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# The State of the ICT Sector Report of South Africa

# March 2022

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## EXECUTIVE SUMMARY

The Independent Communications Authority of South Africa ("ICASA / the Authority") is pleased to release the 7th annual State of Information Communication Technology (ICT) sector report. The first publication was in 2015.

The Authority continues to recognise that the access to a comprehensive and timely set of ICT indicators is vital for a proper regulation of the sectors for which it is responsible, namely: the telecommunications, broadcasting, and postal sectors. The intention is to use these indicators to benchmark values, inform sector policy analysis and ensure compatibility with global benchmarking and data compiled by other regulators. The data used to compile this report was collected over a 12-month period ending 30 September 2021. The data was collected from secondary sources (such as Statistics South Africa ("Stats SA") and OOKLA) as well as through a detailed questionnaire sent to relevant stakeholders by the Authority. Like the previous report, this report also includes an international comparison of South African internet speeds for fixed as well as mobile broadband (both download and upload speeds).

The Authority received a total of one hundred two (102) responses from the Electronic Communications Service (ECS) and Electronic Communications Network Service (ECNS) licensees, twenty-eight (28) responses were from television and radio broadcasters and only seven (7) responses were received from postal services licensees.

According to the 2020 Stats SA's General Household Survey (GHS) report, the proportion of South Africa's households who have access to only cellular phones is at 89.4% nationally. Eastern Cape is the highest at 96.4% followed by Mpumalanga at 92.2%, and the lowest is Gauteng at 88.2% for the same period. For households who have no access to neither a cellular phone nor a landline, Limpopo is the highest at 3.2% and the lowest is Mpumalanga at 1.1% for the same period. For households who have access only to landline phones both Northern Cape and Western Cape are the highest at 1.4% for the same period.

The total sector revenue (telecommunications, broadcasting, and postal services) slightly increased by 0.3% from R243 billion in 2020 to R243.6 billion in 2021. The broadcasting services revenue increased by 2.8% from R35 billion in 2020 to R36 billion in 2021, and postal services revenue increased by 11.1% in 2021, however telecommunication revenue has slightly decreased by 0.5% from R201 billion in 2020 to R200 billion in 2021.

The total numbers for the three sectors employment decreased by 22.4% in 2021. Employment changes in the three sectors were as follows: telecommunications sector employment decreased by 35.8%, broadcasting sector employment also decreased by 18.7%, and postal sector employment increased by 2.1%.

National population coverage for 3G was at 99.9% in 2021. National population coverage for 4G/LTE was at 97.7% in 2021. 5G population coverage was at 7.5% for the same period.

The total mobile cellular phone voice subscriptions increased by 8.7% from 94 million in 2020 to 103 million in 2021. Post-paid mobile cellular telephone subscriptions for urban and rural area increased by 5.3% and 5.4%, respectively in 2021.

The total wireless-broadband subscriptions decreased by 7% (from 244,876 in 2020 to 227,840 in 2021). Satellite subscriptions significantly increased by 54.2% in 2021, and terrestrial fixed broadband subscriptions decreased by 10.3% for the same period.

According to the global Speedtest, the fixed broadband speed ranking for South Africa has dropped down from 87 in 2020 to 100 in 2021. The mobile broadband ranking also dropped from 55 in 2020 to 61 for the same period.

The total number of Pay TV subscriptions is growing, in 2015 it was just about 5.6 million and in 2021 is about 8.3 million.

The number of PO Boxes and number of PO Boxes rented remain the same from 2020 to 2021, however the number of physical addresses in the data base slightly increased by 0.2% (from 16.7 million 2020 to 16.8 million 2021.

# 1 INTRODUCTION

During the 2020/21 financial year, ICASA issued the temporary high-demand spectrum ("HDS") / International Mobile Telecommunications ("IMT") licences to licensees with an aim of mitigating the devastating economic impact that the COVID-19 outbreak had on the economy. The primary aim of this temporary spectrum release was to ease network congestion, ensure high quality broadband services and most importantly to enable licensees to provide their services at reduced costs. The validity of the temporary spectrum licenses was extended to 30 November 2021.

On 11 November 2021, the Authority published the ICT COVID-19 National State of Disaster Regulations, 2021, which introduced a new provisional radio frequency spectrum regime. The provisional radio frequency spectrum licenses are valid from 1 December 2021 until 30 June 2022 or until three months after the termination of the National State of Disaster, whichever occurs first.

On 10 December 2021, the Authority re-published an Invitation to Apply ("ITA") for HDS Spectrum. The Authority received six (6) applications in response to the ITA.

On the 17 March 2022, the Authority successfully concluded the much-anticipated high-demand radio frequency spectrum auction.

**Aim**

The report presents the performance and developments in the ICT sector, focusing on the three areas that are regulated by ICASA, namely: telecommunications, broadcasting, and postal services.

The report aims to provide up to date information to enable interested parties to make informed decisions on the ICT sector.

## ICASA Mandate

ICASA is a creature of statute and derives its mandate from the Constitution of the Republic of South Africa, 1996, the Independent Communications Authority of South Africa, 2000 (Act No. 13 of 2000) (ICASA Act), the Broadcasting Act, 1999 (Act No. 4 of 1999), the Electronic Communications Act, 2005 (Act No. 36 of 2005), and the Postal Services Act, 1998 (Act No. 124 of 1998). The Authority regulates electronic communications, postal services, and broadcasting in the public interest.

Within this mandate, the Authority's responsibility includes the collection of information and statistics on the ICT sector to monitor, report and ensure that regulations are fact-based.

The Authority also has a responsibility to ensure that all South Africans have access to affordable services of high quality, as stipulated in the letter and spirit of the underlying statutes.

## Methodology

In terms of section 4(3)(g) of the ICASA Act, ICASA has the mandate to request and obtain specific information and data from all licensees at any given time. The Authority makes use of questionnaires customized for ECS, ECNS, Television and Radio Broadcasters as well as Postal service licensees to solicit data on ICT indicators. The questionnaires cover data over a 12-month period ending on 30 September each year, unless otherwise specified. For confidentiality reasons, the information gathered is aggregated to conceal stakeholder-specific information.

The Authority conducts extensive data validation, data pre-processing and analysis using various statistical tools for interpretation, discovery and communication of patterns and trends within the data. The primary aim of conducting this analysis is to draw meaningful insight from the collected data for purposes of narrating the South African state of the ICT Sector.

## Limitations

The following possible limitations to the report should be borne in mind when interpreting the information collected:

- The unreserved postal sector always had a low response rate to the questionnaire; and
- the data contained in the report is self-reported by licensees, which therefore requires a more rigorous data-validation process.

## Structure of the report

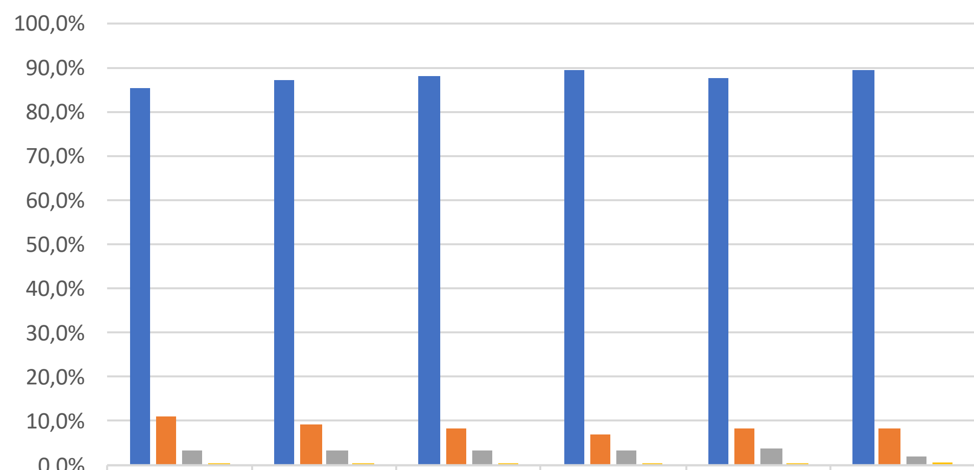
The report is structured as follows: Section 2 presents information as collected by Stats SA. Section 3 looks at information as collected by the Authority. The information is then broken down and presented per sector: Telecommunications Sector (Section 4), Broadcasting Sector (Section 5), and Postal Services Sector (Section 6). Section 7 provides a conclusion.

## 2 INFORMATION ON THE ICT SECTOR AS REPORTED BY STATISTICS SOUTH AFRICA

The State of the ICT sector report is published a year ahead of Stats SA's GHS on or by the 31st of March annually in accordance with ICASA's Annual Operational Performance Plan.

According to the GHS, the proportion of households who use only cellular phones as a means of communication increased by 1.6% from 87.8% in 2019 to 89.40% in 2020. Households using both cellular phones and fixed (or landlines) increased from 7.1% in 2018 to 8.3% in 2019. For the period of 5 years (from 2015 to 2019), the proportion of households using only landline phones have been stable at 0.1%, however in 2020 the proportion of households using only landline phones is at 0.5%. The proportion of households who have no access to neither a cellular nor a landline phone decreased from 3.8% in 2019 to 1.8% in 2020.

**Graph 1: Proportion of households who have a functional landline and/or cellular telephone in the Republic of South Africa for 2015 to 2020**

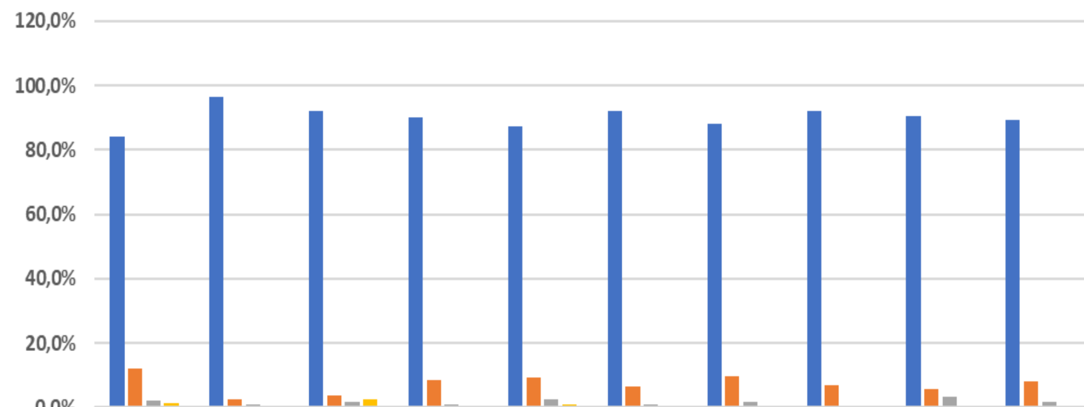



| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|
| Only Cellular Phone | 85,5% | 87,0% | 88,2% | 89,5% | 87,8% | 89,40% |
| Cellular and Landline Phone | 10,9% | 9,4% | 8,2% | 7,1% | 8,3% | 8,20% |
| None | 3,5% | 3,5% | 3,5% | 3,4% | 3,8% | 1,80% |
| Only Landline Phone | 0,1% | 0,1% | 0,1% | 0,1% | 0,1% | 0,50% |

*Source: StatsSA GHS, 2015,2016,2017,2018, 2019 & 2020*

According to the GHS report, the national proportion of South Africa's households who have access to only cellular phones is at 89.4% in 2020. In terms of the provinces, Eastern Cape is the highest at 96.4% followed by North West and Mpumalanga at 92.2%. Gauteng is the lowest at 88.2% for the same period. For the proportion of households who have no access to neither a cellular phone nor a landline, Limpopo is the highest at 3.2% in 2020 and Mpumalanga is the lowest at 0.5% for the same period. For the proportion of households who have access only to landline phones Northern Cape was the highest at 2.4% for the same period.

**Graph 2: Percentage of Households who have functional landline and cellular telephone in their dwellings by province for 2020**

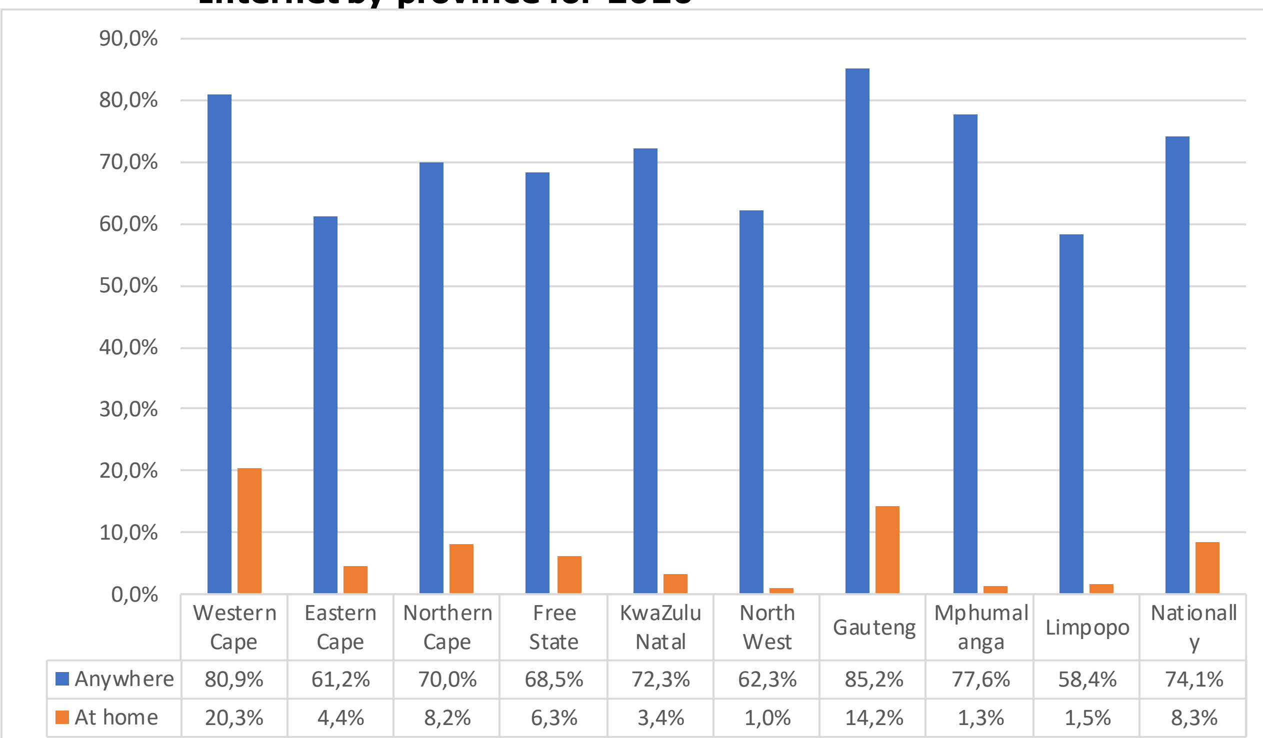



| | Western Cape | Eastern Cape | Northern Cape | Free State | KwaZulu Natal | North West | Gauteng | Mphumal anga | Limpopo | Nationally |
|---|---|---|---|---|---|---|---|---|---|---|
| Only Cellular Phone | 84,2% | 96,4% | 92,0% | 90,1% | 87,5% | 92,2% | 88,2% | 92,2% | 90,4% | 89,4% |
| Cellular & Landline Phone | 12,2% | 2,5% | 3,9% | 8,5% | 9,2% | 6,7% | 9,8% | 7,0% | 5,9% | 8,2% |
| None | 2,2% | 1,1% | 1,7% | 1,0% | 2,4% | 0,9% | 1,8% | 0,5% | 3,2% | 1,8% |
| Only Landline Phone | 1,4% | 0,0% | 2,4% | 0,4% | 0,9% | 0,3% | 0,2% | 0,3% | 0,5% | 0,5% |

*Source: StatsSA GHS, 2020*

The national proportion of households who have access to Internet was at 74.1% in 2020. This high percentage is mainly because at least one member of the household had access to internet through mobile devices and laptops. At the Provincial level, Gauteng had the highest proportion of households who have access to the Internet at 85.2%, followed by the Western Cape at 80.9%. Limpopo had the lowest proportion of households who have access to the Internet at 58.4%.

**Graph 3: Percentage of Households with access to the Internet at home, or for which at least one member has access to or used the Internet by province for 2020**




*Source: StatsSA GHS, 2020*

In Table 1 below Internet access is further broken down in terms of place of access such as metropolitan, urban, or rural status at both Provincial and National levels. In 2020, the proportion of households using mobile devices to access internet at national level are as follows: metros at 66.8%, urban at 71.6%, and rural at 52.9%.

**Table 1: Households' access to the Internet by place of access, urban/rural status, and province, 2020**

| Place where Internet is | Rural/ Urban status | Province (per cent) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | WC | EC | NC | FS | KZN | NW | GP | MP | LP | RSA |
| At home | Metro | 25.1 | 11.3 | - | 13.6 | 3.8 | - | 14.0 | - | - | 14.0 |
| | Urban | 11.9 | 1.5 | 8.0 | 3.0 | 7.8 | 1.9 | 16.3 | 1.4 | 5.6 | 6.8 |
| | Rural | 6.2 | 0.1 | 8.8 | 4.5 | 0.4 | 0.3 | 0.0 | 1.2 | 0.5 | 0.8 |
| | **Total** | **20.3** | **4.4** | **8.2** | **6.2** | **3.4** | **1.0** | **14.2** | **1.3** | **1.5** | **8.3** |
| At work | Metro | 17.0 | 16.8 | - | 17.5 | 31.6 | - | 29.1 | - | - | 26.1 |
| | Urban | 17.5 | 12.2 | 18.1 | 9.4 | 27.5 | 14.8 | 16.4 | 13.9 | 14.5 | 16.4 |
| | Rural | 24.1 | 6.4 | 10.2 | 9.2 | 4.3 | 3.5 | 0.0 | 3.2 | 4.1 | 4.8 |
| | **Total** | **17.5** | **11.4** | **15.9** | **11.7** | **20.3** | **8.4** | **27.3** | **7.9** | **5.9** | **17.5** |
| Using mobile devices | Metro | 64.2 | 53.7 | - | 52.3 | 59.6 | - | 72.1 | - | - | 66.8 |
| | Urban | 69.7 | 59.2 | 62.4 | 64.2 | 77.1 | 73.0 | 79.8 | 73.0 | 77.8 | 71.6 |
| | Rural | 55.8 | 47.4 | 64.6 | 44.8 | 50.9 | 48.9 | 58.1 | 65.3 | 52.2 | 52.9 |
| | **Total** | **65.4** | **52.2** | **63.0** | **59.0** | **60.2** | **59.3** | **73.1** | **68.7** | **56.9** | **64.1** |
| At Internet Cafes or educational facilities | Metro | 16.9 | 16.7 | - | 15.0 | 47.1 | - | 28.7 | - | - | 28.2 |
| | Urban | 12.8 | 9.1 | 9.0 | 10.2 | 11.4 | 8.8 | 25.8 | 15.9 | 6.1 | 13.1 |
| | Rural | 21.4 | 3.1 | 0.4 | 9.9 | 3.3 | 3.3 | 0.0 | 10.4 | 3.8 | 4.9 |
| | **Total** | **15.9** | **9.2** | **6.6** | **11.6** | **22.6** | **5.6** | **28.2** | **12.8** | **4.2** | **17.6** |

*Source: StatsSA GHS, 2020*

# 3 ICT DATA COLLECTED BY ICASA

This section reports on the aggregated data that was received by ICASA through questionnaires sent to licensees in September 2021.

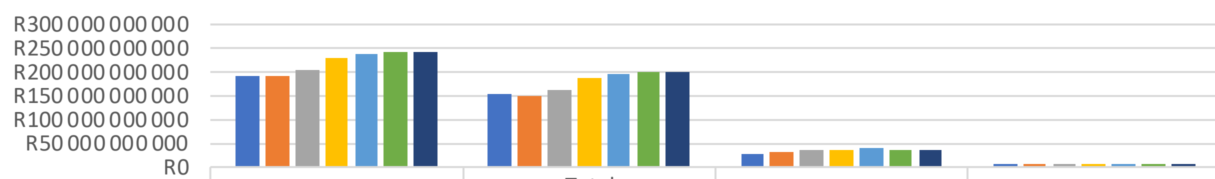
## 3.1 Revenue for the three sectors regulated by ICASA

The total sector revenue (telecommunications, broadcasting and postal) slightly increased by 0.3% from R243 billion in 2020 to R243.6 billion in 2021. The broadcasting services revenue increased by 2.8% from R35 billion in 2020 to R36 billion in 2021, and postal services revenue increased by 11.1% from R5.9 billion in 2020 to R6.6 billion in 2021, however telecommunication revenue has slightly decreased by 0.5% from R201 billion in 2020 to R200 billion in 2021[1],

Telecommunication sector generated more revenue than broadcasting sector and postal sector combined.

The revenue for the three sectors increased by 4.3% for a period of 7 years.

**Graph 4: Total revenue of the 3 sectors, for the 12 months ending 30th September each year**




| | Total combined for 3 sector revenue | Total telecommunciation revenue | Total brodcasting revenue | Total postal service revenue |
|---|---|---|---|---|
| 2015 | R189 727 239 150 | R155 731 039 861 | R28 688 718 290 | R5 307 481 000 |
| 2016 | R190 044 525 308 | R151 569 024 076 | R33 655 415 072 | R4 820 086 160 |
| 2017 | R204 386 608 276 | R163 987 306 320 | R35 606 415 286 | R4 792 886 670 |
| 2018 | R229 296 293 291 | R187 587 374 843 | R36 921 489 746 | R4 787 428 702 |
| 2019 | R238 351 239 862 | R194 284 132 172 | R38 325 761 969 | R5 741 345 721 |
| 2020 | R243 019 264 975 | R201 254 592 538 | R35 814 897 915 | R5 949 774 522 |
| 2021 | R243 657 771 045 | R200 250 923 462 | R36 798 752 670 | R6 608 094 913 |

*Source: ICASA Electronic Telecommunications, Broadcasting and Postal Questionnaire 2015 – 2021*

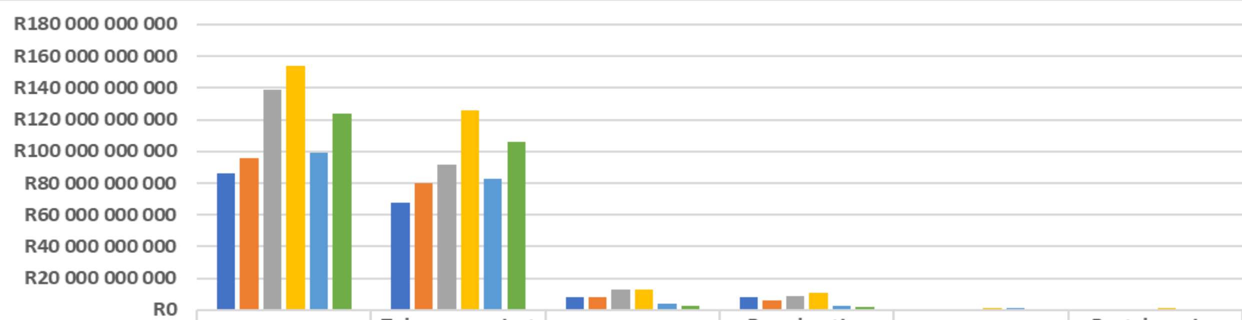
[1] *Some of the 2020 data changed due to late submission by licensees*

### 3.2 Procurement spend from all suppliers in all 3 sectors

The total procurement spend from all suppliers for all three sectors was R124 billion in 2021. 85.2% (R105 billion) of this amount was spent on suppliers on the basis of their B-BBEE rating level. The total broadcasting services procurement spend from all suppliers was R2.8 billion in 2021, with R2 billion (72%) of that spent on suppliers on the basis of their B-BBEE rating level. The total postal services procurement spend from all suppliers was R288 million in 2021, with R44 million (15.5%) of that spent on suppliers on the basis of their B-BBEE rating level.

Telecommunication procurement spend from all suppliers increased by 24.8% in 2021. The procurement spend from all suppliers from broadcasting and postal services decreased by 27.5% and 81.1% for the same period[2].

**Graph 5: Procurement spend from all suppliers in all 3 sectors**




| | Telecommunication Procument Spend from all supplliers | Telecommunication Procument Spend from all supplliers based on the B-BBEE Procument Recognition Levels | Broadcasting Procument Spend from all supplliers | Broadcasting Procument Spend from all supplliers based on the B-BBEE Procument Recognition Levels | Postal service Procument Spend from all supplliers | Postal service Procument Spend from all supplliers based on the B-BBEE Procument Recognition Levels |
|---|---|---|---|---|---|---|
| 2016 | R86 448 461 080 | R67 548 274 263 | R8 267 951 961 | R8 018 052 763 | R555 395 857 | R555 395 857 |
| 2017 | R95 898 396 437 | R79 716 674 485 | R8 133 329 927 | R6 243 530 612 | R817 935 346 | R503 345 609 |
| 2018 | R138 796 397 26 | R91 387 499 397 | R12 916 707 224 | R9 164 201 658 | R747 631 839 | R8 523 706 |
| 2019 | R153 709 327 40 | R125 580 981 74 | R12 966 834 308 | R10 703 663 708 | R1 212 745 251 | R1 092 692 234 |
| 2020 | R99 474 448 024 | R82 629 651 919 | R3 906 586 239 | R2 831 135 359 | R1 529 349 393 | R36 767 989 |
| 2021 | R124 166 572 43 | R105 744 926 53 | R2 831 020 620 | R2 037 867 747 | R288 366 514 | R44 550 384 |

*Source: ICASA Electronic Communications, Broadcasting and Postal Questionnaires, December 2015 – 2021*

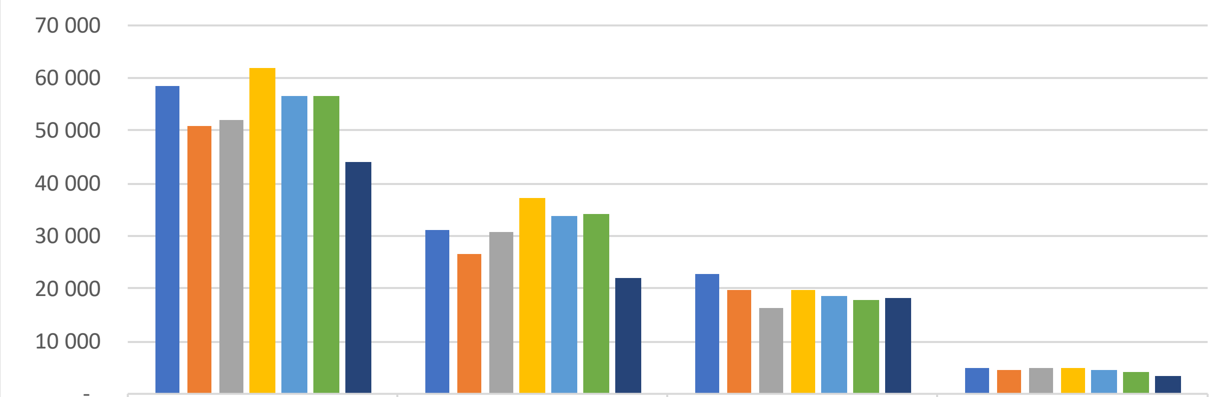
[2] *Some of the 2020 data changed due to late submission by licensees*

### 3.3 Employment levels for the three sectors that ICASA regulates

The total numbers for the three sectors employment decreased by 22.4% in 2021. Employment changes in the three sectors were as follows: telecommunications sector employment decreased by 35.8%, broadcasting sector employment also decreased by 18.7%, and postal sector employment increased by 2.1%.

Over a 7-year period, the total employment for the three sectors decreased by 4.7%. Telecommunications employment decreased by 5.5%, broadcasting employment decreased by 4.5% and postal service employment still shows a decline in terms of growth as it decreased by 3.5% for the same period[3].

**Graph 6: Total employment for the 3 sectors, as of 30th September each year**




| | Total combined employment for 3 sector | Telecommunication employment | Postal services employment | Broadcasting employment |
|---|---|---|---|---|
| 2015 | 58 411 | 30 951 | 22 671 | 4 789 |
| 2016 | 50 899 | 26 669 | 19 801 | 4 429 |
| 2017 | 51 993 | 30 881 | 16 312 | 4 800 |
| 2018 | 61 757 | 37 063 | 19 881 | 4 813 |
| 2019 | 56 709 | 33 782 | 18 464 | 4 463 |
| 2020 | 56 550 | 34 329 | 17 984 | 4 237 |
| 2021 | 43 862 | 22 055 | 18 363 | 3 444 |

*Source: ICASA Electronic Communications, Broadcasting and Postal Questionnaires 2015 - 2021*

[3] *Some of the 2020 data changed due to late submission by licensees*

## 4 TELECOMMUNICATIONS SECTOR

In 2020, we have seen a slight increase in the telecommunications sector revenue while in 2021, we have seen a slight decrease by 0.5% from R201 billion in 2020 to R200 billion in 2021. The total mobile service revenue increased by 7.8% in 2021. The total fixed internet and data revenue and total fixed line revenue decreased by 19.4%. The total fixed line revenue decreased by 7.3% in 2021.

The Authority continues to work on regulatory initiatives aimed at reducing the cost to communicate. To this effect, the Authority has concluded an inquiry into the Broadband Services Market. The Authority's findings document was published on 26 March 2021. The purpose of the inquiry was to assess the state of competition and determine whether or not there are markets or market segments within the mobile broadband services value chain which may warrant regulation in the context of a market review in terms of section 67(4) of the ECA.

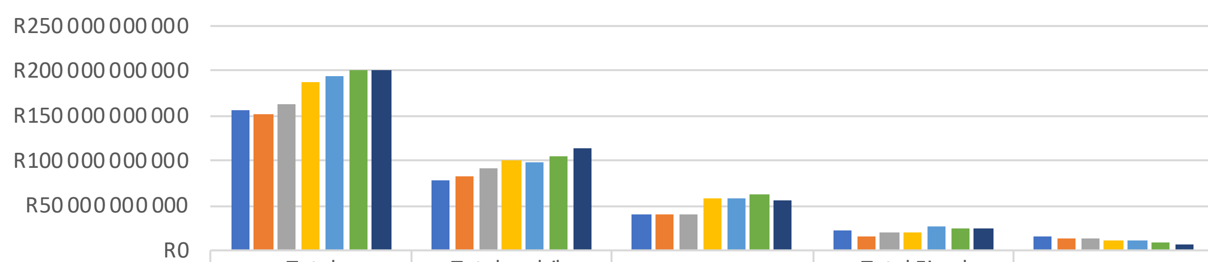
On the 17 March 2022, the Authority successfully concluded the much-anticipated high-demand radio frequency spectrum auction. The auction involved six (6) qualified bidders, i.e., Cell C, Liquid Intelligent Technologies, MTN, Rain Networks, Telkom and Vodacom.

## 4.1 Telecommunications Sector Revenues

The total telecommunications revenue slightly decreased by 0.5% in 2021 from R201 billion in 2020 to R200 billion in 2021. The total mobile service revenue increased by 7.8% in 2021. The total fixed internet and data revenue and total fixed line revenue decreased by 19.4%. The total fixed line revenue decreased by 7.3% in 2021[4].

For the period of 7 years, the total telecommunications revenue increased by 4.3%. The total mobile services revenue and total fixed internet and data revenue increased by 6.3% and 1.1%, respectively, however fixed line revenue decreased by 13.7% for the same period.

**Graph 7: Telecommunications revenue, for the 12 months ending 30th September each year**




| | Total telecommunication revenue | Total mobile services revenue (Rm) | Total of any other revenue | Total Fixed Internet and data revenue | Total fixed line revenue |
|---|---|---|---|---|---|
| 2015 | R155 731 039 861 | R78 838 681 356 | R39 059 280 775 | R22 023 113 787 | R15 809 963 943 |
| 2016 | R151 569 024 076 | R82 209 711 759 | R40 295 245 779 | R15 327 779 522 | R13 736 287 016 |
| 2017 | R163 987 306 320 | R90 737 963 135 | R39 400 714 280 | R20 432 607 468 | R13 416 021 437 |
| 2018 | R187 587 374 843 | R99 569 265 222 | R57 011 037 623 | R19 078 304 740 | R11 928 767 258 |
| 2019 | R194 284 132 172 | R98 071 800 081 | R58 768 274 771 | R26 790 096 707 | R10 653 960 614 |
| 2020 | R201 254 592 538 | R105 670 253 917 | R62 165 693 130 | R25 335 440 726 | R8 083 204 765 |
| 2021 | R200 250 923 462 | R113 945 854 241 | R56 294 725 060 | R23 493 901 812 | R6 516 442 350 |

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*
*Note: Includes revenues from telecommunication services earned from retail fixed-telephone, mobile-cellular, internet and data services offered by telecommunication operators (both network and virtual, including resellers) and interconnection, equipment sales and any other revenue.*

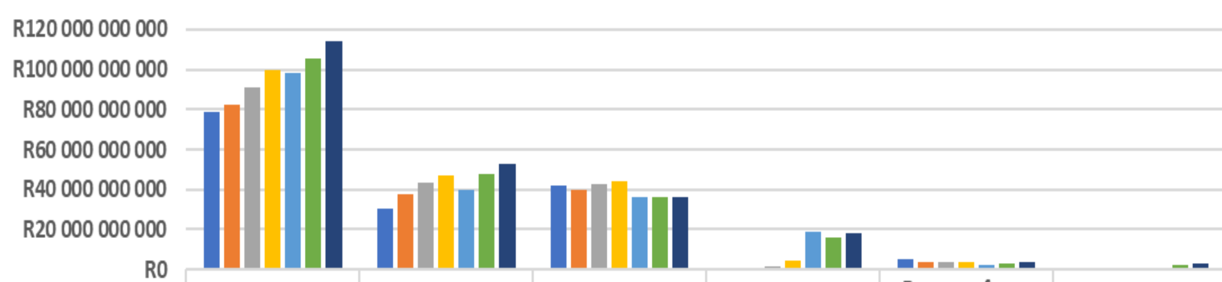
[4] *Some of the 2020 data changed due to late submission by licensees*

### 4.1.1 Total Mobile Services Revenue

The total mobile data services revenue from text and multimedia messaging services increased by 7.8% and 31.7%, respectively in 2021. The revenue from voice services slightly decreased by 0.1% in 2021[5].

For a period of 7 years, total mobile services revenue and revenue from mobile data services increased by 6.3% and 9.9%, respectively. Revenue from voice services decreased by 2.5% for the same period.

**Graph 8: Mobile services revenue for the 12 months, ending 30th September each year**




| | Total mobile services revenue (Rm) | Revenue from mobile data services | Revenue from voice services | Other mobile services revenue | Revenue from text and multimedia messaging services | Revenue from outbound roaming (R) |
|---|---|---|---|---|---|---|
| 2015 | R78 838 681 356 | R30 216 263 601 | R41 992 110 991 | R546 158 563 | R5 190 759 632 | R893 388 568 |
| 2016 | R82 209 711 759 | R37 881 274 945 | R39 498 579 909 | R463 330 629 | R3 910 993 637 | R455 532 639 |
| 2017 | R90 737 963 135 | R43 190 853 863 | R42 474 346 282 | R1 198 304 773 | R3 495 840 536 | R378 617 682 |
| 2018 | R99 569 265 222 | R47 068 742 797 | R43 756 195 020 | R4 587 185 489 | R3 957 858 068 | R199 283 848 |
| 2019 | R98 071 800 081 | R40 124 141 859 | R36 247 358 086 | R18 506 714 023 | R2 542 494 484 | R651 091 629 |
| 2020 | R105 670 253 917 | R48 071 241 971 | R36 143 659 167 | R16 198 912 702 | R2 767 430 165 | R2 489 009 912 |
| 2021 | R113 945 854 241 | R53 128 234 464 | R36 101 920 184 | R18 256 374 065 | R3 644 150 398 | R2 815 175 130 |

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

*Note: This includes retail mobile revenue from the provision of voice services from national and international calls; outbound roaming abroad; mobile data; and text messaging and multimedia messaging (SMS and MMS) and any other mobile revenue. Excludes equipment revenue and termination (interconnection) revenue and any other revenue categories e.g., other wholesale services.*

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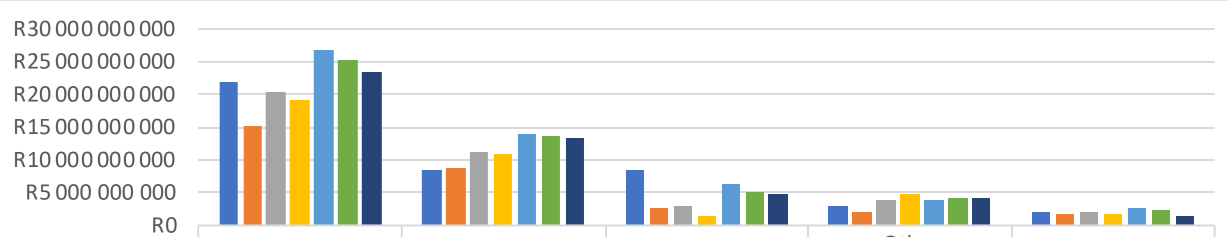
[5] *Some of the 2020 data changed due to late submission by licensees*

### 4.1.2 Total Fixed Internet and Data Revenues

The total fixed internet and data revenue decreased by 7.3% (from R25 billion in 2020 to R23 billion in 2021). Revenue from fixed (wired)-broadband services and fixed internet revenue decreased by 2.1% and 6.9%, respectively in 2021[6].

Over a 7-year period, total fixed internet and data revenues increased by 1.1%. The revenue from fixed (wired)-broadband services decreased by 7.9% for the same period.

**Graph 9: Fixed internet and data revenue, 12 months ending 30th September each year**




| | Total Fixed Internet and data revenue | Revenue from fixed (wired)-broadband services | Fixed Internet revenue (R) | Other telecommunication services revenue, including leased lines revenue and fixed value-added telecommunication services | Other wireless-broadband services revenue |
|---|---|---|---|---|---|
| 2015 | R22 023 113 787 | R8 393 442 800 | R8 392 529 397 | R3 055 425 191 | R2 181 716 399 |
| 2016 | R15 327 779 522 | R8 888 078 923 | R2 719 683 999 | R2 025 882 253 | R1 694 134 347 |
| 2017 | R20 432 607 468 | R11 306 993 289 | R3 031 182 153 | R3 943 395 318 | R2 151 036 708 |
| 2018 | R19 078 304 740 | R11 003 085 498 | R1 330 783 377 | R4 875 143 271 | R1 869 292 594 |
| 2019 | R26 790 096 707 | R13 918 376 242 | R6 327 818 019 | R3 791 726 468 | R2 752 175 978 |
| 2020 | R25 335 440 726 | R13 540 003 128 | R5 087 844 013 | R4 254 204 570 | R2 453 389 014 |
| 2021 | R23 493 901 812 | R13 262 951 804 | R4 737 468 356 | R4 195 979 416 | R1 297 502 236 |

*Source: ICASA Electronic Communications Questionnaire, December 2015 - 2021*

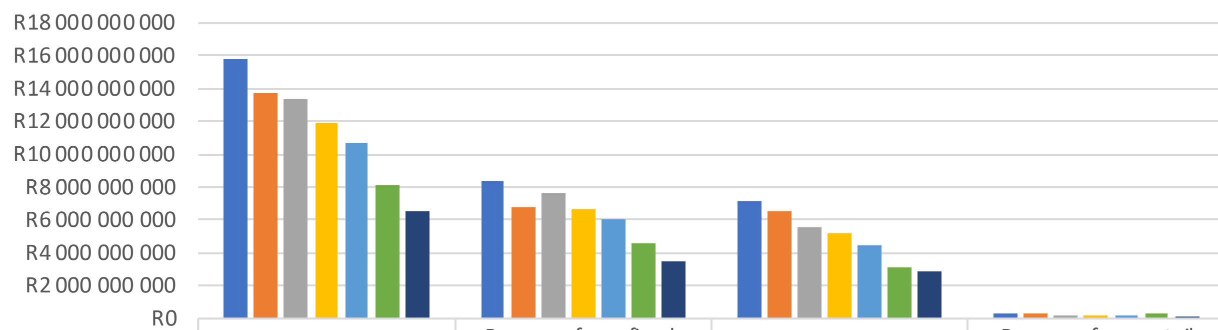
6 *Some of the 2020 data changed due to late submission by licensees*

### 4.1.3 Total Fixed Line Revenue

The total fixed line revenue decreased by 19.4% from R8 billion in 2020 to 6 billion in 2021. Revenue from fixed-telephone subscription charges and revenue from fixed-telephone calls decreased by 23.1% and 7.8%, respectively in 2021[7].

For a period of 7 years, the total fixed line revenue decreased by 13.7%.

**Graph 10: Total Fixed line revenue, 12 months ending 30th September each year**




| | Total fixed line revenue | Revenue from fixed-telephone subscription charges | Revenue from fixed-telephone calls | Revenue from retail fixed-telephone services |
|---|---|---|---|---|
| 2015 | R15 809 963 943 | R8 354 835 988 | R7 104 611 411 | R350 516 544 |
| 2016 | R13 736 287 016 | R6 832 868 171 | R6 559 636 420 | R343 782 425 |
| 2017 | R13 416 021 437 | R7 615 313 709 | R5 595 498 449 | R205 209 279 |
| 2018 | R11 928 767 258 | R6 595 737 290 | R5 140 231 624 | R192 798 344 |
| 2019 | R10 653 960 614 | R6 103 435 777 | R4 413 373 568 | R137 151 269 |
| 2020 | R8 083 204 765 | R4 575 278 396 | R3 150 430 268 | R357 496 101 |
| 2021 | R6 516 442 350 | R3 517 593 998 | R2 903 360 189 | R95 488 163 |

*Source: ICASA Electronic Communications Questionnaire, December 2015 - 2021*

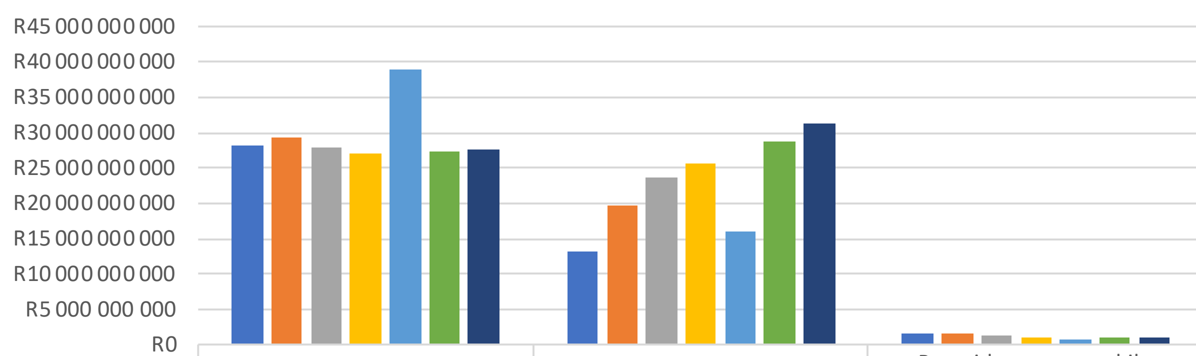
[7] *Some of the 2020 data changed due to late submission by licensees*

### 4.1.4 Prepaid Mobile Voice, Data, and Messaging Revenue

The revenue from both prepaid mobile data and voice increased by 8.2% and 0.6%, respectively in 2021. The prepaid revenue for mobile messaging decreased by 6.9% in 2021.

For a period of 7 years, revenue from prepaid mobile data increased by 15.4%. The revenue from prepaid mobile voice and messaging decreased by 0.4% and 9.4% respectively for the same period.

**Graph 11: Prepaid mobile voice, data and messaging revenue for the 12 months ending on 30th September each year**




| | Prepaid revenue mobile voice | Prepaid revenue mobile data | Prepaid revenue mobile messaging |
|---|---|---|---|
| 2015 | R28 214 729 224 | R13 163 220 180 | R1 589 242 304 |
| 2016 | R29 404 161 623 | R19 582 648 739 | R1 596 794 034 |
| 2017 | R27 821 766 556 | R23 738 773 852 | R1 328 612 859 |
| 2018 | R27 025 173 332 | R25 746 766 590 | R1 030 798 979 |
| 2019 | R38 889 588 361 | R15 985 529 092 | R693 488 985 |
| 2020 | R27 404 561 055 | R28 798 070 479 | R941 977 675 |
| 2021 | R27 579 347 445 | R31 157 104 593 | R877 342 773 |

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

### 4.1.5 Prepaid data prices (month validity)

The Prepaid data bundle sizes range from 100 MB to 20480 MB for 2022, with prices ranges as indicated in the table below. The data bundles are valid for a period of a month with an automatic roll-over for any unused data remaining after the expiry of the validity period.

**Table 2: Prepaid data price (month validity)**

| Prepaid data Bundle prices | | | | |
|---|---|---|---|---|
| **Data Bundle (MB)** | **2021 prices** | | **2022[8] prices** | |
| | **Lowest price** | **Highest price** | **Lowest price** | **Highest price** |
| 100(MB) | R20 | R20 | R15 | R20 |
| 250 (MB) | R35 | R35 | R35 | R35 |
| 500 (MB) | R69 | R79 | R65 | R69 |
| 750 (MB) | R89 | R89 | [redacted] | |
| 1024 (MB) | R95 | R99 | R79 | R99 |
| 1536 (MB) | R149 | R149 | R89 | R99 |
| 2048 (MB) | R139 | R199 | R139 | R149 |
| 3072 (MB) | R199 | R279 | R199 | R229 |
| 5120 (MB) | R299 | R349 | R299 | R299 |
| 6144 (MB) | R299 | R399 | R299 | R349 |
| 6656 (MB) | R399 | R399 | [redacted] | |
| 10240 (MB) | R469 | R499 | R469 | R469 |
| 20480 (MB) | R699 | R899 | R599 | R699 |

*Source: ICASA Electronic Communications Questionnaire for 2021-2022*

[8] *Updated on 22 February 2022*

### 4.1.6 Post-paid data prices (month validity)

The post-paid data bundle, as indicated in the table below, shows the price ranges per Gigabyte for 2022.

**Table 3: Post-paid data price (month validity)**

| Post-paid data Bundle prices | | | | |
|---|---|---|---|---|
| Data Bundle (GB) | 2021 prices | | 2022[9] prices | |
| | Lowest price | Highest price | Lowest price | Highest price |
| 1 GB | R40 | R79 | R40 | R79 |
| 2 GB | R60 | R110 | R60 | R119 |
| 3 GB | R179 | R179 | R149 | R179 |
| 4 GB | R100 | R100 | R99 | R100 |
| 5 GB | R221 | R221 | R199 | R215 |
| 6 GB | R129 | R129 | R129 | R129 |
| 10 GB | R200 | R332 | R149 | R320 |
| 14 GB | R259 | R259 | R259 | R259 |
| 20 GB | R355 | R539.38 | R199 | R539 |
| 30 GB | R645 | R645 | R399 | R645 |
| 50 GB | R959 | R959 | R499 | R959 |
| 100 GB | R1,699 | R1,699 | R1,699 | R1,699 |
| 200 GB | R2,099 | R2,099 | R2,099 | R2,099 |

*Source: ICASA Electronic Communications Questionnaire for 2021 - 2022*

[9] *Updated on 22 February 2022*

#### 4.1.7 Prepaid and Post-paid Voice and Messaging prices

The price range per minute, for prepaid voice is from R0.66 to R2.50 and for post-paid is from R0.70 to R1.79.

The local SMS's prices range for prepaid is between R0.15 and R0.52 and post-paid is R0.30 to R0.55.

The international SMS's price range for prepaid is from R1.61 to R2 and post-paid is R1.52 to R1.61.

**Table 4: Prepaid and post-paid voice and SMS prices**

| Price range | Voice (Per minute) | SMS (Local) | SMS (International) |
|---|---|---|---|
| **Prepaid** | R0.66 to R2.50 | R0.15 to R0.52 | R1.61 to R2.00 |
| **Post-paid** | R 0.70 to R 1.79 | R 0.30 to R 0.55 | R 1.52 to R1.61 |

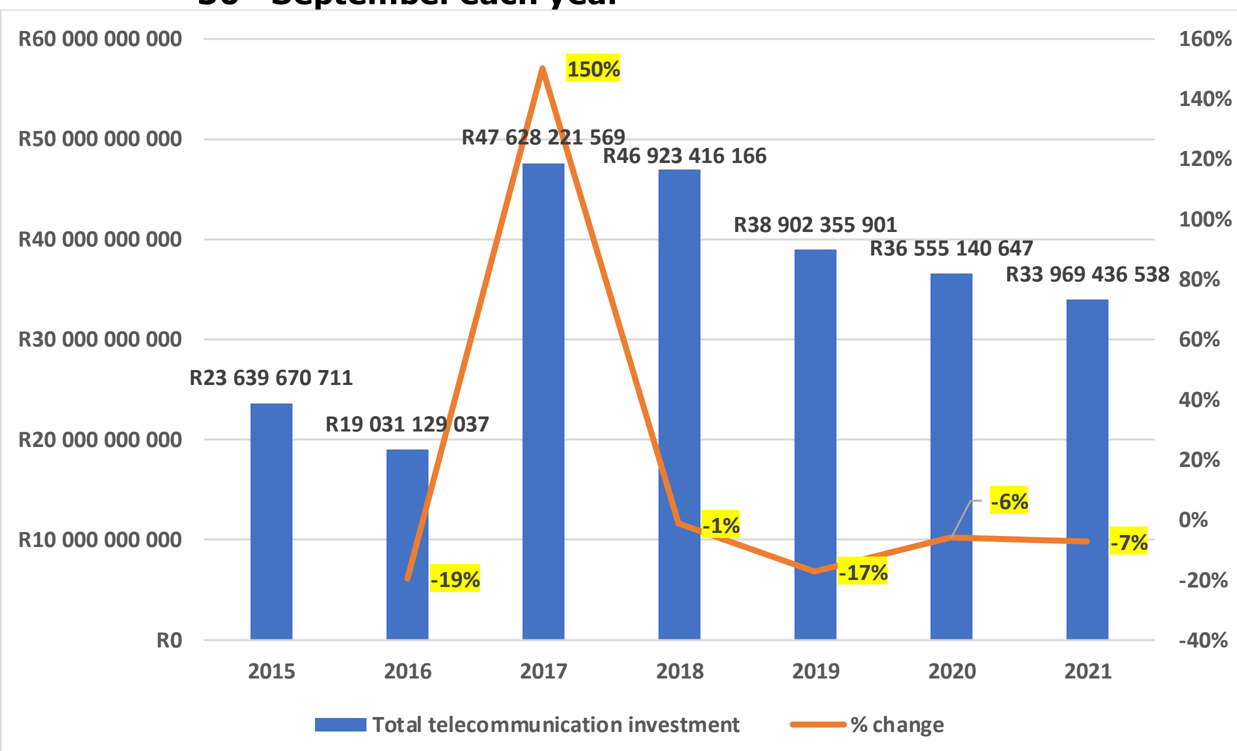
*Source: ICASA Electronic Communications Questionnaire as of 2022*

### 4.2 Total Telecommunications Investment

The total telecommunications investment continues to decrease as shown in the graph below. In 2021 it decreased by 7% (from R36 billion in 2020 to R33 billion in 2021)[10].

Over a 7-year period, the total telecommunications investment increased by 6.2%.

**Graph 12: Total telecommunication investment, for the 12 months ending 30th September each year**




*Source: ICASA Electronic Communications, Broadcasting and Postal Questionnaires 2015 - 2021*

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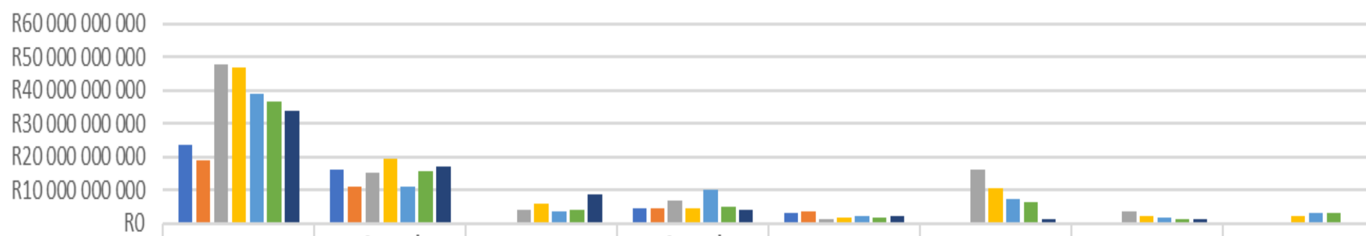
[1] *Some of the 2020 data changed due to late submission by licensees*

### 4.2.1 Telecommunications Investment Breakdown

Telecommunications investment breakdown is shown on the table below in 2021.

Over a 7-year period, the investment in fixed-telephone services and annual investment in fixed (wired)-broadband services decreased by 22.6% and 1.6%, respectively.

**Graph 13: Telecommunication investment breakdown, for the 12 months ending 30th September each year**



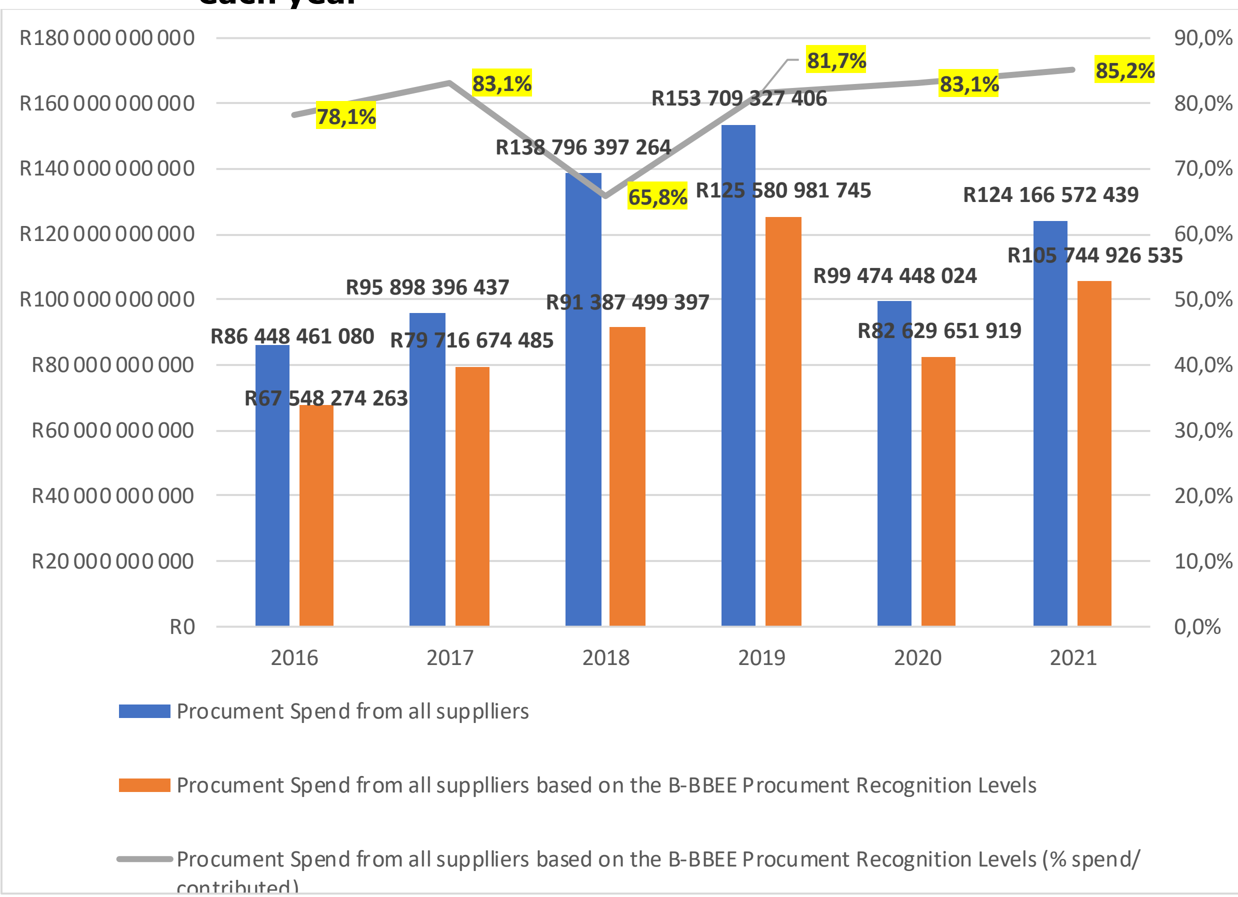

| | Total telecommunication investment | Annual investment in mobile communication services | Infrastructure | Annual investment in fixed (wired)-broadband services | Other annual investment in telecommunication services | Expansion | Maintenance | Annual investment in fixed-telephone services |
|---|---|---|---|---|---|---|---|---|
| 2015 | R23 639 670 711 | R16 023 808 303 | R0 | R4 271 046 025 | R2 982 137 563 | R0 | R0 | R362 678 821 |
| 2016 | R19 031 129 037 | R10 773 379 404 | R0 | R4 348 617 012 | R3 478 418 766 | R0 | R0 | R430 713 855 |
| 2017 | R47 628 221 569 | R15 237 727 593 | R3 770 800 407 | R7 002 587 357 | R1 285 335 724 | R16 176 231 342 | R3 674 868 105 | R480 671 041 |
| 2018 | R46 923 416 166 | R19 584 646 672 | R5 916 132 762 | R4 559 607 770 | R1 812 969 770 | R10 482 529 163 | R2 341 073 325 | R2 226 456 703 |
| 2019 | R38 902 355 901 | R10 922 347 986 | R3 729 768 720 | R10 221 560 045 | R2 113 372 650 | R7 265 057 850 | R1 539 791 654 | R3 110 456 996 |
| 2020 | R36 555 140 647 | R15 609 753 461 | R3 894 797 426 | R4 830 520 473 | R1 747 952 845 | R6 380 976 746 | R1 179 115 659 | R2 912 024 038 |
| 2021 | R33 969 436 538 | R17 251 321 589 | R8 493 709 643 | R3 880 738 778 | R2 016 364 145 | R1 124 581 032 | R1 124 581 032 | R78 140 318 |

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

### 4.3 Telecommunications Procurement Spend from All Suppliers Based on B-BBEE Ranking

The proportion of telecommunications procurement spend from all suppliers based on the B-BBEE ranking levels spend was 85.2% in 2021[11].

**Graph 14: Telecommunication procurement spend from all suppliers based on the B-BBEE, for the 12-month period ending 30th September each year**




*Source: ICASA Electronic Communications Questionnaire 2016 - 2021*

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[1] *Some of the 2020 data changed due to late submission by licensees*

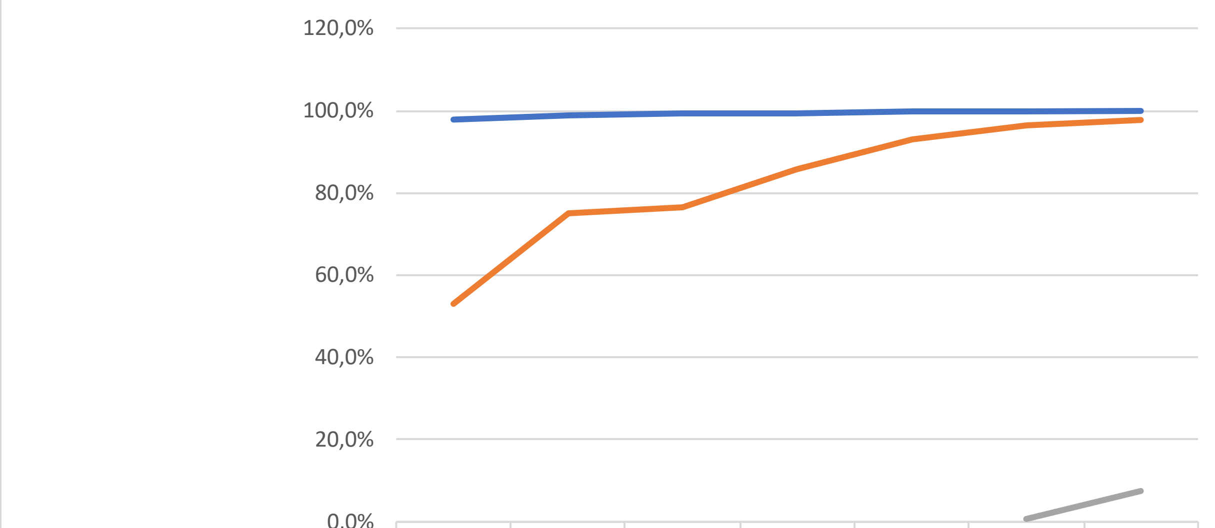
### 4.4 National Population Coverage

National population coverage for 3G was at 99.9% in 2021.

National population coverage for 4G/LTE was at 97.7% in 2021.

5G population coverage is growing, in 2020 it was at 0,7% and in 2021 is at 7.5%.

**Graph 15: National population coverage for 3G, 4G/LTE and 5G**



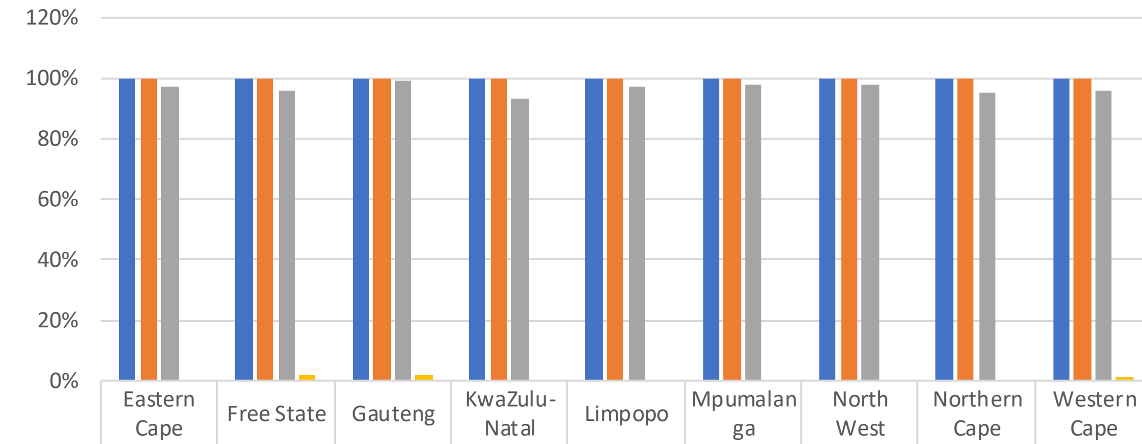

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|
| 3G Population Coverage | 97,8% | 99,0% | 99,3% | 99,5% | 99,7% | 99,8% | 99,90% |
| 4G/LTE Population Coverage | 53,0% | 75,0% | 76,7% | 85,7% | 92,8% | 96,4% | 97,70% |
| 5G Coverage | | | | | | 0,7% | 7,50% |

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

### 4.4.1 Rural Population Coverage

In 2021, with respect to 2G and 3G, all provinces are at 100% coverage as reported by the licensees. Regarding 4G/LTE coverage all provinces are above 96% for the same period. Free State, Gauteng and Western Cape have 5G coverage as shown in the graph below.

**Graph 16: Rural Population Covered per province in 2021**




| | Eastern Cape | Free State | Gauteng | KwaZulu-Natal | Limpopo | Mpumalanga | North West | Northern Cape | Western Cape |
|---|---|---|---|---|---|---|---|---|---|
| 2G | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 3G | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 4G/LTE | 97% | 96% | 99% | 93% | 97% | 98% | 98% | 95% | 96% |
| 5G | 0% | 2% | 2% | 0% | 0% | 0% | 0% | 0% | 1% |

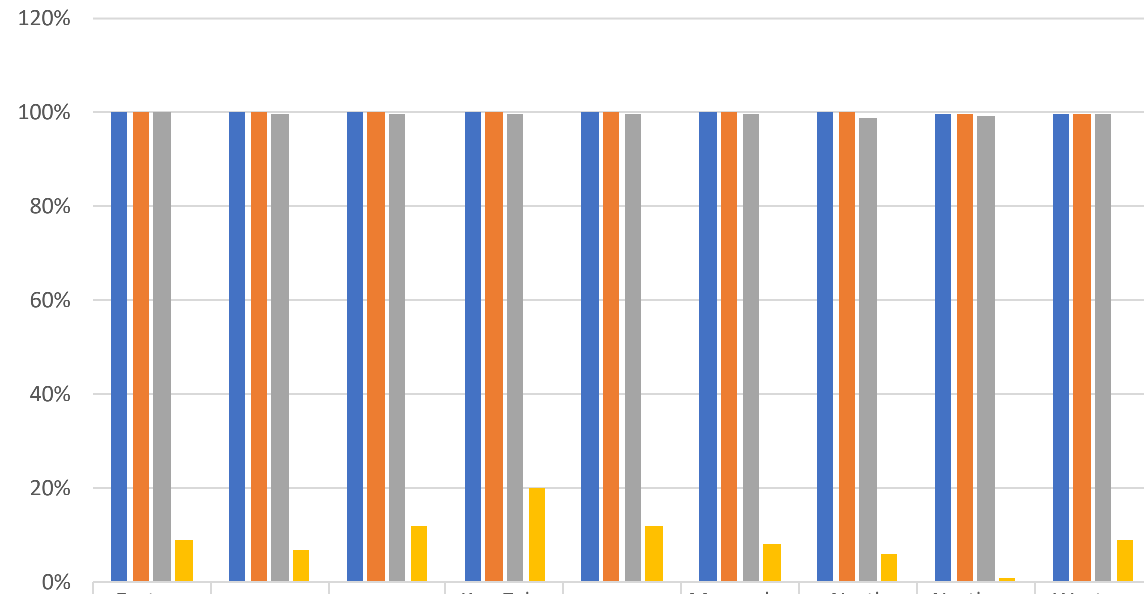
*Source: ICASA Electronic Communications Questionnaire 2021*

### 4.4.2 Urban Population Coverage

In 2021, with respect to 2G, 3G, and LTE coverage, all provinces are at (99% to 100%).

5G coverage in urban areas is showing a positive growth in all provinces as shown in the table below, with Kwazulu-Natal on the lead with 20% for the same period.

**Graph 17: Urban Population Covered per province in 2021**



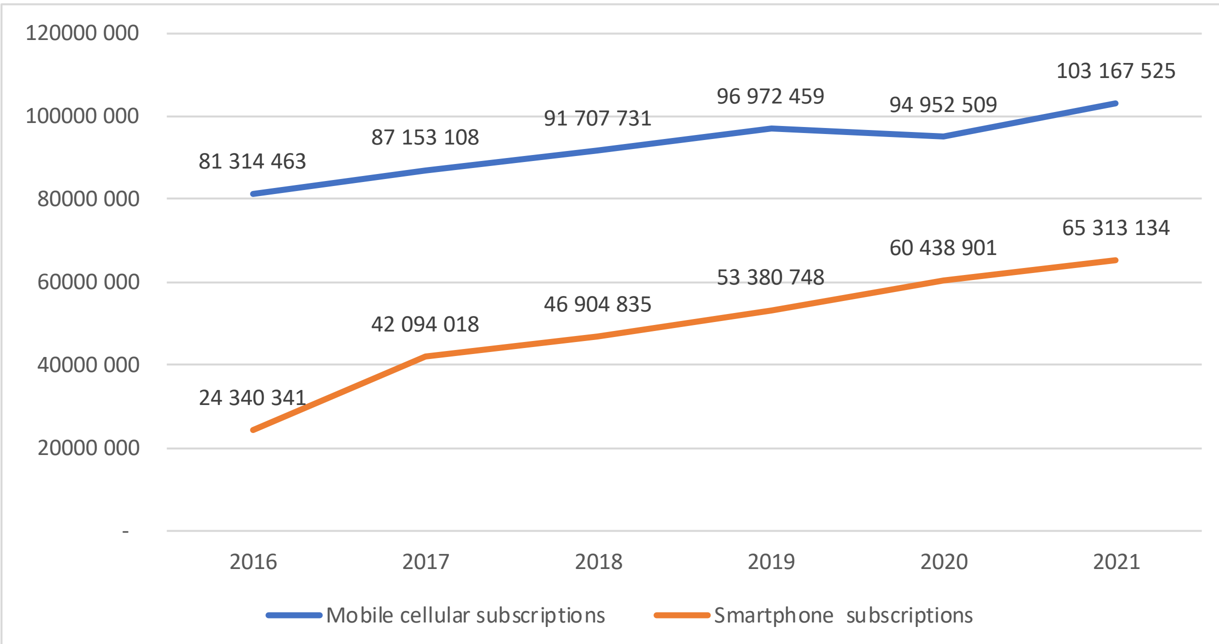

| | Eastern Cape | Free State | Gauteng | KwaZulu-Natal | Limpopo | Mpumalanga | North West | Northern Cape | Western Cape |
|---|---|---|---|---|---|---|---|---|---|
| 2G | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 3G | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 4G/LTE | 100% | 100% | 100% | 100% | 100% | 100% | 99% | 99% | 100% |
| 5G | 9% | 7% | 12% | 20% | 12% | 8% | 6% | 1% | 9% |

*Source: ICASA Electronic Communications Questionnaire 2021*

### 4.5 Mobile Cellular and Smartphone Subscriptions

Mobile cellular subscriptions were 94 million in 2020 and 103 million in 2021. Smartphone[12] subscriptions were 60 million in 2020 and 65 million in 2021.

**Graph 18: Mobile Cellular and Smartphone Subscriptions, as of 30th September each year**




*Source: ICASA Electronic Communications Questionnaire. 2015 - 2021*

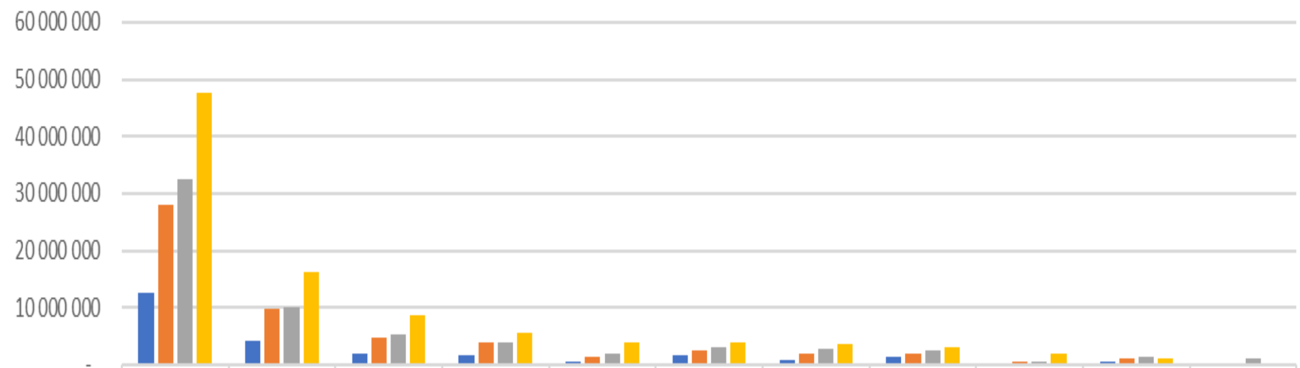
[1] *A smartphone is a mobile phone with advanced features: it has Wi-Fi connectivity, web browsing capabilities, a high-resolution touchscreen display and the ability to use apps. The majority use one of the following mobile operating systems: Android, Symbian, iOS, and Windows Mobile*

### 4.5.1 Total Number of LTE Devices

The total number of LTE devices increased by 47.4% (from 32 million in 2020 to 47 million in 2021) nationally.

In 2021, the total number of 58,604 devices were recorded with unknown location as shown in the graph below.

**Graph 19: Total number of LTE Devices per Province in 2021**




| | National | Gauteng | KwaZulu-Natal | Western Cape | North West | Limpopo | Eastern Cape | Mpumalanga | Northern Cape | Free State | Location Unknown |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2018 | 12 644 364 | 4 304 758 | 1 859 095 | 1 562 239 | 664 362 | 1 532 666 | 745 272 | 1 310 633 | 220 700 | 444 639 | - |
| 2019 | 27 999 204 | 9 859 467 | 4 817 530 | 3 805 656 | 1 465 909 | 2 472 480 | 2 016 068 | 2 001 832 | 472 067 | 1 088 195 | - |
| 2020 | 32 387 272 | 10 197 878 | 5 239 206 | 3 948 032 | 1 872 566 | 3 062 458 | 2 672 498 | 2 545 216 | 585 121 | 1 290 287 | 974 010 |
| 2021 | 47 731 522 | 16 181 205 | 8 596 620 | 5 535 617 | 3 937 994 | 3 813 921 | 3 609 384 | 3 002 071 | 1 870 500 | 1 125 608 | 58 604 |

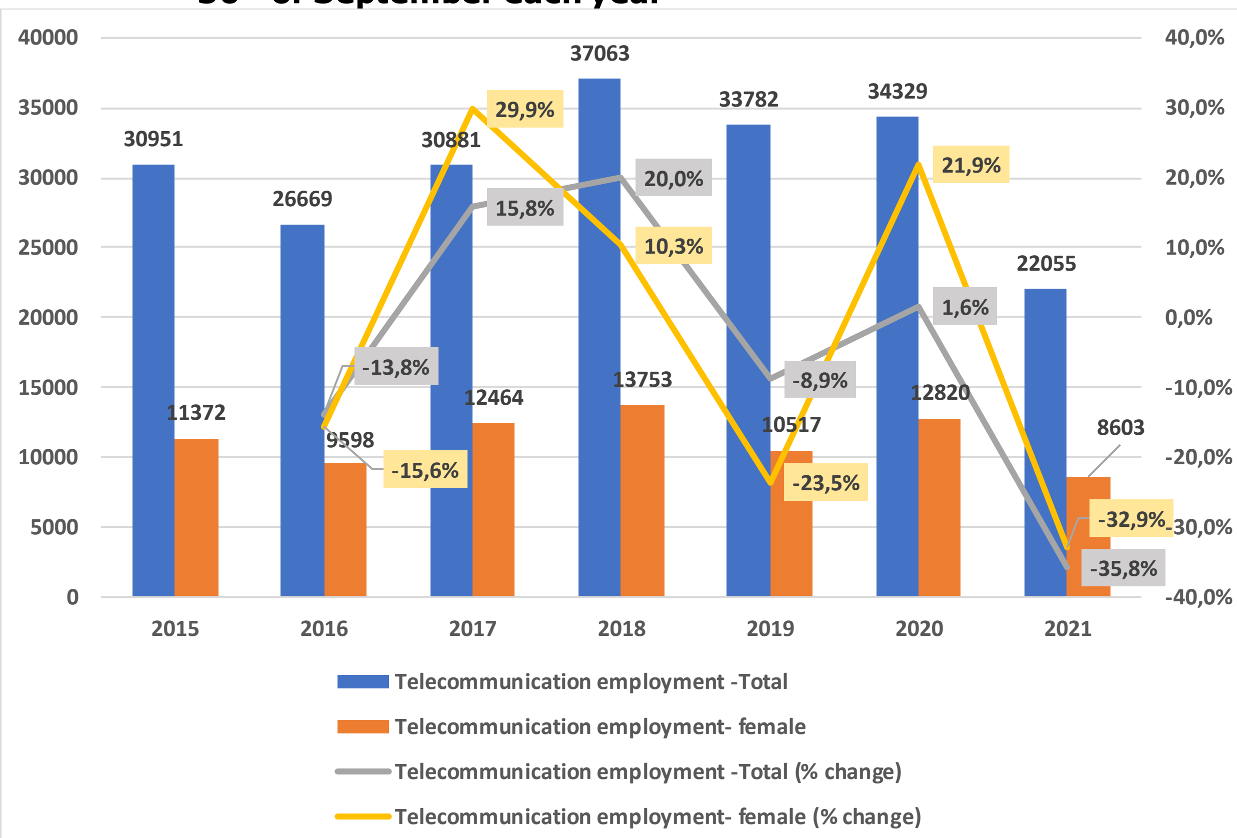
*Source: ICASA Electronic Communications Questionnaire 2018 - 2021*

### 4.6 Persons Employed in the Telecommunications Sector

The total employment in the telecommunications sector significantly decreased by 35.8% from 34,329 in 2020 to 22, 055 in 2021. Female employees as a proportion of the total employment also decreased by 32.9% from 12,820 in 2020 to 8,603 in 2021[13].

Over a 7-year period, telecommunications sector total employment and female employment decreased by 5.5% and 4.5%, respectively.

**Graph 20: Persons employed in the telecommunications sector, as of the 30th of September each year**



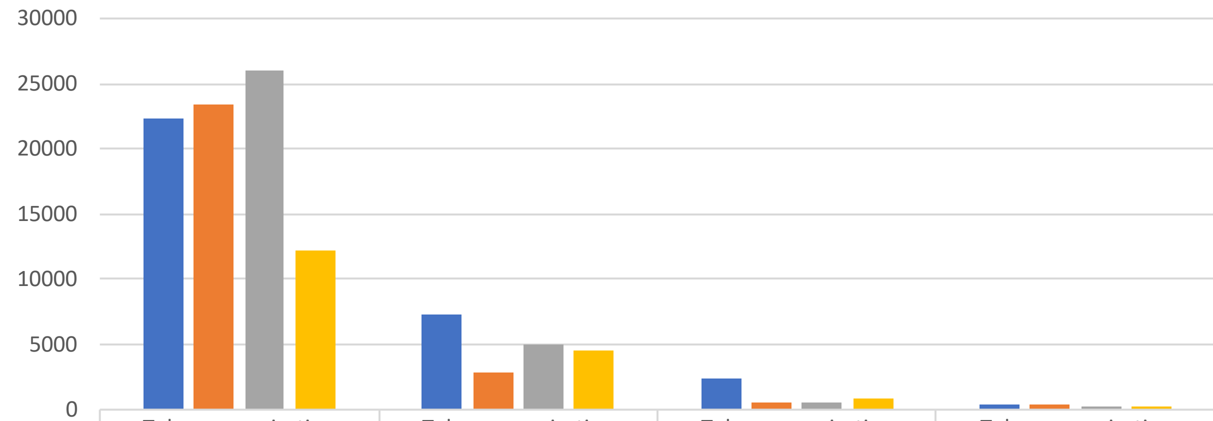

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

[1] *Some of the 2020 data changed due to late submission by licensees*

### 4.7 Persons employed in the telecommunications sector breakdown

In 2021, there were about 12 thousand skilled persons, 4530 semi-skilled persons and 191 persons with disabilities employed in the telecommunications sector.

**Graph 21: Persons employed in the telecommunications sector breakdown from 2018 to 2021**




| | Telecommunication employment- skilled | Telecommunication employment- Semi skilled | Telecommunication employment- Unskilled | Telecommunication employment- Disabled |
|---|---|---|---|---|
| 2018 | 22392 | 7293 | 2352 | 414 |
| 2019 | 23334 | 2863 | 558 | 354 |
| 2020 | 25951 | 5050 | 527 | 311 |
| 2021 | 12270 | 4530 | 831 | 191 |

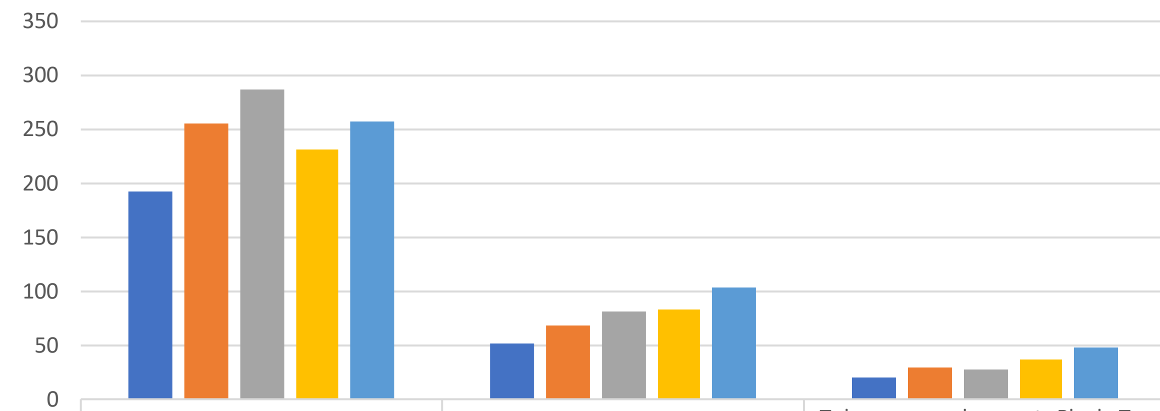
*Source: ICASA Electronic Communications Questionnaire 2018 - 2021*

### 4.8 Black Economic Empowerment Employment Measures

In 2021, Top Management (EXCO members) employment increased by 10.8% from 232 in 2020 to 257 in 2021. Top Black Management employment increased by 25.3% from 83 in 2020 to 104 in 2021 and, Top Female Management employment increased by 29.7% from 37 in 2020 to 48 in 2021.

For a period of 5 years, Top management increased by 7.6%.

**Graph 22: Telecommunication Black Economic Empowerment Measures, for the 12-month period ending 30th September each year**




| | Telecoms employment- Top Management(EXCO Members) | Telecoms employment- Black Top Management(EXCO Members) | Telecoms employment- Black Top Female Management(EXCO Members) |
|---|---|---|---|
| 2017 | 192 | 52 | 21 |
| 2018 | 255 | 68 | 29 |
| 2019 | 287 | 81 | 28 |
| 2020 | 232 | 83 | 37 |
| 2021 | 257 | 104 | 48 |

*Source: ICASA Electronic Communications Questionnaire 2017 - 2021*

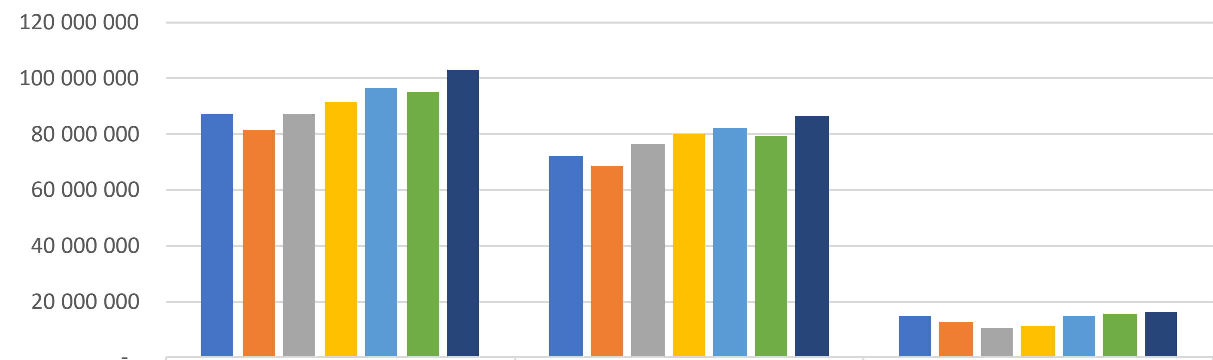
## 4.9 Telecommunications Subscriptions

### 4.9.1 Mobile Cellular (Prepaid and Post-paid mobile Cellular Phone Voice) Subscriptions

The total mobile cellular phone voice subscriptions increased by 8.7% from 94 million in 2020 to 103 million in 2021. Prepaid and postpaid mobile-cellular telephone subscriptions increased by 9.3% and 5.3%, respectively in 2021.

For a period of 7 years, the total mobile cellular phone voice subscriptions increased by 2.9%.

**Graph 23: Prepaid and post-paid mobile cellular voice subscriptions, as of 30th September each year**




| | Total Mobile cellular subscriptions | Prepaid mobile-cellular telephone subscriptions | Postpaid mobile-cellular telephone subscriptions |
|---|---|---|---|
| 2015 | 86 985 183 | 72 423 365 | 14 561 818 |
| 2016 | 81 314 463 | 68 710 864 | 12 603 599 |
| 2017 | 87 153 108 | 76 546 031 | 10 607 077 |
| 2018 | 91 707 731 | 80 436 209 | 11 271 522 |
| 2019 | 96 972 459 | 82 323 854 | 14 648 605 |
| 2020 | 94 952 509 | 79 419 434 | 15 533 075 |
| 2021 | 103 167 525 | 86 816 228 | 16 351 297 |

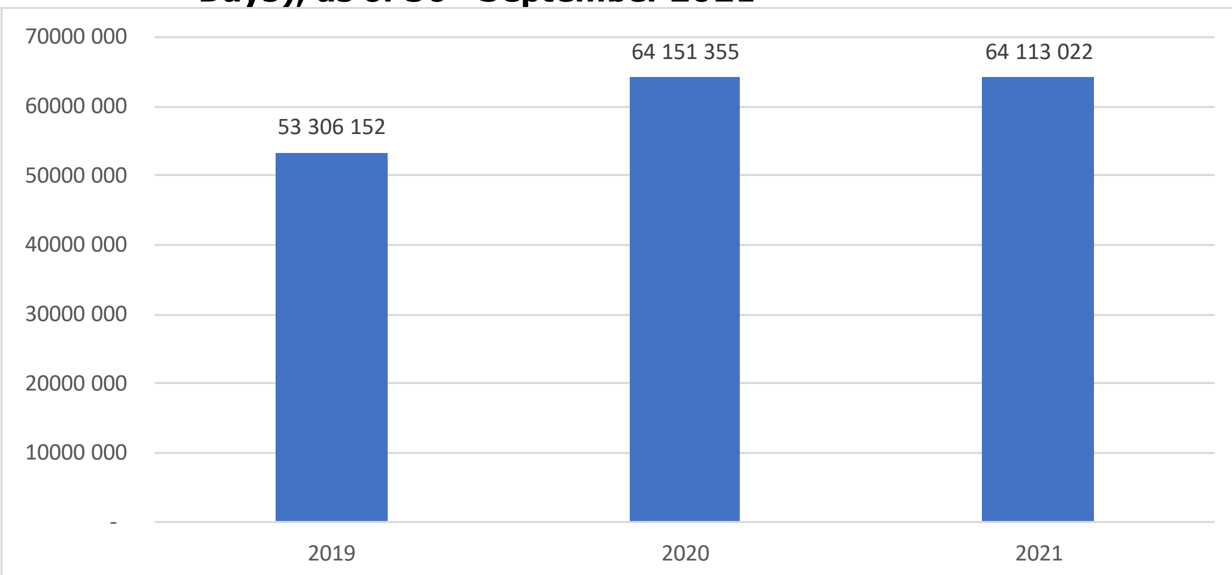
*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

*Note: The definition of prepaid subscribers is adopted from the ITU definition of 3-month active subscribers. Some South African operators do not have this metric available but rather count SIMs that have not been disconnected within a 90-day window implying that the number may be overstated according to the strict definition. Top up bundles and machine-to-machine subscriptions were included in post-paid mobile cellular subscriptions.*

### 4.9.2 Mobile Cellular Active Subscriptions (Active for more than 90 Days)

Mobile Cellular active subscriptions decreased by 0.1% from 64,151,355 in 2020 to 64,113,022 in 2021.

**Graph 24: Mobile Cellular Active Subscriptions (Active for more than 90 Days), as of 30th September 2021**



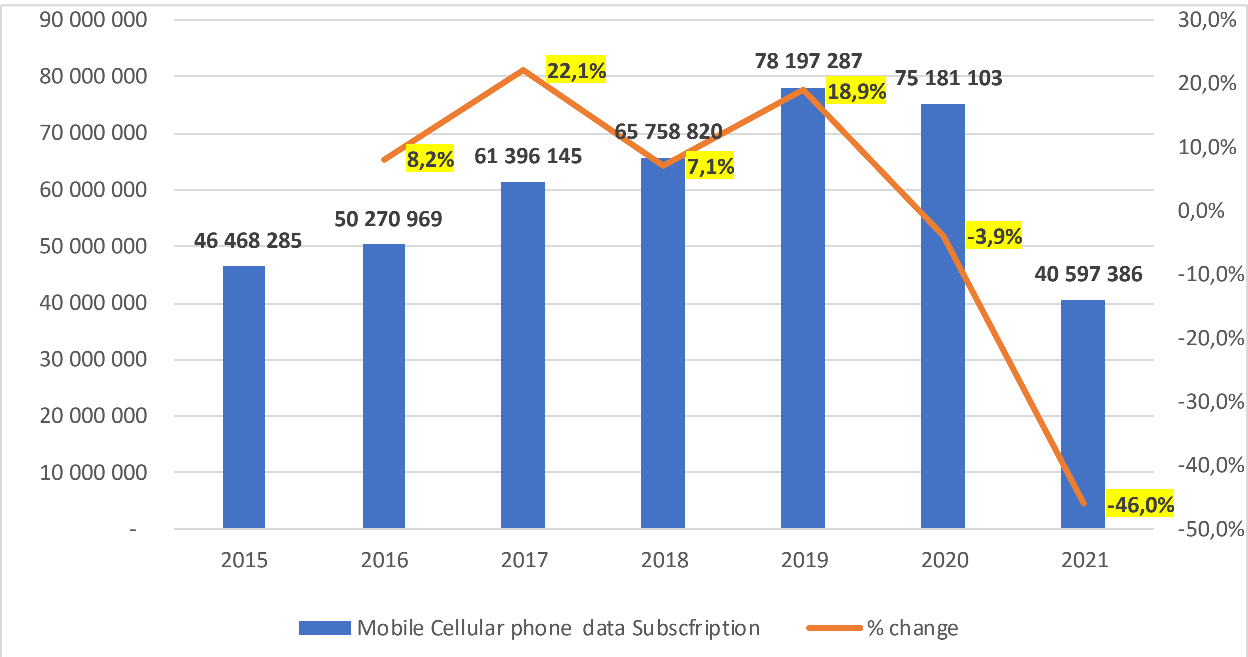

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*
*Note: The definition of prepaid subscribers is adopted from the ITU definition of 3-month active subscribers. Some South African operators do not have this metric available but rather count SIMs that have not been disconnected within a 90-day window implying that the number may be overstated according to the strict definition. Top up bundles and machine-to-machine subscriptions were included in post-paid mobile cellular subscriptions.*

#### 4.9.3 Mobile Cellular Phone Data users

Mobile cellular data users significantly decreased by 46% (from 75 million in 2020 to 40 million in 2021).

Mobile data users decreased by 2.2% for a period of 7 years.

**Graph 25: Mobile cellular phone data subscriptions, as of 30th September each year**



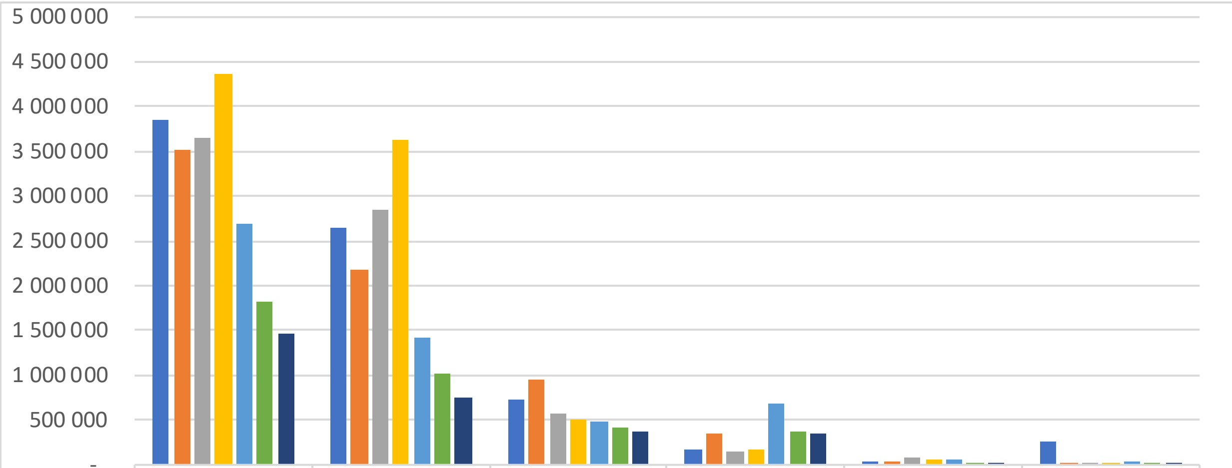

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*
*Note: All LTE connections are included in 'mobile'. There is room for the definition of 'mobile broadband subscriptions' to be improved in subsequent reports, noting that it was not possible to accurately distinguish between handset data usage and mobile data usage on other devices, or alternatively to distinguish SIMs used for both voice and data from SIMs dedicated to data usage. It was also necessary to count total internet subscriptions rather than 'broadband' subscriptions, as it was not possible to accurately break out 'narrowband' internet, albeit this is now a small minority of total internet subscriptions. 'Wireless broadband' number may be incomplete in respect of some players, especially those operating in unlicensed spectrum bands.*

### 4.9.4 Fixed Line Voice Subscriptions

Fixed line voice subscriptions decreased in all categories as shown in the graph below.

Over a 7-year period, Fixed line subscriptions decreased by 14.9%.

**Graph 26: Fixed line subscriptions, as of 30th September each year**




| | Fixed line subscriptions | Analogue fixed-telephone lines | ISDN voice-channel equivalents | VoIP subscriptions | Fixed public payphone | Fixed wireless local loop subscriptions |
|---|---|---|---|---|---|---|
| 2015 | 3 846 332 | 2 637 753 | 731 034 | 165 425 | 43 666 | 268 454 |
| 2016 | 3 515 607 | 2 185 750 | 949 264 | 344 208 | 26 424 | 9 961 |
| 2017 | 3 645 837 | 2 840 096 | 575 476 | 142 224 | 83 534 | 4 507 |
| 2018 | 4 355 309 | 3 623 941 | 500 256 | 166 111 | 61 739 | 3 262 |
| 2019 | 2 698 989 | 1 419 506 | 490 459 | 683 347 | 61 125 | 44 552 |
| 2020 | 1 829 043 | 1 009 653 | 421 012 | 380 530 | 2 166 | 15 682 |
| 2021 | 1 461 046 | 749 269 | 366 889 | 342 474 | 2 160 | 254 |

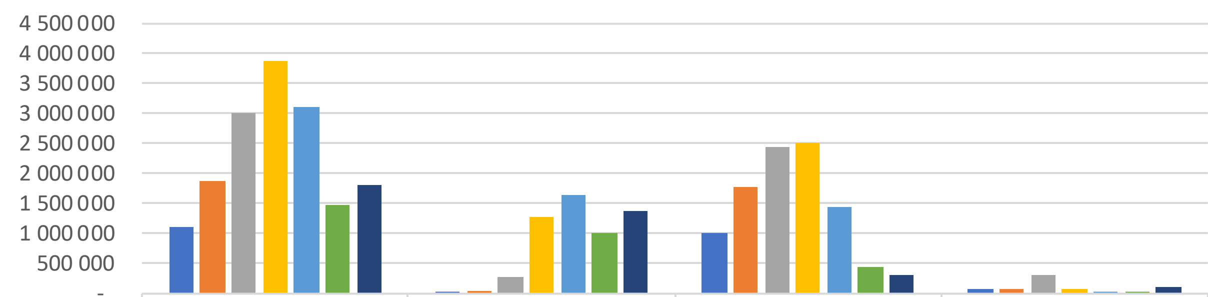
*Source: ICASA Electronic Communications Questionnaire, December 2015 - 2021*

### 4.9.5 Fixed Line Broadband Subscriptions

The total fixed broadband subscriptions increased by 20.4%, and fibre-to-the-home/building internet subscriptions increased by 34.4% in 2021. However, the DSL internet subscription decreased by 30.2% for the same period[14].

For a period of 7 years, fixed broadband subscriptions increased by 8.4%.

**Graph 27: Fixed broadband subscriptions, as of 30th September each year**




| | Fixed broadband subscriptions | Fibre-to-the-home/building Internet subscriptions | DSL Internet subscriptions | Other fixed (wired)-broadband subscriptions |
|---|---|---|---|---|
| 2015 | 1 109 055 | 31 843 | 1 012 996 | 64 216 |
| 2016 | 1 890 832 | 44 895 | 1 781 519 | 64 418 |
| 2017 | 3 023 349 | 280 097 | 2 434 555 | 308 697 |
| 2018 | 3 869 934 | 1 278 728 | 2 521 013 | 70 193 |
| 2019 | 3 112 717 | 1 647 419 | 1 441 292 | 24 006 |
| 2020 | 1 492 151 | 1 026 002 | 453 771 | 12 378 |
| 2021 | 1 796 364 | 1 379 207 | 316 825 | 100 332 |

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

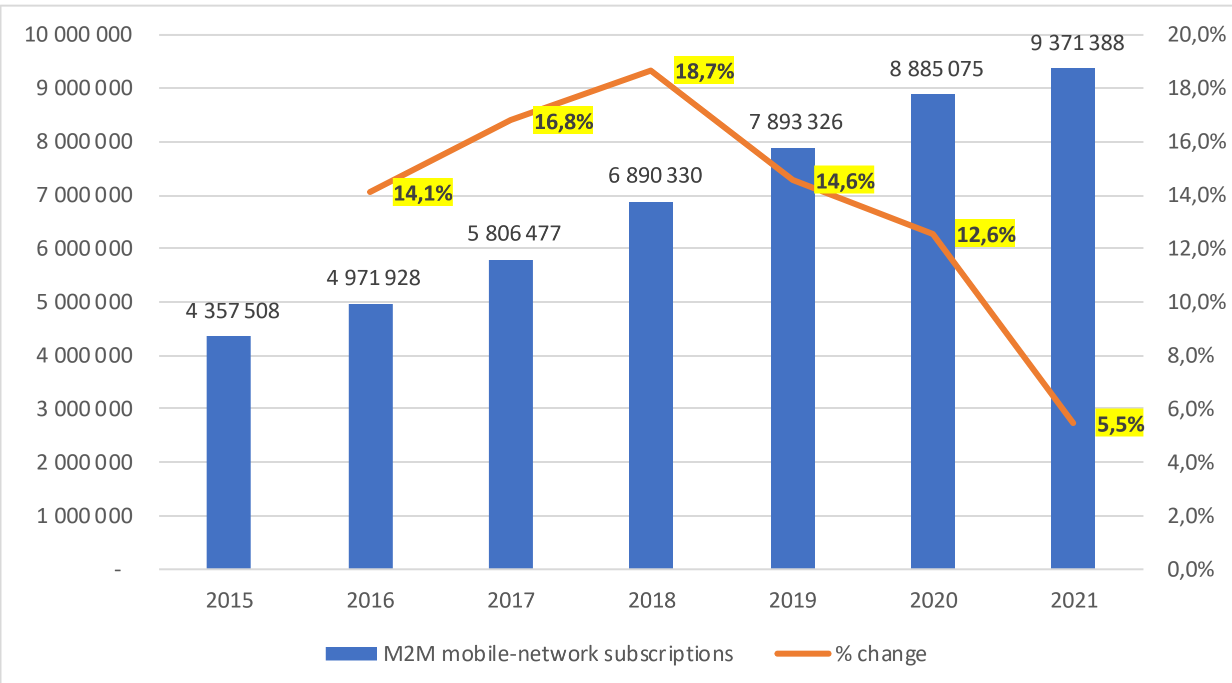
[1] *Some of the 2020 data changed due to late submission by licensees*

### 4.9.6 Machine-to-Machine (M2M) Mobile Subscriptions

M2M mobile-network subscriptions increased by 5.5% from 8.8 million in 2020 to 9.3 million in 2021.

Over a 7-year period, M2M mobile-network subscriptions increased by 13.6%.

**Graph 28: M2M mobile-network subscriptions, as of 30th September each year**



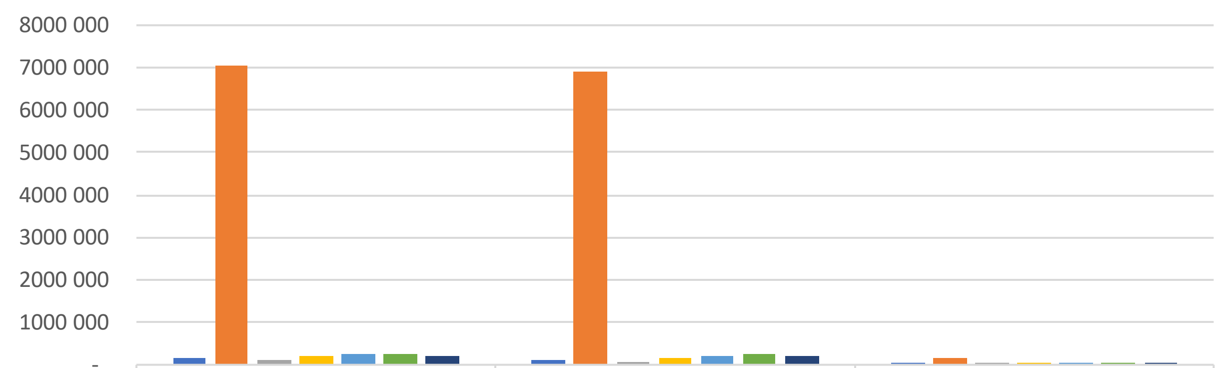

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

### 4.9.7 Wireless-broadband subscriptions

The total wireless-broadband subscriptions decreased by 7% (from 244,876 in 2020 to 227,840 in 2021). Satellite subscriptions significantly increased by 54.2% in 2021, and terrestrial fixed broadband subscriptions decreased by 10.3% for the same period.

For a period of 7 years, the total wireless-broadband subscriptions increased by 7.3%.

**Graph 29: Wireless-broadband subscriptions, as of 30th September each year**




| | Total Wireless-broadband subscriptions | Terrestrial fixed wireless broadband subscriptions | Satellite broadband subscriptions |
|---|---|---|---|
| 2015 | 148 967 | 119 759 | 29 208 |
| 2016 | 7070 218 | 6910 630 | 159 588 |
| 2017 | 115 951 | 84 588 | 31 363 |
| 2018 | 185 327 | 162 319 | 23 008 |
| 2019 | 231 687 | 209 594 | 22 093 |
| 2020 | 244 876 | 232 108 | 12 768 |
| 2021 | 227 840 | 208 152 | 19 688 |

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

## 4.10 Network Traffic

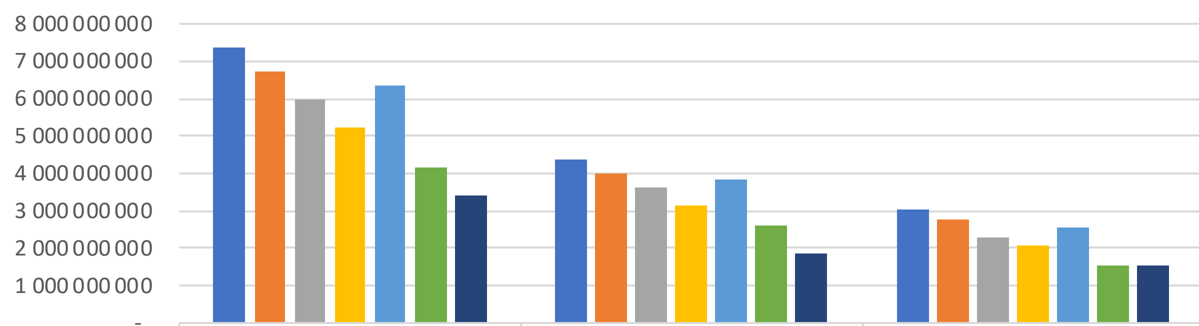
This section highlights the usage of operator networks in terms of traffic volumes in minutes.

### 4.10.1 Fixed Line Traffic

The total fixed line traffic decreased by 18.5% (from 4.1 billion in 2020 to 3.3 billion in 2021).

For a period of 7 years, total fixed line traffic decreased by 12.1%.

**Graph 30: Fixed line traffic, in minutes, for the 12-month period ending 30th September each year**




| | Total Fixed line traffic | Local fixed-to-fixed telephone traffic, in minutes | Long-distance fixed-to-fixed telephone traffic, in minutes |
|---|---|---|---|
| 2015 | 7 389 784 202 | 4 378 174 575 | 3 011 609 627 |
| 2016 | 6 751 540 678 | 3 994 718 204 | 2 756 822 474 |
| 2017 | 5 954 515 149 | 3 644 927 197 | 2 309 587 952 |
| 2018 | 5 208 521 164 | 3 139 633 506 | 2 068 887 658 |
| 2019 | 6 365 441 002 | 3 833 825 566 | 2 531 615 436 |
| 2020 | 4 167 973 810 | 2 607 594 305 | 1 560 379 505 |
| 2021 | 3 398 520 058 | 1 869 197 103 | 1 529 322 955 |

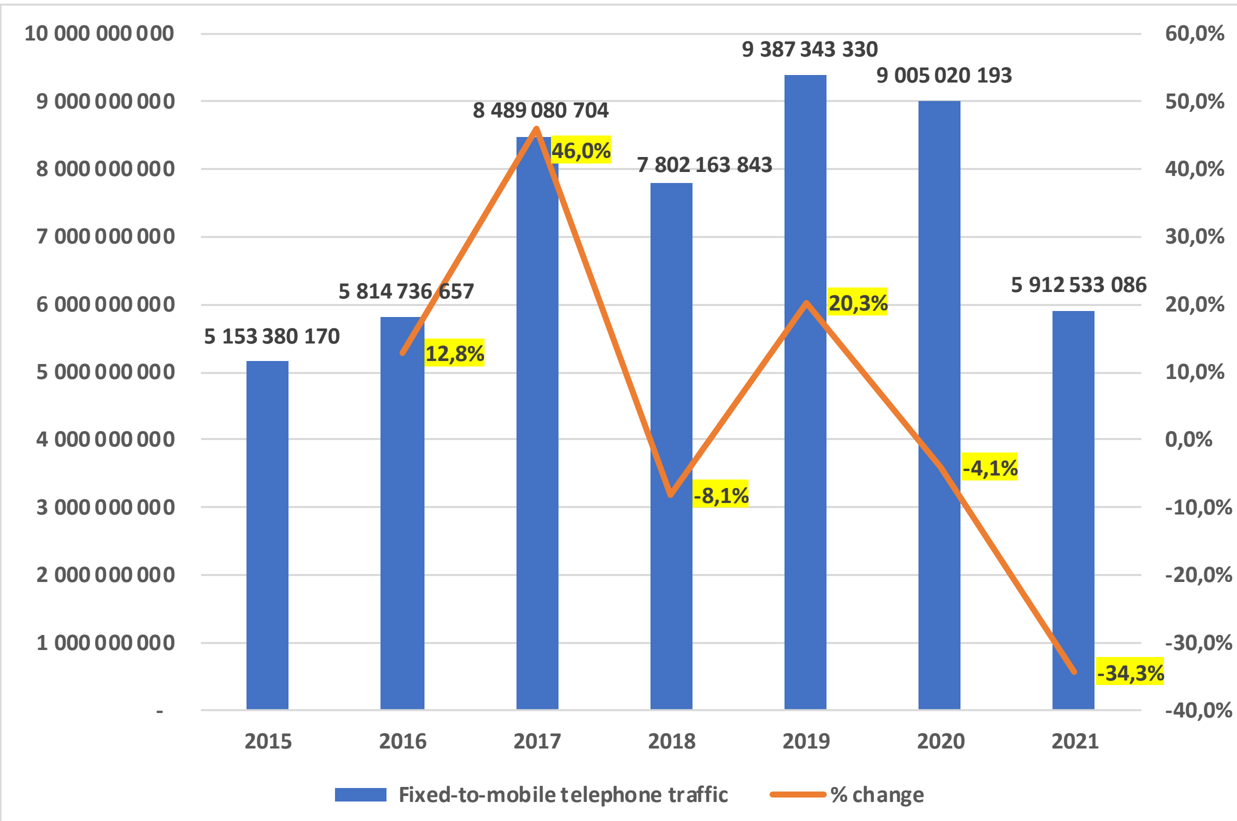
*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

### 4.10.2 Fixed-to-Mobile Telephone Traffic

Fixed-to-mobile telephone call traffic decreased by 34.3% from 9 billion in 2020 to 5 billion in 2021.

Over a period of 7 years, fixed-to-mobile telephone call traffic increased by 2.3%.

**Graph 31: Fixed-to-mobile telephone traffic minutes, for the 12-month period ending 30th September each year**



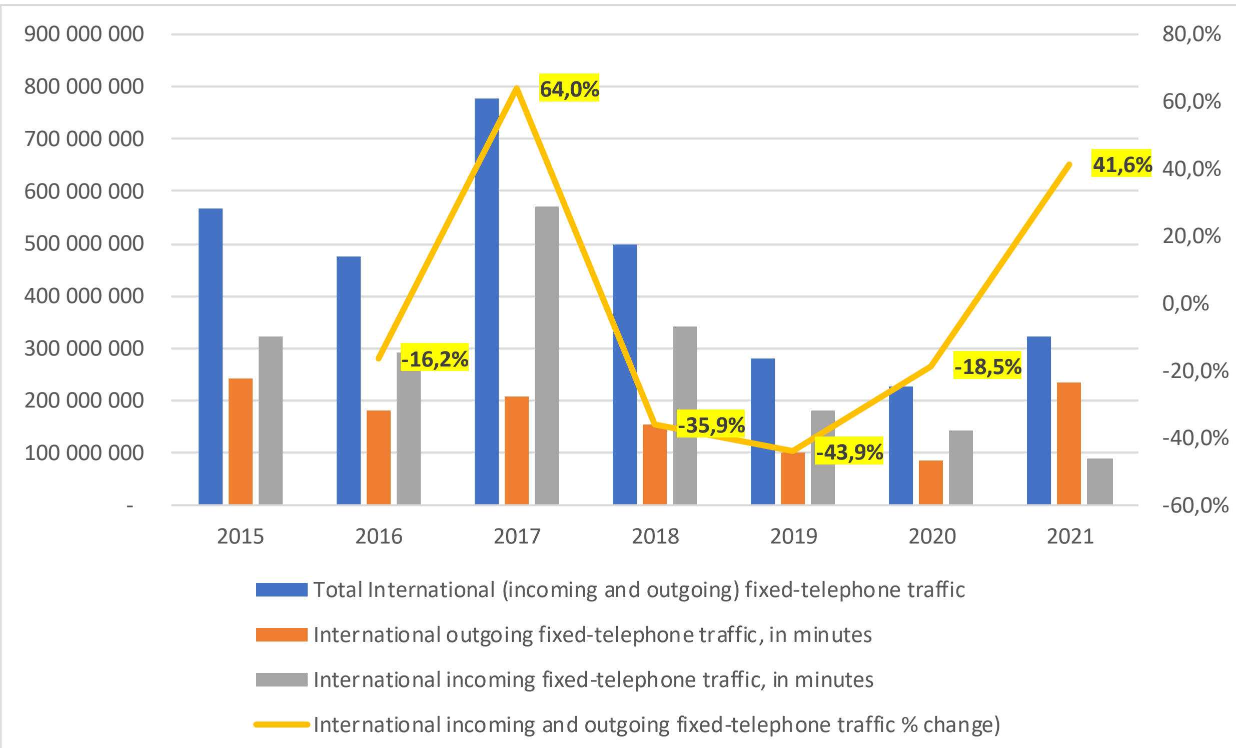

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

### 4.10.3 International (Incoming and Outgoing) Fixed Telephone Traffic

International (incoming and outgoing) fixed-telephone call traffic increased by 41.6% from 227 million minutes in 2020 to 322 million in 2021.The international incoming fixed-telephone calls decreased by 37.5% for the same period.

For a period of 7 years, the international (incoming and outgoing) fixed-telephone traffic has decreased by 8.9%.

**Graph 32: International fixed line traffic in minutes (million) for the 12-month period ending 30th September each year**



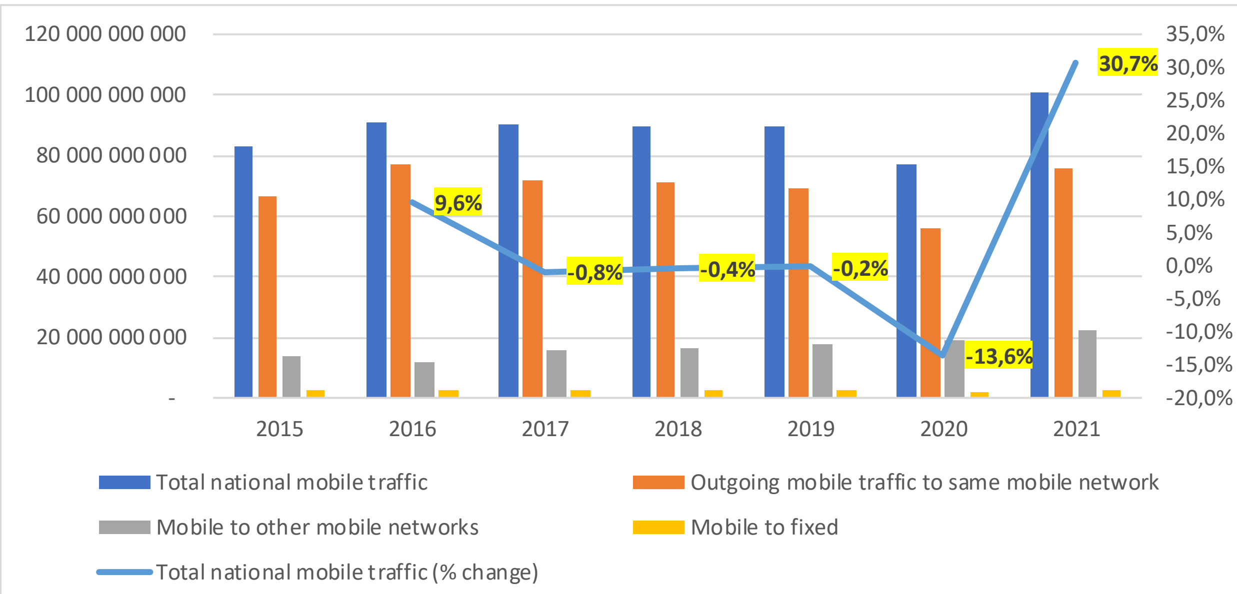

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

### 4.10.4 Total national mobile traffic (Minutes)

The total national mobile traffic in minutes increased by 30.7% in 2021. Mobile to other mobile networks and Mobile to fixed increased by 17.6% and 33.7%, respectively. The outgoing mobile traffic to same mobile network increased by 35.1% for the same period.

For a period of 7 years, total national mobile traffic in minutes increased by 3.4%.

**Graph 33: Mobile voice traffic in minutes for the 12-month period ending 30th September each year**



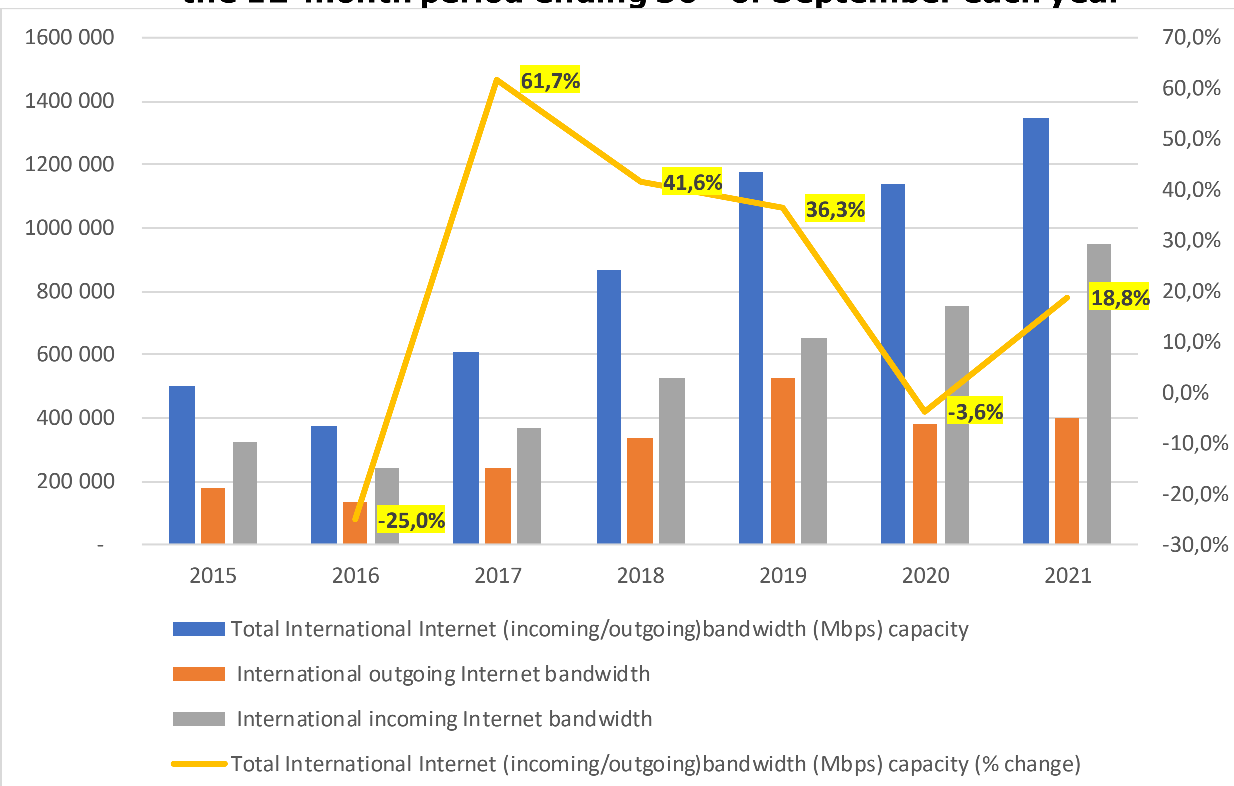

*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

### 4.11 International Internet Bandwidth Capacity in Megabits per second (Mbps)

The total international internet bandwidth (Mbps) capacity increased by 18.8% in 2021. International incoming internet bandwidth increased by 25.5% in 2021.

For a 7-year period, the total international internet bandwidth capacity increased by 17.9%.

**Graph 34: International internet bandwidth Megabits per second (Mbps) for the 12-month period ending 30th of September each year**




*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

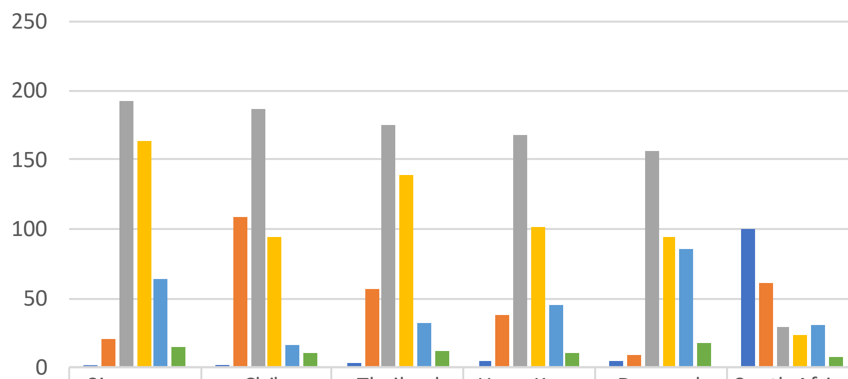
## 4.12 International Comparison of South Africa's Internet Speeds

The internet speed for fixed broadband and mobile (download and upload speed) for South Africa was compared to other countries to have a better understanding of its growth and how it is performing internationally.

### 4.12.1 International speedtest benchmarks

According to the global Speedtest, the fixed broadband speed ranking for South Africa has dropped down, from 87 in 2020 to 100 in 2021. The mobile broadband ranking also dropped from 55 in 2020 to 61 in 2021.

**Graph 35: Speedtest benchmark in 2021**



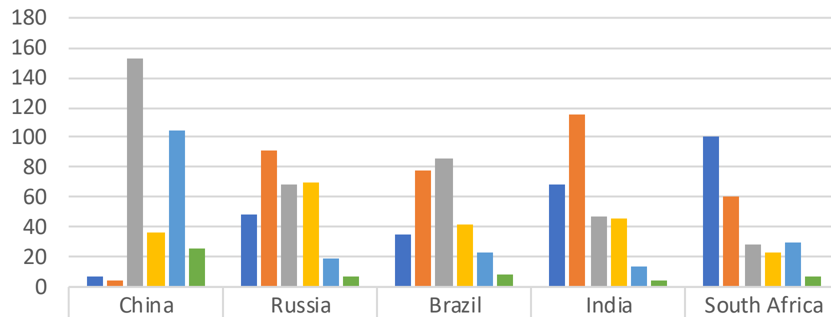

| | Singapore | Chile | Thailand | Hong Kong | Denmark | South Africa |
|---|---|---|---|---|---|---|
| Fixed Broadband speed (rank) | 1 | 2 | 3 | 4 | 5 | 100 |
| Mobile speed (rank) | 20 | 108 | 56 | 38 | 9 | 61 |
| Fixed Broadband speed Download speed (Mbps) | 192,17 | 187,5 | 175,93 | 168,66 | 156,04 | 28,63 |
| Fixed Broadband speed Upload speed (Mbps) | 163,7 | 94,39 | 138,68 | 101,97 | 93,6 | 23,16 |
| Mobile Download speed (Mbps) | 63,51 | 16,36 | 32,08 | 45,25 | 85,39 | 30,36 |
| Mobile Upload speed (Mbps) | 15,15 | 9,95 | 12,2 | 10,55 | 17,01 | 7,12 |

*Source: OOKLA, Speeedtest intelligence 2021*

### 4.12.2 Speedtest benchmark with BRICS countries

In 2021, when benchmarking against the BRICS countries, South Africa's speedtest ranking of 100 for fixed broadband was the lowest ranking in the grouping. South Africa's speedtest ranking of 61 for mobile broadband was the second best in the BRICS grouping, which is led by China with a speedtest ranking of 4.

**Graph 36: Speedtest benchmark BRICS countries in 2021**



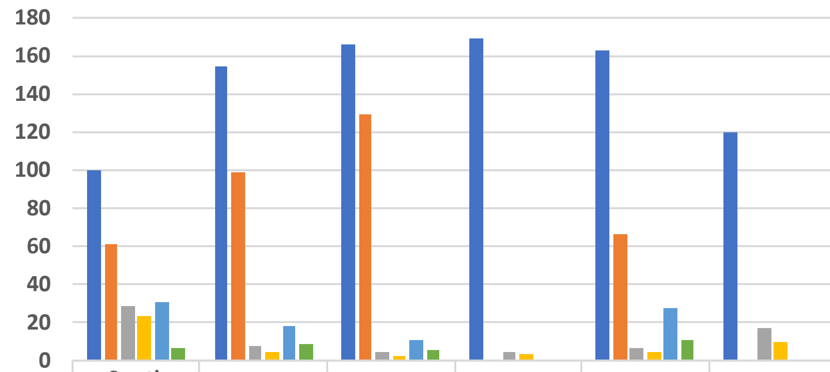

| | China | Russia | Brazil | India | South Africa |
|---|---|---|---|---|---|
| Fixed Broadband speed (rank) | 7 | 48 | 35 | 69 | 100 |
| Mobile speed (rank) | 4 | 91 | 78 | 115 | 61 |
| Fixed Broadband speed Download speed (Mbps) | 153,33 | 68,13 | 85,25 | 47,48 | 28,63 |
| Fixed Broadband speed Upload speed (Mbps) | 37,06 | 70,06 | 41,93 | 45,36 | 23,16 |
| Mobile Download speed (Mbps) | 104,44 | 19,06 | 23,22 | 14,17 | 30,36 |
| Mobile Upload speed (Mbps) | 25,09 | 7,58 | 7,87 | 3,7 | 7,12 |

*Source: OOKLA, Speeedtest intelligence 2021*

### 4.12.3 Speedtest benchmark with neighbouring countries

In 2021, South Africa's speedtest ranking of 100 for fixed broadband was the highest when compared to other neighbouring countries followed by Lesotho at the ranking of 120. Likewise, South Africa's ranking of 61 for mobile broadband was the highest amongst its neighbouring countries followed by Botswana at the ranking of 66.

**Graph 37: Speedtest benchmark neighbouring countries in 2021**



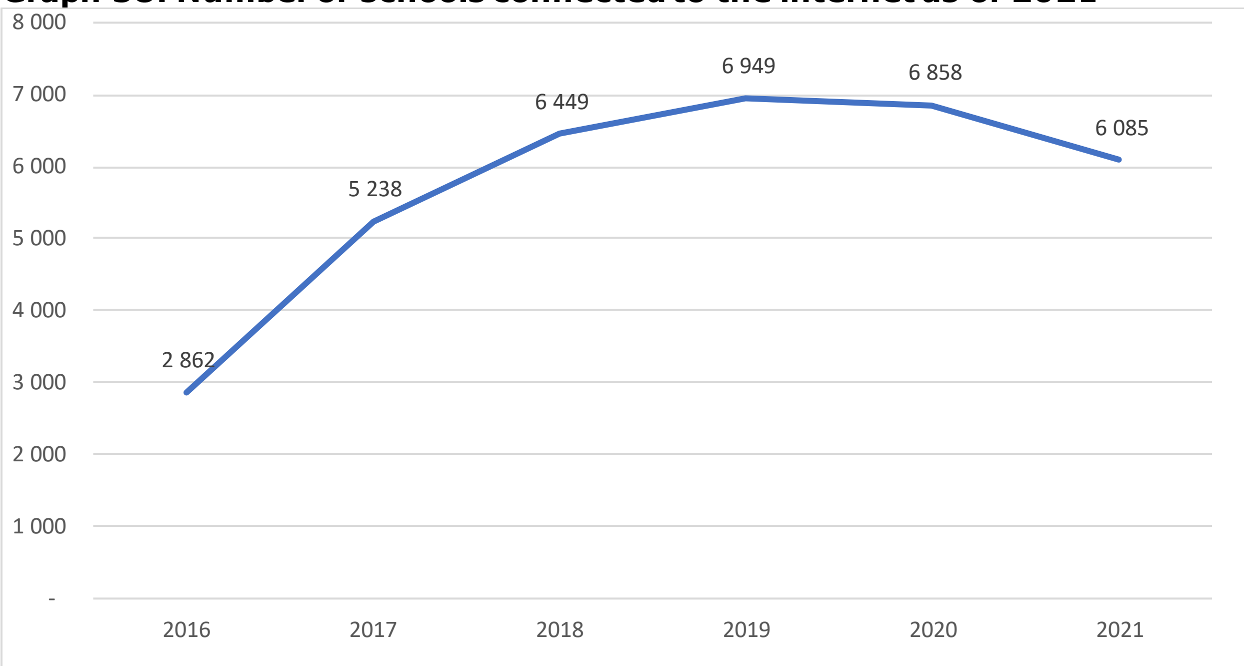

| | South Africa | Namibia | Zimbabwe | Eswatini | Botswana | Lesotho |
|---|---|---|---|---|---|---|
| Fixed Broadband speed (rank) | 100 | 154 | 166 | 169 | 163 | 120 |
| Mobile speed (rank) | 61 | 99 | 129 | - | 66 | - |
| Fixed Broadband speed Download speed (Mbps) | 28,63 | 7,76 | 4,97 | 4,59 | 6,26 | 17,39 |
| Fixed Broadband speed Upload speed (Mbps) | 23,16 | 4,68 | 2,8 | 3,36 | 4,19 | 9,8 |
| Mobile Download speed (Mbps) | 30,36 | 17,82 | 10,4 | - | 27,71 | - |
| Mobile Upload speed (Mbps) | 7,12 | 8,35 | 5,12 | - | 10,61 | - |

*Source: OOKLA, Speeedtest intelligence 2021*

### 4.13 Number of Schools Connected to the Internet Based on Obligations Imposed by ICASA

The total number of schools connected to the internet based on universal service obligations imposed by ICASA was 6,085 as at 2021.

**Graph 38: Number of schools connected to the internet as of 2021**




*Source: ICASA Electronic Communications Questionnaire 2015 - 2021*

## 5 BROADCASTING SECTOR

In April 2020, in response to the COVID-19 outbreak, the Authority relaxed various broadcasting regulatory measures in terms of the ICT COVID-19 National State of Disaster Regulations, 2020. The Regulations sought to enable the licensees to swiftly adjust their operations in response to the lockdown regulations which are aimed at, inter alia, alleviating, containing, and minimising the effects of the COVID-19 National Disaster. The Regulations also sought to ensure that the public, including persons with disabilities are timeously informed of the government's measures aimed at managing and mitigating the COVID-19 National Disaster. On 11 November 2021, the Authority published the ICT COVID-19 National State of Disaster Regulations, 2021, which incorporated the broadcasting provisions of the 2010 Regulations. These Regulations are effective until the termination of the COVID-19 National Disaster.

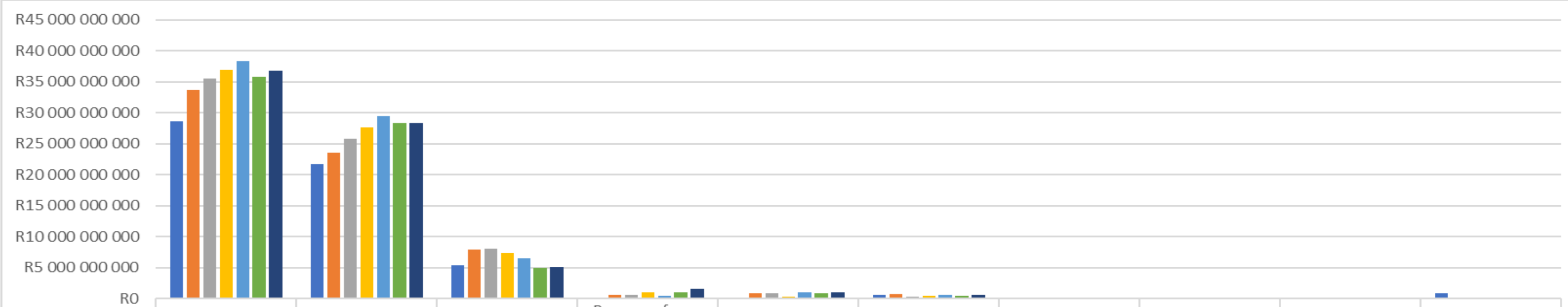
In 2020, we have seen a significant decrease in revenue in the broadcasting sector. We have started to see revenue increased by 2.8% from 35.8 billion in 2020 to 36.7 billion in 2021. Revenue from advertising and subscriptions slightly increased by 1% and 0.3%, respectively in 2021. However, the infomercial revenue decreased by 29.6% for the same period.

## 5.1 Broadcasting Revenue

The total broadcasting services revenue increased by 2.8% from 35.8 billion in 2020 to 36.7 billion in 2021. Revenue from advertising and subscriptions slightly increased by 1% and 0.3%, respectively in 2021. However, the infomercial revenue decreased by 29.6% for the same period.

For the period of 7 years, the total revenue from broadcasting services increased by 4.2%. Revenue from subscriptions increased by 4.5% for the same period.

**Graph 39: TV and Radio broadcasting revenues for the 12-month period**



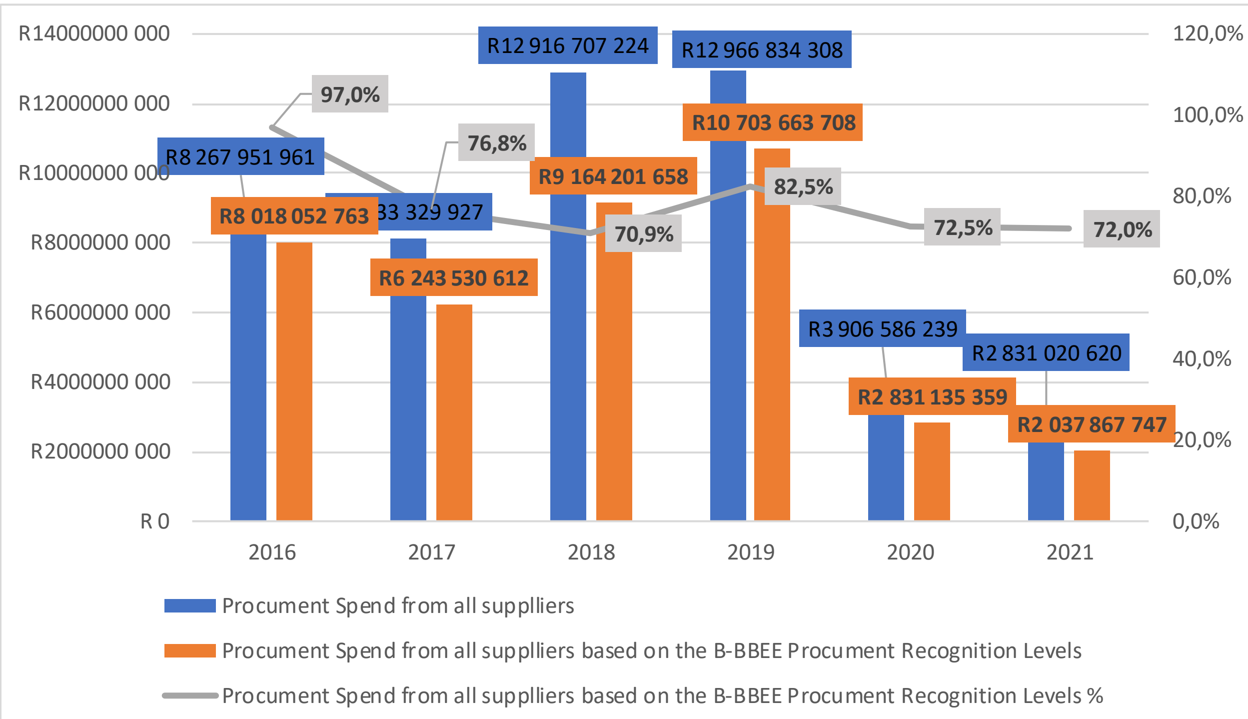

| | Total revenue | Broadcasting Subscriptions Revenue | Broadcasting Advertising Revenue | Revenue from Broadcasting Promotions (with flighting code). | Total of any other revenue | Revenue from sponsorhips | Revenue from Government or State grant | Revenue from infomercials | Revenue from donations | Revenue from membership fees |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | R28 688 718 290 | R21 788 645 350 | R5 384 344 985 | R216 000 | R735 530 | R531 363 207 | R59 843 068 | R1 988 000 | R2 164 250 | R919 417 900 |
| 2016 | R33 655 415 072 | R23 584 825 897 | R7 860 473 603 | R535 015 544 | R917 747 350 | R680 926 353 | R6 557 651 | R69 854 929 | R3 746 | R10 000 |
| 2017 | R35 606 415 286 | R25 773 619 194 | R8 020 046 840 | R660 208 406 | R829 053 088 | R272 913 790 | R23 351 477 | R16 434 074 | R10 783 817 | R4 600 |
| 2018 | R36 921 489 746 | R27 622 475 742 | R7 364 895 390 | R992 582 404 | R282 568 469 | R525 969 858 | R101 264 960 | R22 002 230 | R7 052 479 | R2 678 215 |
| 2019 | R38 325 761 969 | R29 552 474 837 | R6 526 380 420 | R493 549 925 | R1 092 957 907 | R538 833 271 | R92 217 049 | R17 211 421 | R9 579 462 | R2 557 677 |
| 2020 | R35 814 897 915 | R28 300 604 807 | R5 003 077 915 | R1 021 198 419 | R940 257 248 | R397 527 711 | R108 798 175 | R17 377 974 | R8 097 574 | R17 958 093 |
| 2021 | R36 798 752 670 | R28 372 345 149 | R5 050 590 836 | R1 569 936 033 | R1 047 885 075 | R642 772 173 | R87 169 736 | R12 240 565 | R11 551 610 | R4 261 493 |

*Source: ICASA Broadcasters Questionnaire, December 2015 - 2021 (*data includes TV & radio broadcasting*)*

## 5.2 Broadcasting Black Economic Empowerment Measures

The proportion of procurement spend from suppliers based on their B-BBEE ranking as a percentage of total spend from all suppliers was above 70% from 2016 to 2021 as shown in the graph below.

**Graph 40: Broadcasting sector procurement spend from all suppliers based on B-BBEE, for the 12-month period ending 30th September**

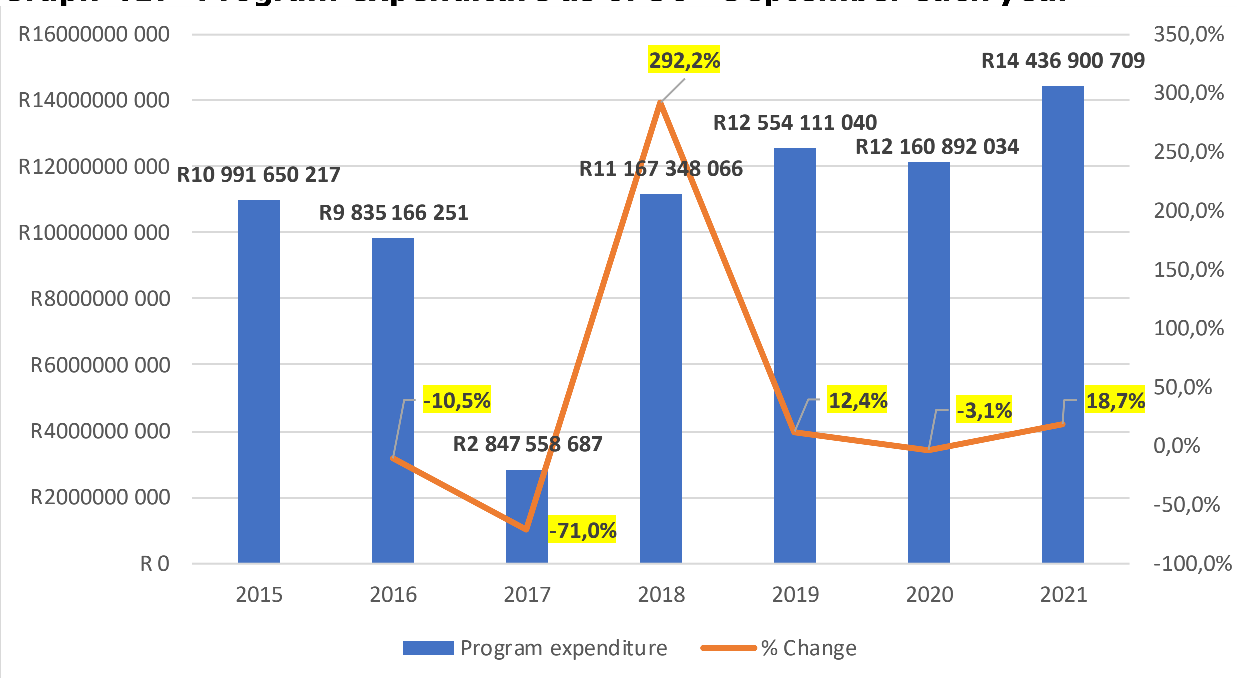



*Source: ICASA Broadcasters Questionnaire, December 2016 - 2021*

### 5.3 Programme expenditure

Programme expenditure increased by 18.7% from R12.1 billion in 2020 to R14.4 billion in 2021. For a period of 7 years, it increased by 4.7%.

**Graph 41: Program expenditure as of 30th September each year**

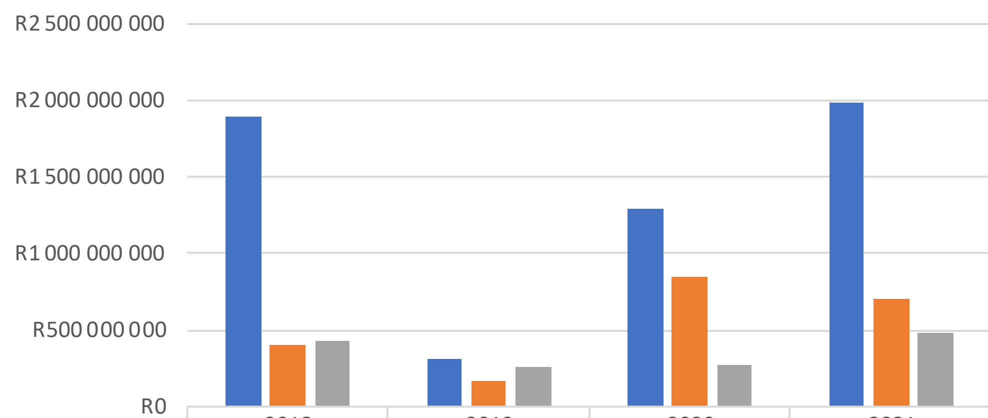



*Source: ICASA Broadcasters Questionnaire, December 2015- 2021*

## 5.4 Broadcasting productions expenditure

Total broadcaster and total local independent productions expenditure increased by 75.1% and 53.8% in 2021. Total international independent productions decreased by 16.6% for the same period.

**Graph 42: Broadcasting productions expenditure as of 30th September each year**




| | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| Total expenditure on Local independent productions (In Rand) | R1 891 070 271 | R305 655 109 | R1 293 447 658 | R1 988 857 418 |
| Total expenditure on international Independent productions (In Rand) | R399 350 900 | R173 874 673 | R850 286 338 | R708 876 535 |
| Total expenditure on broadcaster productions (In Rand) | R433 756 200 | R257 081 452 | R272 299 436 | R476 753 738 |

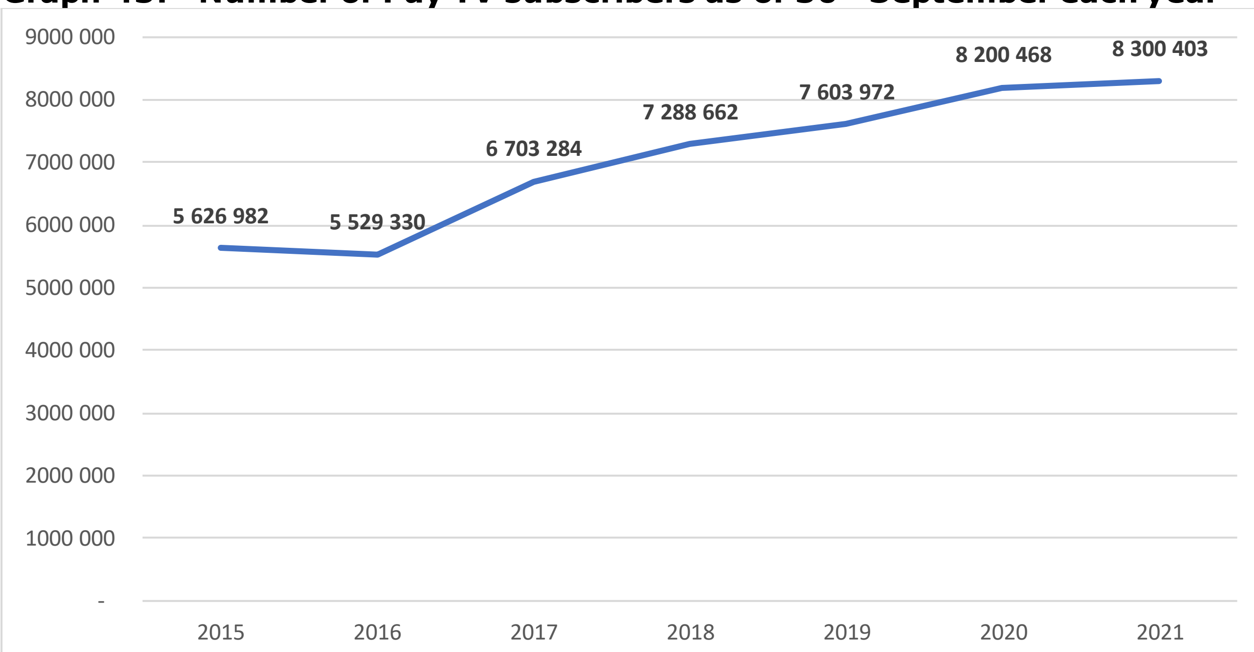
*Source: ICASA Broadcasters Questionnaire, December 2018 - 2021*

### 5.5 Number of Pay TV Subscribers

The total number of Pay TV subscriptions increased by 1.2% (From 8.2 million in 2020 to 8.3 million in 2021).

For the period of 7 years, Pay TV subscriptions increased by 6.7%.

**Graph 43: Number of Pay TV subscribers as of 30th September each year**

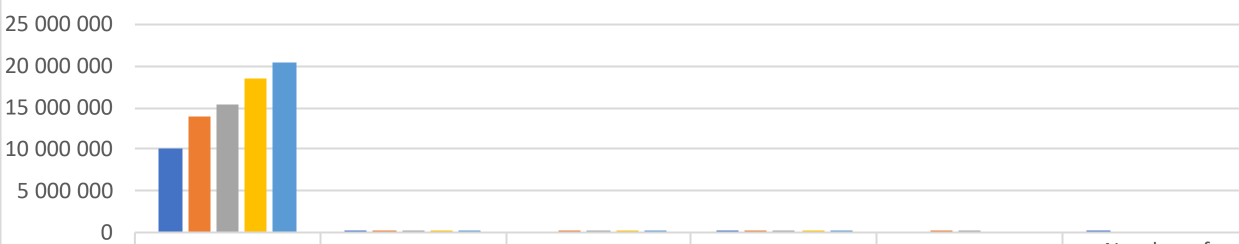



*Source: ICASA Broadcasters Questionnaire, December 2015 - 2021*

## 5.6 Total Number of Television Stations and Distributors

The number of set-top boxes increased by 10.2% (from 18.6 million in 2020 to 20.5 million in 2021). The number of Digital satellite stations increased by 1.9% in 2021. However, number of Digital Terrestrial stations decreased by 4.4% in 2021, while the number of content distributions remains the same from 2020 to 2021.

**Graph 44: Total Number of Television Stations and Distributors as of 30th September each year**




| | Number of set-top boxes | Number of Content Distributors | Number of Digital Terrestrial Stations | Number of Digital Satelite Stations | Number of Signal Distributors | Number of Analogue Terrestrial Stations |
|---|---|---|---|---|---|---|
| 2017 | 10 068 326 | 86 | 6 | 30 | 9 | 27 |
| 2018 | 14 047 221 | 138 | 89 | 53 | 14 | 7 |
| 2019 | 15 388 609 | 151 | 91 | 50 | 19 | 6 |
| 2020 | 18 623 287 | 147 | 90 | 52 | 11 | 5 |
| 2021 | 20 520 177 | 147 | 86 | 53 | 10 | 6 |

*Source: ICASA Broadcasters Questionnaire, December 2017 - 2021*

*Note: *One of the operators did not submit the Analogue terrestrial station in 2021**

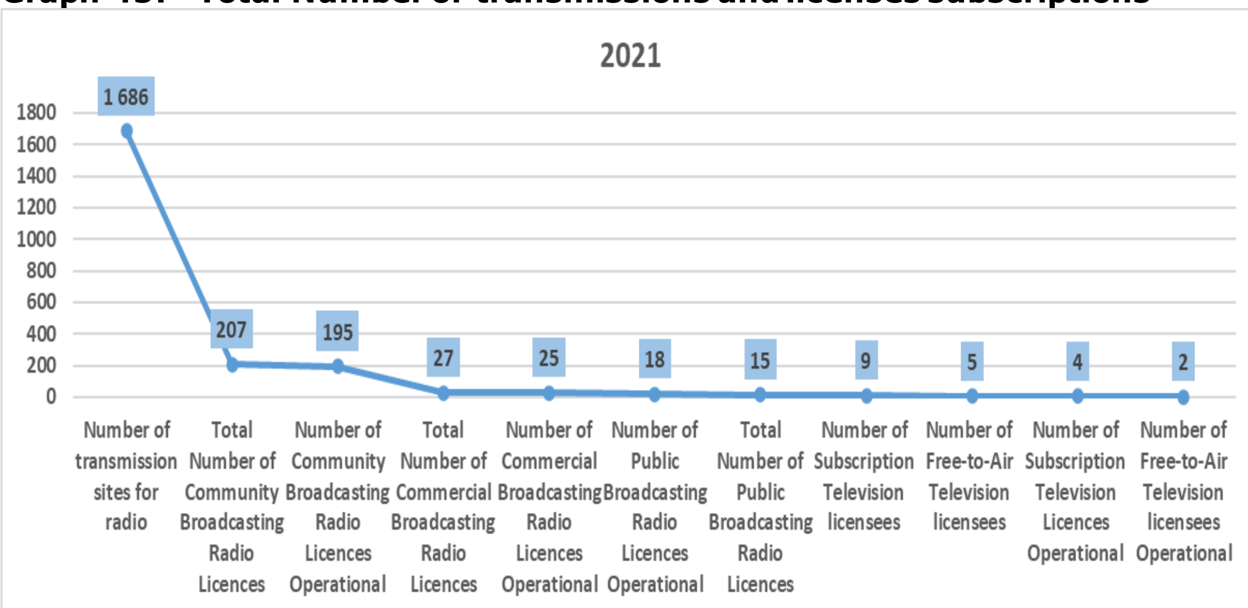
**Some of the operators did not have the content distributors in 2021**

**Government subsidies set-top boxes are not included **

### 5.7 Total Number of transmissions and licences subscriptions

The number of transmission sites for radio is at 1,686 in 2021. The number of operational subscription TV licensees is 4 in 2021. The number of Free-To Air TV licensees is 2 for the same period.

**Graph 45: Total Number of transmissions and licenses subscriptions**

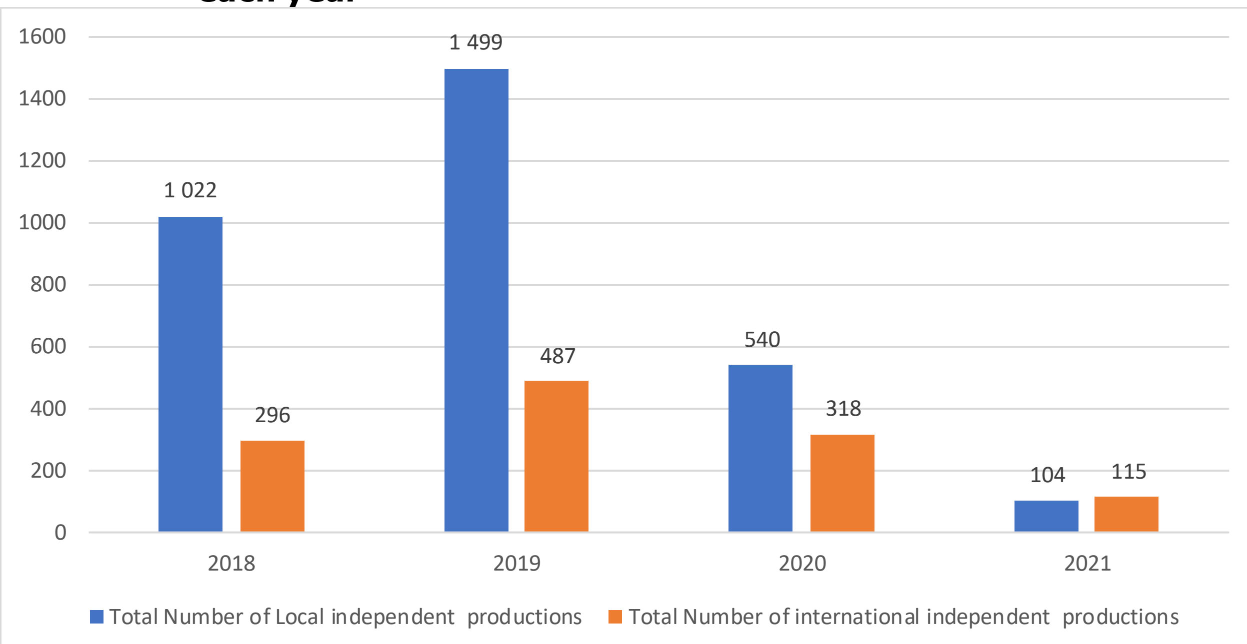



*Source: ICASA Broadcasters Questionnaire, December 2021*

### 5.8 Total Number of broadcasting productions

Local independent productions were 104 in 2021 and the international independent productions were 115 for the same period.

**Graph 46: Total Number of broadcasting productions as of 30th September each year**



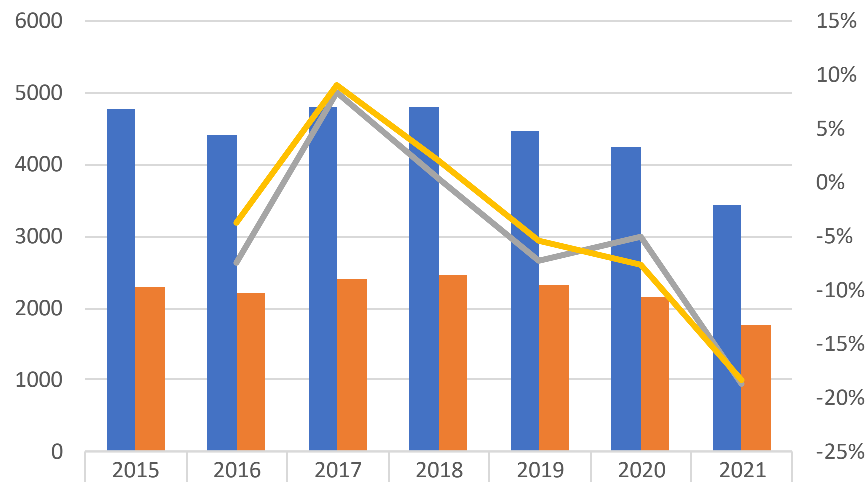

*Source: ICASA Broadcasters Questionnaire, December 2018 - 2021*

## 5.9 Broadcasting Sector Employment

The total number of people employed in the broadcasting sector decreased by 19%. Female employees decreased by 18% in 2021.

Over a 7-year period, the total number of people employed in the broadcasting sector decreased by 5.4% and the female employment increased by 4.4%.

**Graph 47: People employed in the broadcasting sector, as of the 30th of September each year**



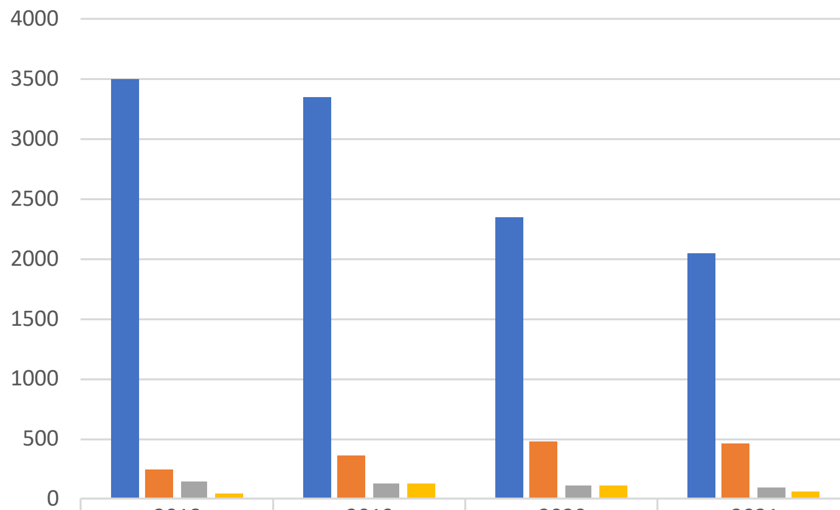

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|
| Broadcasting employment -Total | 4789 | 4429 | 4800 | 4813 | 4463 | 4237 | 3444 |
| Broadcasting employment- female | 2308 | 2220 | 2421 | 2471 | 2336 | 2156 | 1760 |
| Broadcasting employment -Total (% change) | | -8% | 8% | 0% | -7% | -5% | -19% |
| Broadcasting employment- female (% change) | | -4% | 9% | 2% | -5% | -8% | -18% |

*Source: ICASA Broadcasters Questionnaire, December 2015 - 2021*

### 5.9.1 Breakdown of Persons Employed in the Broadcasting Sector

The breakdown of broadcasting employment is as follows; the skilled employment decreased by 12.5% from 2,340 in 2020 to 2,048 in 2021, the disabled employment decreased by 18.8% in 2021, and semi-skilled decreased by 35% for the same period.

**Graph 48: Persons employed in the broadcasting sector breakdown in 2021**



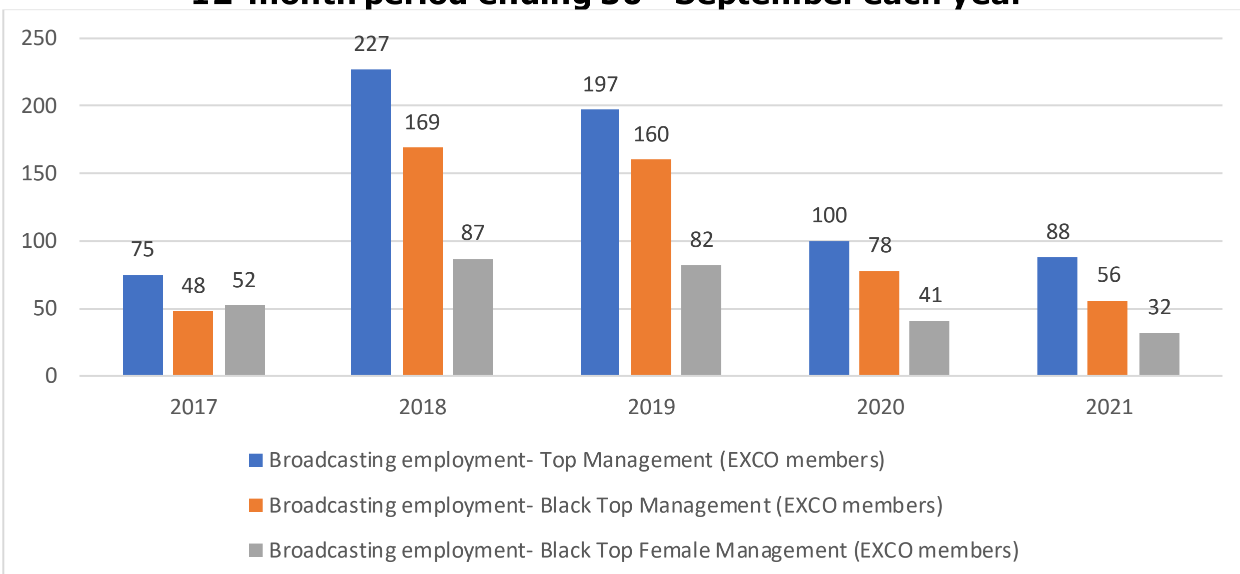

| | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| Broadcasting employment- skilled | 3502 | 3353 | 2340 | 2048 |
| Broadcasting employment- Semi skilled | 238 | 355 | 481 | 467 |
| Broadcasting employment- Disabled | 141 | 131 | 112 | 91 |
| Broadcasting employment- Unskilled | 46 | 125 | 112 | 63 |

*Source: ICASA Broadcasters Questionnaire, December 2018 - 2021*

### 5.9.2 Proportion of Black People in Top Management in the Broadcasting Sector

Top management (EXCO members) employees decreased from 100 in 2020 to 88 in 2021. Black top management employees decreased from 78 in 2020 to 56 in 2021. Top female employees also decreased from 41 in 2020 to 32 in 2021.

**Graph 49: Broadcasting Black Economic Empowerment Measures, for the 12-month period ending 30th September each year**




*Source: ICASA Broadcasters Questionnaire, December 2017 - 2021*

## 6 POSTAL SERVICES SECTOR

As part of the regulatory measures aimed at alleviating, containing, and minimising the effects of the COVID-19 National Disaster, the Authority prescribed the ICT COVID-19 National State of Disaster Regulations, 2021. The Regulations seeks to mandate the South African Post Office to make available its national address system to law enforcement agencies, for the purposes of tracking and tracing persons that are infected with COVID-19.

The postal services sector is an important component of the economic sector in South Africa contributing approximately 3,16% to GDP, the percentage includes the courier and express parcel companies.

The Postal services sector continues to register the highest percentage increase in revenue among the three sectors regulated by the Authority. The Postal Sector revenue increased by 11%, from R5.9 billion in 2020 to R6.9 billion in 2021.

In October 2021, the Authority published the Customer Care Standards Amendment Regulations Applicable to the Postal Services Licensee, 2021 in terms of section 4(3)(j) of ICASA Act read together with section 2 (h) and (l) of the Postal Service Act.

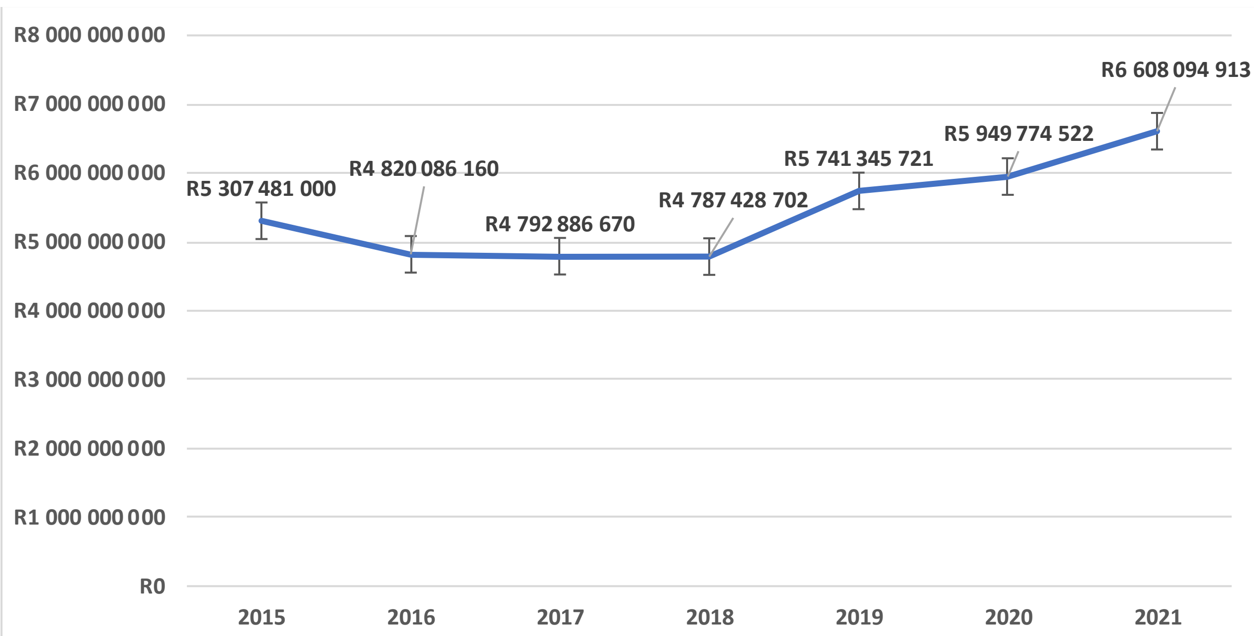
The Amendment Regulations seek to, *inter alia*, strengthen the provision of quality postal services through setting out minimum standards to protect and promote the interests of customers; align the regulations to the related customer protection legislation and current practices (i.e., clarifying process and procedures for customer complaints resolutions); and to enable the Authority to monitor and enforce compliance with the customer care standards provided.

### 6.1 Postal Sector Revenue

The Postal services revenue increased by 11%, from R5.9 billion in 2020 to R6.9 billion in 2021.

Irrespective of all challenges faced by the sector over these years, for a period of 7 years the postal services revenue increased by 3.7%.

**Graph 50: Postal sector revenue, 12-month period ending 30th September each year**

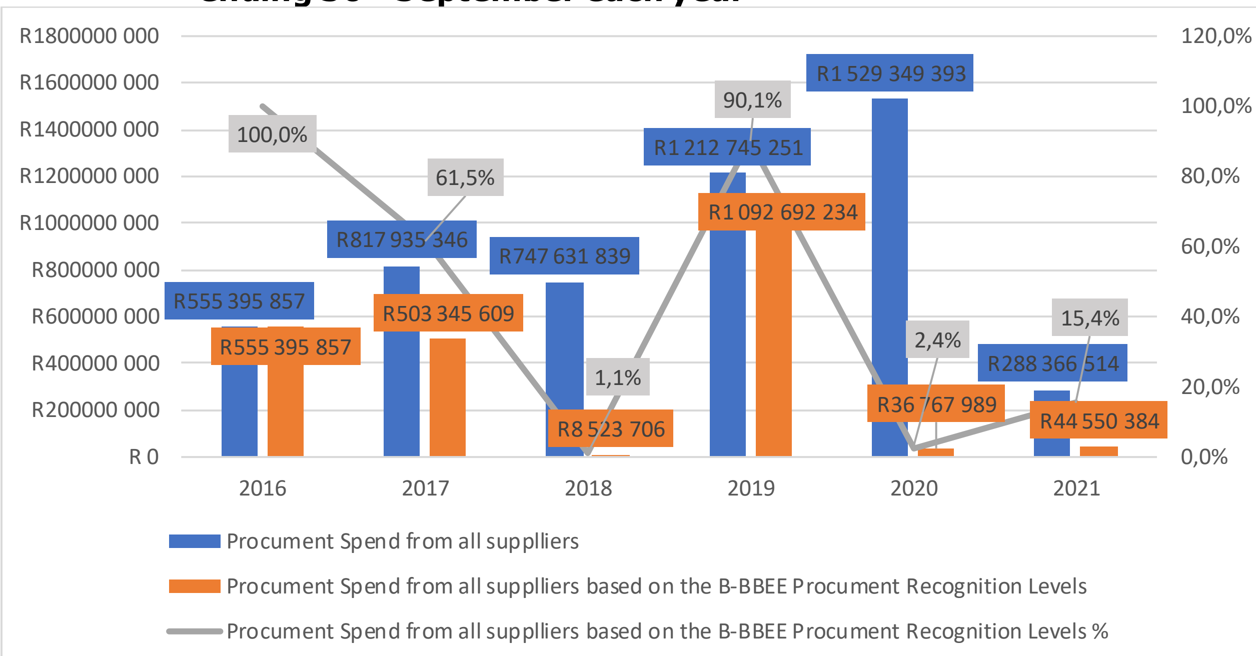



*Source: ICASA Postal Questionnaire, December 2015 - 2021*
**We had low response rate from unreserved postal sector**

### 6.2 Postal Sector Black Economic Empowerment Measures

The proportion of the postal sector procurement spend based on suppliers' B-BBEE ranking as a percentage of overall spend from all suppliers was at 15.4% in 2021.

**Graph 51: Postal sector procurement spend from suppliers based on the B-BBEE Procurement Recognition Levels, for the 12-month period ending 30th September each year**

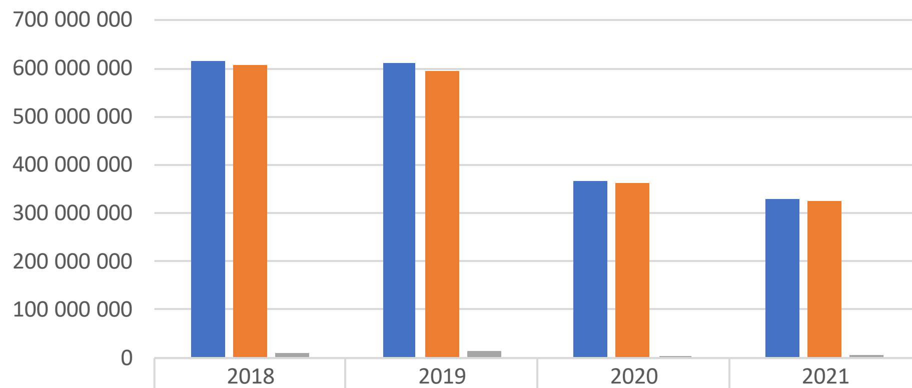



*Source: ICASA Postal Questionnaire, December 2016 - 2021*
*Note: *we had low response rate from unreserved postal sector**

### 6.3 Total Letter delivery services (Registered letters)

The total letter delivery services (Registered letters) decreased by 9.7% from 336 million in 2020 to 331 million in 2021. Domestic service and international outbound (Local Volumes) decreased by 10% and the domestic service and international outbound (International mail centre volume) increased by 21.4% in 2021.

**Graph 52: Total number of letter delivery services (registered letters), as of 30th September each year**



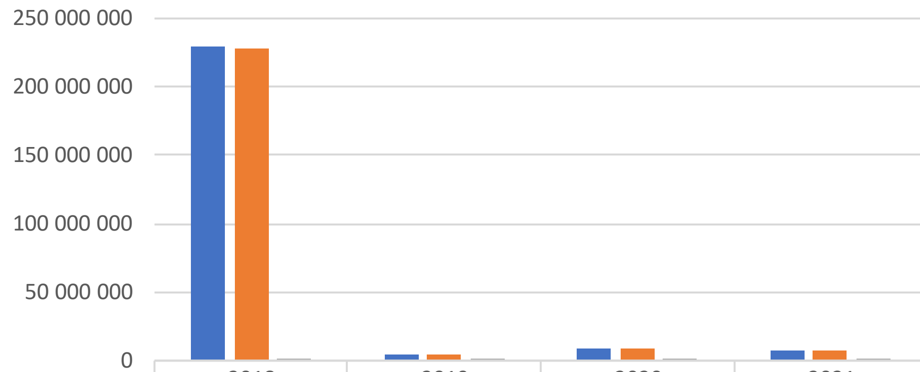

| | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| Letter delivery services (Registered letters) | 616 866 994 | 609 171 863 | 366 857 996 | 331 268 861 |
| Letters: Domestic service and international outbound (Local Volumes) | 604 816 550 | 595 707 093 | 362 788 829 | 326 328 119 |
| Letters: Domestic service and international outbound (International Mail Centre Volumes) | 12 050 444 | 13 464 770 | 4 069 167 | 4 940 742 |

*Source: ICASA Postal Questionnaire, December 2018 - 2021*
*Note: *we had low response rate from unreserved postal sector**

## 6.4 Total numbers of Parcel delivery services

The total numbers of parcel delivery services decreased by 3.6% from 8.4 million in 2020 to 8.1 million in 2021 for both local and international mail centre volumes.

**Graph 53: Total number of parcel delivery services, as of 30th September each year**



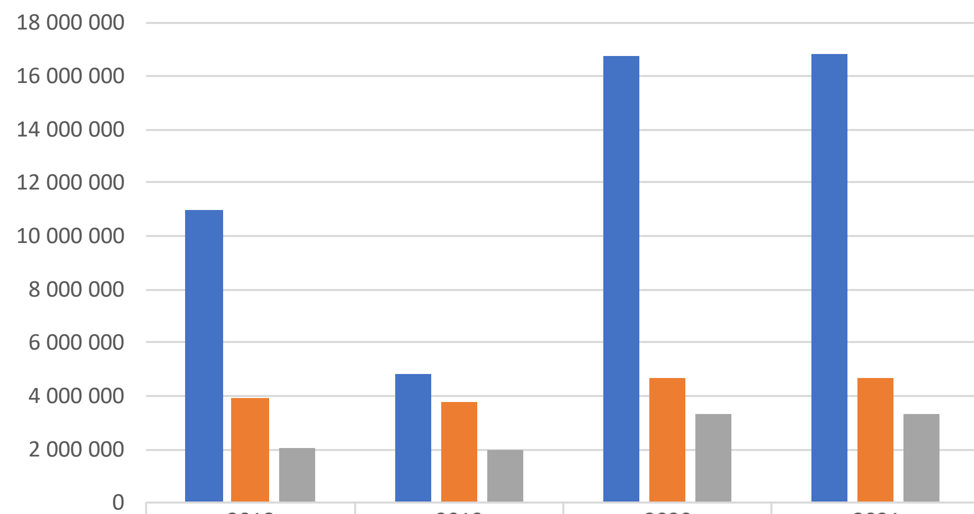

| | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| Total numbers of Parcel delivery services | 228 982 219 | 4 575 844 | 8 427 395 | 8 126 907 |
| Parcel: Domestic service and international outbound (Local Volumes) | 228 754 471 | 4 489 798 | 8 372 381 | 8 076 820 |
| Parcel: Domestic service and international outbound (International Mail Centre Volumes) | 227 748 | 86 046 | 55 014 | 50 087 |

*Source: ICASA Postal Questionnaire, December 2018 - 2021*
*Note: *we had low response rate from unreserved postal sector**

## 6.5 Number of PO Boxes, PO Boxes rented, and Physical addresses in database

The number of PO Boxes and PO Boxes rented remains the same from 2020 to 2021 as shown in the graph below, however the number of physical addresses in the database slightly increased by 0.2% (from 16.7 million 2020 to 16.8 million 2021.

**Graph 54: Number of PO Boxes, PO Boxes rented, and physical addresses in database as of 30th September each year**




| | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| Number of physical addresses in database | 11 000 000 | 4 821 028 | 16 789 554 | 16 824 061 |
| Number of PO Boxes | 3 918 908 | 3 806 972 | 4 642 638 | 4 642 638 |
| Number of PO Boxes rented | 2 028 684 | 1 974 445 | 3 333 402 | 3 333 402 |

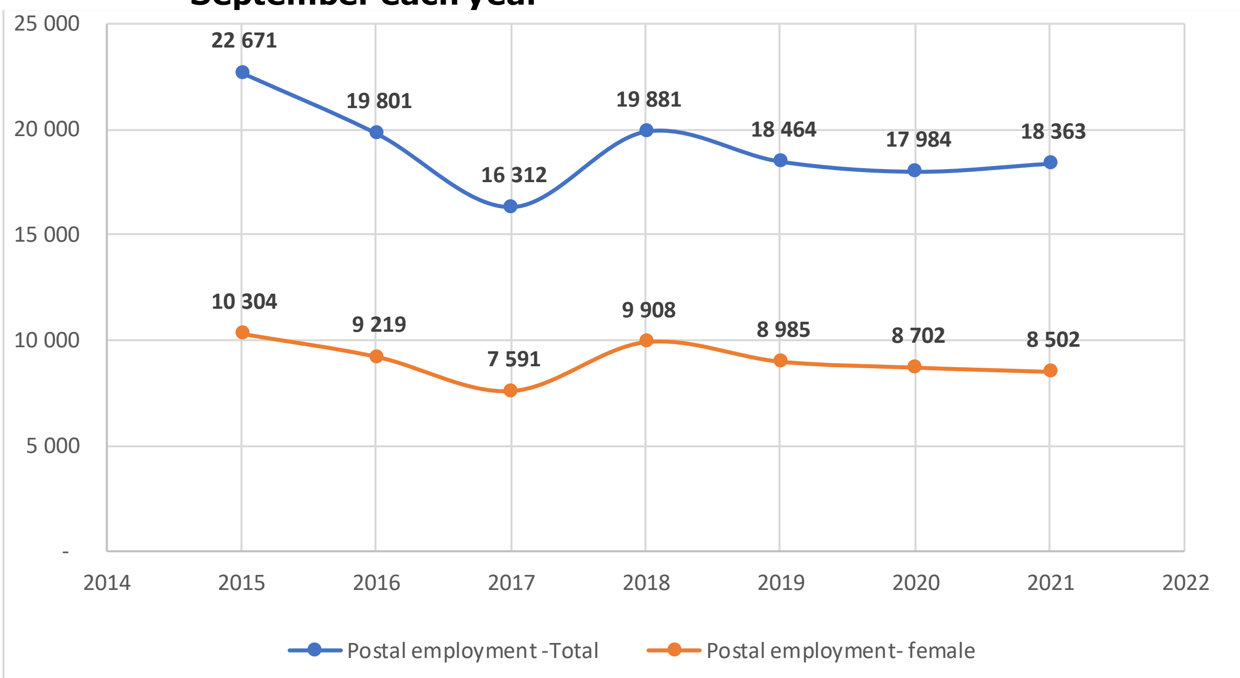
*Source: ICASA Postal Questionnaire, December 2018 - 2021*
*Note: *we had low response rate from unreserved postal sector**

### 6.6 Postal Service Sector Employment

The total employment in the postal sector increased by 2.1% in 2021. Female employment decreased by 2.3% in 2021.

For a period of 7 years, the total number of people employed in the postal sector decreased by 3.5%.

**Graph 55: Persons employed in Post Service Sector, by gender, as of 30th September each year**

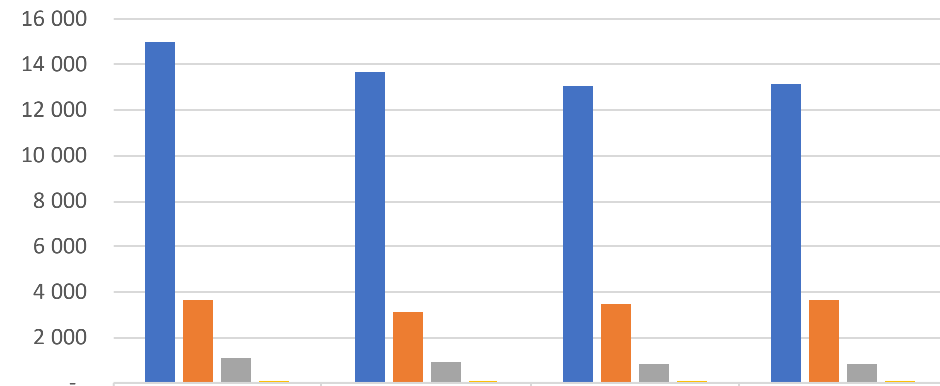



*Source: ICASA Postal Questionnaire, December 2015 - 2021*
*Note: *we had low response rate from unreserved postal sector**

### 6.7 Breakdown of Persons Employed in the Postal Sector

The semi-skilled employees slightly increased by 0.7% and skilled employees increased by 4%. However, the number of employees that are unskilled remains the same in 2020 and 2021 with the total number of 823.

**Graph 56: Persons employed in the postal sector breakdown, for the 12-month period ending 30th September each year**



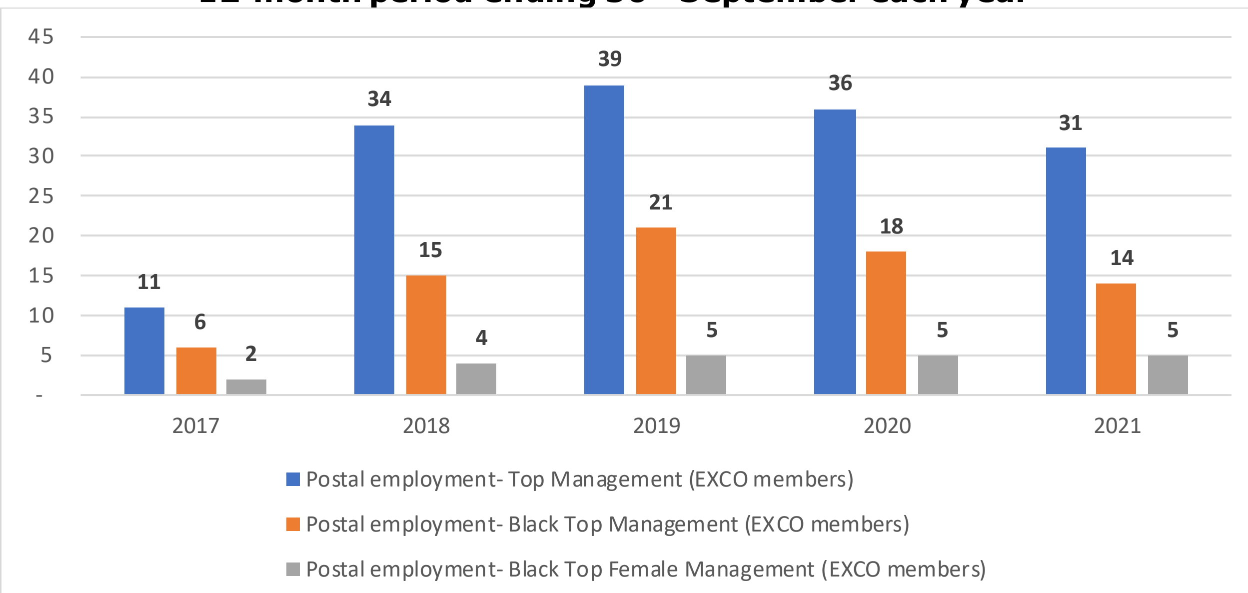

| | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| Postal employment- Semi skilled | 15 018 | 13 715 | 13 079 | 13 167 |
| Postal employment- skilled | 3 693 | 3 138 | 3 512 | 3 653 |
| Postal employment- Unskilled | 1 138 | 946 | 823 | 823 |
| Postal employment- Disabled | 46 | 46 | 42 | 38 |

*Source: ICASA Postal Questionnaire, December 2018 - 2021*
*Note: *we had low response rate from unreserved postal sector**

### 6.8 Postal service sector Black Economic Empowerment Measures

The top management (EXCO members) decreased by 13.9% and top black management decreased by 22.2% in 2021. However, the top black female management did not change for the same period.

**Graph 57: Postal sector Black Economic Empowerment Measures, for the 12-month period ending 30th September each year**




*Source: ICASA Postal Questionnaire, December 2017 - 2021*
*Note: *we had low response rate from unreserved postal sector**

# 7 CONCLUSION

**The following highlights are worth noting for the three sectors (telecommunications, broadcasting, and postal services)**

- The total sector revenue (telecommunications, broadcasting and postal) slightly increased by 0.3% from R243 billion in 2020 to R243.6 billion in 2021. The broadcasting services revenue increased by 2.8% from R35 billion in 2020 to R36 billion in 2021, and postal services revenue increased by 11.1% in 2021, however telecommunications revenue slightly decreased by 0.5% in 2021

- The total telecommunications services procurement spends from all suppliers in 2021 was R124 billion. 85.2% (R105 billion) of this amount was spent on suppliers based on their B-BBEE rating level. The total broadcasting services procurement spend from all suppliers was R2.8 billion in 2021. R2 billion (72%) of this amount was spent on suppliers based on their B-BBEE rating level. The total postal services procurement spend from all suppliers was R288 million in 2021. R44 million (15.5%) of this amount was spent on suppliers based on their B-BBEE rating level.

**The following highlights are worth noting with respect to the telecommunications sector**

- The total mobile data services and revenue from text and multimedia messaging services increased by 10.5% and 31.7%, respectively in 2021. The revenue from voice services slightly decreased by 0.1% in 2021.

- The total fixed internet and data revenue decreased by 7.3% (from R25 billion in 2020 to R23 billion in 2021). Revenue from fixed (wired)-broadband services and fixed internet revenue decreased by 2.1% and 6.9%, respectively in 2021.

- The proportion of telecommunications procurement spend from all suppliers based on the B-BBEE ranking levels was 83.1% in 2021

- 5G population coverage is growing, in 2020 it was at 0,7% and in 2021 was at 7.5%.

**The following highlights are worth noting with respect to the broadcasting sector**

- The number of set-top boxes increased by 10.2% (from 18.6 million in 2020 to 20.5 million in 2021). The number of Digital satellite stations increased by 1.9% in 2021. However, the number of Digital Terrestrial stations decreased by 4.4% in 2021, while the number of content distributions remains the same from 2020 to 2021.
- The total number of people employed in the broadcasting sector decreased by 19%. Female employees decreased by 18% in 2021.

**The following highlights are worth noting for the postal services sector**

- The Postal services revenue increased by 11%, from R5.9 billion in 2020 to R6.9 billion in 2021.

- The proportion of the postal sector procurement spend based on suppliers' B-BBEE ranking as a percentage of overall spend from all suppliers was at 15.4% in 2021.

- The total letter delivery services (Registered letters) decreased by 9.7% from 336 million in 2020 to 331 million in 2021. Domestic service and international outbound (Local Volumes) decreased by 10% and the domestic service and international outbound (International mail centre volume) increased by 21.4% in 2021.

## APPENDICES

### Appendix 1: ICASA questionnaire respondents, January 2021

| ICASA questionnaire respondents, January, 2022 | |
|---|---|
| **Telecommunication's Licensees** | |
| 1 | Afrihost SP (Pty) Ltd |
| 2 | Airband High Speed Internet (Pty) Ltd |
| 3 | Amobia Communications (Pty) Ltd |
| 4 | ASK Internet Technologies CC |
| 5 | AT&T South Africa (Proprietary) Limited |
| 6 | Atcomm (Pty) Ltd t/a Ntelecom |
| 7 | Axxess DSL (Pty) LTD |
| 8 | Bethnet cc |
| 9 | BITCO TELECOMS |
| 10 | Border Internet (Pty) Ltd |
| 11 | Borwood Communications |
| 12 | Breedenet (Pty) Ltd |
| 13 | BSS Digital |
| 14 | Bundu NetworX (Pty) Ltd |
| 15 | Cell C Ltd |
| 16 | CENTURY CITY CONNECT (PTY) LTD |
| 17 | China Telecom South Africa (Pty) Ltd |
| 18 | Cloud Connect Networks (Pty) Ltd |
| 19 | Cloud Karoo |
| 20 | Compatel |
| 21 | Comput8 IT (Pty) Ltd t/a COMPUTATE |
| 22 | Comsol Networks |
| 23 | CRAZYWEB TECH PTY LTD |
| 24 | CUBE ICT SOLUTIONS (PTY) LTD |
| 25 | Cutman Bush Net |
| 26 | CWNET |
| 27 | Cybersmart (Pty) Ltd |
| 28 | Dark Fibre Africa Proprietary Limited |
| 29 | Datonet (Pty) Ltd |
| 30 | Dimension Data |
| 31 | Dube TradePort Corporation |

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|---|---|
| 32 | E WISP |
| 33 | Edelnet |
| 34 | Equation Business Solutions Pty Ltd |
| 35 | FRANCOIS O'KENNEDY W.O.R.X (PTY) LTD |
| 36 | FUSION VOICE & DATA |
| 37 | Fusion Wireless (Pty) Ltd |
| 38 | Future Perfect Corporation CC T/A Vanilla |
| 39 | Heinrich Heunis |
| 40 | Hi-Tech Wireless (Pty) Ltd |
| 41 | HX Systems (Pty) Ltd |
| 42 | ICTGlobe Management |
| 43 | Imply IT (Pty) Ltd |
| 44 | InterActive Systems Designs (Pty) Ltd |
| 45 | Interexcel World Connection (Pty) Ltd |
| 46 | Internet Generation (Pty) Ltd |
| 47 | Internet Solutions Digital Pty Ltd |
| 48 | Internet Uncapped CC |
| 49 | iONLINE ISP |
| 50 | IZAK SCHALK WILLEM VAN ZYL |
| 51 | Kibo Connect (Pty) Ltd |
| 52 | Kliq Holdings |
| 53 | kosh Communication Services (Pty) Ltd |
| 54 | La Rochelle IT Solutions (Pty) Ltd |
| 55 | Lasernet Pty Ltd |
| 56 | LBJ GROENEWALD |
| 57 | LCOM (PTY) LTD |
| 58 | Letaba Wireless Internet |
| 59 | Lidino Trading 534 T/A Nuwcom Wireless |
| 60 | Link Africa (Pty) Ltd |
| 61 | Linux Based Systems Design SA (Pty) Ltd |
| 62 | Liquid Telecommunications South Africa (Pty) Ltd |
| 63 | Metro Fibre Networx Pty Ltd |
| 64 | MTN SA (Ltd) |
| 65 | NCW (Pty) Ltd t/a NetCom Wireless |
| 66 | Netwide Internet Services |

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|---|---|
| 67 | NEXUS NET WIRED & WIRELESS |
| 68 | Orange Business Services South Africa Pty Ltd |
| 69 | Platoon Trade and Invest 149 (PTY) LTD TA Wanatel PTY) LTD |
| 70 | Pronto Computer Solutions |
| 71 | Purple Pebble Productions (Pty) Ltd (Formerly Purple Pebble Productions Cc T/A Purple Turtle Communications) |
| 72 | Radiospoor Welkom Pty Ltd |
| 73 | Rain Networks (Pty) Ltd |
| 74 | Safricom North West Pty Ltd |
| 75 | SCAN RF Projects (Pty) Ltd |
| 76 | SEAGLE TELECOM |
| 77 | Simigenix (Pty) Ltd |
| 78 | SKYBER WIFI ENTERPRISES |
| 79 | Skynology (PTY)LTD |
| 80 | SMS CELLULAR SERVICES PTY LTD |
| 81 | SMS PORTAL (PTY) LTD |
| 82 | Snowball Effect (Pty) Ltd & Wish Networks (Pty) Ltd |
| 83 | Sonic Computers & Wifi CC |
| 84 | Spiderink Bookkeeping Services |
| 85 | STUART VINCENT BODILL |
| 86 | Telkom SA SOC Ltd |
| 87 | Telviva (Pty) Ltd |
| 88 | Tribal Zone Telecommunications (Pty) Ltd |
| 89 | Trusc Technologies (Pty) Ltd |
| 90 | TT CONNECT (RF) (PTY) LTD |
| 91 | Vangibuzz (Pty) Ltd t/a True Communications |
| 92 | Viva Telecoms |
| 93 | Vodacom (Pty) Ltd |
| 94 | Vox Telecommunications (Pty) Ltd |
| 95 | Voys Telecom SA (Pty) Ltd |
| 96 | Vumatel (Pty) Ltd |
| 97 | Wireless Associate Service Provider CC |
| 98 | Wispernet |
| | Xlink |
| 100 | XPRESS LIMPOPO - GLORIFICO (PTY) LTD |

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|---|---|
| 101 | XPRESS WIRELESS MAPUMALANGA - CARMENTA (PTY) LTD |
| 102 | XPRESS WIRELESS NORTH WEST – XPRESS WIRELESS (PTY) LTD |
| **Broadcasting Licensees** | |
| 1 | 100.5FM Radio Laeveld |
| 2 | Bokone Bophirima FM |
| 3 | Bush Radio |
| 4 | Deukom (Pty) Ltd |
| 5 | E Tv |
| 6 | Faith Broadcasting Terrestrial |
| 7 | Fine Music Radio |
| 8 | Groot FM |
| 9 | Impact Radio |
| 10 | Lekoa Multi-Media and Communication D C |
| 11 | Life Broadcasting |
| 12 | LINK FM TRUST |
| 13 | MedFm |
| 14 | Modiri FM |
| 15 | Multichoice (Pty) Ltd |
| 16 | Noponi Rural Development t/a Ngqushwa FM |
| 17 | On Digital Media (Pty) Ltd |
| 18 | PERRON FM |
| 19 | Pretoria FM |
| 20 | Primedia Broadcasting |
| 21 | Radio Islam |
| 22 | Radio Tygerberg |
| 23 | SOUTH AFRICAN BROADCASTING CORPORATION (Radio) |
| 24 | SOUTH AFRICAN BROADCASTING CORPORATION (TV) |
| 25 | TSHEPO FM |
| 26 | UMOYA COMMUNICATIONS (PTY) LTD |
| 27 | Wild Coast FM |
| 28 | Witzenberg Radio |
| **Postal Services Licensees** | |
| 1 | FASTWAY COURIERS |
| 2 | PATHTEQ QPL LOGISTICS |
| 3 | South African Post Office |

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|---|---|
| 4 | **Postnet SA** |
| 5 | **RC Couriers** |
| 6 | **Royale International** |
| 7 | **The Courier Guy** |

## Appendix 2: Definitions of Telecommunications categories

| Definitions of Telecommunications categories | |
|---|---|
| ICT | Information Communication Technology |
| Stats SA | Statistics South Africa |
| ECS | Electronic Communications Services |
| ECNS | Electronic Communications Network Services |
| GHS | General household survey |
| ISP's | Internet Service Providers |
| **Telecommunications sector** | |
| The telecommunications sector comprises fixed and mobile telecommunications services as well as the provision of Internet access. | |
| ***Total telecommunication investment*** | |
| Total annual investment in telecommunication services, also referred to as annual capital expenditure, refers to the investment during the financial year in telecommunication services (including fixed, mobile and Internet services) for acquiring or upgrading property and networks. Property includes tangible assets such as plant, intellectual and non-tangible assets such as computer software. The indicator is a measure of investment in telecommunication infrastructure in the country and includes expenditure on initial installations and additions to existing installations where the usage is expected to be over an extended period of time. It excludes expenditure on research and development (R&D), annual fees for operating licences and the use of radio spectrum, and investment in telecommunication software or equipment for internal use. | |
| *Annual investment in fixed-telephone services* | |
| Refers to investment in fixed-telephone services for acquiring and upgrading property and networks within the country. This refers to annual investment in assets related to fixed-telephone networks and the provision of services. | |
| *Annual investment in fixed (wired) broadband services* | |
| Refers to investment in fixed (wired)-broadband services for acquiring and upgrading property and networks within the country. This refers to annual investment in assets related to fixed (wired)-broadband networks and the provision of services. | |
| *Annual investment in mobile communication services* | |

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| Refers to investment in mobile services for acquiring and upgrading property and networks within the country. It should include investments made for mobile-broadband services. This refers to annual investment in assets related to mobile communication networks and the provision of services. It should include investment in mobile-broadband networks. |
| *Other annual investment in telecommunication services* |
| Refers to investment in other telecommunication services, such as fixed wireless-broadband, satellite and leased lines. |
| ***Total telecommunications revenue*** |
| The aggregated revenue includes the total telecommunications services revenue and any other revenue. |
| ***Total telecommunication services revenue*** |
| The sum of revenue from all telecommunication services (in local currency at current prices). Revenue from all telecommunication services refers to revenue earned from retail fixed-telephone, mobile-cellular, Internet and data services offered by telecommunication operators (both network and virtual, including resellers) offering services within the country during the financial year under review. It includes retail revenues earned from the transmission of TV signals but excludes revenues from TV content creation. Exclude: (i) wholesale revenues (e.g. termination rates), (ii) revenues from device sales and rents, (iii) VAT and excise taxes. Any deviation from the definition should be specified in a note, including clarifications on what TV revenues are included/excluded (e.g. IPTV, cable TV, pay satellite and free-to-air TV). |
| *Total fixed line services revenue* |
| This aggregate value is defined as the sum of Fixed line voice revenue, fixed (wired) internet revenue, Other fixed (wireless) broadband revenue and Other fixed telecommunications services revenue as defined below. |
| *Total fixed line voice revenue* |
| Sum of revenue from retail fixed-telephone services refers to revenue received for the connection (installation) of fixed-telephone services, revenue from recurring charges for subscription to the PSTN and revenue from fixed-telephone calls. |
| *Revenue from fixed-telephone connection charges* |

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| Revenue from fixed-telephone connection charges refers to retail revenue received for connection (installation) of fixed- telephone services. This may include charges for transfer or cessation of services. |
| *Revenue from fixed-telephone subscription charges* |
| Revenue from fixed-telephone subscription charges refers to revenue from recurring charges for subscriptions to the PSTN, including Internet access if it cannot be separated from fixed-telephone. |
| *Revenue from fixed-telephone calls* |
| Revenue from fixed-telephone calls refers to retail fixed-telephone revenue received from charges for local, national long-distance and international calls. |
| ***Fixed (wired) internet revenue*** |
| Revenue from fixed (wired) Internet services refers to retail revenue received from the provision of fixed (wired) Internet services such as subscriptions, traffic and data communication. It excludes the provision of access lines used to connect to fixed (wired) Internet (such as fixed-telephone lines used to access DSL connections). This includes revenue from fixed (wired)-broadband services (previously a separate indicator under ITU code i7311_fb, but for reporting purposes here counted together with any small residual narrowband internet revenue in a single indicator, viz. fixed wired internet). |
| ***Other (wireless) broadband services revenue*** |
| Revenue from other wireless-broadband services refers to the retail revenue received from the provision of high-speed (at least 256 Kbit/s) data connectivity and related services over a wireless infrastructure other than mobile cellular, such as satellite or terrestrial fixed wireless broadband infrastructures. |
| ***Other fixed telecommunication services revenue, including leased lines revenue and fixed value-added telecommunication services*** |
| Revenue from leased lines refers to retail revenue received from the provision of leased lines. |
| Revenue from fixed value-added telecommunication services refers to the retail revenue generated by the telecommunication service sector for fixed value-added |

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| telecommunication services, such as call forwarding, itemized billing, conference calls and voice-message services. |
| Value-added means additional services beyond the basic telephone service line rental and calls |
| Other telecommunication revenue refers to any other retail telecommunication services revenue received but not accounted for elsewhere. |
| ***Total mobile services revenue (retail)*** |
| Revenue from mobile networks refers to retail revenue earned from the provision of mobile-cellular communication services, including all voice, SMS and data (narrowband and broadband) services offered by mobile operators offering services within the country during the financial year under review. Revenues from value added services (e.g. premium SMS) should be included. Data reported should exclude: (i) wholesale revenues (e.g. termination rates), (ii) revenues from device sales and rents, (iii) VAT and excise taxes. |
| *Revenue from mobile voice services* |
| Refers to all mobile-cellular retail revenue from the provision of voice services. It includes voice revenues from national and international calls but excludes revenues from roaming services. |
| *Revenue from outbound mobile cellular roaming* |
| Refers to all mobile-cellular retail roaming revenue from own subscribers roaming abroad. It does not cover foreign mobile subscribers roaming into the country and international calls originating or terminating on the country’s mobile networks. |
| *Revenue from mobile data services* |
| Refers to revenue from the provision of non-voice services including messaging (other than SME and MMs), data and Internet services, including M2M/telemetry. It excludes other mobile-cellular services and wireless Internet access services not relating to mobile networks (e.g. satellite or terrestrial fixed wireless technologies). |
| *Revenue from text and multimedia messaging services* |
| Refers to revenue from text messaging and multimedia messaging (SMS and MMS). Some countries may account for this in different ways. For example, some mobile plans include free SMS or MMS that are liable to be classified as voice revenue rather |

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| than mobile-messaging revenue. The treatment of premium messages – where users pay an additional amount over the regular messaging rate – can vary among operators, since they typically share the revenue with a premium-service provider. Operators may also include revenue from international messaging in other categories. The preference is to include all revenue earned by the operator from the provision of messaging services to retail customers. |
| *Other mobile services revenue* |
| Any other mobile revenue, like banking |
| ***Total of any other revenue*** |
| Sum of interconnection revenue, equipment sale revenue and any other revenue |
| *Interconnection revenues* |
| Revenues from terminating voice and messaging traffic coming from outside the operator's own network |
| *Equipment revenue* |
| Revenues from equipment sales |
| *Any other revenue* |
| Any other revenue which could include wholesale revenues, excluding voice termination (interconnection); IT type services; revenue of a capital nature. E.g. sale of assets or a business. |
| ***Telecommunications employment*** |
| *Persons employed in full-time equivalents* |
| Persons employed in full-time equivalents refers to the total number of persons, 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 indicator excludes staff working in broadcasting businesses that offer only traditional broadcasting services. Part-time staff should be expressed in terms of full-time staff equivalents (FTE). |
| *Telecoms employment- female* |
| Persons employed by all telecommunication operators; female should be expressed in terms of full-time staff equivalents. |
| ***Telecommunication Subscriptions*** |

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| ***Fixed-telephone subscriptions*** |
| Fixed-telephone subscriptions refers to the sum of active analogue fixed- telephone lines, voice-over-IP (VoIP) subscriptions, fixed wireless local loop (WLL) subscriptions, ISDN voice-channel equivalents and fixed public payphones. This indicator was previously called Main telephone lines in operation. |
| *Analogue fixed-telephone lines* |
| Analogue fixed-telephone lines refer to the number of active lines connecting subscribers' terminal equipment to the PSTN, and which have a dedicated port in the telephone-exchange equipment. It includes all post-paid lines and those prepaid lines that have registered an activity in the past three months. This term is synonymous with the terms 'main station' and 'direct exchange line' (DEL) that are commonly used in telecommunication documents. |
| *VoIP subscriptions* |
| VoIP subscriptions refers to the number of voice-over-Internet protocol (VoIP) fixed-line subscriptions. It is also known as voice over broadband (VoB), and includes VoIP subscriptions through fixed wireless, DSL, cable, fibre optic and other fixed-broadband Internet platforms that provide fixed telephony using IP. It excludes software-based VoIP applications (e.g. VoIP with Skype using computer-to-computer or computer-to-telephone). Those VoIP subscriptions that do not imply a recurrent monthly fee should only be counted if they have generated inbound or outbound traffic within the past three months. |
| *Fixed wireless local loop subscriptions* |
| Fixed wireless local loop (WLL) subscriptions refers to subscriptions provided by licensed fixed-line telephone operators that provide 'last-mile' access to the subscriber using radio technology and where the subscriber's terminal equipment is either stationary or limited in its range of use. |
| *ISDN voice-channel equivalents* |
| ISDN voice-channel equivalents refers to the sum of basic-rate and primary-rate voice-channel equivalents (B-channel equivalents). Basic-rate voice-channel equivalents is the number of basic-rate ISDN subscriptions multiplied by 2, and |

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| primary-rate voice-channel equivalents is the number of primary-rate ISDN subscriptions multiplied by 23 or 30, depending on the standard implemented. |
| *Fixed public payphones* |
| Fixed public payphones refers to payphones that are available to the public using the fixed network. |
| ***Mobile cellular subscriptions*** |
| Mobile-cellular telephone subscriptions, by post-paid and prepaid Mobile-cellular telephone subscriptions refers to the number of subscriptions to a public mobile-telephone service that provide access to the PSTN using cellular technology. |
| *Prepaid mobile-cellular telephone subscriptions* |
| Refers to the total number of mobile-cellular telephone subscriptions that use prepaid refills. These are subscriptions where, instead of paying an ongoing monthly fee, users purchase blocks of usage time. Although the definition of prepaid subscribers from the ITU definition is 3 month active subscribers (those used at least once in the last three months for making or receiving a call or carrying out a non-voice activity such as sending or reading an SMS or accessing the Internet), some South African operators do not have this metric available but rather count SIMs that have not been disconnected within a 90 day window, reporting, implying that the number may be overstated according to the strict definition. The indicator applies to all mobile-cellular subscriptions that offer voice communications. It excludes subscriptions via data cards or USB modems, subscriptions to public mobile data services, private trunked mobile radio, telepoint, radio paging and telemetry services. |
| *Post-paid mobile-cellular telephone subscriptions* |
| Refers to the total number of mobile-cellular subscriptions, including top up bundles, where subscribers are billed after their use of mobile services, at the end of each month. The post-paid service is provided on the basis of a prior arrangement with a mobile- cellular operator. Typically, the subscriber’s contract specifies a limit or allowance of minutes, text messages, etc. The subscriber will be billed at a flat rate for any usage equal to or less than that allowance. Any usage above that limit incurs extra charges. Theoretically, a subscriber in this situation has no limit on use of mobile |

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| services and, as a consequence, unlimited credit. M2M mobile-network subscriptions are included in post-paid subscriptions |
| *M2M mobile-network subscriptions* |
| M2M subscriptions is a subset of post-paid mobile cellular subscriptions and refers to the number of mobile-cellular machine- to-machine subscriptions that are assigned for use in machines and devices (cars, smart meters, consumer electronics) for the exchange of data between networked devices and are not part of a consumer subscription. For instance, SIM-cards in personal navigation devices, smart meters, trains and automobiles should be included. Mobile dongles and tablet subscriptions should be excluded. |
| ***Internet and data subscriptions*** |
| *Fixed broadband subscriptions* |
| Fixed-broadband subscriptions refers to fixed subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than, 256 Kbit/s. This includes cable modem, DSL, fibre-to-the- home/building, other fixed (wired)-broadband subscriptions, satellite broadband and terrestrial fixed wireless broadband. This total is measured irrespective of the method of payment. It excludes subscriptions that have access to data communications (including the Internet) via mobile-cellular networks. It should include fixed WiMAX and any other fixed wireless technologies. It includes both residential subscriptions and subscriptions for organizations. |
| *DSL Internet subscriptions* |
| Refers to the number of Internet subscriptions using digital subscriber line (DSL) services to access the Internet, at downstream speeds greater than or equal to 256 Kbit/s. DSL is a technology for bringing high-bandwidth information to homes and small businesses over ordinary copper telephone lines. It should exclude very high-speed digital subscriber line (VDSL) subscriptions if these are provided using fibre directly to the premises. |
| *Fibre-to-the-home/building Internet subscriptions* |
| Refers to the number of Internet subscriptions using fibre-to-the-home or fibre-to-the-building, at downstream speeds equal to, or greater than, 256 Kbit/s. This should |

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| include subscriptions where fibre goes directly to the subscriber's premises or fibre-to-the-building subscriptions that terminate no more than 2 metres from an external wall of the building. Fibre-to-the-cabinet and fibre-to-the-node are excluded. |
| *Other fixed (wired) broadband subscriptions* |
| Refers to Internet subscriptions using other fixed (wired) broadband technologies to access the Internet (other than DSL, cable modem, and fibre), at downstream speeds equal to, or greater than, 256 Kbit/s. This includes technologies such as ethernet LAN, and broadband-over-powerline (BPL) communications. Ethernet LAN subscriptions refer to subscriptions using IEEE 802.3 technology. BPL subscriptions refer to subscriptions using broadband-over-powerline services. Users of temporary broadband access (e.g. roaming between PWLAN hotspots), users of WiMAX and those with Internet access via mobile-cellular networks are excluded. |
| *Wireless broadband subscriptions* |
| Wireless-broadband subscriptions refers to the sum of satellite broadband, terrestrial fixed wireless broadband and active mobile-broadband subscriptions to the public Internet. The indicator does not cover fixed (wired) broadband or Wi-Fi subscriptions. |
| *Satellite broadband subscriptions* |
| Satellite broadband subscriptions refers to the number of satellite Internet subscriptions with an advertised download speed of at least 256 Kbit/s. It refers to the retail subscription technology and not the backbone technology. |
| *Terrestrial fixed wireless broadband subscriptions* |
| Terrestrial fixed wireless broadband subscriptions refer to the number of terrestrial fixed wireless Internet subscriptions with an advertised download speed of at least 256 Kbit/s. This includes fixed WiMAX and fixed wireless subscriptions but excludes occasional users at hotspots and Wi-Fi hotspot subscribers. It also excludes mobile-broadband subscriptions where users can access a service throughout the country wherever coverage is available." |
| *Mobile data subscriptions* |
| Number of prepaid and post-paid mobile subscriptions that were used to access the Internet the last 3 months, regardless of speed. |

| **_Traffic_** |
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| *Fixed line voice traffic* |
| *This aggregated value is the sum of Fixed line traffic (i.e. fixed-to-fixed) and all other fixed line originated traffic (Fixed to mobile and international outgoing).* |
| *Fixed line traffic* |
| Refers to domestic fixed-to-fixed telephone traffic, in minutes. Domestic fixed-to-fixed telephone traffic refers to completed local and domestic long-distance fixed-telephone voice traffic. The indicator should be reported as the number of minutes of traffic during the reference quarter. This excludes minutes used for dial-up Internet access. |
| *Local fixed-to-fixed telephone traffic, in minutes* |
| Refers to effective (completed) fixed-telephone line voice traffic exchanged within the local charging area in which the calling station is situated. This is the area within which one subscriber can call another on payment of the local charge (if applicable). This is reported in the number of minutes, which should exclude minutes used for dial-up Internet access. |
| *Long-distance fixed-to-fixed telephone traffic, in minutes* |
| Refers to effective (completed) fixed national long-distance telephone voice traffic exchanged with a station outside the local charging area in which the calling station is situated. This is reported as the number of minutes of traffic. It excludes local calls, calls to mobile networks, calls abroad, and calls to special service numbers such as ISPs for Internet dial-up. |
| *Fixed-to-mobile telephone traffic* |
| Refers to total traffic from all fixed-telephone networks to all mobile-cellular networks within the country. |
| *International incoming and outgoing fixed-telephone traffic* |
| Refers to the sum of international incoming and outgoing fixed-telephone voice traffic. |
| *International outgoing fixed-telephone traffic, in minutes* |
| Refers to effective (completed) fixed-telephone voice traffic originating in a given country to destinations outside that country. This should include traffic to mobile |

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| phones outside the country. This is reported in number of minutes of traffic. It excludes calls originating in other countries. It should include VoIP traffic. |
| *International incoming fixed-telephone traffic, in minutes* |
| Refers to effective (completed) fixed-telephone voice traffic originating outside the country with a destination inside the country, irrespective of whether the call was from a fixed or mobile subscriber. It excludes minutes of calls terminating in other countries, but includes VoIP traffic |
| *Mobile voice traffic* |
| *This aggregated value is the sum of Total national mobile traffic, as defined below, and international outgoing from mobile.* |
| *Total national mobile traffic* |
| Domestic mobile-telephone traffic refers to the total number of minutes of calls made by mobile subscribers within a country (including minutes to fixed-telephone and minutes to mobile-phone subscribers). |
| *Outgoing mobile traffic to same mobile network* |
| Refers to the number of minutes of calls made by mobile subscribers to the same mobile network (within the country). This refers to the number of minutes originating on mobile networks and terminating on the same mobile network (on-net). It does not cover minutes of calls from mobile to fixed or mobile to other mobile networks. |
| *Mobile to other mobile networks* |
| Outgoing mobile traffic to other mobile networks, in minutes refers to the number of minutes of calls made by mobile subscribers to other mobile networks (within the country). The indicator refers to the number of minutes originating on mobile networks and terminating on different domestic mobile networks (off-net). It does not cover minutes of calls from mobile to fixed or mobile to the same mobile networks. |
| *Outgoing mobile traffic to fixed networks* |
| Refers to the number of minutes of calls made from mobile-cellular networks to fixed-line telephone networks within the country. The indicator refers to the number of minutes originating on mobile networks and terminating on fixed-line telephone networks within the country. |
| *International outgoing from mobile* |

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| Outgoing mobile traffic to international refers to the number of mobile minutes originating in a country to any destinations outside that country. |
| *Incoming international traffic to mobile network* |
| Refers to the number of incoming minutes (fixed and mobile) received by mobile networks originating in another country. |
| *Mobile data traffic* |
| Mobile data traffic (within the country) refers to data traffic originated within the country from mobile networks. Download and upload traffic should be added up and reported together. Traffic should be measured at the end-user access point. Wholesale and walled-garden traffic should be excluded. The traffic should be reported in terabytes. |
| *SMS traffic* |
| SMS sent refers to the total number of mobile short-message service (SMS) messages sent, both to national and international destinations. This should exclude messages sent from computers to mobile handsets or to other computers. |
| *SMS international traffic* |
| SMS international refers to the total number of mobile short-message service (SMS) messages sent to international destinations. This should exclude messages sent from computers to mobile handsets or to other computers. |
| ***Population coverage*** |
| *3G population coverage* |
| Percentage of the population covered by at a 3G mobile network refers to the percentage of inhabitants that are within range of a 3G mobile-cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants that are covered by a 3G mobile-cellular signal by the total population and multiplying by 100. |
| *4G/LTE etc. population coverage* |
| Percentage of the population covered by a 4G/LTE mobile network refers to the percentage of inhabitants that are within range of a 4G/LTE mobile-cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the |

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| number of inhabitants that are covered by a 4G/LTE mobile-cellular signal by the total population and multiplying by 100. Note that all LTE variants are included. |
| ***Internet bandwidth*** |
| ***International Internet bandwidth*** |
| *International outgoing Internet bandwidth* |
| Refers to the total outgoing used capacity of international Internet bandwidth, in Mbit/s. This is measured as the sum of outgoing (uplink) capacity of all Internet exchanges offering international bandwidth. |
| *International incoming Internet bandwidth* |
| *Refers to the total incoming used capacity of international Internet bandwidth, in Mbit/s. This is measured as the sum of incoming (downlink) capacity of all Internet exchanges offering international bandwidth.* |
| *Smartphone subscriptions* |
| A smartphone is a mobile phone with advanced features: it has Wi-Fi connectivity, web browsing, capabilities, a high-resolution touchscreen display and the ability to use apps. The majority use one of the following mobile operating systems: Android, Symbian, iOS, Blackberry OS and Windows Mobile. |
| ***Fixed post-paid local telephone services prices*** |
| *Installation fee for residential telephone service* |
| Installation fee for residential telephone service refers to the one-off charge involved in applying for a basic residential post-paid fixed-telephone service. Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| *Monthly subscription for residential telephone service* |
| Monthly subscription for residential telephone service refers to the recurring fixed charge for subscribing to a residential post-paid fixed-telephone service. The charge should cover the rental of the line but not the rental of the terminal (e.g., telephone set). If the rental charge includes any allowance for free or reduced rate call units, this should be indicated in the note. Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| *Price of a three-minute local call to a fixed-telephone line, peak rate* |

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| Price of a three-minute local call (peak-rate) to a fixed-telephone line refers to the price of a three-minute peak local call from a residential fixed-telephone line, including any call set-up charges, within the same exchange area using the subscriber's own terminal (i.e., not from a public telephone). Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| *Price of a three-minute local call to a fixed-telephone line, off-peak rate* |
| Price of a three-minute local call to a fixed-telephone line refers to the price of a three-minute off-peak local call from a residential fixed-telephone line, including any call set-up charges, within the same exchange area using the subscriber's own terminal (i.e., not from a public telephone). Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| ***Mobile-cellular prepaid prices*** |
| *Mobile-cellular prepaid-price of a one-minute local call (peak, on-net)* |
| Refers to the price per minute of a peak prepaid call from a mobile-cellular telephone with a prepaid subscription to another subscriber in the same network. Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| *Mobile-cellular prepaid-price of a one-minute local call (off-peak, on-net)* |
| Refers to the price per minute of a prepaid call from a mobile-cellular telephone with a prepaid subscription made to the same mobile-cellular network during off-peak time. Off-peak refers to the cheapest rate before mid-night. If the only off-peak period is after mid-night, the peak price should be used. Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| *Mobile-cellular prepaid-price of SMS (on-net)* |
| Mobile-cellular prepaid – price of SMS refers to the price of sending a short-message service (SMS) message from a mobile-cellular telephone with a prepaid subscription to a mobile-cellular number of the same network (on-net). Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| ***ICT Sector Black Economic Empowerment Measures*** |
| *Telecom's employment -Black Top Management* |

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| Persons employed by all telecommunication operators, Black Top Management, should be expressed in terms of full-time staff equivalents. This should include Exco and other Executives. |
| *Procurement Spend from all suppliers* |
| Totals spend on all goods and services procured by an Entity. |
| *Procurement Spend from all suppliers based on the B-BBEE Procurement Recognition Levels* |
| Totals spend on all goods and services procured by an Entity based on the B-BBEE Procurement Recognition Levels. |
| *Number of Schools connected based on obligations imposed by ICASA* |
| Total number of Schools connected based on obligations imposed by ICASA to operators. |

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| *Total fixed line voice revenue* |
| Sum of revenue from retail fixed-telephone services refers to revenue received for the connection (installation) of fixed-telephone services, revenue from recurring charges for subscription to the PSTN and revenue from fixed-telephone calls. |
| *Revenue from fixed-telephone connection charges* |
| Revenue from fixed-telephone connection charges refers to retail revenue received for connection (installation) of fixed- telephone services. This may include charges for transfer or cessation of services. |
| *Revenue from fixed-telephone subscription charges* |
| Revenue from fixed-telephone subscription charges refers to revenue from recurring charges for subscriptions to the PSTN, including Internet access if it cannot be separated from fixed-telephone. |
| *Revenue from fixed-telephone calls* |
| Revenue from fixed-telephone calls refers to retail fixed-telephone revenue received from charges for local, national long-distance and international calls. |
| ***Fixed (wired) internet revenue*** |
| Revenue from fixed (wired) Internet services refers to retail revenue received from the provision of fixed (wired) Internet services such as subscriptions, traffic and data |

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| communication. It excludes the provision of access lines used to connect to fixed (wired) Internet (such as fixed-telephone lines used to access DSL connections). This includes revenue from fixed (wired)-broadband services (previously a separate indicator under ITU code i7311_fb, but for reporting purposes here counted together with any small residual narrowband internet revenue in a single indicator, viz. fixed wired internet). |
| ***Other (wireless) broadband services revenue*** |
| Revenue from other wireless-broadband services refers to the retail revenue received from the provision of high-speed (at least 256 Kbit/s) data connectivity and related services over a wireless infrastructure other than mobile cellular, such as satellite or terrestrial fixed wireless broadband infrastructures. |
| ***Other fixed telecommunication services revenue, including leased lines revenue and fixed value-added telecommunication services*** |
| Revenue from leased lines refers to retail revenue received from the provision of leased lines. |
| Revenue from fixed value-added telecommunication services refers to the retail revenue generated by the telecommunication service sector for fixed value-added telecommunication services, such as call forwarding, itemized billing, conference calls and voice-message services. |
| Value-added means additional services beyond the basic telephone service line rental and calls |
| Other telecommunication revenue refers to any other retail telecommunication services revenue received but not accounted for elsewhere. |
| ***Total mobile services revenue (retail)*** |
| Revenue from mobile networks refers to retail revenue earned from the provision of mobile-cellular communication services, including all voice, SMS and data (narrowband and broadband) services offered by mobile operators offering services within the country during the financial year under review. Revenues from value added services (e.g., premium SMS) should be included. Data reported should exclude: (i) wholesale revenues (e.g., termination rates), (ii) revenues from device sales and rents, (iii) VAT and excise taxes. |

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| *Revenue from mobile voice services* |
| Refers to all mobile-cellular retail revenue from the provision of voice services. It includes voice revenues from national and international calls but excludes revenues from roaming services. |

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| *Revenue from outbound mobile cellular roaming* |
| Refers to all mobile-cellular retail roaming revenue from own subscribers roaming abroad. It does not cover foreign mobile subscribers roaming into the country and international calls originating or terminating on the country's mobile networks. |
| *Revenue from mobile data services* |
| Refers to revenue from the provision of non-voice services including messaging (other than SME and MMs), data and Internet services, including M2M/telemetry. It excludes other mobile-cellular services and wireless Internet access services not relating to mobile networks (e.g., satellite or terrestrial fixed wireless technologies). |
| *Revenue from text and multimedia messaging services* |
| Refers to revenue from text messaging and multimedia messaging (SMS and MMS). Some countries may account for this in different ways. For example, some mobile plans include free SMS or MMS that are liable to be classified as voice revenue rather than mobile-messaging revenue. The treatment of premium messages – where users pay an additional amount over the regular messaging rate – can vary among operators, since they typically share the revenue with a premium-service provider. Operators may also include revenue from international messaging in other categories. The preference is to include all revenue earned by the operator from the provision of messaging services to retail customers. |
| *Other mobile services revenue* |
| Any other mobile revenue, like banking |
| ***Total of any other revenue*** |
| Sum of interconnection revenue, equipment sale revenue and any other revenue |
| *Interconnection revenues* |
| Revenues from terminating voice and messaging traffic coming from outside the operator's own network |

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| *Equipment revenue* |
| Revenues from equipment sales |
| *Any other revenue* |
| Any other revenue which could include wholesale revenues, excluding voice termination (interconnection); IT type services; revenue of a capital nature. E.g., sale of assets or a business. |
| ***Telecommunications employment*** |
| *Persons employed in full-time equivalents* |
| Persons employed in full-time equivalents refers to the total number of persons, 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 indicator excludes staff working in broadcasting businesses that offer only traditional broadcasting services. Part-time staff should be expressed in terms of full-time staff equivalents (FTE). |
| *Telecoms employment- female* |
| Persons employed by all telecommunication operators; female should be expressed in terms of full-time staff equivalents. |
| ***Telecommunication Subscriptions*** |
| ***Fixed-telephone subscriptions*** |
| Fixed-telephone subscriptions refers to the sum of active analogue fixed- telephone lines, voice-over-IP (VoIP) subscriptions, fixed wireless local loop (WLL) subscriptions, ISDN voice-channel equivalents and fixed public payphones. This indicator was previously called Main telephone lines in operation. |
| *Analogue fixed-telephone lines* |
| Analogue fixed-telephone lines refer to the number of active lines connecting subscribers' terminal equipment to the PSTN and which have a dedicated port in the telephone-exchange equipment. It includes all post-paid lines and those prepaid lines that have registered an activity in the past three months. This term is synonymous with the terms 'main station' and 'direct exchange line' (DEL) that are commonly used in telecommunication documents. |
| *VoIP subscriptions* |

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| VoIP subscriptions refers to the number of voice-over-Internet protocol (VoIP) fixed-line subscriptions. It is also known as voice over broadband (VoB), and includes VoIP subscriptions through fixed wireless, DSL, cable, fibre optic and other fixed-broadband Internet platforms that provide fixed telephony using IP. It excludes software-based VoIP applications (e.g. VoIP with Skype using computer-to-computer or computer-to-telephone). Those VoIP subscriptions that do not imply a recurrent monthly fee should only be counted if they have generated inbound or outbound traffic within the past three months. |
| *Fixed wireless local loop subscriptions* |
| Fixed wireless local loop (WLL) subscriptions refers to subscriptions provided by licensed fixed-line telephone operators that provide 'last-mile' access to the subscriber using radio technology and where the subscriber's terminal equipment is either stationary or limited in its range of use. |
| *ISDN voice-channel equivalents* |
| ISDN voice-channel equivalents refers to the sum of basic-rate and primary-rate voice-channel equivalents (B-channel equivalents). Basic-rate voice-channel equivalents is the number of basic-rate ISDN subscriptions multiplied by 2, and primary-rate voice-channel equivalents is the number of primary-rate ISDN subscriptions multiplied by 23 or 30, depending on the standard implemented. |
| *Fixed public payphones* |
| Fixed public payphones refers to payphones that are available to the public using the fixed network. |
| ***Mobile cellular subscriptions*** |
| Mobile-cellular telephone subscriptions, by post-paid and prepaid Mobile-cellular telephone subscriptions refers to the number of subscriptions to a public mobile-telephone service that provide access to the PSTN using cellular technology. |
| *Prepaid mobile-cellular telephone subscriptions* |
| Refers to the total number of mobile-cellular telephone subscriptions that use prepaid refills. These are subscriptions where, instead of paying an ongoing monthly fee, users purchase blocks of usage time. Although the definition of prepaid subscribers from the ITU definition is 3 month active subscribers (those used at |

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| least once in the last three months for making or receiving a call or carrying out a non-voice activity such as sending or reading an SMS or accessing the Internet), some South African operators do not have this metric available but rather count SIMs that have not been disconnected within a 90 day window, reporting, implying that the number may be overstated according to the strict definition. The indicator applies to all mobile-cellular subscriptions that offer voice communications. It excludes subscriptions via data cards or USB modems, subscriptions to public mobile data services, private trunked mobile radio, telepoint, radio paging and telemetry services. |
| *Post-paid mobile-cellular telephone subscriptions* |
| Refers to the total number of mobile-cellular subscriptions, including top up bundles, where subscribers are billed after their use of mobile services, at the end of each month. The post-paid service is provided on the basis of a prior arrangement with a mobile- cellular operator. Typically, the subscriber's contract specifies a limit or allowance of minutes, text messages, etc. The subscriber will be billed at a flat rate for any usage equal to or less than that allowance. Any usage above that limit incurs extra charges. Theoretically, a subscriber in this situation has no limit on use of mobile services and, as a consequence, unlimited credit. M2M mobile-network subscriptions are included in post-paid subscriptions |
| *M2M mobile-network subscriptions* |
| M2M subscriptions is a subset of post-paid mobile cellular subscriptions and refers to the number of mobile-cellular machine- to-machine subscriptions that are assigned for use in machines and devices (cars, smart meters, consumer electronics) for the exchange of data between networked devices and are not part of a consumer subscription. For instance, SIM-cards in personal navigation devices, smart meters, trains and automobiles should be included. Mobile dongles and tablet subscriptions should be excluded. |
| ***Internet and data subscriptions*** |
| *Fixed broadband subscriptions* |
| Fixed-broadband subscriptions refers to fixed subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or |

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| greater than, 256 Kbit/s. This includes cable modem, DSL, fibre-to-the-home/building, other fixed (wired)-broadband subscriptions, satellite broadband and terrestrial fixed wireless broadband. This total is measured irrespective of the method of payment. It excludes subscriptions that have access to data communications (including the Internet) via mobile-cellular networks. It should include fixed WiMAX and any other fixed wireless technologies. It includes both residential subscriptions and subscriptions for organizations. |
| *DSL Internet subscriptions* |
| Refers to the number of Internet subscriptions using digital subscriber line (DSL) services to access the Internet, at downstream speeds greater than or equal to 256 Kbit/s. DSL is a technology for bringing high-bandwidth information to homes and small businesses over ordinary copper telephone lines. It should exclude very high-speed digital subscriber line (VDSL) subscriptions if these are provided using fibre directly to the premises. |
| *Fibre-to-the-home/building Internet subscriptions* |
| Refers to the number of Internet subscriptions using fibre-to-the-home or fibre-to-the-building, at downstream speeds equal to, or greater than, 256 Kbit/s. This should include subscriptions where fibre goes directly to the subscriber's premises or fibre-to-the-building subscriptions that terminate no more than 2 metres from an external wall of the building. Fibre-to-the-cabinet and fibre-to-the-node are excluded. |
| *Other fixed (wired) broadband subscriptions* |
| Refers to Internet subscriptions using other fixed (wired) broadband technologies to access the Internet (other than DSL, cable modem, and fibre), at downstream speeds equal to, or greater than, 256 Kbit/s. This includes technologies such as ethernet LAN, and broadband-over-powerline (BPL) communications. Ethernet LAN subscriptions refer to subscriptions using IEEE 802.3 technology. BPL subscriptions refer to subscriptions using broadband-over-powerline services. Users of temporary broadband access (e.g. roaming between PWLAN hotspots), users of WiMAX and those with Internet access via mobile-cellular networks are excluded. |
| *Wireless broadband subscriptions* |

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| Wireless-broadband subscriptions refers to the sum of satellite broadband, terrestrial fixed wireless broadband and active mobile-broadband subscriptions to the public Internet. The indicator does not cover fixed (wired) broadband or Wi-Fi subscriptions. |
| *Satellite broadband subscriptions* |
| Satellite broadband subscriptions refers to the number of satellite Internet subscriptions with an advertised download speed of at least 256 Kbit/s. It refers to the retail subscription technology and not the backbone technology. |
| *Terrestrial fixed wireless broadband subscriptions* |
| Terrestrial fixed wireless broadband subscriptions refer to the number of terrestrial fixed wireless Internet subscriptions with an advertised download speed of at least 256 Kbit/s. This includes fixed WiMAX and fixed wireless subscriptions but excludes occasional users at hotspots and Wi-Fi hotspot subscribers. It also excludes mobile-broadband subscriptions where users can access a service throughout the country wherever coverage is available." |
| *Mobile data subscriptions* |
| Number of prepaid and post-paid mobile subscriptions that were used to access the Internet the last 3 months, regardless of speed. |

| ***Traffic*** |
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| *Fixed line voice traffic* |
| *This aggregated value is the sum of Fixed line traffic (i.e. fixed-to-fixed) and all other fixed line originated traffic (Fixed to mobile and international outgoing).* |
| *Fixed line traffic* |
| Refers to domestic fixed-to-fixed telephone traffic, in minutes. Domestic fixed-to-fixed telephone traffic refers to completed local and domestic long-distance fixed-telephone voice traffic. The indicator should be reported as the number of minutes of traffic during the reference quarter. This exclude minutes used for dial-up Internet access. |
| *Local fixed-to-fixed telephone traffic, in minutes* |

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| Refers to effective (completed) fixed-telephone line voice traffic exchanged within the local charging area in which the calling station is situated. This is the area within which one subscriber can call another on payment of the local charge (if applicable). This is reported in the number of minutes, which should exclude minutes used for dial-up Internet access. |
| *Long-distance fixed-to-fixed telephone traffic, in minutes* |
| Refers to effective (completed) fixed national long-distance telephone voice traffic exchanged with a station outside the local charging area in which the calling station is situated. This is reported as the number of minutes of traffic. It excludes local calls, calls to mobile networks, calls abroad, and calls to special service numbers such as ISPs for Internet dial-up. |
| *Fixed-to-mobile telephone traffic* |
| Refers to total traffic from all fixed-telephone networks to all mobile-cellular networks within the country. |
| *International incoming and outgoing fixed-telephone traffic* |
| Refers to the sum of international incoming and outgoing fixed-telephone voice traffic. |
| *International outgoing fixed-telephone traffic, in minutes* |
| Refers to effective (completed) fixed-telephone voice traffic originating in a given country to destinations outside that country. This should include traffic to mobile phones outside the country. This is reported in number of minutes of traffic. It excludes calls originating in other countries. It should include VoIP traffic. |
| *International incoming fixed-telephone traffic, in minutes* |
| Refers to effective (completed) fixed-telephone voice traffic originating outside the country with a destination inside the country, irrespective of whether the call was from a fixed or mobile subscriber. It excludes minutes of calls terminating in other countries, but includes VoIP traffic |
| *Mobile voice traffic* |
| *This aggregated value is the sum of Total national mobile traffic, as defined below, and international outgoing from mobile.* |
| *Total national mobile traffic* |

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| Domestic mobile-telephone traffic refers to the total number of minutes of calls made by mobile subscribers within a country (including minutes to fixed-telephone and minutes to mobile-phone subscribers). |
| *Outgoing mobile traffic to same mobile network* |
| Refers to the number of minutes of calls made by mobile subscribers to the same mobile network (within the country). This refers to the number of minutes originating on mobile networks and terminating on the same mobile network (on-net). It does not cover minutes of calls from mobile to fixed or mobile to other mobile networks. |
| *Mobile to other mobile networks* |
| Outgoing mobile traffic to other mobile networks, in minutes refers to the number of minutes of calls made by mobile subscribers to other mobile networks (within the country). The indicator refers to the number of minutes originating on mobile networks and terminating on different domestic mobile networks (off-net). It does not cover minutes of calls from mobile to fixed or mobile to the same mobile networks. |
| *Outgoing mobile traffic to fixed networks* |
| Refers to the number of minutes of calls made from mobile-cellular networks to fixed-line telephone networks within the country. The indicator refers to the number of minutes originating on mobile networks and terminating on fixed-line telephone networks within the country. |
| *International outgoing from mobile* |
| Outgoing mobile traffic to international refers to the number of mobile minutes originating in a country to any destinations outside that country. |
| *Incoming international traffic to mobile network* |
| Refers to the number of incoming minutes (fixed and mobile) received by mobile networks originating in another country. |
| *Mobile data traffic* |
| Mobile data traffic (within the country) refers to data traffic originated within the country from mobile networks. Download and upload traffic should be added up and reported together. Traffic should be measured at the end-user access point. |

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| Wholesale and walled-garden traffic should be excluded. The traffic should be reported in terabytes. |
| ***Population coverage*** |
| *3G population coverage* |
| Percentage of the population covered by at a 3G mobile network refers to the percentage of inhabitants that are within range of a 3G mobile-cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants that are covered by a 3G mobile-cellular signal by the total population and multiplying by 100. |
| *4G/LTE etc. population coverage* |
| Percentage of the population covered by a 4G/LTE mobile network refers to the percentage of inhabitants that are within range of a 4G/LTE mobile-cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants that are covered by a 4G/LTE mobile-cellular signal by the total population and multiplying by 100. Note that all LTE variants are included. |
| ***Internet bandwidth*** |
| ***International Internet bandwidth*** |
| *International outgoing Internet bandwidth* |
| Refers to the total outgoing used capacity of international Internet bandwidth, in Mbit/s. This is measured as the sum of outgoing (uplink) capacity of all Internet exchanges offering international bandwidth. |
| *International incoming Internet bandwidth* |
| Refers to the total incoming used capacity of international Internet bandwidth, in Mbit/s. This is measured as the sum of incoming (downlink) capacity of all Internet exchanges offering international bandwidth. |
| *BRICS* |
| the acronym coined for an association of five major emerging national economies: Brazil, Russia, India, China, and South Africa |
| *Virtual post users* |

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| Is a digital mailbox post service that you access via any computer, tablet, or smartphone. Receive, forward, pick up, shred, or discard mail and packages. It allows you to manage your postal mail and packages with our smartphone app or online anytime, from anywhere |

**Appendix 3: Aggregated data from ICASA questionnaires**

The table below lists the aggregated figures from the three ICASA questionnaires to the electronic communications licensees, the TV broadcasting licensees, and the postal services operators, for the period of 1 October 2020 -30th September 2021. For definitions, please refer to the Appendix 2 above, and for more clarification please refer to the notes accompanying the associated figures in the report.

| Telecommunication data used | |
|---|---|
| **Total revenue** | **R200 250 923 462** |
| **Total fixed line revenue** | **R6 516 442 350** |
| Revenue from retail fixed-telephone services | **R95 488 163** |
| Revenue from fixed-telephone subscription charges | **R3 517 593 998** |
| Revenue from fixed-telephone calls | **R2 903 360 189** |
| **Total Fixed Internet and data revenue** | **R23 493 901 812** |
| Fixed Internet revenue (R) | **R4 737 468 356** |
| Revenue from fixed (wired)-broadband services | **R13 262 951 804** |
| Other wireless-broadband services revenue | **R1 297 502 236** |
| Other telecommunication services revenue, including leased lines revenue and fixed value-added telecommunication services | **R4 195 979 416** |
| **Total mobile services revenue (Rm)** | **R113 945 854 241** |
| Revenue from voice services | **R36 101 920 184** |
| Revenue from outbound roaming (R) | **R2 815 175 130** |
| Revenue from mobile data services | **R53 128 234 464** |
| Revenue from text and multimedia messaging services | **R3 644 150 398** |
| Prepaid revenue mobile voice | **R27 579 347 445** |
| Prepaid revenue mobile data | **R31 157 104 593** |
| Prepaid revenue mobile messaging | **R877 342 773** |
| Other mobile services revenue | **R18 256 374 065** |
| **Total of any other revenue** | **R56 294 725 060** |
| Interconnection revenues | **R5 234 097 942** |

| | |
|---|---|
| Equipment revenue | **R28 151 015 752** |
| Any other revenue | **R22 909 611 366** |
| **Total telecommunication investment** | **R33 969 436 538** |
| Annual investment in fixed-telephone services | **R78 140 318** |
| Annual investment in fixed (wired)-broadband services | **R3 880 738 778** |
| Annual investment in mobile communication services | **R17 251 321 589** |
| Infrastructure | **R8 493 709 643** |
| Expansion | **R1 124 581 032** |
| Maintenance | **R1 124 581 032** |
| Other annual investment in telecommunication services | **R2 016 364 145** |
| **Fixed line subscriptions** | **1 461 046** |
| Analogue fixed-telephone lines | **749 269** |
| VoIP subscriptions | **342 474** |
| Fixed wireless local loop subscriptions | **254** |
| ISDN voice-channel equivalents | **366 889** |
| Fixed public payphone | **2 160** |
| **Mobile cellular subscriptions** | **103 167 525** |
| **Prepaid mobile-cellular telephone subscriptions** | **86 816 228** |
| **Postpaid mobile-cellular telephone subscriptions** | **16 351 297** |
| Mobile Cellular Active Subscriptions (Active for more than 90 Days) | **55 174 185** |
| M2M mobile-network subscriptions | **9 371 388** |
| **Fixed broadband subscriptions** | **1 796 364** |
| DSL Internet subscriptions | **316 825** |
| Fibre-to-the-home/building Internet subscriptions | **1 379 207** |
| Other fixed (wired)-broadband subscriptions | **100 332** |
| **Fiber subscriptions** | **700 409** |
| Rural Fiber subscriptions | **6 298** |
| Urban Fiber subscriptions | **694 111** |
| OTT consumers users | **-** |
| **Wireless-broadband subscriptions** | **191 827** |
| Satellite broadband subscriptions | **5 062** |
| Terrestrial fixed wireless broadband subscriptions | **186 765** |
| **Mobile data users** | **40597386** |
| **Fixed line traffic** | **3 398 520 058** |
| Local fixed-to-fixed telephone traffic, in minutes | **1 869 197 103** |
| Long-distance fixed-to-fixed telephone traffic, in minutes | **1 529 322 955** |

| | |
|---|---|
| Fixed-to-mobile telephone traffic | **5 912 533 086** |
| **International incoming and outgoing fixed-telephone traffic** | **322 602 509** |
| International outgoing fixed-telephone traffic, in minutes | **233 434 942** |
| International incoming fixed-telephone traffic, in minutes | **89 167 567** |
| **Total national mobile traffic** | **101 149 515 339** |
| Outgoing mobile traffic to same mobile network | **75 931 467 737** |
| Mobile to other mobile networks | **22 530 502 389** |
| Mobile to fixed | **2 687 545 213** |
| **Mobile data traffic** | **18 832 911** |
| **International Internet bandwidth (Mbps) capacity** | **6 545 142** |
| International outgoing Internet bandwidth | **5 597 822** |
| International incoming Internet bandwidth | **947 320** |
| **Smartphone subscriptions** | **65 313 134** |
| Smartphone subscriptions | **65 313 134** |
| Telecommunication employment -Total | **22 055** |
| Telecommunication employment- female | **8 603** |
| Telecommunication employment- Disabled | **191** |
| Telecommunication employment- Unskilled | **831** |
| Telecommunication employment- Semi skilled | **4 530** |
| Telecommunication employment- skilled | **12 270** |
| Telecom’s employment- Top Management (EXCO Members) | **257** |
| Telecom’s employment- Black Top Management (EXCO Members) | **104** |
| Telecom’s employment- Black Top Female Management (EXCO Members) | **48** |
| Procurement Spend from all suppliers | **R124 166 572 439** |
| Procurement Spend from all suppliers based on the B-BBEE Procurement Recognition Levels | **R105 744 926 535** |
| Number of Schools connected based on obligations imposed by ICASA | **6 085** |
| **Broadcasting data used** | |
| **Total revenue** | **R36 798 752 670** |
| Broadcasting Advertising Revenue | **R5 050 590 836** |
| Broadcasting Subscriptions Revenue | **R28 372 345 149** |
| Revenue from Broadcasting Promotions (with flighting code). | **R1 569 936 033** |
| Revenue from sponsorships | **R642 772 173** |
| Revenue from Government or State grant | **R87 169 736** |

| | |
|---|---|
| Revenue from donations | **R11 551 610** |
| Revenue from infomercials | **R12 240 565** |
| Revenue from membership fees | **R4 261 493** |
| Total of any other revenue | **R1 047 885 075** |
| **Itemised expenditure** | **R14 436 900 709** |
| Programme expenditure | **R14 436 900 709** |
| **Subscription and take-up of services** | |
| **Subscriber and registered viewership numbers** | **8 671 839** |
| Number of Pay TV subscribers | **8 300 403** |
| Number of registered non-Pay TV viewers | **371 436** |
| **ICT Sector Economic Empowerment Measures** | |
| Broadcasting employment -Total | **3 444** |
| Broadcasting employment- female | **1 760** |
| Broadcasting employment- Disabled | **91** |
| Broadcasting employment- Unskilled | **63** |
| Broadcasting employment- Semi skilled | **467** |
| Broadcasting employment- skilled | **2 048** |
| Broadcasting employment- Top Management (EXCO members) | **88** |
| Broadcasting employment- Black Top Management (EXCO members) | **56** |
| Broadcasting employment- Black Top Female Management (EXCO members) | **32** |
| Procurement Spend from all suppliers | **R2 831 020 620** |
| Procurement Spend from all suppliers based on the B-BBEE Procurement Recognition Levels | **R2 037 867 747** |
| **Total Number of Television (stations and distributors)** | **20 520 479** |
| Number of Digital Satellite Stations | **53** |
| Number of Digital Terrestrial Stations | **86** |
| Number of Analogue Terrestrial Stations | **6** |
| Number of Signal Distributors | **10** |
| Number of set-top boxes | **20 520 177** |
| Number of Content Distributors | **147** |
| **Investment** | **R38 913 937** |
| Infrastructure | **R11 275 051** |
| Expansion | **R2 450 000** |
| Maintenance | **R10 686 665** |
| Others | **R14 502 220** |

| | |
|---|---|
| Total Number of Local independent productions | **5 279** |
| Total Number of international independent productions | **115** |
| Total Number of productions by the broadcasters | **8 066** |
| Total expenditure on Local independent productions (In Rand) | **R1 988 857 418** |
| Total expenditure on international independent productions (In Rand) | **R708 876 535** |
| Total expenditure on broadcaster productions (In Rand) | **R476 753 738** |

# Postal services data used

| | |
|---|---|
| **Total SAPO revenue** | **R6 608 094 913** |
| Postbank interest revenue | **R144 000** |
| Retail products revenue | **R868 000** |
| Services rendered - Postal | **R1 520 830 000** |
| Services rendered - Agency and money transfer | **R1 351 951 000** |
| Services rendered - Courier | **R2 074 432 835** |
| **Balancing figure below** | |
| Total of any other revenue | **R1 659 858 078** |
| **Other information** | |
| Points of presence | **3 174** |
| Postal employment -Total | **18 363** |
| Postal employment- female | **8 502** |
| Postal employment- Disabled | **38** |
| Postal employment- Unskilled | **823** |
| Postal employment- Semi skilled | **13 167** |
| Postal employment- skilled | **3 653** |
| Postal employment- Top Management (EXCO members) | **31** |
| Postal employment- Black Top Management (EXCO members) | **14** |
| Postal employment- Black Top Female Management (EXCO members) | **5** |
| Procurement Spend from all suppliers | **R288 366 514** |
| Procurement Spend from all suppliers based on the B-BBEE Procurement Recognition Levels | **R44 550 384** |
| Letter delivery services (Registered letters) | **331 268 861** |
| Letters: Domestic service and international outbound (International Mail Centre Volumes) | **4 940 742** |
| Letters: Domestic service and international outbound (Local Volumes) | **326 328 119** |
| Parcel delivery services | **8 126 907** |
| Parcel: Domestic service and international outbound (International Mail Centre Volumes) | **50 087** |

| | |
|---|---|
| Parcel: Domestic service and international outbound (Local Volumes) | **8 076 820** |
| Number of PO Boxes | **4 642 638** |
| Number of PO Boxes rented | **3 333 402** |
| Number of physical addresses in database | **16 824 061** |
| **Investment** | **R167 312 606** |
| Infrastructure | **R151 680 331** |
| Expansion | **R0** |
| Maintenance | **R15 632 276** |
| Others | **R0** |

*Source: ICASA Telecommunications, TV Broadcasting and Postal Questionnaires, January 2022.*