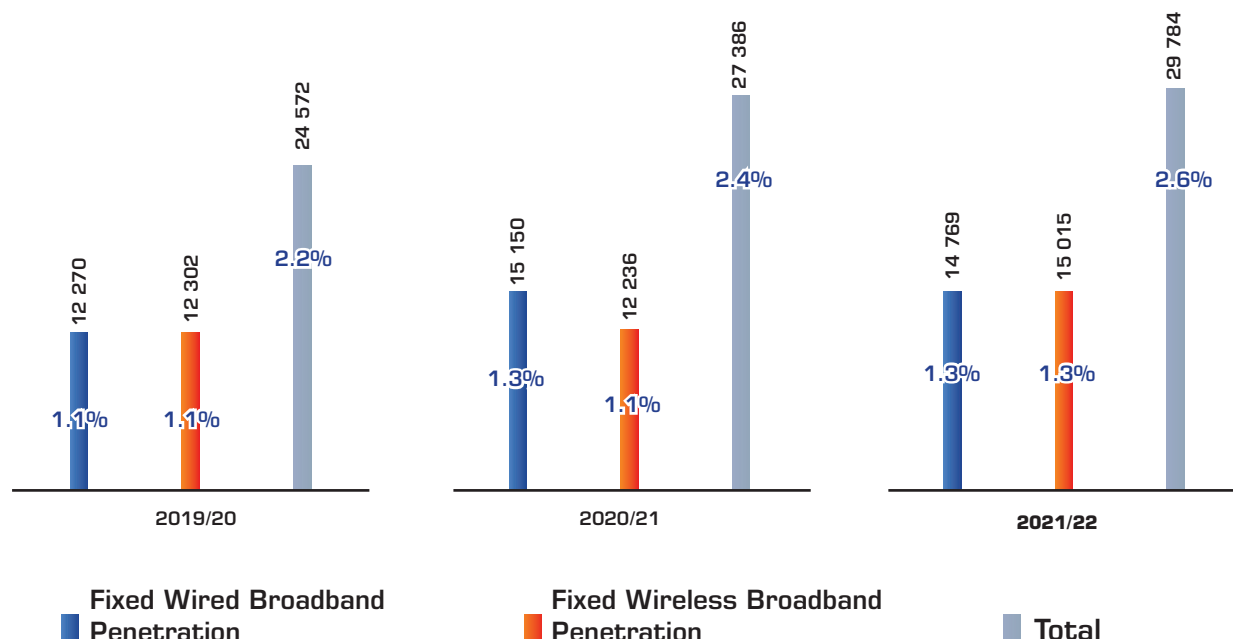
Fixed broadband connectivity (i.e., fixed-wired and fixed-wireless broadband) continued on an upward trajectory, recording an increase of 8.8% from 27 386 to 29 784 subscriptions. The growth was mainly driven by a rise in demand for higher bandwidth and stable connectivity. Technology-wise, the upsurge is attributable to the increase in fixed-wireless internet connectivity.

Wireless internet network connectivity has emerged as a more reliable technology over ADSL-copper, with the latter continuing to be disrupted by copper cable theft in the review period. Deployment of wireless technology is quicker than ADSL, as such, last-mile fixed-wireless broadband network connectivity, also referred to as terrestrial network technology has become the preferred alternative for consumers.

Fixed-wireless internet connections grew by 22.7% from 12 236 to 15 015, surpassing fixed-wired connections which declined by 2.5% from 15 150 to 14 769 subscriptions. Subsequently, fixed broadband penetration continued to improve as it recorded a marginal increase of 0.2% from 2.4% to 2.6%. This increase mainly emanates from the surge in fixed-wireless broadband market penetration, which grew from 1.1% to 1.3%. Fixed-wired broadband penetration remained constant at 1.3%.

**Figure 5** depicts trends for the Fixed Broadband markets. Absolute figures represent Subscriptions while percentage figures are for Market Penetration.

**Figure 5: Fixed Broadband Subscriptions and Market Penetration**



Source: ESCCOM, 2022

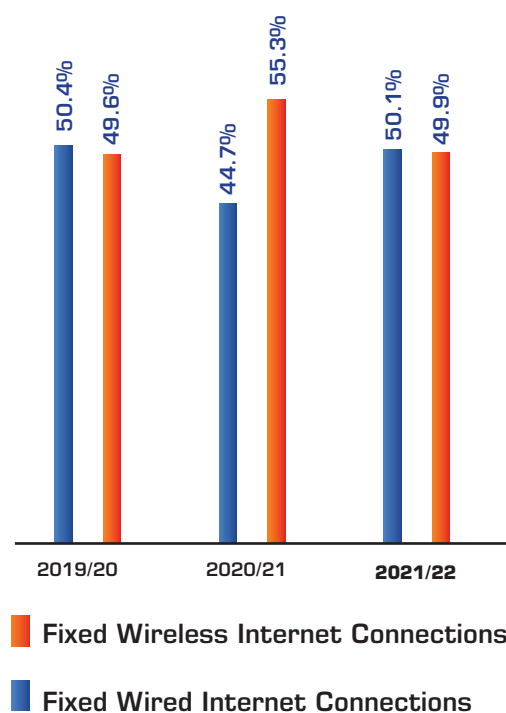
### 3.2.3. Fixed Broadband Subscriptions Market Share

In the financial year ended in March 2022, a shift was observed in fixed broadband market share in favour of

fixed-wireless over fixed-wired network, with the market share reverting to levels almost similar to those observed in the previous financial year 2019/20, as demonstrated in **Figure 6**.

## PERFORMANCE OF ESWATINI ELECTRONIC COMMUNICATIONS SECTOR

Figure 6: Fixed Broadband Subscriptions Market Share by Technology



Source: ESCCOM, 2022

### 3.3 TELECOMMUNICATIONS NETWORK TRAFFIC

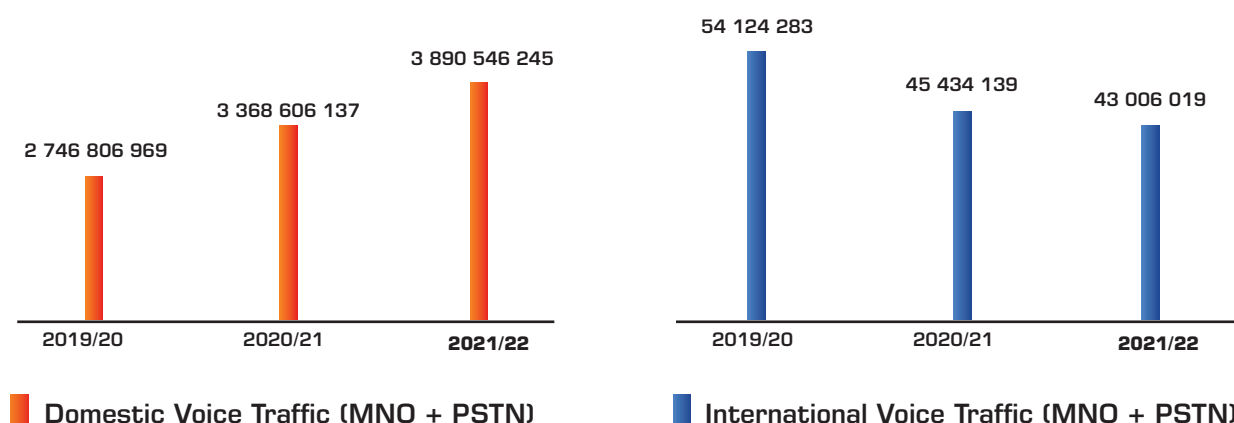
Domestic voice traffic minutes, being the total number of minutes' calls made over both mobile cellular and fixed telephone networks (MNO + PSTN) increased by 14.8% from 3 386 605 137 to 3 890 546 245. Mobile voice traffic<sup>12</sup> grew in line with the 19.2% increase in mobile cellular connectivity/subscriptions discussed in Section 3.1.1, as measured by active mobile SIM cards, coupled with increased mobile network coverage.

International voice traffic minutes declined for the second consecutive year, falling by 5.3% from 45 434 139 to 43 006 019, a lower decline than the 16.1% recorded in the previous year. The reduction in voice traffic is mainly attributed to the increase in the use of digital platforms, i.e., Over-the-Top technologies (OTTs) which avail converged services such as voice and data, with the latter service allowing for sharing of videos and pictures.



<sup>12</sup>Mobile Traffic in Minutes refers to the total number of minutes of calls made by mobile subscribers (including minutes to fixed-telephone and minutes to mobile-phone subscribers).

Figure 7: Voice Traffic in Minutes

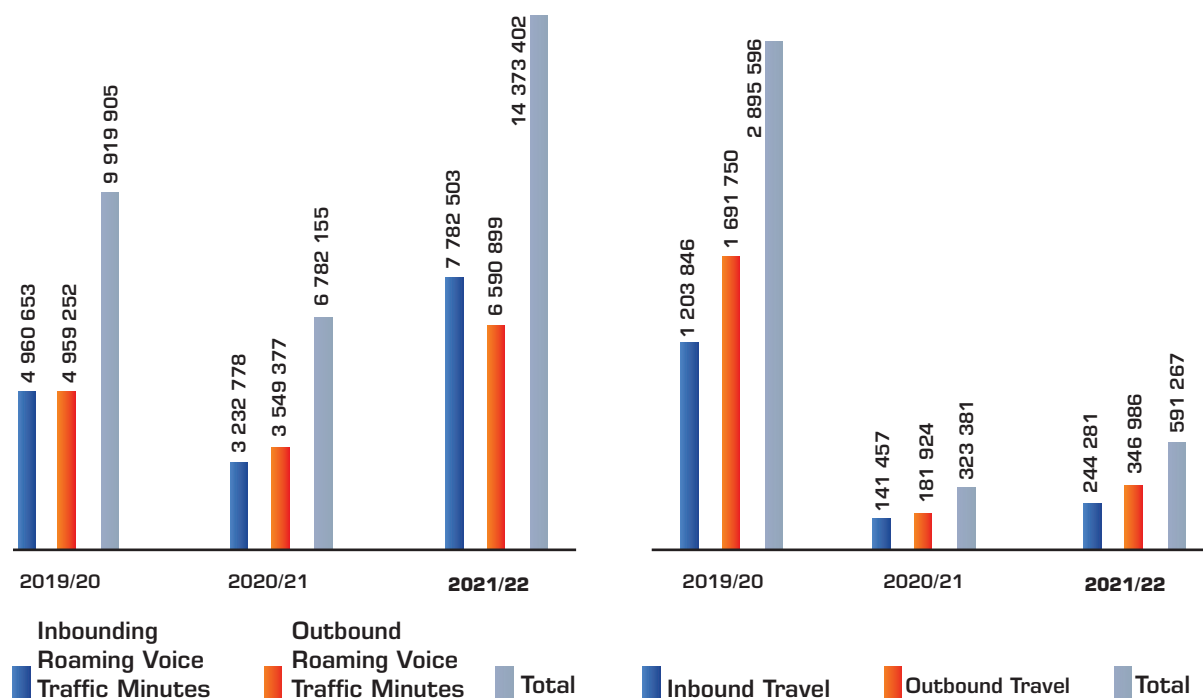


Source: ESCCOM, 2022

The 14.8% increase observed in domestic voice traffic minutes is a net-effect from the growth in MNOs traffic despite the decline in fixed voice traffic minutes<sup>13</sup>. Fixed voice traffic is mainly generated by the business sector. Therefore, during periods of full or partial lockdown, less fixed voice traffic was generated. Under such circumstances, a decline in fixed voice traffic was observed in contrast to the increase in mobile voice traffic due to the geographical changes in working and schooling arrangements.

Mobile roaming voice traffic is dependent on cross-border movement of people as observed from the country's travel tourism statistics. Total travellers across the country's borders and airport improved remarkably by 82.8% from 323 381 to 591 267, following the lifting of Covid-19 travel restrictions. Resultantly, roaming voice traffic minutes rebounded from 6 782 155 to 14 373 402, exhibiting a growth of 112%.

Figure 8: Roaming Voice Traffic in Minutes



Source: ESCCOM, 2022

<sup>13</sup>Fixed Traffic in Minutes refers to the total number of minutes of calls made by fixed telephone subscribers (including minutes to mobile-phone and minutes to fixed-telephone subscribers).

## PERFORMANCE OF ESWATINI ELECTRONIC COMMUNICATIONS SECTOR

### 3.4 ECONOMIC INDICATORS

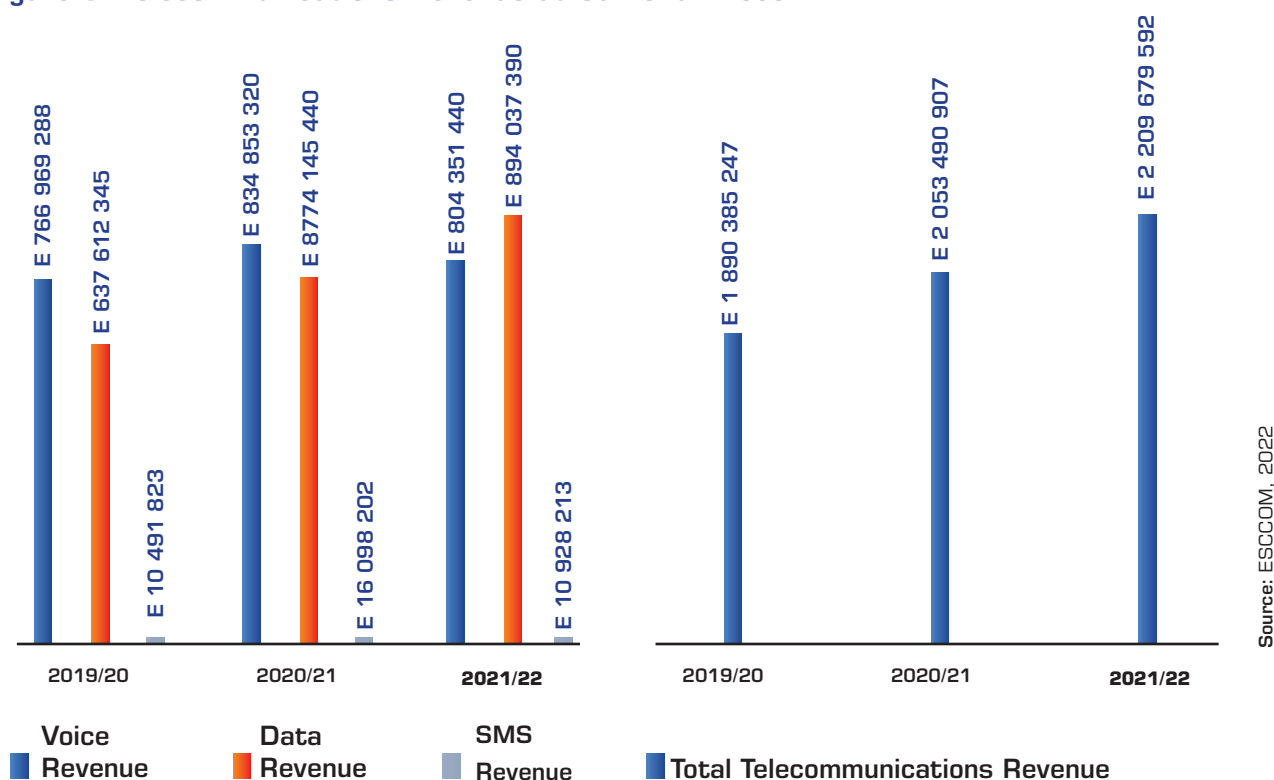
#### 3.4.1. Telecommunications Revenue

Total revenue generated by licensees in the telecommunications industry increased by 7.6% from E2 053 490 907 to E2 209 679 592, mainly driven by growth in data services. A 15.5% increase in data revenue was realised where growth from E774 145 322 to

E894 037 390 was achieved, exceeding voice revenue. This is consistent with the observed rise in demand for broadband connectivity.

Voice service revenue decreased by 3.7% from E834 853 320 to E804 351 440, with Short Message Service (SMS) revenue also declining, by 32.1% from E16 098 202 to E10 928 213.

Figure 9: Telecommunications Revenue at Current Prices



#### 3.4.2. Contribution to Domestic Tax Revenue

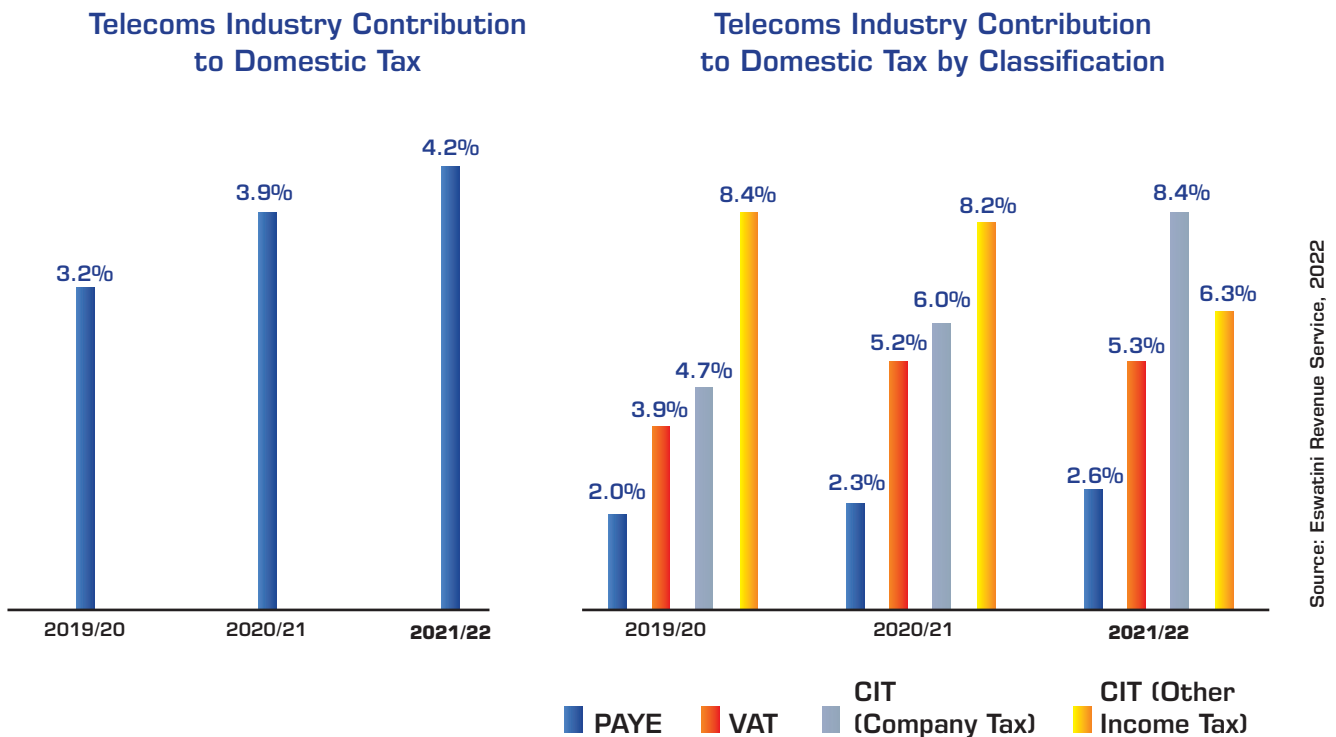
Domestic tax revenue collected as reported by the Eswatini Revenue Service (ERS) amounted to E10 786 960 753 (E10.7 billion) in 2021/22, an increase of 8.5% from the E9 945 261 953 (E9.9 billion) collected in the previous financial year. From this amount, the telecommunications industry contributed 4.3% to total domestic taxes collected which is a 0.4% increase from the 3.9%

contributed in the FY 2020/21.

The telecoms industry's contribution to VAT increased marginally by 0.1% from 5.2% to 5.3%, while Pay as Your Earn (PAYE) improved by 0.3% from 2.3% to 2.6%, in line with the increase in the number of persons employed in the period. Company Income Tax also increased, by 2.4% from 6% to 8.4% while Other Income Tax declined by 1.9% from 8.2% to 6.3%.



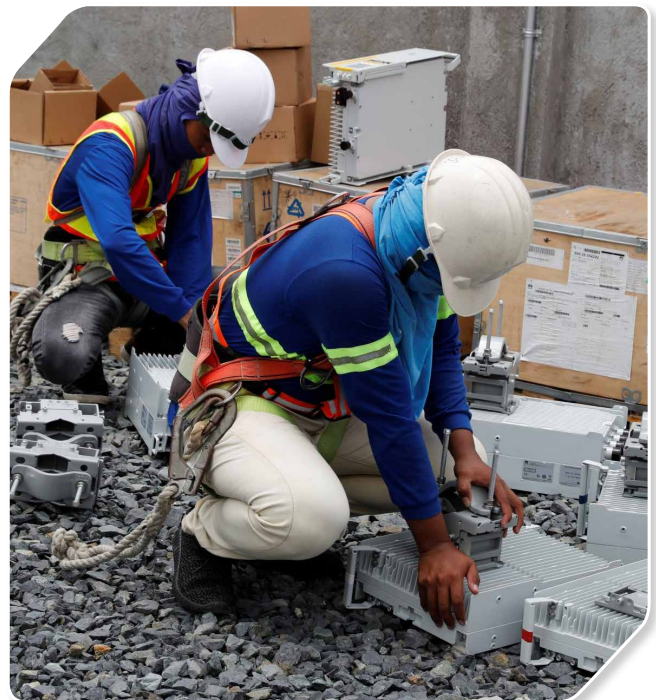
Figure 10: Telecommunications Contribution to Domestic Revenue



### 3.5 EMPLOYMENT IN THE TELECOMMUNICATIONS SECTOR

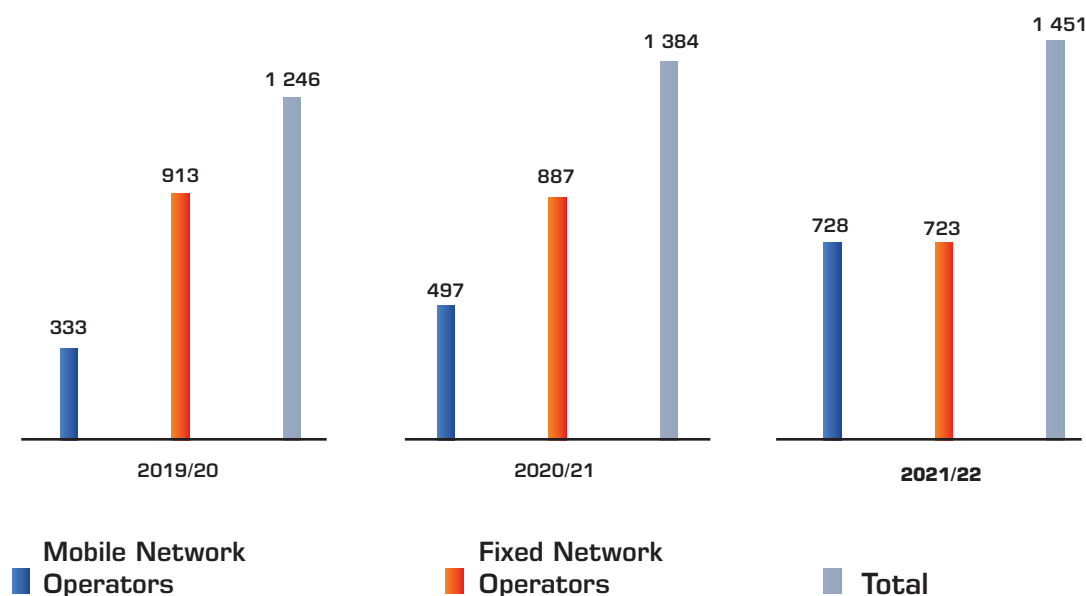
The employment rate in the telecommunications industry increased by 4.8% from 1 384 to 1 451, attributable to a 46.5% growth in the number of persons employed by Mobile Network Operators (MNOs) from 497 to 728.

On the other hand, persons employed by fixed network operators decreased by 18.5% from 887 to 723 attributed to movements in seasonal employees. Retirement also played a part in the reduced number of fixed network employees.



## PERFORMANCE OF ESWATINI ELECTRONIC COMMUNICATIONS SECTOR

Figure 11: Persons Employed in the Telecommunications Industry



Source: ESCCOM, 2022

### 3.5.1. Employment by Gender in the Telecommunications Industry

The telecoms industry employs a total of 1 451 employees, where are 879 males and 572 females. Despite the statistic depicting a predominantly male dominated demographic, a decline of 0.5% from 883 to 879 males employed was observed. On the upside, female employment improved by 14.2% from 501 to 572, a positive step towards ensuring increased female participation in the ICT sector.

The country is actively working on initiatives to encourage females' participation in the industry, with programmes such as Girls in ICT. The government, through ESCCOM, availed an educational sponsorship to one (1) female student to undertake ICT related studies at tertiary level in the period.

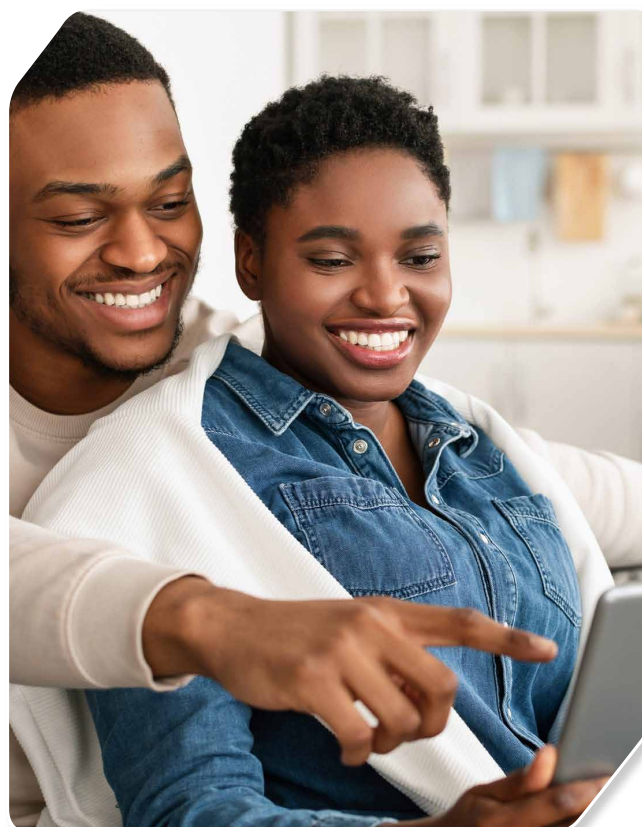
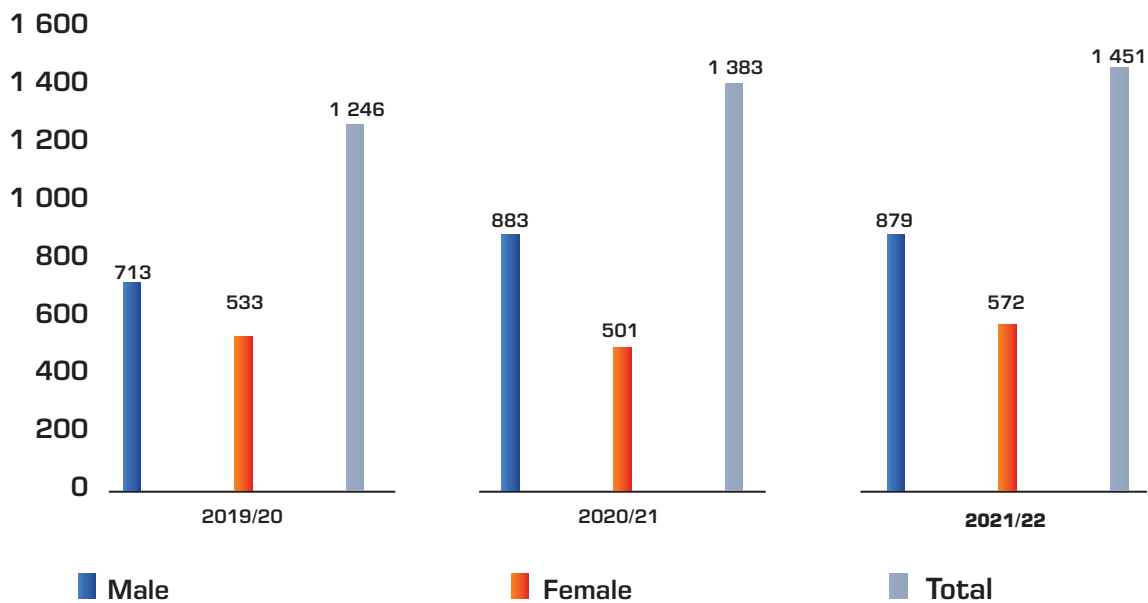


Figure 12: Employment by Gender in the Telecommunications Industry



Source: ESCCOM, 2022.

### 3.6 POSTAL AND COURIER SERVICES MARKET

#### 3.6.1. Postal Market Indicators

The postal sector has seen massive changes over the past decades. While mail remains the industry's largest segment, postal operators continue to pursue growth and opportunities outside their core business. As operators invest in e-Commerce logistics, broad financial services and revitalised retail networks, the postal market continues to strengthen its position in growth markets to avoid obsolescence.

The performance of the postal services market has been on a steady decline, as a result of increasing competition and substitution by digital services. An instantaneous prominent effect of Covid-19 on the Postal and Courier Services market was the widespread disruption to international supply chains, emanating from restrictions imposed on international travel and logistics.

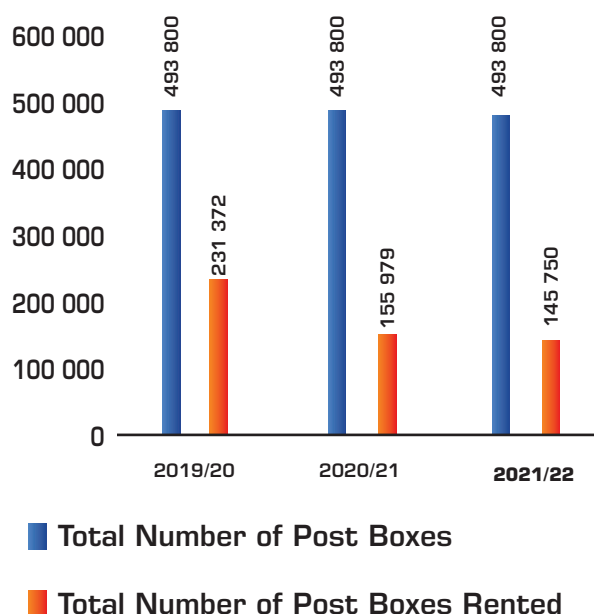
#### 3.6.2. Post Box Rental

As noted in the introduction, the postal service which was once an essential every day service, has been undergoing a gradual decline. The uptake of digital platforms (such as emails) has led to a continual decrease in postal volumes and other forms of paper-based communication in the postal environment, such as bills. The impact of the pandemic on the sector worsened an already downward trend.

Rented postal boxes continued to be under-utilised as observed from the small proportion of leased boxes. Postal box rentals had already been on a decline, as consumers continued to shift their preferences towards digital communication services. The number of postal boxes rented declined for a second consecutive year, falling by 6.6% from 155 979 to 145 750, which is however lower than the 32.6% decrease recorded in the previous year.

## PERFORMANCE OF ESWATINI ELECTRONIC COMMUNICATIONS SECTOR

Figure 13: Number of Post Boxes and Number of Post Boxes Rented



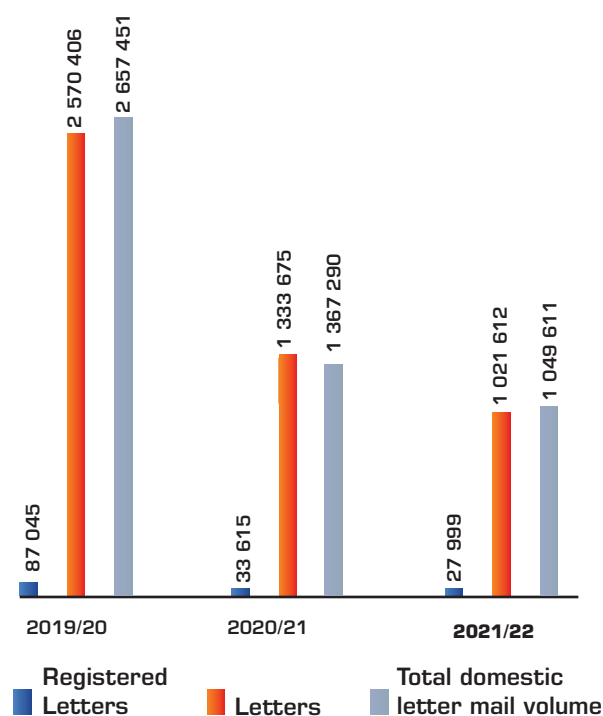
Source: ESCCOM, 2022

As a mitigation strategy, Eswatini Post has ventured into the door-to-door courier/package delivery market. Package delivery is an increasingly important and financially successful model in first-world countries with established Addressing and Postcode Systems. Courier companies in such countries establish contracts with online retailers and e-Commerce companies like Amazon to provide “last mile” shipping for their packages.

### 3.6.3. Domestic Letter Mail

Domestic letter mail volumes shrank by 23.2% from 1 367 290 to 1 049 611. Additionally, unregistered letters, which account for 97% of total domestic letter mail declined by 23.4% to 1 021 612 while registered mail also decreased, by 16.7% to 27 999.

Figure 14: Domestic Letter Mail Volume

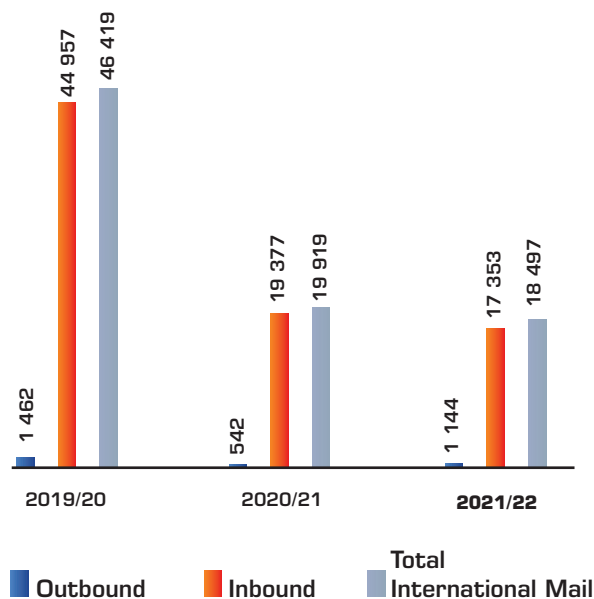


Source: ESCCOM, 2022

### 3.6.4. International Mailing Services

International mailing services, which were already on a downward trajectory, were also affected by the restrictions imposed on international travel, particularly in the aviation industry. These restrictions resulted in disruptions to global supply chains. International mail volumes decreased by 7.1% from 19 919 to 18 497. The decline is attributable to the 10.5% fall in inbound mail from 19 377 to 17 353. Outbound mail on the other hand increased by 111.1% from 542 to 1 144. It should be noted that inbound mail accounts for 94% of total international mail transited.

Figure 15: International Mail Volume

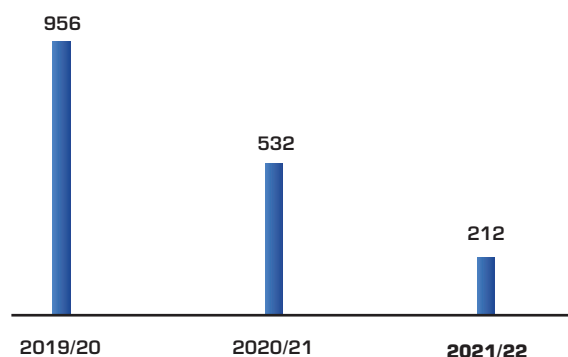


Source: ESCCOM, 2022

### 3.6.5. Express Mail Services

Similar to international letter mail services, Express Mail Services (EMS), have been substituted by digital communication services. Eswatini Post only offers inbound EMS. Express mail service volumes recorded a decline of 60.2% from 532 in 2020/21 to 212 in 2021/22.

Figure 16: Express Mail Volume



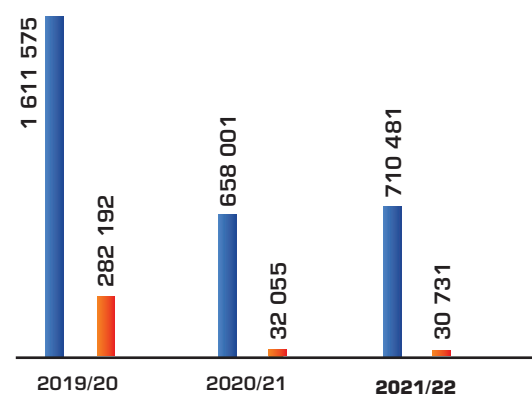
Source: ESCCOM, 2022

### 3.6.6. Parcel and Packet Volumes

Parcel and packet volumes transited in the period recorded a positive response

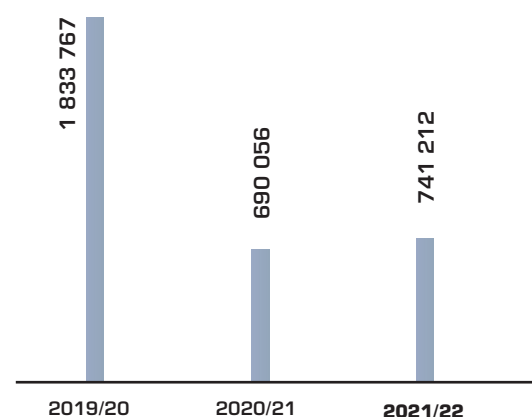
following the relaxation of travel restrictions towards the end of the reporting period. Volumes rebounded from a 65.6% decline recorded in the previous year to exhibit a 7.4% increase, from 690 056 to 741 212 parcels and packets transited. The upsurge is attributed to a rise in inbound parcel and packet volumes by 7.9% from 658 001 to 710 481, which comprise mainly parcels originating from mainland China. On the other hand, outbound parcel and packet volumes declined by 4.1% from 32 055 to 30 731.

Figure 17: Parcel and Packet Volumes



Inbound Parcels and Packets

Outbound Parcels and Packets



Total Packets and Parcels

Source: ESCCOM, 2022

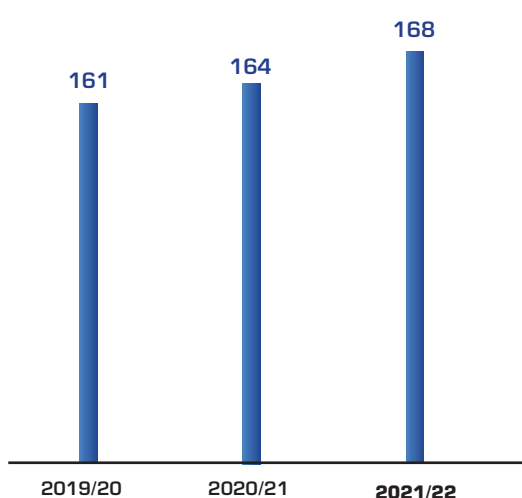


## PERFORMANCE OF ESWATINI ELECTRONIC COMMUNICATIONS SECTOR

### 3.6.7. Postal Sector Employment

The employment of persons in the postal sector grew by 2.44% from 164 to 168, compared to an increase of 1.9% realised in the previous reporting period.

**Figure 18: Persons Employed in the Postal Sector**



Source: ESCCOM, 2022

## 3.7 BROADCASTING MARKET

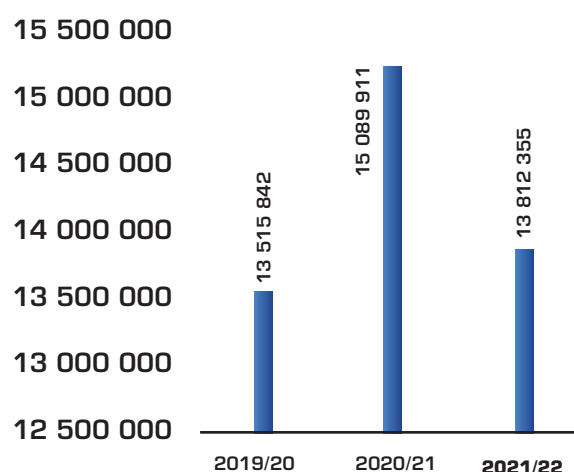
Radio coverage currently stands at 95% while Television (TV) coverage is at 86%. There are two (2) operational TV stations in Eswatini, which are Eswatini Television Authority (ESTVA), a national broadcaster and Channel YeMaswati (Channel Y), a commercial broadcaster. Additionally, there are three (3) licensed radio stations, and these are: Eswatini Broadcasting and Information Service (national radio offering both Siswati and English versions); Voice of the Church (independent commercial gospel radio station); and UNESWA Radio

Station (for tertiary educational purposes). Moreover, there is one (1) Pay TV service provider, being Multichoice Eswatini.

### 3.7.1 Broadcasting Revenue

Broadcasting services revenue recorded a decline of 8.5% from E15.1 million to E13.8 million. This revenue is mainly generated from advertising fees. In the review period, there were less adverts received by broadcasters as businesses scaled down their operations during lockdowns.

**Figure 19: Broadcasting Revenue**



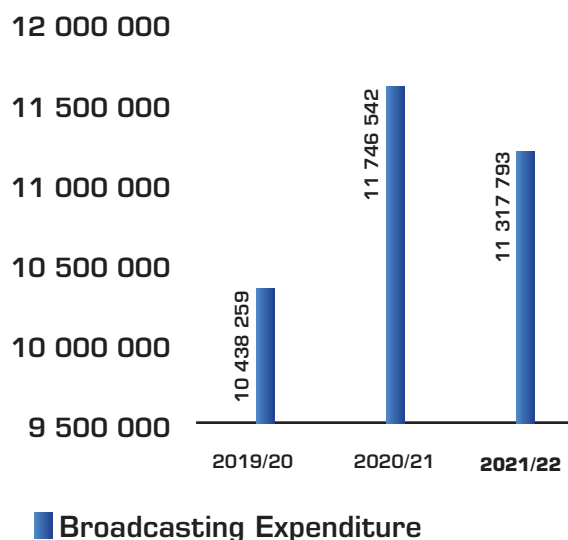
### Broadcasting Revenue

Source: ESCCOM, 2022

### 3.7.2 Broadcasting Expenditure

In line with the decline in revenues, broadcasting expenditures also decreased, however, by a lesser margin of 3.6% from E11.7 million in the previous year to E11.3 million as shown in figure 20.

Figure 20: Broadcasting Expenditure

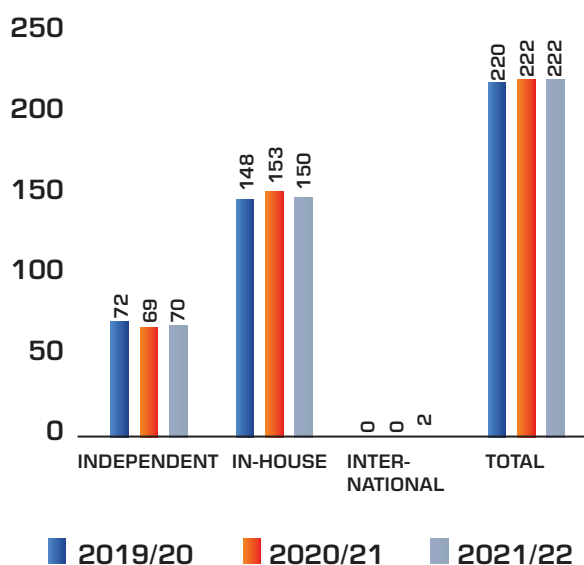


Source: ESCCOM, 2022

### 3.7.3 Number of Broadcasting Productions

Independent productions increased by 1.4% from 69 to 70, however, In-house productions declined by 2% from 153 to 150. The lockdowns decreased the reliance of broadcasters on international productions, as there were only two (2) international productions over the period.

Figure 21: Number of Broadcasting Productions

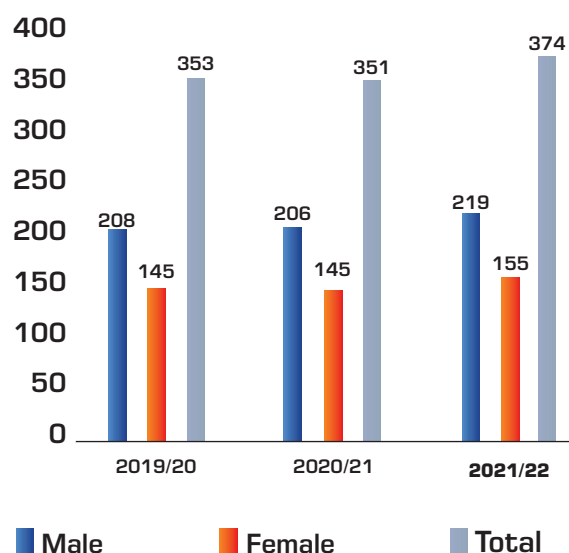


Source: ESCCOM, 2022

### 3.7.4 Broadcasting Sector Employment

The total number of people employed in the broadcasting sector increased by 6.6% from 351 to 374 in the year under review. Female employees increased by 6.9% from 144 to 155 whilst male employees also increased, however by a lesser margin of 6.3% to 219. Over a 3-year reference period, total broadcasting employment increased by 24% from 353 to 374, which indicates growth in the industry as the scope of the broadcasters expand, thus the recruitment of more personnel to efficiently execute operations.

Figure 22: Broadcasting Sector Employment



Source: ESCCOM, 2022

## 3.8 COST TO COMMUNICATE

### 3.8.1 Pricing Benchmark Study

A Pricing Benchmark Study completed in the review period revealed that at wholesale level, Eswatini has made significant progress in lowering the costs of leased line and internet bandwidth services. Despite this improvement, the country's cost of data was found to be still high when compared with regional peers.

## PERFORMANCE OF ESWATINI ELECTRONIC COMMUNICATIONS SECTOR

As a result, a second 3-year glide path (2022/23 – 2024/25) was introduced, where wholesale rates are to be reduced by an average of 60% over the period, as shown in Table 2.

The first phase of wholesale rate reductions which are expected to commence on 01 April 2022 are envisaged to reduce leased lines and internet bandwidth wholesale prices by 20% and 25%, respectively.

**Table 2: Percentage Reduction in Wholesale National Leased Lines and Internet Rates 3-Year Glide Path**

Year	Wholesale National Leased Lines Rates Across All Speeds	Wholesale Internet Bandwidth Rates
2022/23	20%	25%
2023/24	25%	29%
2024/25	33%	29%

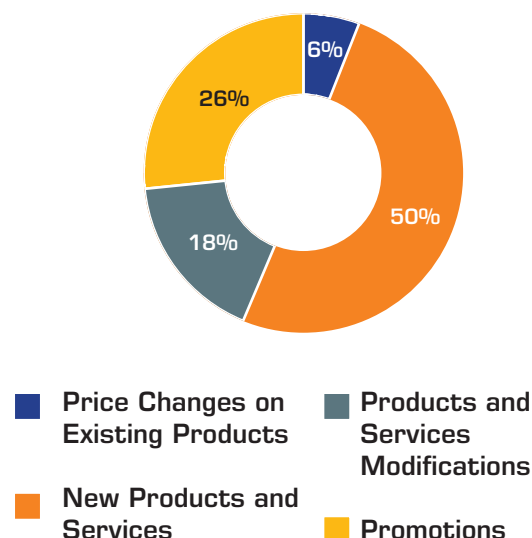
Source: ESCCOM, 2022

### 3.8.2 Approval of Products and Services

Sixty-eight (68) applications for products and services by operators were approved for launch into the market, of which 50% of these were new products and services as shown in Figure 23. These new products were mainly home offers, data bundles for learners to accommodate the blended learning approach and other packages designed for businesses.

The rest of the applications were mainly modifications on existing products and services, Price Changes and Terms and Conditions, and Promotions.

**Figure 23: Products and Services Approved During the FY 2021/22**



Source: ESCCOM, 2022

### 3.8.3 Broadband Targets 2025

The Broadband Commission which consists of the International Telecommunications Commission (ITU) and the United Nations Educational, Scientific and Cultural Organisation (UNESCO) has 7 targets as follows:

**Target 1:** Make Broadband Policy Universal.

**Target 2:** Make Broadband Affordable.

**Target 3:** Make Everyone Online.

**Target 4:** Promote Digital Skills Development.

**Target 5:** Increase the Use of Digital Financial Services.

**Target 6:** Get Micro, Small and Medium Enterprises (MSME) Online.

**Target 7:** Bridge the Gender Digital Divide.

In the review period, an exercise was conducted using the five (5) ITU price baskets detailed in table 3 to determine the extent to which the Kingdom of Eswatini

is meeting Target 2, which requires the country to make broadband affordable at 2% of GNI per capita. The exact target of the Broadband Commission is that by 2025, entry-level broadband services should be made affordable in developing countries, at less than 2% of monthly gross national income per capita. The target further stipulates that by 2025, broadband-internet user penetration should reach 75% worldwide and 65% in developing countries.

From the results of the exercise, it was found that the country has met Target 2 on two (2) of the baskets, being the Mobile Cellular Low Usage and Fixed Broadband Baskets. Eswatini exceeded the target on one (1) basket being the Mobile Data and Voice Low Consumption Basket, having achieved a cost of 1% as a percentage of GNI. At 4% on the Data Only Broadband Basket and 4% on the Mobile Data and Voice High Consumption Basket, the country has not achieved the 2% target.

**Table 3: ITU Price Baskets**

ICT Price Basket	Minimum Monthly Allowance			Broadband Target	As a Percentage of GNI
	Voice (minutes)	SMS (#)	Data		
Data Only Mobile Broadband Basket	-	-	2GB	2%	4%
Mobile Data and Voice Low Consumption Basket	70	20	500MB	2%	1%
Mobile Data and Voice High Consumption Basket	140	70	2GB	2%	4%
Mobile Cellular Low Usage Basket	70	20	-	2%	2%
Fixed Broadband Basket	-	-	5GB	2%	2%

Source: ESCCOM, 2022

### 3.9 PRICE OF 1GB DATA FOR SELECTED SADC MEMBER STATES

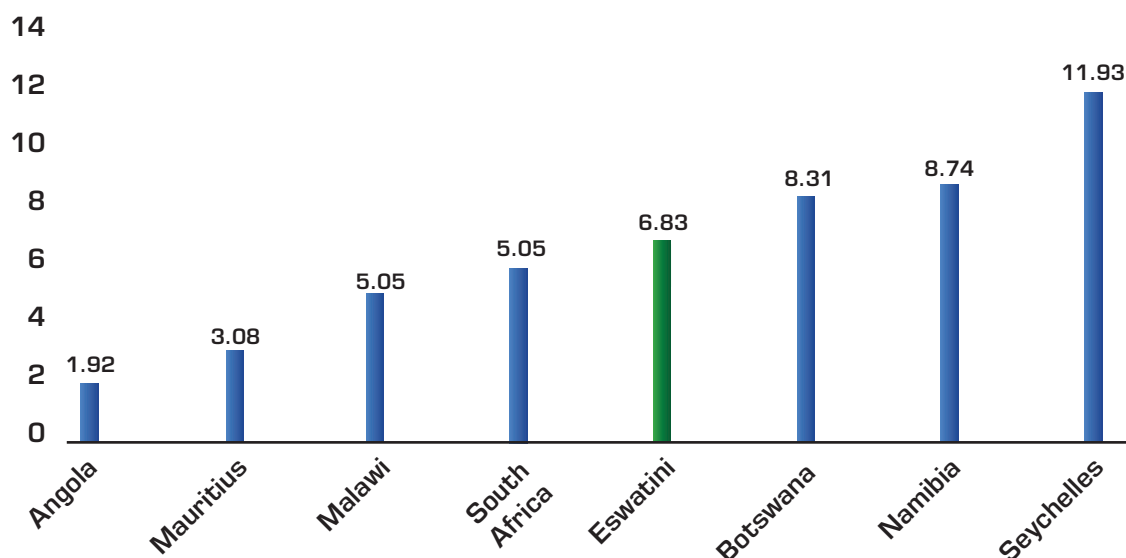
A comparison of the price of 1GB of data in USD was performed to measure the price competitiveness of data in the country against selected peer SADC member states. The price of 1GB in Eswatini is currently at E99, whereas in the Republic

of South Africa the same volume of data is charged at E85.

From the evaluation, Eswatini ranked number 5 at a cost of USD 6.83 per GB as at end March 2022. The assessment shows that the country is still expensive regarding affordability of data, and thus the country continues to pursue the reduction of the cost of communication through various initiatives.

## PERFORMANCE OF ESWATINI ELECTRONIC COMMUNICATIONS SECTOR

Figure 24: Price of 1GB Data in USD for Selected SADC Member States (1 USD=15 SZL)



Source: ESCCOM, 2022

### 3.10 ESWATINI ICT ACCESS AND USE SURVEY

The Eswatini ICT Access and Usage Survey (ICTAUS) project, where ESCCOM partnered with the Central Statistics Office, commenced in the reporting period. The ICTAUS project is the first-of-its-kind national survey aimed at measuring the level of access and use of ICT by households and individuals in the Kingdom of Eswatini.

The survey intends to gather comprehensive demand-side ICT data, which will provide key statistical data on the ICT market in Eswatini. It further measures the level of access and usage of ICT by households and individuals, ten (10) years and older (including people living with disabilities), affordability, ICT skills, user satisfaction, and perception of the quality of ICT services in the country. Additionally, the project will provide statistical

information on emerging developments and issues in the ICT market, namely, the level of participation in e-Commerce, postal services, broadcasting services, access and use of online services, awareness on cybersecurity, privacy rights and responsibilities.

#### 3.10.1 Survey Tool Design

The ICTAUS project kicked-off in the second quarter of the FY 2021/22 with Phase 1, Survey Planning and Design. The phase entailed defining the objectives and target population of the survey; survey tool design; sampling; recruitment and training of enumerators.

Questionnaires for both households and individuals were designed to measure: access and use of ICT; affordability; ICT skills; participation in e-Commerce; postal services; broadcasting services; access and use of online services; awareness on cybersecurity; privacy rights and



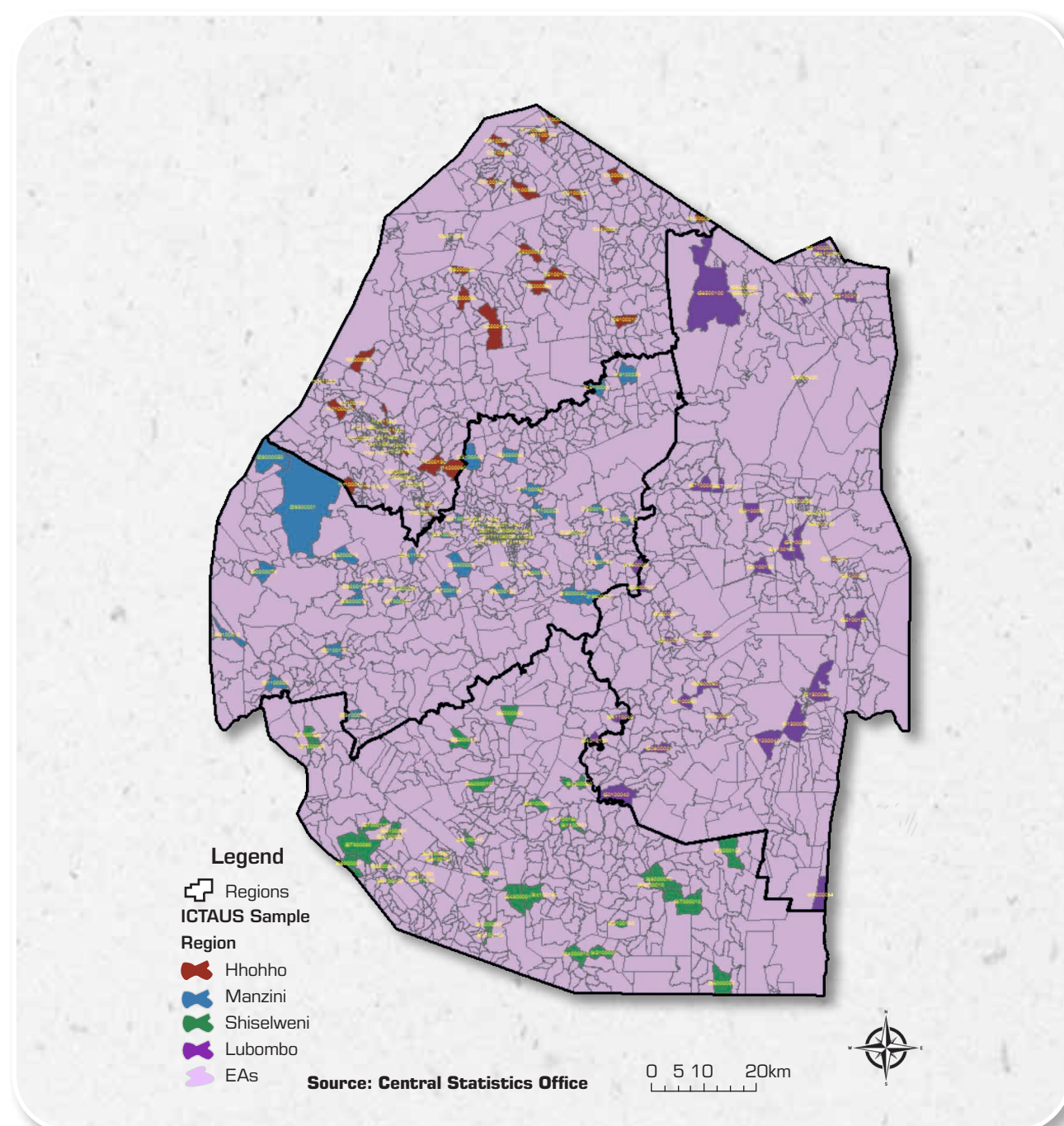
responsibilities; and user satisfaction and perception of quality of service of ICT services in Eswatini.

### 3.10.2 Sampling and Sample Size

A sample size of 2 520 households was selected from a total of 168 Enumeration Areas (EA) across the country, as shown in the Geospatial Distribution Sample

Map in Figure 25, with an aim to yield estimates at 95% level of confidence. A total of 15 households were randomly selected in each EA to be interviewed, using the household questionnaires. The Eswatini ICTAUS 2022 Sampling map in figure 25 shows the enumeration areas across the country.

**Figure 25: Eswatini ICTAUS 2022 Sample Design**



## PERFORMANCE OF ESWATINI ELECTRONIC COMMUNICATIONS SECTOR

### 3.10.3 Stakeholder Consultation

Subsequent to the completion of the Survey Planning and Design phase, a stakeholder workshop was held, to validate the project before the commencement of data collection. The Commission has a Stakeholder Management Strategy in place, which articulates the need for effective engagements with stakeholders and further guides the processes of information dissemination to both internal and external stakeholders.

The survey objectives, methodology and questionnaires were presented to representatives from industry, academia and policy institutions. Input and comments solicited from this exercise were incorporated in the questionnaires.

Data collection duly commenced in the fourth quarter of the review period and scheduled for completion in the first quarter of FY 2022/23. Subsequent

to the completion of the data collection phase, the next stages to conclude the project involve data processing, data analysis and report writing.

### 3.11 SPECTRUM LICENCING

The Commission is entrusted with the responsibility of safeguarding the use and allocation of the radio frequency spectrum. In this regard, ESCCOM licenses users of the radio frequency spectrum and further monitors their compliance with their licence obligations.

Over the twelve months to March 2022, the number of spectrum licences issued continued to decline, as they fell by 17.1% from 35 to 29, which is more than the 12.5% decrease in the previous reporting period. The development was largely due to the non-renewal of licensees by spectrum users on VSAT<sup>14</sup> as well as PMR<sup>15</sup> services.

**Table 4: Summary of Spectrum Licences Issued**

Service Class		Licences issued		
		2019/20	2020/21	2021/22
Amateur Station		5	4	6
Aeronautical Aircraft Station		11	12	12
Aeronautical Ground Station		2	2	2
Broadcasting Station	Sound Broadcasting	2	2	2
	TV Broadcasting	0	0	0
Fixed links	Point-to-Point	3	2	1
	Point-to-Multi Point	0	0	0
IMT		3	3	3
Private Mobile Radio Station (PMR)		7	4	3
Satellite Station	Mobile Earth Station	1	0	0
	VSAT	6	6	1
<b>Total</b>		<b>40</b>	<b>35</b>	<b>29</b>

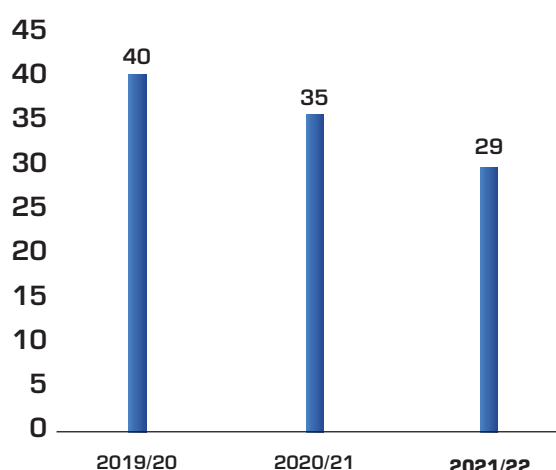
Source: ESCCOM, 2022

<sup>14</sup>Very Small Aperture Terminal (VSAT) is a small-sized earth station used in the transmit/receive of data, voice and video signals over a satellite communication network, excluding broadcast television.

<sup>15</sup>Private Mobile Radio (PMR) is a communication system operating under the Land Mobile Service allocations using VHF and UHF radio frequencies to transmit voice.

In the next financial year, the country intends to implement a technical process of ensuring that spectrum users comply with regulations regarding unauthorized use of spectrum. Defaulting spectrum users will be identified so that they are licensed.

**Figure 26: Number of Spectrum Licences Issued**



Source: ESCCOM, 2022

### 3.12 EQUIPMENT TYPE APPROVAL

The responsibility to set technology standards and the type approval of electronic communications equipment in the country falls within the ambit of the Commission. Additionally, ESCCOM is entrusted with ensuring compliance to the set standards. Type approval is the process by which communications equipment (such as a device or a system) is authorised to be imported or used in Eswatini. The process involves verification of the equipment's compliance with the applicable standards and other regulatory requirements.

The purpose of the exercise is to ensure safety and protection of consumers as they utilise technological equipment, as well as ensuring that the quality and integrity of communications services is maintained through the use of quality end-user communication terminals.

The reporting period saw a number of dealers/agents lodging applications for type approval of communications equipment. The information presented in table 5 summarises the applications completed and certificates issued in the financial years 2019/20, 2020/21 and 2021/22.

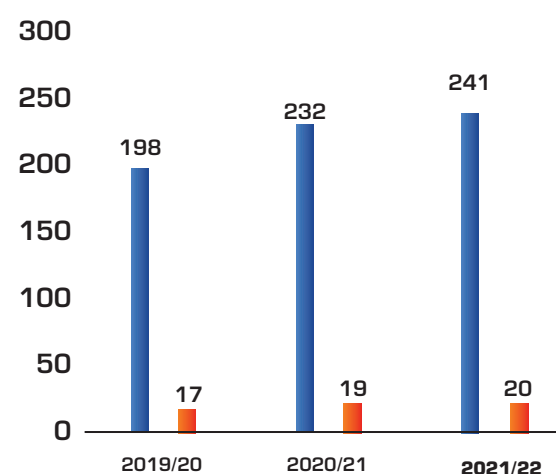
**Table 5: Number of Type Approved Equipment**

Year	Number of Type Approved Equipment	Average Number of Approvals per Month
2019/20	198	17
2020/21	232	19
<b>2021/22</b>	<b>241</b>	<b>20</b>

Source: ESCCOM, 2022

A rise in the number of type approved equipment was observed, due to collective factors consisting of increased demand for ICTs during the Covid-19 era where most operations have been virtual, as well as implementation of compliance enforcement activities by the Commission. Type approved equipment increased by 3.9% from 232 to 241, with an average of 20 approvals per month.

**Figure 27: Number of Type Approved Equipment**



■ Number of Type Approved Equipment  
■ Average number per Month

Source: ESCCOM, 2022

## PERFORMANCE OF ESWATINI ELECTRONIC COMMUNICATIONS SECTOR

### 3.13 ICT INFRASTRUCTURE AND COVERAGE

The country had a total of 641 Base Transceiver Stations (BTS) sites for the different categories of mobile technology at the close of the reporting period, covering 78.2% of the country's geographic landscape. Concerning population coverage, 2G technology is available to 98.4% of the population, 3G coverage

being the most prevalent, is accessible to 99.1% while 4G coverage stands 80.4%. GSMA asserts that for every 10% shift in the telecoms' markets between two succeeding network generations (for example, a movement from 2G to 3G), per capita GDP increases roughly by 0.4%. It follows therefore, that as mobile phone users upgrade to next-generation networks, their data consumption patterns increase.

**Table 6: Number of Base Transceiver Stations Sites and Percentage Coverage**

Technology	Number of BTS Sites	% Geographic Coverage	% Population Coverage
2G	640	83.5%	98.4%
3G	641	84.8%	99.1%
4G	486	66.3%	80.4%
<b>TOTAL</b>	<b>641</b>	<b>78.2%</b>	<b>99.1%</b>

Source: ESCCOM, 2022

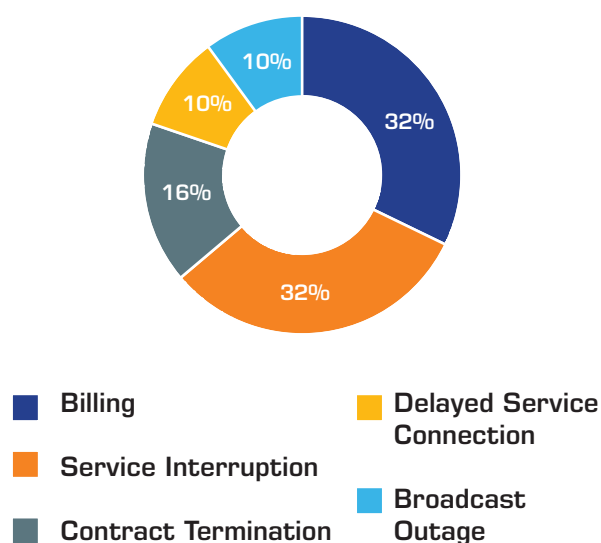
### 3.14 CONSUMER COMPLAINTS

In the process for service provision, disputes often occur between the service provider and the consumer, thus requiring intervention by the Commission. ESCCOM has a mechanism to investigate complaints filed by end-users of electronic communication, broadcasting as well as postal and courier services. These complaints are received through various communication channels and are actioned in line with the established consumer complaints handling procedure. The service is offered free of charge to all consumers.

In the year under review, a total of nineteen (19) complaints against service providers were received, mainly in the telecommunications sector. The majority of these disputes were related to billing and service interruption, as shown in figure 28. All of them were resolved,

following engagements with the operators cited.

**Figure 28: Consumer Complaints**

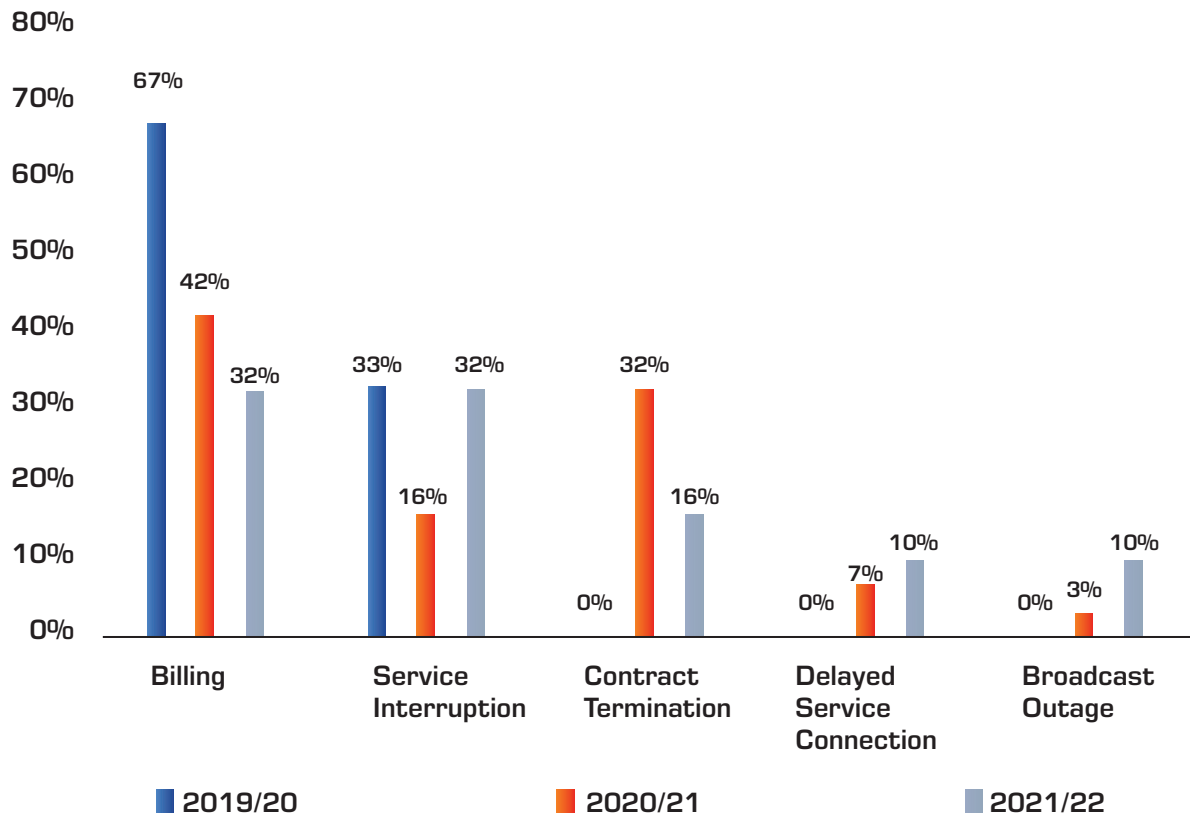


Source: ESCCOM, 2022

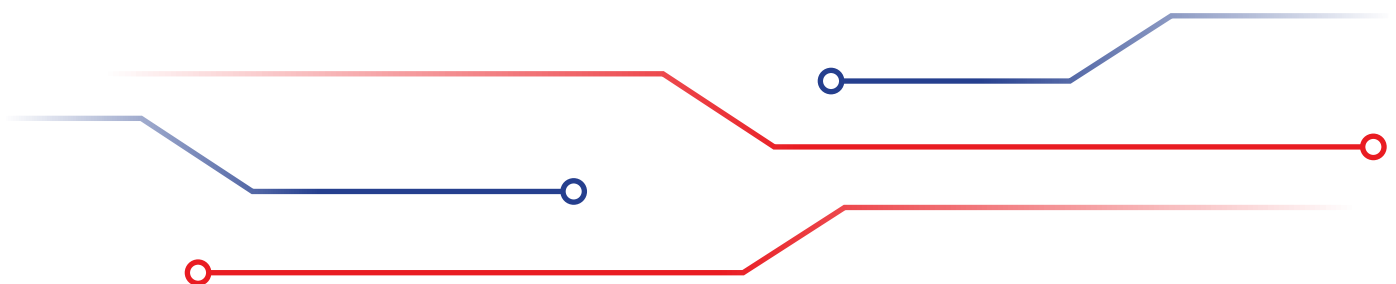
The online complaint handling procedure is available on the Commission's website to guide consumers on how to lodge their complaints. The complaints can be

submitted online, telephonically, in writing by post or through physical delivery to the Commission's offices.

**Figure 29: Trends in Consumer Complaints**



Source: ESCCOM, 2022







# 4

## SELECTED DEVELOPMENTS IN THE ELECTRONIC COMMUNICATIONS SECTOR

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## 4.1 POSTAL SECTOR

### 4.1.1. Publishing of the Postal and Courier Licensing Guidelines

The sector's Postal and Courier Licensing Guidelines were published and came into force on 17 September, 2021. Their main objective is to regulate the provision of Postal and Courier services in Eswatini, with the aim of: promoting quality of service and responsiveness to customer needs; increasing access to quality and affordable Universal Postal services; and promoting private sector participation in the postal sector. The Guidelines further intend to enhance postal security and integrity; promote e-Commerce in the country; promote research and development in the postal sector; and enhance cooperation with relevant sub-regional and regional organisations while ensuring compliance with international commitments and standards.

More importantly, they set out the legal and administrative process for the licensing of Postal and Courier services in Eswatini, and also provide guidance and clarity regarding the definition of the postal sector in the Kingdom of Eswatini. Postal and courier service providers are obligated to adhere to provisions of the guidelines.

Applications for licensing were received from service providers in the Postal and Courier sector, who include EPTC, DHL Eswatini Couriers, FedEx Eswatini, Triton Express Couriers, Eliang Courier Services, Interfreight (PTY) Ltd and FedEx Couriers. The process of licencing the service providers was ongoing at the close of the reporting period.

### 4.1.2. Letter Writing Competition

Eswatini participated in the Letter Writing Competition, an initiative established by the Universal Postal Union (UPU). The initiative was adopted at UPU's 1969 Tokyo Congress and launched in 1971. The competition brings together

talented young people aged 09 - 15 years from thousands of schools in dozens of countries and helps advance global literacy and education among young people. The UPU encourages member countries to run this annual competition in their respective countries at national level as a prerequisite for international participation. The country has been actively participating in the competition for the past years, coordinated by the Commission.

To expand reach and impact of the competition, the following stakeholders partnered together in hosting the competition: ESCCOM, Ministry of Education and Training, UNICEF Eswatini, World Vision Eswatini, EPTC and Macmillan Education. The 2021 edition of the competition was themed ***"Write a letter to a family member about your experience with Covid-19."*** The topic was relevant given the global pandemic affected everyone, including children and young people. Children were expected to write the letter in either SiSwati or English. From the 1163 entries received, 198 were written in SiSwati.

Additionally, the 2022 edition of the Letter Writing Competition was launched in the review period. The event was graced by the PS Ministry of Tourism and Environmental Affairs as the key note speaker, as the theme of the competition was on "Climate Change". Entries for the competition closed on the 21 March 2022 with 957 entries received. The highlight of 2022 competition is the eligibility of children and young people with special needs to participate.

### 4.1.3. National Addressing and Postcode Systems Project

The country undertook a feasibility study for implementing the National Addressing and Postcode Project, with assistance from the UPU. The study done by a UPU Consultant, involved a combination of onsite visits, physical meetings with

## SELECTED DEVELOPMENTS IN THE ELECTRONIC COMMUNICATIONS SECTOR

relevant stakeholders and online meetings where necessary. Stakeholders' co-operation ensured success of the assessment as they provided all information requested. The final report of the National Addressing and Postcode Project will inform its implementation and action plan upon completion.

### 4.2 DEVELOPMENT OF ACCOUNTING SEPARATION GUIDELINES

ESCCOM is enjoined with the responsibility to administer certain aspects of the Competitions Act, 2007 and the Fair-Trade Act, 2001 in the ICT market, as they relate to the markets it regulates. In carrying out this mandate, the Commission in exercise of its mandate under Section 7(c) of the Eswatini Communications Act, 2013, developed regulatory Accounting Separation Guidelines, aimed at guiding vertically integrated players in the broadband market.

The guidelines' broad aims are to: identify and prevent any undue discrimination or practices that substantially lessens competition such as cross-subsidisation and margin squeezes, to the detriment of end-users; and ensure that pricing for interconnection or access activities is cost-based, transparent and non-discriminatory.

Additionally, the guidelines seek to assist in the monitoring of licensees' compliance with regulatory obligations; and further provide an environment which fosters open and transparent financial reporting within the Electronic Communications

sector. Stakeholders in the ICT industry were consulted to solicit their input into the guidelines, which are scheduled to be published in the next financial year.

### 4.3 HOSTING OF INDABA X

Alongside the Financial Services Regulatory Authority (FSRA), Central Bank of Eswatini (CBE), Centre for Financial Inclusion (CFI) and the University of Eswatini (UNESWA), ESCCOM participated in the INDABA X event, held at UNESWA on 26 and 27 August, 2021. The event discussed Machine Learning and Artificial Intelligence developments in Eswatini. This is in line with forecasts for the country's ICT sector in the medium-term (2022 - 2025)<sup>16</sup>, which indicate that Financial Technology (FINTECH) initiatives will support and further sustain the significant growth brought about by the increased utilisation of ICT services during the era of the pandemic.

### 4.4 BROADCASTING

The development of Broadcasting Guidelines (**Content** guidelines, **Digital Terrestrial Television** guidelines and **Classification** guidelines) was undertaken in the period. The Ministry of Information Communications and Technology's Communications department tasked with managing the Digital Terrestrial Television (DTT) network, was engaged to contribute to the draft DTT Guidelines, which, shall act as a regulatory mechanism for the digital network when put into force. Resulting from the engagement, the draft Broadcasting (Content) Regulations were converted to Broadcasting (Content)

<sup>16</sup>Forecasts done by the Macro Economic Forecasting Team from the Central Bank of Eswatini and the Ministry of Economic Planning and Development, 2022.

Guidelines, owing to the delay in the passage of the Broadcasting Bill of 2019, to enhance the Broadcasting Guidelines of 2017, which are modest on issues of broadcasting content regulation.

The Broadcasting (Content) Guidelines aim to provide regulatory guidance with regards to content for ensuring high-quality broadcasting services, while the draft Broadcasting (Digital Terrestrial Television) guidelines intend to provide a licensing and regulatory framework for Digital Terrestrial Television services in the country. Both guidelines were published in the review period for stakeholder consultations, inviting stakeholders to make their submissions.

Eight (8) temporal Broadcasting Monitors were also engaged during the month of March 2022 to monitor licensees' compliance with broadcasting standards. The main objective of the monitoring exercise was to establish the extent of adherence by broadcasters to the Broadcasting Guidelines 2017, Broadcasting Code 2020 and their own programme schedules, which they submit to the Commission. The key aspects of the Guidelines and Code that were monitored include: Watershed; Advertising; Programme sponsorship; Local content; Accessibility to broadcasting services for the disabled; and Privacy and Copyright provisions. The exercise identified areas where broadcasters perform poorly and recommended interventions to bridge the gaps between the required performance standards and the currently observed standards.

Additionally, the installation of the Broadcasting Management System to monitor and report on the Quality of Service for the broadcasting sector was undertaken in the reporting period. With regard to collaborations, an MOU was signed between ESCCOM and the Film and Publication Board of South Africa (FPB), where the FPB shall assist the

Commission with validating draft Content Classification Guidelines and further train television content classifiers.

In addition to these developments, the Commission and Eswatini TV signed a contract where Eswatini TV will be assisted financially to enhance the Eswatini TV Application (App). The App facilitates viewing of live Eswatini TV programs anywhere in the world, including training of television content producers and television script writers.

A commitment was made to assist Eswatini TV to enhance the App in integrating with Eswatini Mobile's mobile money platform, e-Mali. Bank debit and credit cards, and other features missing on the Eswatini TV app were pledged for inclusion. The Commission further made the undertaking to support training of content producers to improve the development and production of high-quality television content.

#### 4.5 ESCCOM SUPERVISORY ROLE

A regulatory inspection into the operations of EPTC to ascertain whether it was a going concern was undertaken. The report from the inspection was presented to EPTC with specific recommendations on issues identified. Additionally, the regulatory inspection for Eswatini Mobile was ongoing at the close of the reporting period.

#### 4.6 SPECTRUM PLANNING

The Spectrum Licensing Guidelines whose aim is to provide clarity on spectrum licensing issues which are not covered in the Spectrum Licensing Regulations 2017, were finalised in the period. The issues covered in the guidelines include the licensing of: Earth stations in motion (ESIMS); TV White Spaces; Drones; as well as the Digital Television Transmission network. The guidelines were presented to stakeholders for consultation.



## SELECTED DEVELOPMENTS IN THE ELECTRONIC COMMUNICATIONS SECTOR

Moreover, the review of the Fixed Services Band Plan (FSBP) was finalised. The plan outlines the channelling arrangements for fixed links in Eswatini and also provide guidance on how the different bands are utilised. There was an existing document prior to the plan, however, it required review due to new developments after the World Radiocommunication Conference in 2019 (WRC-19). The International Mobile Telecommunications (IMT) band plan and roadmap, which focuses on the assignment of spectrum for mobile network operators was also developed. It outlines how the IMT spectrum is to be utilised in the country as well as the different bands which have been availed by the government for assignment. The plan further outlines bands proposed for future deployment in the IMT space.

Eswatini also participated in the project to optimise the GE84<sup>17</sup> plan for the Africa region. The activities of the project involved technical analysis of the interfering stations and coordination with the Republic of Mozambique and Republic of South Africa. The country was able to submit 16 new assignments to increase the recorded assignments in the plan from 27% to 65%.

### 4.7 CYBERSECURITY STRATEGIES

#### 4.7.1. National Cybersecurity Awareness Campaign

In order to raise awareness on the importance of cybersecurity and its associated threats, the country held the National Cybersecurity Awareness Campaign in November 2021, themed

**“Be Cyber Aware, Be Cyber Smart”**. The campaign provided information on how individuals and businesses can proactively mitigate cyber threats, and further empowered Emaswati to take control of their online identity. The campaign was driven through integrated communication initiatives including print, television, radio and digital platforms. During the campaign, a workshop for IT Professionals and a phishing simulation to gauge cyber awareness amongst internet users was conducted.

Further initiatives to promote cyber awareness were undertaken in the year under review. These include: conducting cyber-threat surveillance on key sectors of the economy using BitSight Tools; capacity building and training sessions on cybersecurity for Eswatini National Provident Fund and Eswatini Mobile; and also putting in place the Computer Emergency Response Team (CERT) processes and basic tools.

### 4.8 INITIATIVES DONE ON ICT PRICE REGULATION

As part of improving working relationships with relevant organisations and strengthening collaborations, ESCCOM made a presentation to the Eswatini Competition Commission (ESCC) to appraise the competition regulator on initiatives undertaken in the ICT sector for reducing the Cost of Communication. Part of ESCCOM's mandate involves administering certain aspects of the Competition Act, 2007 as well as the Fair-Trading Act, 2001 as they relate to the sectors it regulates.

<sup>17</sup>The GE84 plan involves African countries working together with international radiocommunication experts to avert interference between different services and ensure coordinated growth of sound broadcasting services between 87.5 megahertz (MHz) and 108 MHz. It details the processes needed to ensure national frequency plans are compatible for smooth FM broadcasting in the 87.5-108 MHz band.



#### 4.8.1. Status Before 2016

Prior to 2016, it was noted that prices in the Kingdom of Eswatini were relatively high compared to its regional peers. Three factors had contributed to the high cost of communication in the Kingdom of Eswatini when compared to other countries in the region, being: Eswatini is a landlocked country, hence does not have direct access to undersea cables; EPTC's exclusivity to operating and maintaining the national backbone infrastructure; and lack of effective competition in the Fixed and Mobile telecommunications markets.

#### 4.8.2. Interventions

Subsequently, a market study (the ICT Market Baseline Study) was undertaken in 2017 which revealed: lack of effective competition in the Mobile and Fixed Markets; EPTC held significant market power (SMP) in the Fixed Market; and that MTN held significant market power (SMP) in the Mobile Market. To address the lack of effective competition, a second Mobile Operator and a number of Internet Service Providers were licensed.

A further inquiry was performed on the market with the ICT Benchmark Study in 2017 to ascertain the cost of communication in Eswatini. The results revealed Eswatini had high costs of communication compared to regional peers, where the country was ranked the 2<sup>nd</sup> highest in terms of costs following Sudan. Subsequently, a Decision was issued in terms of Section 37 of the Electronic Communications Act (ECA), 2013 imposing regulatory obligations on dominant operators (operators with SMP) in the Fixed and Mobile markets.

The decision directed: vertically integrated operators to make transparent their wholesale prices, ensuring non-discrimination in the markets thus preventing unfair cross-subsidisation; obligation to cost orientation of prices; all tariffs and promotions to be approved by ESCCOM; and the issuance of a decision directing EPTC to divest

from its shareholding in MTN following an investigation on the Joint Venture Agreement (JVA) between EPTC and MTN. However, the decision on the divestiture has since been revoked.

The relatively high prices unearthed by the Benchmark Study in 2017 were primarily attributed to the monopolistic nature of the telecommunications market at the time, at the wholesale level. The market was such that EPTC was the sole provider of Leased Lines and Dedicated Internet for internet services to MNOs and ISPs. To address the high costs, the Price Transformation Programme was introduced, which entailed wholesale price reductions implemented over a 3-year glide path.

The strategy adopted for the programme was such that prices were reduced at wholesale level, which would in-turn trickle down to the retail level to benefit consumers. Resultantly, an overall average price reduction of 74% was realised from selected bandwidths which the retailers procure, and a further significant drop in the wholesale price for Leased Lines by an overall average of 80% was achieved.

#### 4.8.3. Pricing Reforms in the Markets

Subsequently, pricing reforms were introduced in the wholesale market to address some forms of price discrimination that existed through Service Level Agreements and exclusive discounts offered to certain customers. Furthermore, the consolidation of Copper and Fibre based wholesale national leased line service offerings to reflect technology neutrality of EPTC's license, was done. As a result, there was one price charged for either service without distinction based on type of technology (copper/fibre). The price reductions from the wholesale level were passed on to consumers at retail level, where applications for data price reductions by licensees were received, assessed and approved by the Commission. Likewise, preferential rates for Learning Institutions

## SELECTED DEVELOPMENTS IN THE ELECTRONIC COMMUNICATIONS SECTOR

and Non-Governmental Organisations were recommended, where EPTC and MTN offered these preferential rates.

After the approval of the reduced rates, the price of 1GB in Eswatini declined to comparable levels in the SADC region, a development that brought Eswatini closer to meeting the SADC Broadband 2025 Targets on affordability. The key objective of the SADC Broadband Targets is to ensure that by 2025, entry-level broadband services should be made affordable in developing countries, at less than 2% of monthly gross national income (GNI) per capita.

### 4.8.4. Call Termination Market

In accordance with Section 23 of the ECA, a study on the Call Termination Market was done, whereupon a determination on dominance was made. The study found that: there was lack of effective competition in the Call Termination Market; prices were significantly higher compared to regional peers in the SACU region; each operator was dominant on its own network; MTN had significant market power (SMP) in the Call Termination Market; and additionally, the two MNOs did not have an interconnection agreement between themselves.

A decision was issued for Eswatini Mobile and MTN to sign and operationalise an interconnection agreement. The decision further pronounced that Voice Call Termination Rates shall be reduced following a three (3) year glide path, which began in April 2020. The FY 2021/22 saw the implementation of the second phase of the call termination glide path.

### 4.8.5. Price Benchmarking Exercise

To review the impact the Price Transformation Programme upon its completion,

a Price Benchmarking Study was undertaken in the year 2020, to provide an empirical comparative analysis of communications pricing in the country's ICT sector. The study aimed to assess the impact of the Price Transformation Programme on Telecommunications Operators' revenue in Eswatini and the socio-economic variables in Eswatini and cross-check the general wholesale and retail price levels in landlocked countries with similar market size countries to Eswatini. Additionally, the enquiry aimed to provide recommendations based on the findings, which would inform regulation of the ICT market of Eswatini for the short to medium term.

The study utilised countries with similar characteristics for benchmarking the prices. To qualify, the countries benchmarked had to be comparable in population size and also be landlocked. South Africa, Namibia, Mozambique were not considered because of their population size and their access to undersea cables. Zimbabwe was not considered because of its population, thus only Botswana and Lesotho were used for the benchmarking. The study uncovered that the Programme had been effective in reducing the high cost of National Leased Line Wholesale monthly rates, as leased line costs in Eswatini fell below those of Lesotho except for speeds above 100 Mbps. Eswatini's wholesale internet monthly bundle rates were also found to be lower than those of Lesotho after the Price Transformation Programme.

The findings also revealed that installation costs were inconsistent between bandwidth speeds in the country as opposed to a flat fee across all speeds. Eswatini installation fees were higher than both those in Botswana and Lesotho. Further-

more, Eswatini did not have wholesale prices for last mile internet connectivity (e.g., ADSL). As such, ISPs were charged at retail price and overall, wholesale pricing in the country was found to be significantly higher than that of Botswana, despite both countries being landlocked with similar pricing constraints.

Since the retail and wholesale markets are vertically integrated, it was recommended that a 3-Year Price Reduction Glide Path (2021 to 2024) reduction be implemented in the wholesale market. A review of pricing was recommended to reduce installation costs such that a flat fee was charged for a range of bandwidth speeds. Similarly, a review of EPTC's pricing for last mile fixed internet broadband (ADSL) connectivity services to ISPs was recommended to ensure ISPs were charged at wholesale rate and not at retail rates.

#### 4.8.6. Regulatory Obligations

Consequently, regulatory obligations in accordance of Section 28 of ECA, 2013 to impose accounting separation on licensees with vertically integrated operations were considered. This was to promote and ensure more transparency in the pricing and cost orientation of pricing for wholesale and retail broadband services. Additionally, the introduction of competition in the wholesale market was encouraged. As a result, both EPTC and MTN currently offer wholesale services, which brings efficiencies and competition in the wholesale market that could contribute towards reducing wholesale costs even further, thereby driving the retail prices lower.

Further recommendations from the Price Benchmarking Study entailed reviewing the legislation on the part of EPTC's exclusivity in maintaining and operating the national backbone infrastructure. Private sector investment in network infrastructure was also recommended.

## 4.9 REVIEW OF UNIVERSAL ACCESS AND SERVICE STRATEGY 2021 - 2024

The development of the Universal Access and Service (UAS) Fund strategy for 2021 – 2024 was completed in the review period. The strategy aims to build upon the foundational framework of the previous strategy established between 2018 and 2021. Such is essential to achieving the long-term goal of universal access and service for broadband Internet, broadcasting and postal services in Eswatini's four geographical regions.

The strategy's long-term goal involves pursuing Universal Access and Service for individuals, households, SMME's, schools and health facilities. It derives its support from six (6) areas which are: Political, Economic, Social, Technological, Legal and Environmental. The overarching objectives of the plan of action are to ensure that: The Fund creates key interventions to address the market access gap; All inhabitants have the ICT services available; All inhabitants can access the services; All inhabitants have the basic ability/ capacity to use ICT services; All inhabitants can afford to use the services; and also, that All decisions made by The Fund are based on sound research and investigation.

Furthermore, in the year to March 2022, The Fund completed the expansion of 15 Global System for Mobile Communications (GSM) Network sites. The Ministry of Tinkhundla Administration and Development was also assisted with procuring computers and printers for the Services Centres in order to offer services such as Birth, Marriage and Deaths (BMD)'s Registration, National Identification Cards (IDs), Passports and Revenue services. The ICT equipment was procured and delivered to the Ministry of Tinkhundla Administration and Development, whereupon the Ministry

## SELECTED DEVELOPMENTS IN THE ELECTRONIC COMMUNICATIONS SECTOR

commenced setting up the services at the selected Tinkhundla Centres. A provision of end-user devices was made, where 15 high schools received mobile laboratories with 45 laptops to support the drive of promoting ICT in education.

In partnership with FEI Systems, an NGO funded by the American Embassy dealing with Enterprise Technology for Health and Human Services, the Commission further assisted in the digitization of the health sector in usage of the Health Management Information System (HMIS) by field health practitioners through supporting the initiative with 40 laptops/tablets.

Last mile connectivity for public health and government public offices was also provisioned in the financial year, where five (5) Public health, five (5) Defence offices, eight (8) Immigration offices, Parliament offices and the Elections and Boundaries Commission (EBC) offices' last mile connectivity was linked with the government's backbone infrastructure. Moreover, the rural broadband Global System for Mobile Communications (GSM) network was upgraded where the Commission partnered with operators to upgrade sites to 4G technology, with the focus on complementing work done by the operators as per their licence obligations.



# 5

## KEY TRENDS SHAPING THE INDUSTRY IN THE REVIEW PERIOD

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## KEY TRENDS SHAPING THE INDUSTRY IN THE REVIEW PERIOD



### 5.1 INCREASED UTILISATION OF ONLINE SERVICES

The ICT sector has been resilient to the impact of the pandemic in the period, which saw the introduction of various measures to counter discontinuation of operations. These initiatives consisted mostly of the increased utilisation of online services, in contrast to the traditional methods of doing business mostly employed before the pandemic started.

### 5.2 REDUCTION IN COST OF COMMUNICATION

The reduction in the cost to communicate was observed where the price of 1GB of data dropped from E150 to E99. The development brought the country closer to attaining the SADC 2025 Broadband targets. The ITU's Broadband Commission for Sustainable Development set a target for the year 2025 stipulating that entry-level broadband services should cost less than 2% of monthly gross national income per capita.

The reduction in the cost to communicate was observed where the price of 1GB of data dropped from E150 to E99. The development brought the country closer to attaining the SADC 2025 Broadband targets.

### 5.3 INFRASTRUCTURE EXPANSION

Over and above the reduction in the cost of data, operators have been expanding their infrastructure to ensure a wider coverage and continual availability of ICT services with minimal disruptions. As such, the network population coverage stands as follows: 2G covers 98.4% of the population; 3G network coverage currently stands at 99.1%, while coverage for 4G networks stands at 80.4%. This

shows an improvement from the coverage prevalent in the previous financial year.

## 5.4 COMPETITION IN THE MARKETS

Competition intensified in the internet service provision market as ISPs, MNOs and fixed line service providers competed for customers through exciting product offerings to draw customers into their networks and further retain the existing ones. Operators leveraged on the additional spectrum availed at zero cost in the previous period for averting the impact of the pandemic to come up with offers that would cater for the various segments of the consumer market.

## 5.5 CHALLENGES

The pandemic presented significant negative effects in many sectors of the economy, observed in the slow growth and/or discontinuation of operations in some of the sectors. This affected the provision of services directly and indirectly due to the interlinkage of the economy. As a result of the negative effects of Covid-19, there was a decline of some of the ICT indicators, particularly in fixed voice traffic, broadcasting and postal markets, which are services utilised mostly by businesses and the public on a daily basis.

### 5.5.1. Cancellation of Events

In line with the lockdowns of borders by countries as part of managing the spread of the pandemic, a majority of

international ICT events, gatherings, conferences were cancelled in the period. Such events and gatherings offer vital business opportunities to ICT companies to showcase their products, solutions and innovations.

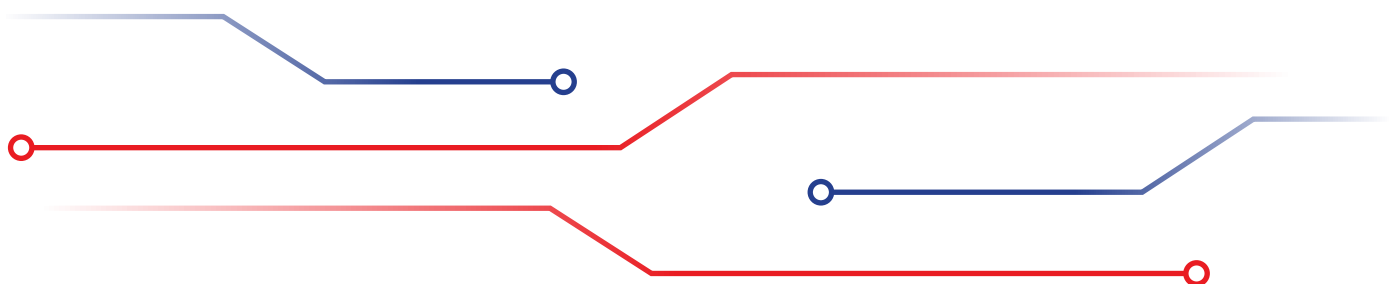
### 5.5.2. Theft of Copper Wire Affecting ADSL Technology

The continued theft of telecommunications apparatus, specifically copper lines utilised in the fixed line service provision continually derails infrastructure roll-out and significantly interrupted service provision in the period. It is envisaged that the justice system will hand out stiffer penalties to offenders to deter and discourage theft and vandalism of infrastructure, which is a hindrance to the development of the ICT sector and the economy at large.

### 5.5.3. Re-strategising Among ICT Regulators

Countries in the SADC region were not spared from the effects of the pandemic either, as operators had to re-strategise in order to adapt to the new normal. National Communication Regulatory Authorities in the region had to come up with ways of mitigating the impact of the pandemic.

During the peak of the pandemic, some regulators in the region offered additional spectrum at no additional cost to service providers, to ensure the continued operations. This in turn, led operators to upscale the use of digital communication channels.





6

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**The ICT sector is one of the most vulnerable sectors when it comes to cybersecurity. With service providers having large customer bases, there are abundant opportunities for malicious attacks...such as: cyber related frauds, identity theft, hacked accounts and spread of fake news on internet platforms...**

## **6.1 LEVERAGING ON DIGITAL TRANSFORMATION**

ICTs undeniably play an important role in enabling the ease of doing business<sup>18</sup> in a country. With the increasing uptake of digital services brought about by the aftermath of the pandemic, the nation is gradually embracing the use of technology. The telecommunications industry is unquestionably leveraging on digital transformation and boldly re-positioning itself for the future. Service providers are therefore expected to continue improving efficiency and adding high-value products and services in their offerings, to the benefit of consumers. The new wave of digitalization is already offering new prospects of growth, increasing innovation and opportunities for communication services.

Consequently, these developments are expected to result in a whole new ecosystem of value, an interconnected market, and most notably technological shift. Service providers will therefore need to adopt high-performing networks to provide for customer needs in the digital era.

## **6.2 MACRO-ECONOMIC OUTLOOK AND ITS IMPLICATIONS**

There are observed risks in the macro-economic environment that could dampen the growth prospects in the economy. Particularly, the sustained depreciation

of the South African currency (to which the Lilangeni is pegged) against the US Dollar due to various factors such as the escalating cost of living and the impasse between the Russia/Ukraine relations, which have the potential to spur inflationary pressure that would adversely affect the cost of inputs for operators. Annual inflation forecasts by the Central Bank of Eswatini for the years 2022, 2023 and 2024 stand at 4.38%, 4.52% and 4.21%, respectively. However, the Bank has revised economic growth prospects to optimistic targets which are likely to enhance market expectations regarding uptake and usage of ICT services. Resultantly, these positive developments are expected to extend to investment decisions.

## **6.3 REDUCED COST OF COMMUNICATION AND PRODUCTS DIVERSITY**

Ensuing from the recommendations of the Price Benchmarking Study, the wholesale rates in the country are to be reduced by an average of 60% over a 3-year glide path (2022/23 – 2024/25) period, with the first phase of the wholesale reductions effective from 01 April 2022. The reductions are anticipated to filter on to retailers and ultimately to consumers. Service providers are therefore expected to continue introducing innovative products offerings for consumers to remain viable in the competitive environment.

<sup>18</sup>Ease of doing business is an index published by the World Bank. It is an aggregate figure that includes different parameters which define the ease of doing business in a country.

## OUTLOOK FOR THE SECTOR

### 6.4 DATA PROTECTION AND CYBERSECURITY

The internet provides limitless opportunities and benefits, but may also pose risks to users. The ICT sector is one of the most vulnerable sectors when it comes to cybersecurity. With service providers having large customer bases, there are abundant opportunities for malicious attacks to gain unauthorized access to their data. Cyber related risks such as: cyber related frauds, identity theft, hacked accounts and spread of fake news on internet platforms therefore continue to persist. The spread of fake news on internet platforms is increasingly drawing the biggest attention from the public.

To address these challenges, the country recently passed bills into Acts for addressing cybersecurity issues in the review period, and the Commission has been tasked with operationalising the three newly enacted Acts to ensure cybersecurity for Emaswati while using the internet. These are the: Electronic Communications Transactions Act; Computer Crime and Cybercrime Act; and the Data Protection Act.

### 6.5 INVESTMENT IN INFRASTRUCTURE

Operators are expected to continue deploying infrastructure aimed at increasing coverage and improving quality of services. 4G/LTE sites deployment is forecasted to continue increasing, with the roll-out of fibre networks also projected to persist. Investments by operators coupled with the UAS Fund initiatives, are expected to extend

coverage, improve network optimisation and stability, and further avail additional routes for redundancy.

The uptake and usage of ICT services is therefore projected to continue on a positive growth trajectory, mainly driven by increased demand for data services among consumers. These developments coupled with the roll-out of fibre network by the fixed telecommunications services providers are likely to increase adoption of broadband services. As such, mobile network subscriptions are expected to rise as more citizens turn towards mobile devices for both mobile data and voice services.

### 6.6 ROLL-OUT OF NEW TECHNOLOGIES - 5G NETWORK

Operators are undertaking 5G pilot tests, which is a positive step towards its introduction. 5G's practical applications extend to industries such as transportation, medicine, agriculture, public services, amongst others. The 5G network, with its whole set of technologies, is expected to expand and enrich the telecommunications industry.

According to Research ICT Africa<sup>19</sup>, there are currently 3 billion internet users around the globe, mostly using smartphones as their primary internet access point. With smartphones helping consumers manage important tasks in their lives, consumers seek high-capacity networks offering faster access to applications and services. As such, 5G and wireless broadband technologies which allow 100 times faster data transfer than 4G, high speed, and low latency will enable these consumer needs.

<sup>19</sup>Research ICT Africa (RIA) is an African think tank research organisation that thrives to fill a strategic gap in the development of a sustainable information society and digital economy, by building the multidisciplinary research capacity needed to inform evidence-based policy and effective regulation Africa.



## 6.7 COMPLETION OF THE ESWATINI ICT ACCESS AND USE SURVEY

The successful completion of the Eswatini ICT Access and Use 2022 Survey (ICTAUS) is envisaged to provide key statistical information that will be essential in monitoring key performance indicators of the ICT market. The survey will unearth information such as: level of access and usage of ICT by households and individuals; affordability; ICT skills; user satisfaction; and perceptions of quality of service of ICT services. Outcomes from the survey will enhance the country's ability to efficiently and effectively plan and deliver ICT services to its citizens.

## 6.8 PROJECTS UNDERWAY

The successful implementation of projects earmarked to improve the sector is expected to yield positive results that will benefit end-users of ICT services. Some of the key projects completed in the year include: the successful conclusion of the Pricing Benchmark Study, with key recommendations on reducing wholesale prices over a 3-year glide path; and, also the publication of the Postal and Courier Licensing Guidelines, which will open up the e-Commerce market.

Additionally, the launch of the online spectrum licence application platform; development of Broadcasting (Digital Terrestrial Television, Content and Classification) guidelines; and, notably the ongoing National Addressing and Postcode Systems Project are anticipated to impact the sector positively.

The country is currently working on initiatives to enable the efficient regulation

of the Electronic Communications Sector, which include reviewing of legislation to guide the sector. The legislations being reviewed include: Electronic Communications (Licensing) Regulations, 2016; Electronic Communications (Quality of Service) Regulations, 2016; Electronic Communications (Radio Communications and Frequency Spectrum) Regulations, 2016; and the Electronic Communications (The Universal Access and Service) Regulations, 2016, amongst other regulatory instruments.

Other projects being pursued include: Quality of Service Monitoring; Postal Services Quality of Service Measurement (UPU Global Monitoring System); and Operationalisation of the Eswatini Communications Commission Broadcasting Code.

Additionally, compliance inspections for broadcasting licensees are in the pipeline; Designing of Model Editorial Policies to assist broadcasters in developing their Editorial Policies is being undertaken; and finalisation of Classification Guidelines to assist broadcasters in the classification of content.

Moreover, the: Production Standards for Broadcasting are awaiting consultation and input from stakeholders; Drafting of Digital Terrestrial Television Broadcasting Regulations is in process; Consumer Protection Guidelines are in the pipeline; and also, the Drafting of Broadcasting Multimedia Services Licensing Regulations, 2021 and consultations thereof is ongoing. These projects are expected to accrue benefits to the sector that will enhance the welfare of users of ICT products and services.



# 7

## CONCLUSION

**The country's economy also rebounded, from the 1.6% decline in GDP in the year 2020 to record a 7.9% growth in 2021, where the ICT sector contributed 4.0% towards the growth.**

The overall position of the ICT sector improved over the review year, as growth in the indicators outperformed the increases of the previous review year. According to the Ministry of Economic Planning and Development, the advent of Covid-19 pandemic accelerated the demand for ICT services, which saw the sector record a 14.4% increase in output in 2021. The country's economy also rebounded, from the 1.6% decline in GDP in the year 2020 to record a 7.9% growth in 2021, where the ICT sector contributed 4.0% towards the growth.

Mobile subscriptions continued to rise, attributable to a host of factors. These include the blended work and learning approaches where work and schooling moved from physical to digital platforms, which increased uptake of products and services tailored for work-from-home and blended-learning. These offers were launched into the market by mobile network operators at the height of Covid-19 enforced lockdowns. Primarily, the rise in the demand for mobile internet services amongst consumers triggered the increase in broadband connections as most activities moved online.

In particular, mobile cellular subscriptions grew by 19.2%, while total mobile broadband subscriptions surged by 24.7%.

Fixed broadband subscriptions also increased, by 7.9% at the backdrop from the increased data uptake. However, total Fixed Telephone subscriptions declined by 14.6%, which substantiates the observation that the fixed line technology is on a decline. The postal and broadcasting indicators also recorded declines. Nonetheless, it is envisaged that the indicators in these markets will bounce back as most of the declines were consequence from the effects of the pandemic.

The ITU alludes that the rise in the uptake of data and the evolution of the wider digital ecosystem are the main factors predominantly driving growth of mobile subscriptions worldwide. Evidently, the convergence of services remains on course to play a crucial role in the consistent increase of mobile subscriptions. The uptake of ICT services is therefore envisaged to continue in the next financial year, bringing forth economic growth, which had derailed in the previous financial year, due to the negative effects of the pandemic. Additionally, it is envisioned that the sector will expand with investments in network infrastructure, new products and services, innovation and most importantly, launch of new technologies such as the fifth generation (5G) network.



# 8

## APPENDIX



TELECOMMUNICATIONS SECTOR 2021/22		% YOY CHANGE
<b>Total Mobile Cellular Subscriptions</b>	<b>1 524 629</b>	<b>19.15%</b>
Mobile Cellular Market Penetration	131%	25.42%
<b>Total Mobile Broadband Subscriptions</b>	<b>1 379 526</b>	<b>24.73%</b>
Mobile Broadband Penetration	118%	22.19%
<b>Mobile Smartphones Connectivity</b>	<b>809 155</b>	<b>22%</b>
Mobile Smartphone Penetration	70%	12%
<b>Total Fixed Telephone Subscriptions</b>	<b>38 537</b>	<b>-14.58%</b>
Fixed-Wireless Telephone Subscriptions	9 636	24%
Fixed-Wired Telephone Subscriptions	28 901	-22.6%
<b>Total Fixed Broadband Subscriptions</b>	<b>29 784</b>	<b>8.8%</b>
Fixed-Wired Broadband Subscriptions	14 769	-2.5%
Fixed-Wireless Broadband Subscriptions	15 015	22.7%
<b>Total Fixed Market Penetration</b>	<b>2.6%</b>	<b>0.2%</b>
Fixed Telephone Market Penetration	3.3%	-0.6%
Fixed Broadband Market Penetration	2.5%	0.19%
<b>Total Fixed Broadband Market Shares by Technology</b>	<b>100%</b>	<b>0.0%</b>
Fixed-Wireless Internet Connections Market Share	50.4%	5.7%
Fixed-Wired Internet Connections Market Share	49.6%	-5.7%
<b>Total Domestic Voice Traffic (Mobile cellular and Fixed telephone) minutes</b>	<b>3.89 billion</b>	<b>14.8%</b>
<b>International Voice Traffic minutes</b>	<b>43 006 019</b>	<b>-5%</b>
Overall Total Roaming Voice Traffic Minutes	14 373 402	44.9%
Outbound Roaming Traffic Minutes	6 590 899	85.7%
Inbound Roaming Traffic Minutes	7 782 503	141%
<b>Total Telecommunications Revenue</b>	<b>E2 209 679 592</b>	<b>7.6%</b>
Voice Services Revenue	E804 351 440	-3.7%
Data Services Revenue	E894 037 390	15.5%
Short Message Service (SMS) Revenue	E10 928 213	-32.1%
<b>Employment in the Telecommunications Industry</b>	<b>1 451</b>	<b>4.8%</b>
MNOs Employment	728	46.5%
Fixed Network Operators Employment	723	-18.5%
Number of Males Employed	879	-0.45%
Number of Females Employed	572	14.2%
<b>Total National Domestic Tax Collected by ERS</b>	<b>E10 786 960 753</b>	<b>8.5%</b>
Contribution by Licensees in the Telecommunications Industry to Tax collection	4.3%	0.4%
Other Income Tax Revenue (OIT) Payments	6.3%	-1.9%
Company Income Tax Revenue	8.4%	2.4%
Value-Added Tax (VAT)	5.3%	0.1%
Pay as You Earn (PAYE)	2.6%	0.3%
<b>Total Number of Spectrum Licences Issued</b>	<b>29</b>	<b>-17.1%</b>
<b>Total Number of Type Approved Equipment</b>	<b>241</b>	<b>3.9%</b>



## 8. APPENDIX

POSTAL SERVICES SECTOR 2021/22		% YOY CHANGE
<b>Total Domestic Mail</b>	<b>1 049 611</b>	<b>-23.2%</b>
Domestic Mail Volume (Unregistered Letters)	1 021 612	-23.4%
Domestic Mail Volume (Registered Letters)	27 999	-16.7%
<b>Total International Mail</b>	<b>18 497</b>	<b>-7.1%</b>
International Mail Volume – Outbound mail (Letters)	1 144	111.1%
International Mail Volume – Inbound mail (Letters)	17 353	10.4%
<b>Total Packets and Parcels</b>	<b>741 212</b>	<b>7.4%</b>
International Mail Volume – Outbound (Parcels & Packets)	30 731	-4.13%
International Mail Volume – Inbound (Parcels & Packets)	710 481	-10.5%
<b>Other Postal Indicators</b>		
Express Mail Services (EMS)	212	-60.2%
Post Boxes Rentals	145 750	-7%
Post Offices - Total Number of Post Offices	35	0.0%
Post Offices - Total Number of Agencies	16	0.0%
Postal Employment	168	2.44%
Fixed-Wireless Internet Connections Market Share	50.4%	5.7%

BROADCASTING SECTOR 2021/22		% YOY CHANGE
<b>Broadcasting Economic Indicators</b>		
Broadcasting Advertising Revenue	E13 812 355	-8.5%
Broadcasting Expenditure	E11 317 793	-3.6%
<b>Employment in the Broadcasting Industry</b>	<b>374</b>	<b>6.6%</b>
Number of Male Employees	219	6.3%
Number of Female Employees	155	6.9%
<b>Other Broadcasting Indicators</b>		
Number of Productions (Independent)	70	1.4%
Number of Productions (In-House)	150	-2%
Number of Radio Stations	3	0.0%
Number of Television Stations	2	0.0%
Number of Pay TV Service Providers	1	0.0%





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