



Telecommunications Statistics and Market Report 2016

Information Note

Channel Islands Competition & Regulatory Authorities

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1. INTRODUCTION

As part of its work to promote fair competition and advance consumer interests in the Channel Islands, the Channel Islands Competition and Regulatory Authorities (CICRA)¹ monitors and publishes information on market developments. The availability of timely and relevant market intelligence improves the ability of stakeholders including consumers to make informed choices and supports CICRA in prioritising its own resources as markets change and competition develops.

This report presents statistics on the telecommunications sectors in the Bailiwick of Guernsey² and Jersey. It covers the calendar year 2016 and is based primarily on data submitted by the licensed telecommunications operators during the first half of 2017.

The data used to compile this report has been provided by the Channel Islands' licensed telecoms operators using an agreed set of data definitions. CICRA has not audited the data provided although it has provided the operators with opportunity to review their data and to make adjustments where they feel necessary. The accuracy of the data is the sole responsibility of the operators but, where appropriate, notes have been included in the text to recognise and explain potential anomalies.

Significant changes to the report were made in 2015 (and also for 2012) so as to reflect the changing nature of telecommunications technologies and the services provided to consumers. For the first time in 2015 data was included from other licenced operators for whom telecommunications activities form a minor part of their business (Nitel and Logicalis) in addition to the main operators (JT, Sure, Airtel, Home Net and Newtel). Consequently, users of this report should be mindful that the figures shown for 2015 and 2016 are not necessarily comparable with data published for 2012 through 2014 which, in turn, are not necessarily comparable with data published prior to 2012. Notes are added to the text as appropriate.

CICRA would like to thank all operators for their contributions to this report.

¹ CICRA is the name given to the Guernsey Competition and Regulatory Authority (GCRA) and the Jersey Competition Regulatory Authority (JCRA). Together they are the economic regulators in the Channel Islands for the telecommunications sector.

² For the purposes of this report Guernsey is used to mean the islands of Guernsey, Herm, Alderney and Sark.

2. EXECUTIVE SUMMARY

Overall telecoms sector

In Guernsey during 2016 the main operators offering telecoms services were Sure³ (the incumbent offering a full range of fixed and mobile services), JT⁴ (offering fixed and mobile services) and Airtel⁵ (offering mobile services).

In Jersey during 2016 the main operators offering telecoms services were JT (the incumbent offering a full range of fixed and mobile services), Sure (offering fixed and mobile services), Airtel (offering mobile services), Home Net (offering fixed services) and Newtel⁶ (offering fixed services). In mid 2016 Home Net took over all residential services from Newtel.

Other licensed operators providing retail telecommunications services to business customers across the Channel Islands include Nitel⁷ and Logicalis⁸.

The telecoms industry in the Channel Islands in 2016

- generated turnover, including fixed, mobile, Internet access, associated services and the sale of handsets of £246.4m;
- employed 847 full time staff, an increase of 178 from 2015, with 115 staff working on fibre roll-out;
- contributed £17.8m to the exchequers through corporate, staff, and social taxes (including GST payments in Jersey);
- invested £32.6m on capital projects, less than in 2015. In 2015 more than half of the £43.9m went into mobile infrastructure as part of the roll out of 4G networks.

Fixed line market (section 5)

June 2015 saw the introduction of Wholesale Line Rental (WLR) services in both islands. By December 2016, Sure had acquired 8.4% of the fixed network wireline connections in Jersey. JT launched its service in Guernsey in June 2016.

Fixed line call minutes fell year on year across the Channel Islands, in Guernsey by 3% to 72 million and in Jersey by 16% to 109 million.

There were 59 fixed line subscriptions per 100 inhabitants of Guernsey⁹ and 59 per 100 inhabitants in Jersey.

³ In this document the name Sure refers to Sure (Guernsey) Limited and Sure (Jersey) Limited as appropriate.

⁴ JT refers to JT (Guernsey) Limited (formerly known as Wave Telecom) and JT (Jersey) Limited as appropriate.

⁵ Airtel refers to Airtel-Vodafone being Guernsey Airtel Ltd and Jersey Airtel Limited as appropriate.

⁶ Newtel refers to Newtel Limited and Home Net Limited.

⁷ Nitel refers to Nitel Limited in both Jersey and Guernsey.

⁸ Logicalis refers to Logicalis Guernsey Limited and Logicalis Jersey Limited as appropriate.

⁹ Numbers of fixed lines in Guernsey are thought to have been overstated in previous years and thus no comparison with previous years is given.

Average revenue per fixed (wireline and wireless) subscription per month in Guernsey was £27.79 and in Jersey was £22.70.

Fixed network Broadband market (section 6)

Fixed network broadband¹⁰ penetration rates per 100 inhabitants were 36.7 in Guernsey and 34.3 in Jersey compared with 38.5 in 2016 in the UK¹¹. For both islands, this is a minor decrease from 2015 (37.7 in Guernsey, 35.2 in Jersey), this may be because fixed network broadband has reached market saturation. The OECD average is 29.8¹¹.

The technology and download speeds available for broadband internet access differ between the islands. Guernsey subscribers are able to access services with advertised download speeds of up to 20Mbps (based on ADSL technology) and up to 60Mbps (based on VDSL technology). In Jersey, where the local loop infrastructure is being converted from copper to fibre optics, some subscribers can access services with advertised download speeds of up to 20Mbps (ADSL) and some can access download speeds of up to 1Gbps (provided by fibre to the home technology).

In Guernsey 89% of fixed broadband subscription used up to 20Mbps service with the remaining 11% using up to 60Mbps services (a 2.5% increase from 2015). In Jersey 35% of subscribers used up to 20Mbps services with the remaining 65% using services of 50Mbps or more.

The sharp rise in data consumption seen in the UK is mirrored in the Channel Islands. Average consumption in Guernsey was 114.9 Gbytes/month, in Jersey was 84.1 Gbytes/month and in the UK was 132¹² Gbytes/month.

Leased lines market (section 7)

Retail leased lines increased in both islands between 2015 and 2016; in Guernsey from 571 to 575 lines and in Jersey from 1,030 to 1,061 lines.

40% of retailed on-island leased lines in Guernsey and 16% in Jersey were used to provide Direct Internet Access (DIA). In Guernsey 44% of DIA lines were enabled for bursting to higher data rates when demand requires it. In Jersey 14% were enabled for bursting.

The retail leased line market was worth £7.1m in Guernsey £12.3m in Jersey.

¹⁰ For this report, the terms 'broadband' and 'internet' interchangeably to refer to internet access services provided over fixed lines. Beside broadband, dial-up services also provide fixed access to the internet but they are becoming negligible in number and are not considered here.

¹¹ www.oecd.org/sti/broadband/oecdbroadbandportal.htm

¹² https://www.ofcom.org.uk/__data/assets/pdf_file/0035/95876/CN-Report-2016.pdf

Mobile market (section 8)

Total mobile related revenues in 2016 were £25.4m in Guernsey and £39.3m in Jersey.

Total number of mobile subscriptions in the Channel Islands in 2016 was 197,953, an increase of 4,036 over 2015. In Guernsey, there were 113 mobile subscriptions per 100 inhabitants, and in Jersey there were 121 subscribers per 100 inhabitants.

An average of 447 call minutes were made for every pre-paid subscription in Guernsey during 2016; each post-paid subscription made an average of 1,366 call minutes. In Jersey the equivalent figures were 794 and 1,880.

An average of 343 SMS text messages were sent for every pre-paid subscription in Guernsey during 2016; each post-paid subscription sent an average of 780 messages. In Jersey the equivalent figures were 373 and 1,024. For both islands, SMS use has fallen from 2015, this is likely to be due to traditional SMS being replaced by instant messaging services such as Facebook Messenger and WhatsApp¹³.

Average monthly revenues per subscription in Guernsey were £8.88 for pre-paid and £26.46 for post-paid in 2016. In Jersey, it was £6.28 for pre-paid and £27.11 for post-paid.

In 2016, Channel Islands consumers spent £10.1m using mobile services while roaming abroad, marginally less than 2015 (£10.5m).

Porting times for consumers switching mobile service provider decreased in 2016, from 1.8 working days to 1.2¹⁴ working days in Guernsey and from 1.8 working days to 1.2 working days in Jersey. The Channel Islands times compare to the European Commission's Universal Service Directive, which requires operators to provide porting within 1 working day.¹⁵

¹³ https://www.ofcom.org.uk/__data/assets/pdf_file/0026/26648/uk_telecoms.pdf page 137

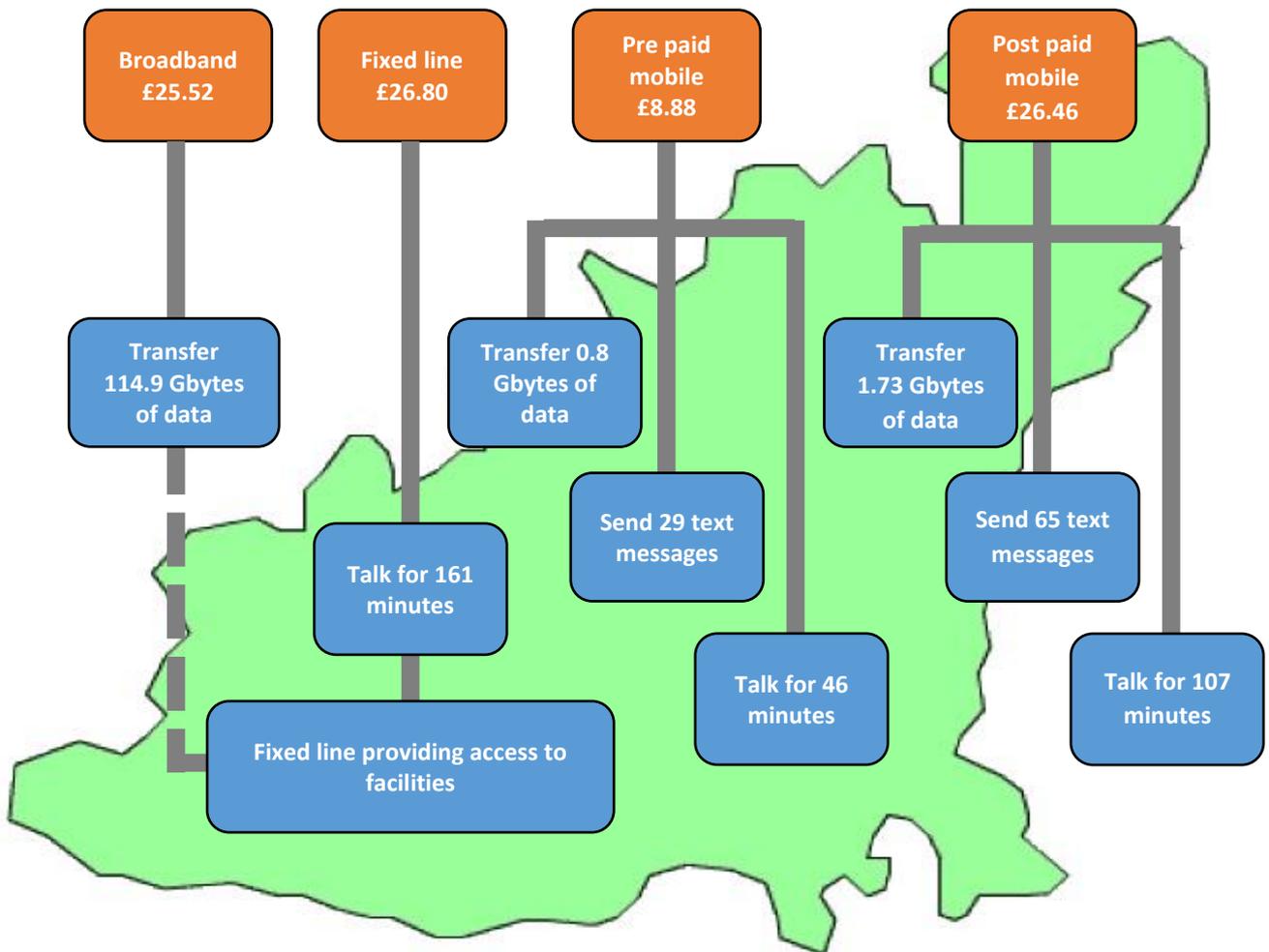
¹⁴ Porting XS

¹⁵ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002L0022&from=en>

3. CONSUMER SNAPSHOT

Guernsey consumer summary

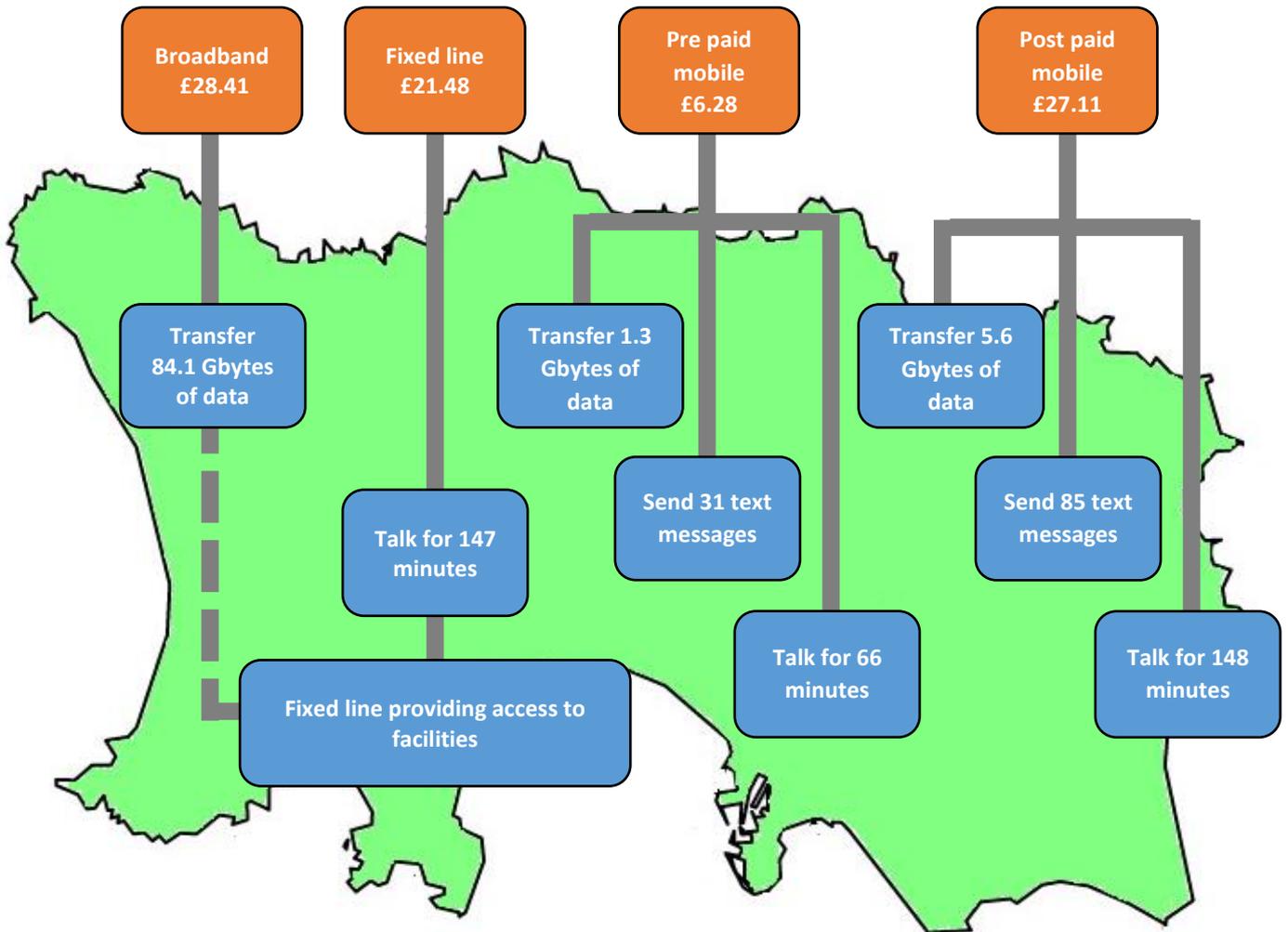
Average monthly spend per subscription



Average monthly consumption per subscription

Figure 1 Guernsey consumer summary
Source CICRA industry questionnaires

Average monthly spend per subscription (excluding GST)



Average monthly consumption per subscription

Figure 2 Jersey consumer summary
Source CICRA industry questionnaires

4. ECONOMIC IMPACT OF THE TELECOMMUNICATIONS SECTOR

This section of the report presents general data about the Jersey and Guernsey telecommunications sectors, based primarily on data submitted by licensed operators in response to a CICRA questionnaire covering the calendar year 2016.

As noted in the introduction, statistics in this report are comparable across the Channel Islands but care is required when comparing it to data produced for earlier years.

Total turnover for telecommunication services in the Channel Islands

Total turnover from the telecoms industry in the Channel Islands (including fixed, mobile, Internet, the sale of handsets and the provision of telecoms associated with data centre/hosting services¹⁶) was £246.4m. Revenues associated with Guernsey subscribers while on and off the island, plus revenue from visitors to Guernsey in 2015 was 3% of Guernsey's GDP¹⁷. In Jersey the equivalent figure was 2.4% of GDP¹⁸.

Figure 3 shows the turnover in the telecommunications market in the Channel Islands during the period 2012 to 2016.

	Guernsey £m	Jersey £m	Total £m
2012	70.2	116.4	186.6
2013	69.7	140.3	210.0
2014	75.4	144.4	219.8
2015*	70.3	98.2	168.5
2016	69.0	92.4	246.4

Figure 3 Telecommunications turnover 2012 to 2016
Source CICRA industry questionnaires

* All years prior to 2015 include significant revenues from JT's international business (as well as that generated from Channel Island customers) and the total revenues associated with data centres (rather than the telecommunication activities with them). These elements have been removed from later figures and therefore explains the considerable difference in revenue demonstrated.

Figure 4 shows the total turnover segmented into different types of telecommunication activity in 2016¹⁹.

The fixed and mobile figures include revenues from both voice and data services, and for both retail and corporate customers.

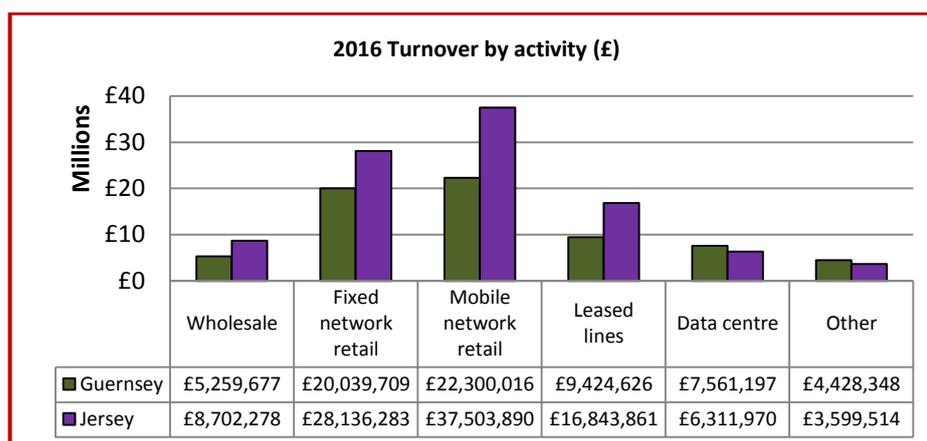


Figure 4 Total turnover by type of telecommunications activity
Source CICRA industry questionnaires

Figure 5 summarises total turnover by key service categories.

¹⁶ The reports for previous year stated revenues from all data centre activities and not just telecommunications activities within them.

¹⁷ States of Guernsey Annual Gross Domestic Product 2015 First Estimates August 2016.

¹⁸ States of Jersey GVA and GDP 2015 report www.gov.je/Government/Pages/StatesReports.aspx?ReportID=2337

¹⁹ Some aggregation of fixed and mobile activities has been undertaken since the report for 2015.

	Guernsey £m	Jersey £m	Total £m
Fixed turnover ²⁰	42.3	60.0	102.3
Mobile turnover	22.3	37.5	59.8
Other turnover	4.4	3.6	8.0
Total turnover	69.0	101.1	170.1

Figure 5 Total turnover by key service category - Guernsey and Jersey
Source CICRA industry questionnaires

The biggest share of revenue in Guernsey and Jersey was generated in the fixed sector. In 2016 in Guernsey, it accounted for 61% of total industry turnover, and in Jersey it represented 59%.

Taxation contributions

At the end of 2016, across the Channel Islands, the telecom industry employed 847 full-time equivalents, compared to 669 in 2015 and 701 in 2014. Guernsey staffing has remained stable in recent years (237 in 2014, 236 in 2015 and 227 in 2016) while numbers in Jersey have fluctuated (464 in 2014 and 433 in 2015, 620 in 2016).

Figure 6 below shows that the telecommunications sector contributed £17.7m in taxation in 2016 (£13.2m in 2015); £5.1 in Guernsey (£4.8m in 2015) and £12.6 in Jersey (£8.4m in 2015).

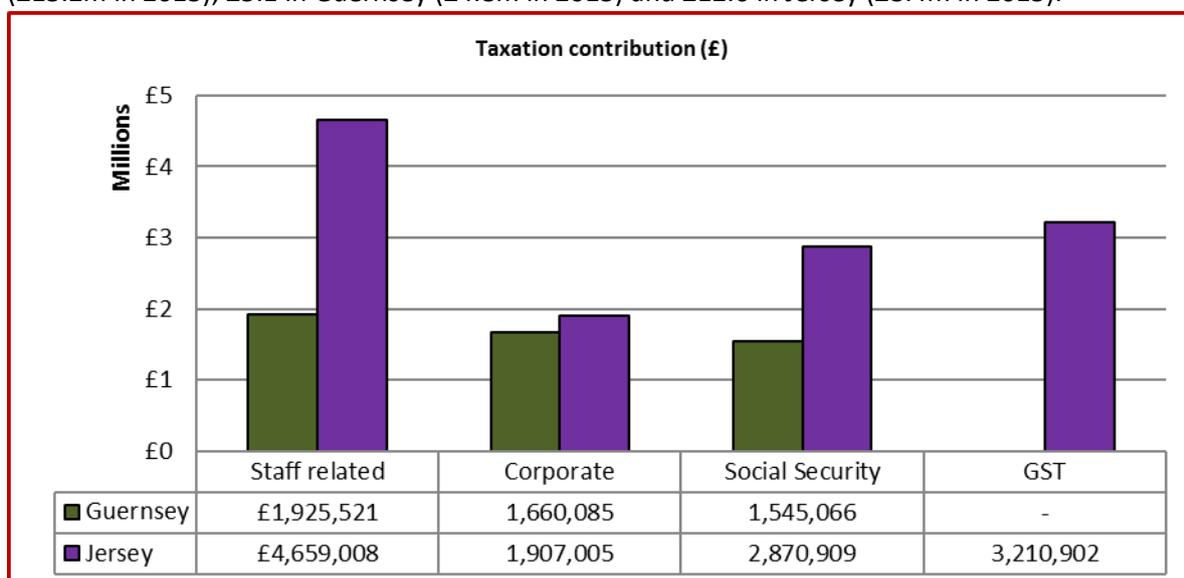


Figure 6 Taxation contributions
Source CICRA industry questionnaires

²⁰ Fixed turnover includes internet business services, wholesale revenue, and corporate data services revenues. Mobile turnover includes retail, business, and in-roaming service revenues. Other turnover includes all non-mobile and non-fixed revenues.

Capital investment

Figure 7 shows the levels of capital investment in telecommunications in Guernsey and Jersey in the years 2012 to 2016.

	Guernsey	Jersey
2012	£7,491,540	£31,008,956
2013	£10,725,600	£24,756,032
2014	£8,779,011	£22,389,373
2015	£22,527,927	£21,349,935
2016	£10,022,789	£22,580,474

Figure 7 Capital investment in telecommunications 2012 to 2016
Source CICRA industry questionnaires

Levels of capital investment rose substantially in 2015 in Guernsey (from £8.8m in 2014 to £22.5m in 2015) and then fell again in 2016 (£10,022,789). In Jersey the level of investment remained fairly consistent with 2014 and 2015.

Figures 8 and 9 shows where the investment was made in each island. The roll out of 4G networks accounts for the significant spend on mobile networks.

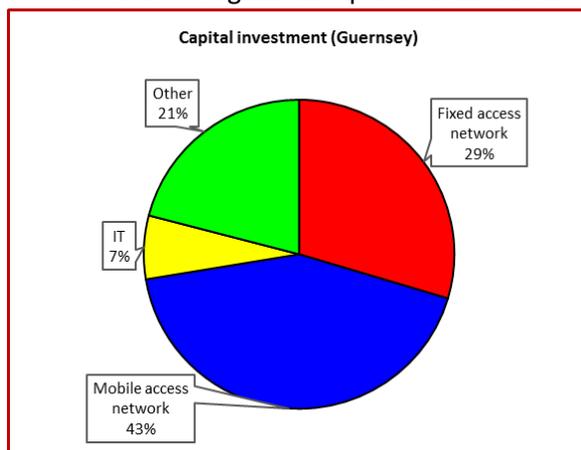


Figure 8 Capital investment (Guernsey)
Source CICRA industry questionnaires

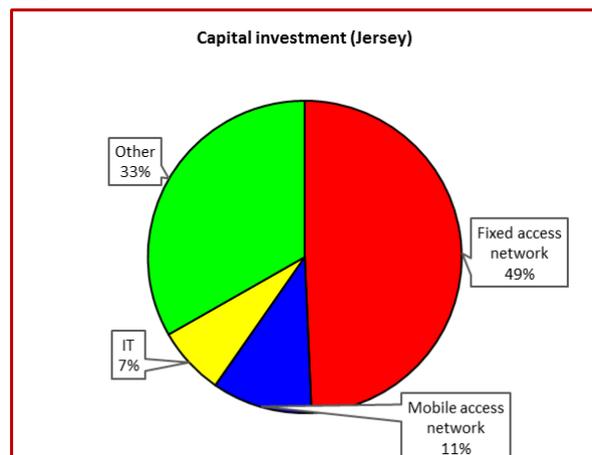


Figure 9 Capital investment (Jersey)
Source CICRA industry questionnaires

5. FIXED NETWORK MARKET

The fixed network market is characterised by consumer equipment that is in a fixed geographic location and used to make/receive voice calls, send/receive faxes and to support broadband and leased line services. This is to be contrasted to the mobile market where the consumer equipment is not fixed to a single geographic location and moves easily from one location to another. Various technologies are used in fixed networks including traditional copper circuits, fibre optics and wireless links.

Information on fixed network broadband and fixed network leased line services is contained in sections 6 and 7 of this report respectively.

Total number of lines and subscriptions

Figure 10 shows the number of fixed wireline lines in the islands during the period 2012 to 2016.

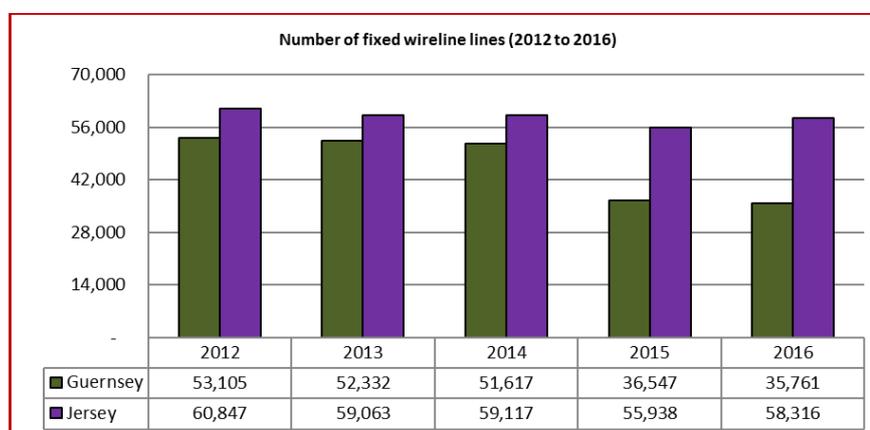


Figure 10 Number of retail fixed lines and subscriptions
Source CICRA industry questionnaires

The apparent sudden fall in Guernsey in 2015 is likely to be the result of misreporting carrier select subscribers as physical lines in previous years.

In addition to fixed wireline connections, at the end of 2016 there were 1,332 fixed wireless connections in Guernsey and 4,232 in Jersey. Technically these were a combination of Newtel's WiMax network and use of the mobile networks for fixed network substitution. Wireless connections are used almost exclusively for broadband services. Figure 11 shows their distributions across the islands.

	Guernsey	Jersey
Newtel's WiMax	n/a	1,348
Substitution by mobile network resources	1,332	2,884
Total	1,332	4,232

Figure 11 Numbers of fixed wireless connections in Guernsey and Jersey
Source CICRA industry questionnaires

Alternative carrier services

Carrier select style services have been available in the Channel Islands for a number of years and, on 1 June 2015, Wholesale Line Rental (WLR) services also became available. Figure 12 shows the number of subscriptions to such services at the end of 2016.

	Guernsey	Jersey
Carrier select	2,028	1,667
Wholesale Line Rental	737	5,027
	2,765	6,694

Figure 12 Number of subscriptions to alternative carriers
Source CICRA industry questionnaires

Fixed telephony minutes

Figure 13 shows the numbers of minutes carried by operators in Guernsey in the period 2012 to 2016 while figure 14 shows the same analysis for Jersey. Both show an overall continuing decline in the number of fixed network call minutes originating in the islands. A possible cause for this fall is substitution of traditional PSTN/ISDN services by mobile phones and alternative forms of communications such as VoIP and messaging services. While new entrant operators have not made significant inroads into the market, their share of the market is not falling as fast as the incumbent operators. This is especially apparent in Jersey where there is a slight increase in minutes for OLO's, most notably as Nitel's minutes increased from 20,000 (2015) to 1,700,000 (2016).

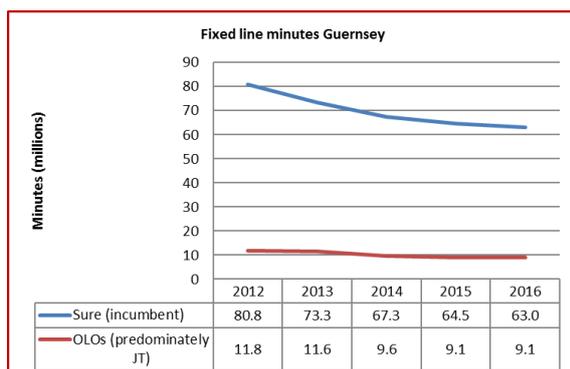


Figure 13 Numbers of fixed line minutes 2012 to 2016 (Guernsey) Source CICRA industry questionnaires

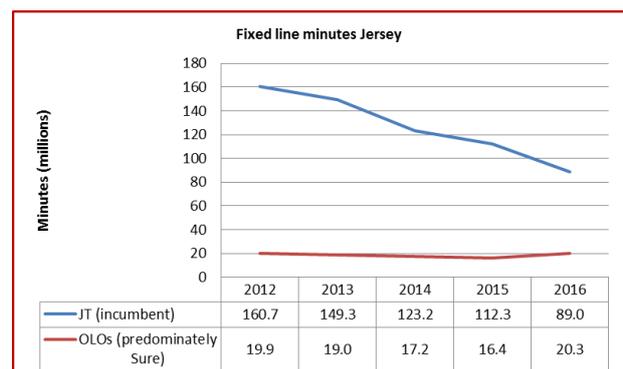


Figure 14 Numbers of fixed line minutes 2012 to 2016 (Jersey) Source CICRA industry questionnaires

The continuing decline in the numbers of fixed lines and associated minutes matches declines seen elsewhere²¹.

Fixed network penetration rates

Figure 15 shows the number of fixed network connections (wireline and wireless combined) per 100 inhabitants in Guernsey and Jersey.

* Note that the penetration rates in Guernsey for 2012 - 2014 inclusive are thought to have been overstated.

	Guernsey	Jersey
2012	84 *	62
2013	85 *	60
2014	83 *	59
2015	60	58
2016	59	59

Figure 15 Fixed and wireless fixed retail lines per 100 inhabitants
Source CICRA industry questionnaires and government statistics (see section 9)

²¹ https://www.ofcom.org.uk/data/assets/pdf_file/0026/26648/uk_telecoms.pdf page 145

Revenues

Excluding broadband and leased line services (see sections 6 and 7 respectively), revenues associated with fixed networks in 2016 were £11.9m in Guernsey and £16.0m in Jersey.

These revenue totals break down into line rental, usage charges and other charges (e.g. for customer premises equipment and support services) – see figures 16 and 17 below. The islands are broadly similar in terms of the proportions of fixed network revenues from different sources.

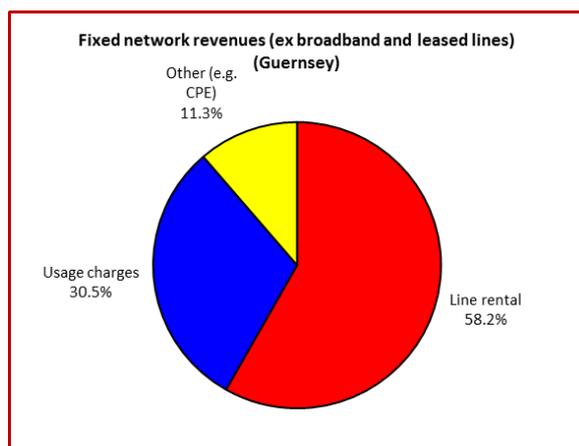


Figure 16 Breakdown of fixed network revenues (Guernsey)

Source CICRA industry questionnaires

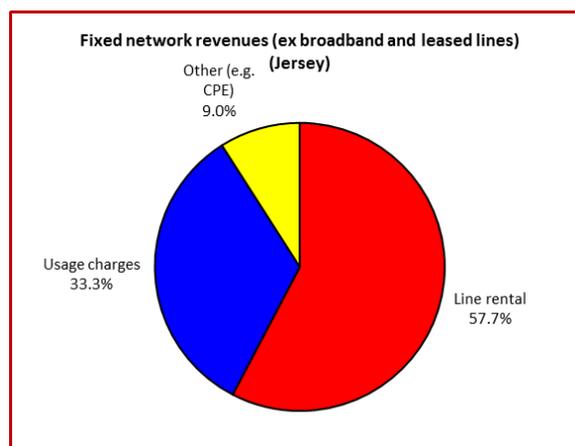


Figure 17 Breakdown of fixed network revenues (Jersey)

Source CICRA industry questionnaires

The average revenue per fixed line (wireline and wireless) from line rental, usage charges and associated equipment and services in Guernsey in 2016 was £321.60 (£26.80 per month). The equivalent annual figure in Jersey was £257.76 (£21.48 per month). Charges for services such as broadband are in addition to these. The disparity between Guernsey and Jersey may, in part, be the result of the significant number of subscribers in Jersey who are on JT's PrimeTalk²² line rental package.

²² JT's Prime Talk tariff provides reduced line rental charges to customers aged 65 years and over. While Prime Talk is now closed to new customers there remain a significant number of customers on the tariff.

6. FIXED NETWORK BROADBAND MARKET

Fixed network broadband services are those delivered over physical copper connections, fibre connections, fixed wireless communications links (e.g. WiMax). They do not include services delivered over 2G, 3G and 4G mobile networks.

While the majority of broadband subscribers in both islands can be categorised as residential users rather than business users, it is difficult to draw a clear distinction because of the tendency for small businesses to use services primarily designed for residential use. Historically the proportion of business users is thought to be of the order of 5% of the total subscriber base. No attempt is made in this report to distinguish between the two groups.

Subscriptions and penetration rates

Figure 18 shows a slight fall in both islands for fixed broadband subscriptions. This may be attributable to the use of mobile broadband services as a substitute for fixed network services (1,332 such subscriptions in Guernsey and 2,884 in Jersey²³).

	Guernsey	Jersey
2012	22,087	34,037
2013	22,757	35,004
2014	23,484	36,420
2015	23,779	36,134
2016	23,105	35,877
2015 including mobile substitution	24,582	37,861
2016 including mobile substitution	24,437	38,761

Figure 18 Numbers of fixed broadband subscriptions 2012 to 2016
Source : CICRA industry questionnaires

As illustrated in figure 19, the islands continue to benefit from above OECD average fixed network broadband penetration rates per 100 inhabitants (Guernsey 36.7 subscriptions per 100 inhabitants and Jersey 34.3).

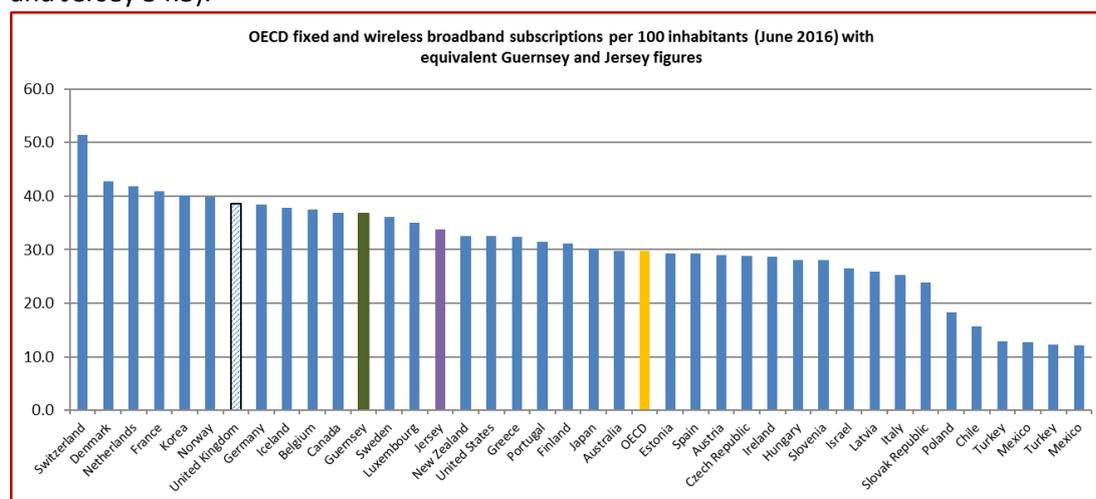


Figure 19 Guernsey and Jersey broadband penetration rates compared to OECD countries
OECD Mobile broadband subscriptions per 100 inhabitants, June 2016 with Guernsey and Jersey data inserted²⁴

²³ Including services such as Airtel's Home Broadband.

Market share by numbers of fixed broadband subscriptions

Figures 20 and 21 show the retail market shares of the fixed network broadband providers in Guernsey and Jersey respectively, based on numbers of subscriptions. The incumbent operators remained dominant in their respective home markets, i.e. Sure in Guernsey and JT in Jersey.

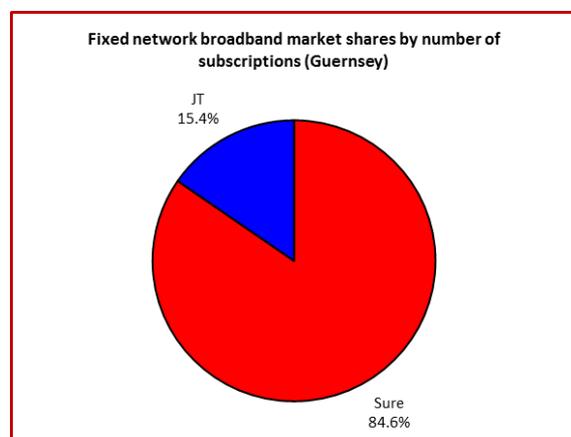


Figure 20 Fixed network broadband market shares by number of subscriptions (Guernsey)
Source CICRA industry questionnaires

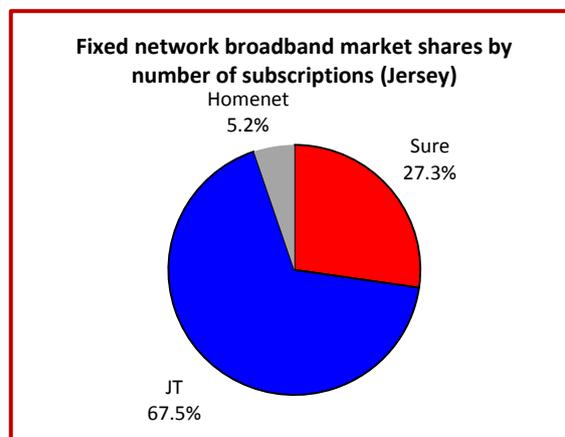


Figure 21 Fixed network broadband market shares by number of subscriptions (Jersey)
Source CICRA industry questionnaires

Figures 22 shows that market shares remained consistent in Guernsey between 2014 and 2016, suggesting that few subscribers are switching service provider, while in Jersey Sure gained market share.

	Guernsey		Jersey		
	Sure	JT	Sure	JT	Others
2012	81%	19%	9%	78%	13%
2013	81%	19%	11%	76%	13%
2014	82%	18%	16%	72%	12%
2015	83%	17%	22%	72%	6%
2016	85%	15%	27%	68%	5%

Figure 22 Fixed broadband market shares 2012 to 2016
Source : CICRA industry questionnaires

Broadband download speeds

In Guernsey Sure owns all the physical lines and JT obtains service through wholesale arrangements. Services with download speeds up to 20Mbps are delivered using ADSL technology while higher speeds of up to 60Mbps are delivered using VDSL technology.

In Jersey there are a number of separate local access network infrastructures. JT owns all the copper based connections (providing ADSL based services with download speeds up to 20Mbps) and the majority of the FTTH connections (providing services up to 1Gbps). Other licenced operators gain access to JT's network through wholesale arrangements. Newtel also provides service through its own FTTH and WiMax networks (providing services up to 20Mbps).

²⁴ <http://www.oecd.org/sti/broadband/oecdbroadbandportal.htm> table 1.2

Figures 23 and 24 shows the proportions of fixed network broad subscriptions by download speed in Guernsey and Jersey respectively.

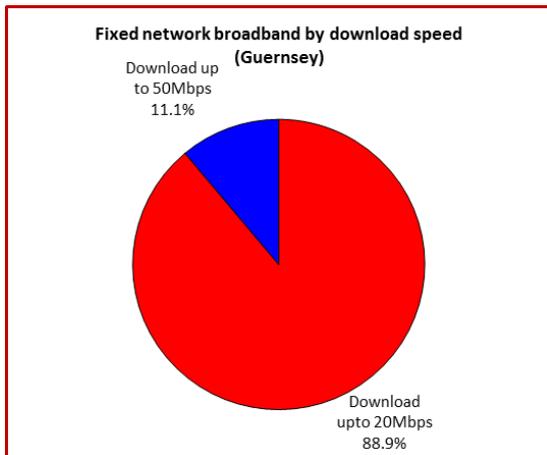


Figure 23 Fixed broadband subscriptions by download speed (Guernsey)

Source : CICRA industry questionnaires

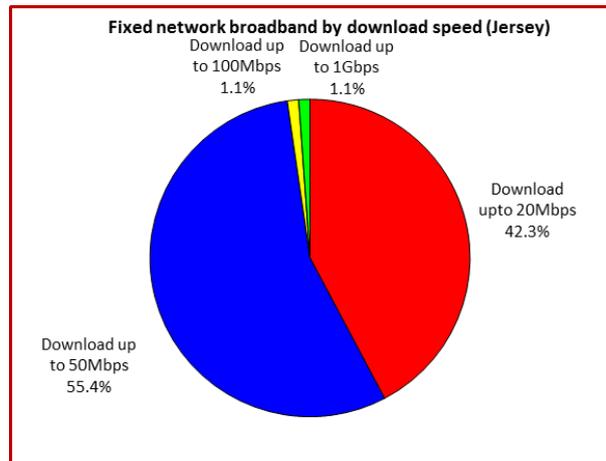


Figure 24 Fixed broadband subscriptions by download speed (Jersey)

Source : CICRA industry questionnaires

Data volumes

Not all service providers were able to provide information on the volumes of data consumed by their customers but, from the information that was provided, it can be estimated that, on average, fixed network broadband subscribers in Guernsey sent and received a total of 114.9 GBytes of data per month in 2016 while subscribers in Jersey sent and received a total of 84.1 GBytes of data per month. These figures are consistent with Ofcom’s estimates of sharply rising data usage in the UK: 30 GBytes/month in 2013, 58 GBytes/month in 2014 and 82 GBytes/month in 2015²⁵.

Revenues

Total retail revenues from fixed broadband services were £7.4m in Guernsey and £13.0m in Jersey.

Fixed network broadband services in Guernsey were, subject to fair usage policies, uncapped meaning that consumers could download and upload as much data as they wish for a fixed monthly subscription. 99.9% of revenues were derived from basic subscriptions and 0.1% from other sources such as equipment sales.

In Jersey, fixed network broadband services provided by JT are subject to a cap on the amount of data its retail customers can download for the basic monthly subscription; customer can buy bolt-on packages for extra data allowances and/or pay overage charges.

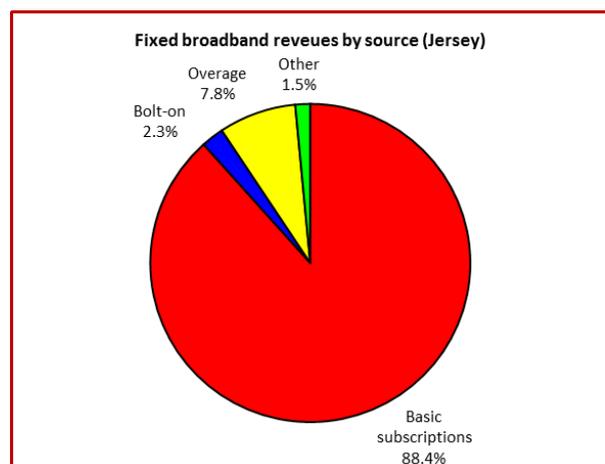


Figure 25 Fixed broadband revenue by source (Jersey)

Source : CICRA industry questionnaires

Figure 25 shows the distribution of revenues from different sources across all broadband service providers in Jersey.

²⁵ Ofcom report : The Communications Market 2016

Average revenue per subscription

Not all operators were able to separate retail revenues derived from true fixed network broadband activities from those derived from broadband provided by fixed network substitution. It is therefore only possible to estimate the average revenues per fixed broadband subscription.

In Guernsey, the average revenue per fixed network broadband subscription was £306.26 for the year (£25.52 per month).

For Jersey the equivalent annual figure in Jersey was 340.90 for the year (£28.41 per month).

These exclude revenues from associated line rental.

7. LEASED LINE MARKET

Leased lines (sometimes called private circuits) are private, bidirectional, symmetric telecommunications links between two or more locations. Usually used by corporate and governmental organisation they can be used for voice or data services.

Figure 26 shows how leased lines were used in 2016²⁶.

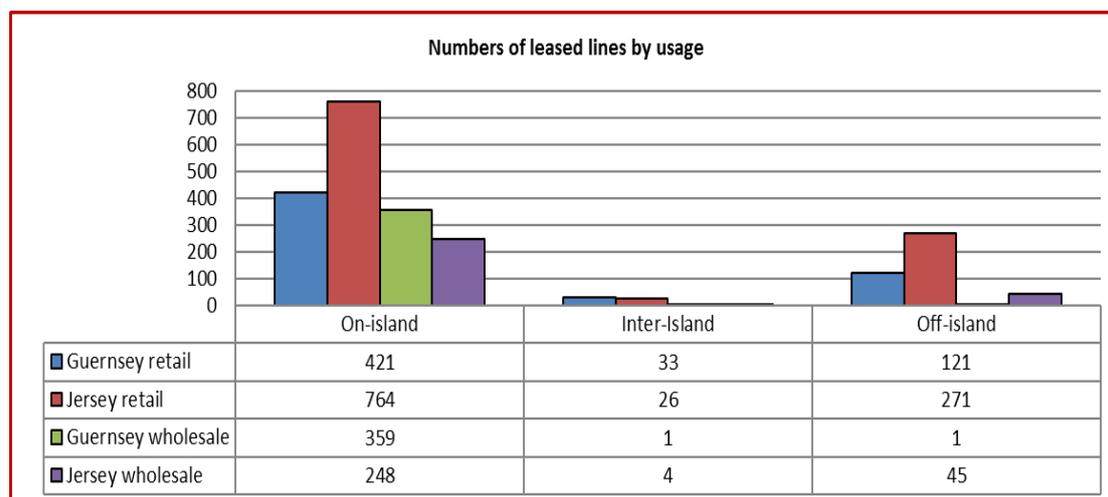


Figure 26 Numbers of leased lines by usage
Source CICRA industry questionnaires

Figure 27 shows the numbers of retail and wholesale leased lines supplied across the islands at the end of 2016. Wholesale leased lines are those supplied by one licenced operator to another licenced operator.

Numbers of wholesale leased lines have declined from 2015 in Guernsey and remained largely the same in Jersey (Guernsey 447, Jersey 291) which, combined with the growth in retail leased lines, suggests that a greater proportion of retail demand is being satisfied using the retailer's own networks rather than relying on the incumbent's wholesale offering.

Figure 28 shows that the numbers of retail leased lines in the islands is now increasing after a period of decline.



Figure 27 Number of retail and wholesale leased lines
Source CICRA industry questionnaires

	Guernsey	Jersey
2012	707	1,013
2013	585	922
2014	495	810
2015	571	1,030
2016	575	1,061

Figure 28 Numbers of retail leased lines 2012 to 2016
Source CICRA industry questionnaires

²⁶ On-island leased lines are defined as lines that originate and terminate in the same island. Inter-island leased lines originate in one island and terminate in another. Off-Island leased lines connect Channel Islands locations with non Channel Island locations.

Comparison with the same analysis for 2015 (figure 29) indicates that the number of retail leased lines has grown and the number of wholesale leased lines has declined in on-island, inter-island categories.

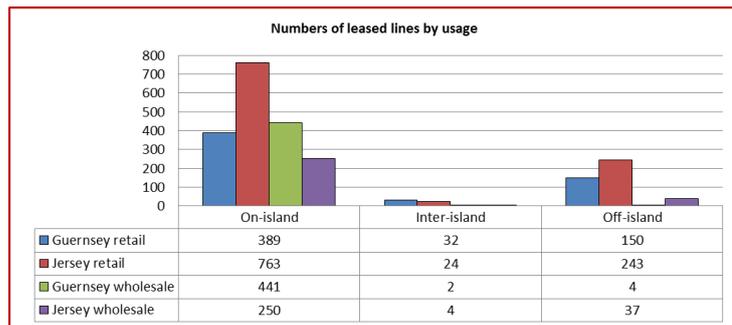


Figure 29 Leased line usage at end 2015
Source CICRA industry questionnaires

Retailed leased line revenues

Revenues from retailed leased lines in Guernsey in 2016 were £7.1m and revenues in Jersey were £12.3m.

Figure 30 shows the breakdown of these totals by on-island, inter-island and off-island services.



Figure 30 Revenues from retailed leased lines
Source CICRA industry questionnaires

Direct Internet Access (DIA)

An increasing use of leased lines is to provide access to the Internet. Such usage is an alternative to broadband and is typically used by organisations with large demand, a requirement for guaranteed service levels and/or a need for symmetrical services. Direct Internet Access (DIA) lines connect the customer's computer equipment to their service provider's core network where access to the global Internet is obtained.

DIA lines are provided at different data rates to match the customer's specific requirements. Figure 31 provides a breakdown of the numbers of DIA lines provided in each island by data rate.

	≤ 2Mbps	>2Mbps & ≤ 4Mbps	>4Mbps & ≤ 6Mbps	>6Mbps & ≤ 8Mbps	>8Mbps & ≤ 10Mbps	> 10Mbps & ≤100Mbps	>100 & < 1Gbps	> 1Gbps
Guernsey	32	8	5	3	43	42	6	1
Jersey	17	10	2	3	65	30	4	-

Figure 31 Numbers of Direct Internet Access lines
Source CICRA industry questionnaires

On average in Guernsey, 54% of DIA connections are provided to customers whose computer equipment is in a data centre and 46% to customers whose equipment is at their own premises (and thus requires an underlying on-island leased line to connect their premises to the data centre). The equivalent figures for Jersey are 70% and 30%. The difference between Guernsey and Jersey may reflect the different numbers of data centres in the two islands, 11 in Guernsey and 5 in Jersey.

Bursting

Bursting is a facility whereby a customer can exceed the normal data rate of their DIA line for a period of time; this assists them to cater for occasional periods of higher than usual demand. Figures 32 and 33 show the numbers of DIA lines with bursting capability in Guernsey and Jersey respectively, again by data rate.

Burst To From	≤ 2Mbps	>2Mbps & ≤ 4Mbps	>4Mbps & ≤ 6Mbps	>6Mbps & ≤ 8Mbps	>8Mbps & ≤ 10Mbps	>10Mbps & ≤100Mbps	>100 & < 1Gbps	>1Gbps
≤ 2Mbps	-	1	2	6	-	-	-	-
>2Mbps & ≤ 4Mbps	-	-	-	-	-	3	-	-
>4Mbps & ≤ 6Mbps	-	-	-	-	-	1	-	-
>6Mbps & ≤ 8Mbps	-	-	-	-	-	-	-	-
>8Mbps & ≤ 10Mbps	-	-	-	-	-	17	-	-
> 10Mbps & ≤ 100Mbps	-	-	-	-	-	13	10	-
>100 & < 1Gbps	-	-	-	-	-	-	5	2
> 1Gbps	-	-	-	-	-	-	-	1

Figure 32 Numbers of DIA lines with bursting capabilities (Guernsey)

Source CICRA industry questionnaires

Burst To From	≤ 2Mbps	>2Mbps & ≤ 4Mbps	>4Mbps & ≤ 6Mbps	>6Mbps & ≤ 8Mbps	>8Mbps & ≤ 10Mbps	>10Mbps & ≤100Mbps	>100 & < 1Gbps	>1Gbps
≤ 2Mbps	0	2	0	1	0	0	0	0
>2Mbps & ≤ 4Mbps	-	-	-	-	-	1	-	-
>4Mbps & ≤ 6Mbps	-	-	-	-	-	1	-	-
>6Mbps & ≤ 8Mbps	-	-	-	-	-	-	-	-
>8Mbps & ≤ 10Mbps	-	-	-	-	-	-	-	-
> 10Mbps & ≤ 100Mbps	-	-	-	-	-	9	2	-
>100 & < 1Gbps	-	-	-	-	-	-	1	-
> 1Gbps	-	-	-	-	-	-	-	1

Figure 33 Numbers of DIA lines with bursting capabilities (Jersey)

Source CICRA industry questionnaires

No consistent figures are available for the volumes of data being passed over DIA lines.

8. MOBILE MARKET

Subscriptions, penetration rates and market shares

As of 31 December 2016, there were three mobile network operators (MNO) with commercial activities in Jersey and Guernsey: Sure, JT and Airtel. Figure 34 below provides a breakdown of the total number of mobile subscriptions, pre-paid and post-paid, for those three MNOs²⁷.

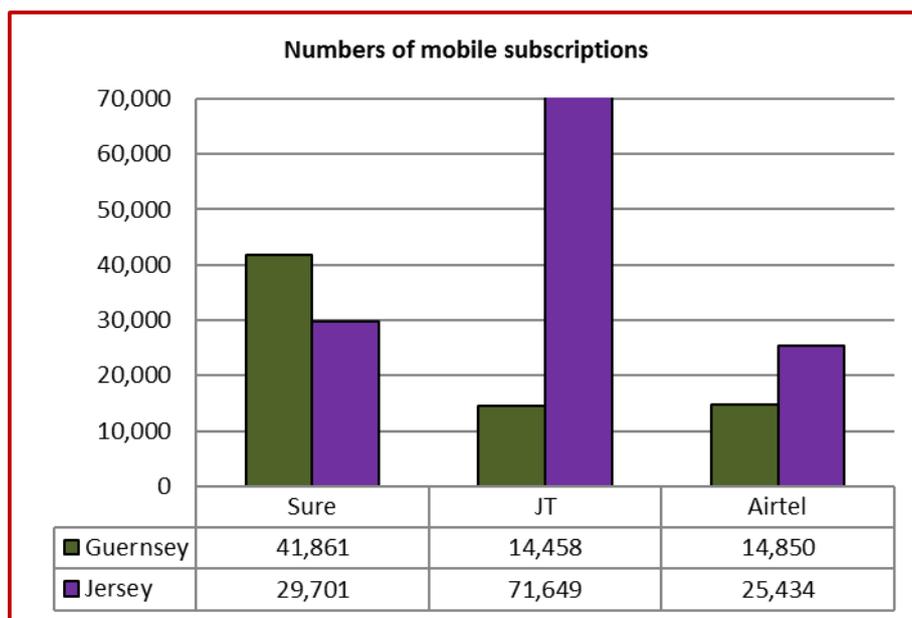


Figure 34 Number of mobile subscriptions per operator
Source CICRA industry questionnaires

Numbers of subscriptions continue to grow. Figure 35 below shows the numbers of mobile subscriptions in the period 2012 to 2016.

	Guernsey	Jersey
2012	65,145	120,076
2013	64,914	112,464
2014	68,522	118,960
2015	71,249	122,668
2016	71,169	126,784

Figure 35 Numbers of active mobile subscriptions 2012 to 2016
Source CICRA industry questionnaires

In common with many developed countries, the number of active mobile subscriptions in the Channel Islands is greater than the number of inhabitants. At the end of 2016 in Guernsey there were 113 active subscriptions per 100 inhabitants, and in Jersey there were 119 subscriptions per 100 inhabitants, these numbers remain the same as 2015.

Figure 36 below shows the mobile penetration rates in Guernsey and Jersey overlaid on the penetration rates within OECD countries.

²⁷ All mobile operators report "Active Subscribers" based on a 90 day cycle period.

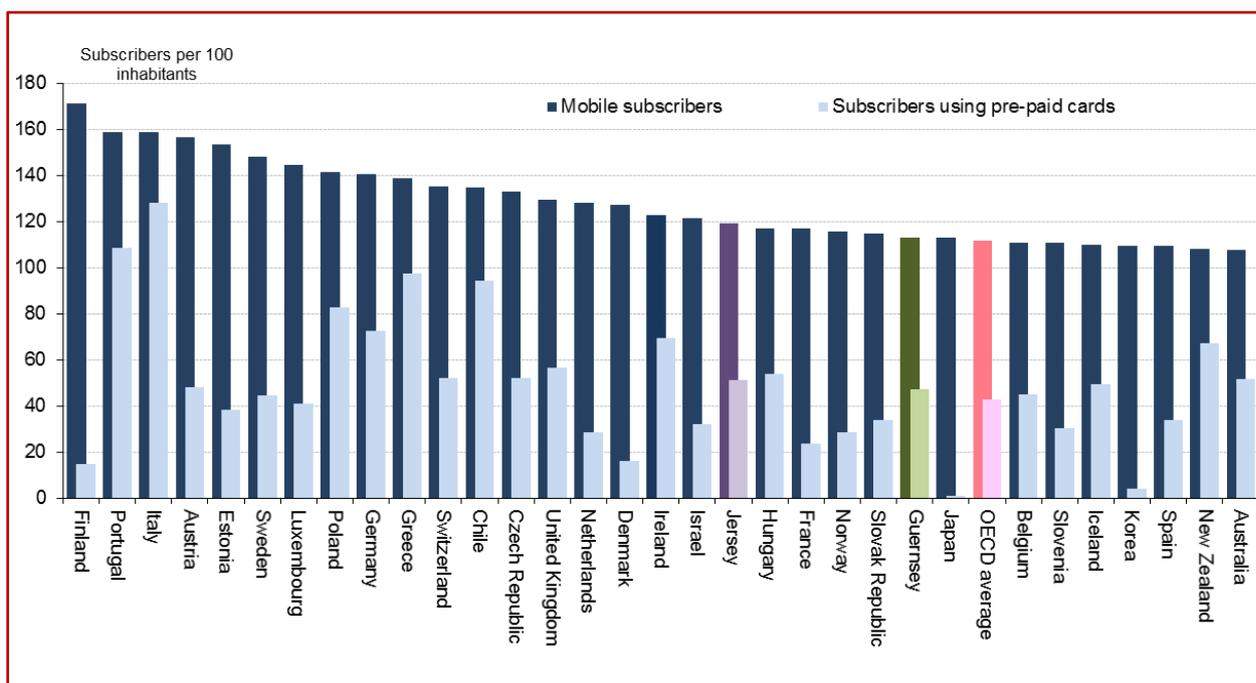


Figure 36 Mobile penetration rates in Guernsey and Jersey compared to OECD countries
 Source OECD²⁸ and CICRA industry questionnaires

Figures 37 and 38 show the market shares of each operator in Guernsey and Jersey respectively. While JT has marginally increased its share in Guernsey, JT and Sure have increased their share in Jersey, the overall situation has remained relatively stable over the period 2012 to 2016 in both islands with the incumbent operators (Sure in Guernsey and JT in Jersey) continuing to have the majority share of subscribers in their respective islands.

²⁸ OECD data published July 2015 <http://www.oecd.org/internet/broadband/oecdkeyictindicators.htm>

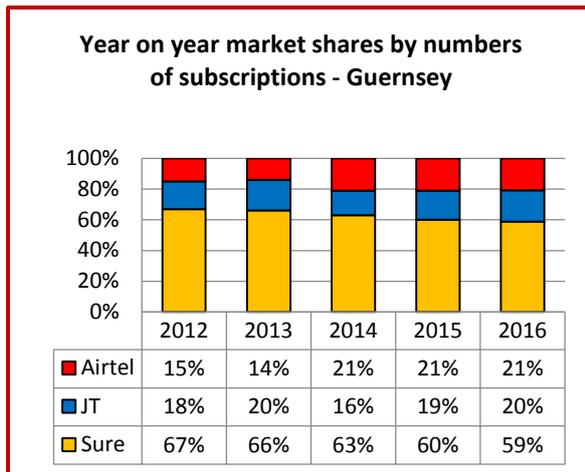


Figure 37 Change in market shares 2012 to 2016 (Guernsey)
Source CICRA industry questionnaires

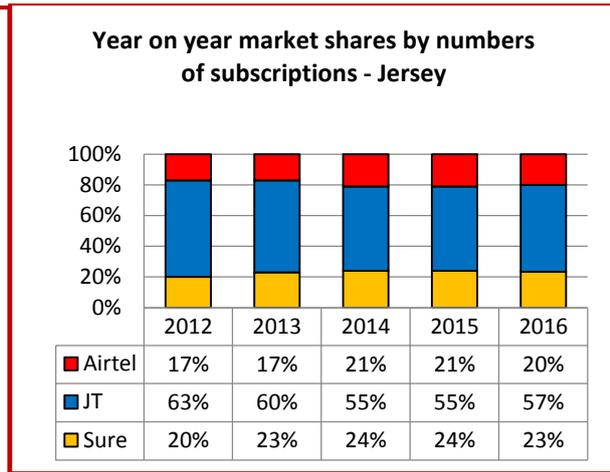


Figure 38 Change in market shares 2012 to 2016 (Jersey)
Source CICRA industry questionnaires

The general increase in post-paid subscriptions continues in both islands, additionally pre-paid subscriptions also are on the rise in Jersey. On the other hand, in Guernsey there is a slight decrease in pre-paid subscriptions from 2015. Figure 39 below provides a breakdown of pre-pay and post-pay mobile subscriptions in each island in the period 2012 to 2016²⁹.

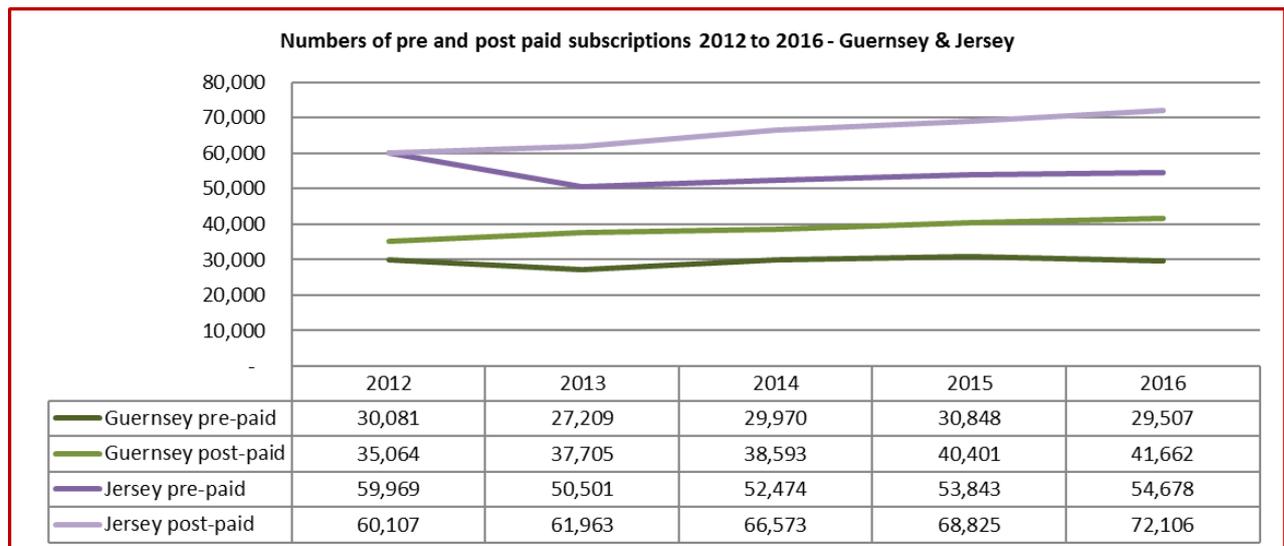


Figure 39 Pre and post paid mobile subscriptions 2012 to 2016
Source CICRA industry questionnaires

Voice traffic - numbers of minutes

Figure 40 shows the number of mobile voice minutes originating on each operator's network in each island in 2016. This included traffic derived from in-roaming activities. Sure has the largest market share in Guernsey and JT has the largest share in Jersey.

²⁹ Pre-pay subscribers make payment in advance of using the service; typically they are not business users and have low levels of usage. In contrast post-pay subscribers tend to have higher usage levels and are charged monthly in arrears paying by direct debit. The Channel Island figures exclude pre-pay customers that have been deactivated in the last 12 months due to inactivity.

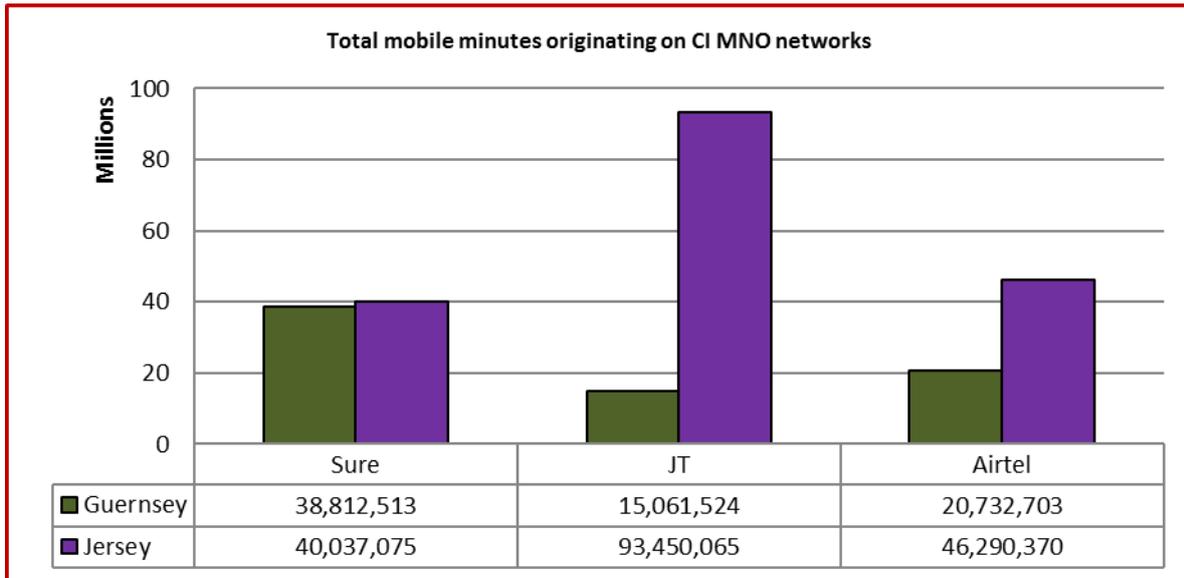


Figure 40 Numbers of minutes originating on CI mobile networks in 2016
Source CICRA industry questionnaires

Figure 41 shows the average number of mobile voice minutes in 2016 for pre-paid and post-paid subscriptions. On the assumption that out-roaming minutes are overwhelmingly associated with post-paid subscribers, this includes all out-roaming voice minute activities.

	Guernsey	Jersey
Minutes per pre-paid subscriber	551	794
Minutes per post-paid subscriber	1,284	1,777

Figure 41 Average mobile voice minutes per pre-paid and post-paid subscription
Source CICRA industry questionnaires

SMS traffic – numbers of messages

Figure 42 shows the number of SMS text messages originating on each operator's network in each island in 2016. These include SMS messages associated with in-roaming activities. With regard to market shares, the situation with text messages closely resembles that with mobile minutes: Sure has the largest market share in Guernsey and JT has the largest share in Jersey.

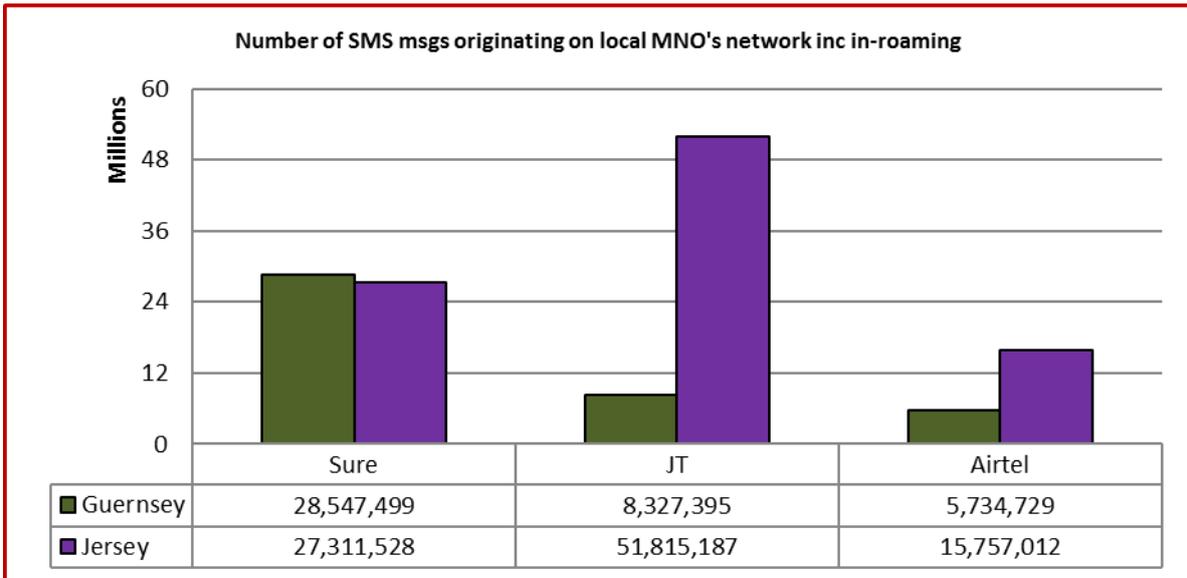


Figure 42 Numbers of SMS text messages originating on CI networks in 2016
Source CICRA industry questionnaires

Figure 43 shows the average number of SMS text messages sent in 2016 for pre-paid and post-paid subscriptions. On the assumption that out-roaming SMS messages are overwhelmingly associated with post-paid subscribers, this includes all out-roaming SMS activities.

	Guernsey	Jersey
SMS messages per pre-paid subscriber	343	373
SMS messages per post-paid subscriber	780	1,024

Figure 43 Average SMS text messages sent per pre-paid and post-paid subscription
Source CICRA industry questionnaires

Mobile data

Figure 44 shows the volume of data (in Gbytes) sent and received over each operator's network in each island in 2016. These include data associated with in-roaming activities.

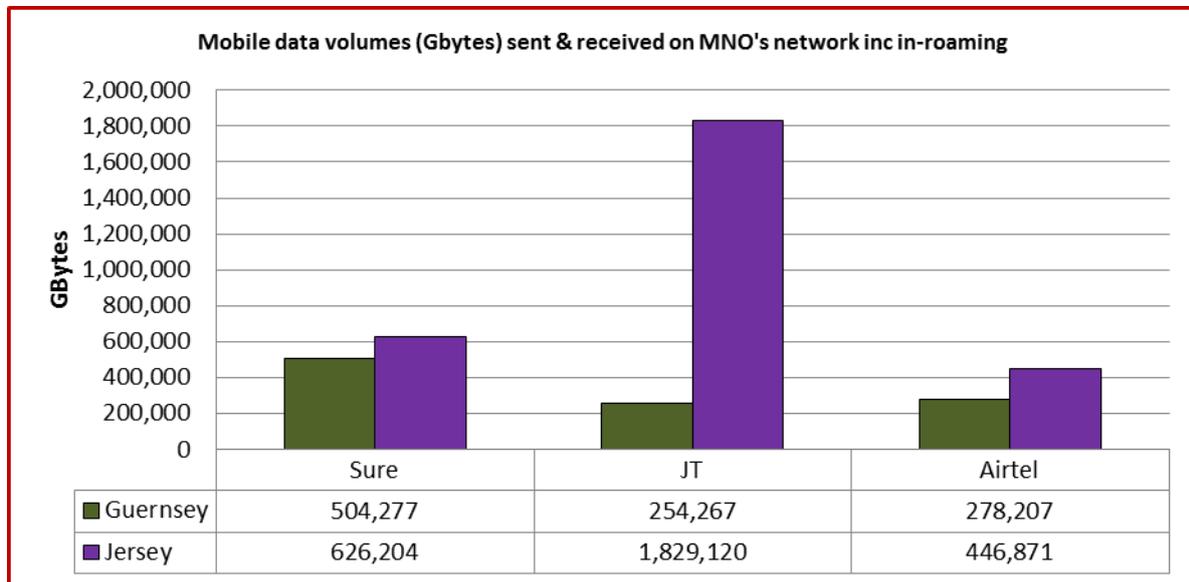


Figure 44 Volume of data sent and received on CI mobile networks in 2016
Source CICRA industry questionnaires

Figure 45 shows the average data volume (in Gbytes) consumed in 2016 per Guernsey and Jersey pre-paid and post-paid subscription. On the assumption that out-roaming data activities are overwhelmingly associated with post-paid subscribers, this includes all out-roaming data activities. These data usage figures are to be compared with Ericsson's estimate of data traffic per smartphone of 1.9Gbytes/month (22.8Gbytes/year) in 2016³⁰.

	Guernsey	Jersey
Gbytes of data per pre-paid subscriber	9.4	15.2
Gbytes of data per post-paid subscriber	20.8	67.3

Figure 45 Average data volume sent and received per mobile subscription in 2016
Source CICRA industry questionnaires

³⁰ <https://www.ericsson.com/en/mobility-report/latest-mobile-statistics>

Mobile data caps

The mobile service providers operate a number of different policies regarding the amount of data a customer can send/receive over the mobile networks.

Sure	Depends on the plan purchased.
JT	Data limits form part of the customer's contracted service plan and are enforced by the network and billing system.
Airtel	Data limits form part of the customer's contracted service plan and are enforced by the network and billing system.

Mobile revenue

Total revenues from mobile related activities in Guernsey in 2016 were £25.4m and in Jersey £39.3m. Figures 46 and 47 provide a breakdown of the sources of mobile revenues.

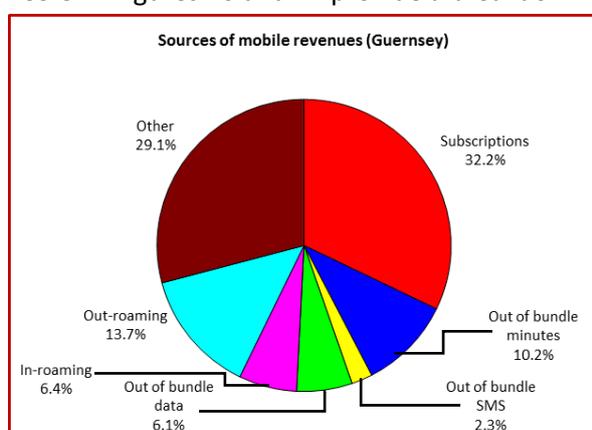


Figure 46 Sources of mobile revenues (Guernsey)
Source CICRA industry questionnaires

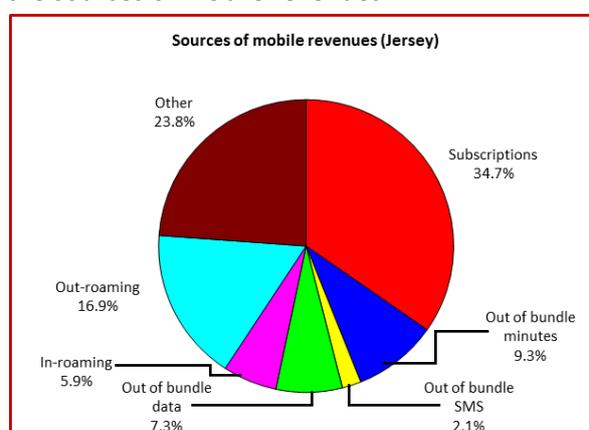


Figure 47 Sources of mobile revenues (Jersey)
Source CICRA industry questionnaires

Subscriptions include basic packages (with inclusive amounts of minutes, texts and data) and all "bolt-ons" for additional minutes, texts and data. Other revenues include items such as handsets and mobile termination charges.

Taking account of the different ways that operators structure their retail offerings, estimates of the average annual spend on usage related charges (as opposed to handsets and other ancillary services) are shown in figure 48. For this purpose all out-roaming revenues are assumed to be associated with post-paid subscribers.

		Guernsey	Jersey
Pre-paid	During 2016	£106.58	£75.34
	Per month	£8.88	£6.28
Post-paid	During 2016	£317.49	£325.35
	Per month	£26.46	£27.11

Figure 48 Annual and monthly spend per pre-paid and post-paid subscription in 2015
Source CICRA industry questionnaires

The average annual spend on usage related charges significantly decreased in 2016 within both Islands. In 2015, Guernsey consumers were paying £14.74 pre-paid per month (now £8.88) and £33.69 post-paid per month (now £26.46). Similarly, Jersey consumers were paying £11.59 pre-paid per month (now £6.28), and £31.17 post-paid per month (now £27.11). In 2016 in the UK ³¹ pre-paid consumers spent on average £4.75 per month and post-paid consumers spent on average £22.11 per month.

³¹ Ofcom report : The Communications Market 2016 page 152

Switching activity in the Guernsey and Jersey mobile markets

One measure of the competitive dynamics apparent in markets is the extent to which consumers switch from one supplier to another. If consumers switch, it indicates that telecom operators are innovative, competitive and creating new offerings that entice consumers. Switching is usually associated with the process called ‘porting’ whereby consumers can switch from one supplier to another while keeping their telephone number; in effect, consumers ‘port’ their mobile telephone number from one telecom supplier to another. In the Channel Islands number porting is available intra-island but not inter-island.

In figures 49 and 50, ‘porting-in’ describes the number of consumers moving to a new supplier and, conversely, ‘porting-out’ describes the number of consumers leaving their existing supplier. In both islands the incumbent operator lost more consumers than it gained.

Consumer switching behaviour in 2016 followed a different pattern from 2015 amongst the three suppliers. Sure, have a larger proportion of consumers ‘porting out’ in both islands which is a noteworthy difference from 2015 where the net benefit was 429 in Jersey. For 2016 Airtel demonstrate a significant increase in Jersey consumers ‘porting in’ (in 2015 the net benefit was 486 in Guernsey vs 218 in Jersey). JT shows the most consistency across time with had a larger majority of consumers ‘porting out’ in both islands as in 2015.

Guernsey porting activity

	Port in	Port out	Net benefit
Airtel	775	348	427
JT	153	223	-70
Sure	195	552	-357
Island total	1,123	1,123	

Jersey porting activity

	Port in	Port out	Net benefit
Airtel	2028	1043	985
JT	495	992	-497
Sure	548	1036	-488
Island total	3,071	3,071	

Figure 49 Mobile number porting activity - Guernsey and Jersey 2015

Source Porting XS MNP Channel Island data 2016

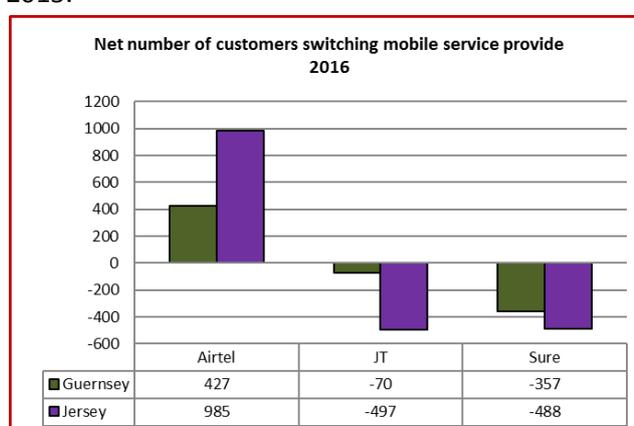


Figure 50 Net numbers of consumers switching mobile service provider in 2016

Source Porting XS MNP Channel Island data 2016

Figure 51 shows the percentage of registered mobile numbers that switched service provider in Guernsey and Jersey in 2012 to 2016. The levels of switching increased significantly in 2014 in comparison with 2012 and 2013 but fell back again in 2015 and have continued to fall in 2016.

	2012	2013	2014	2015	2016
Guernsey	1.77%	1.82%	3.48%	1.92%	1.58%
Jersey	3.06%	3.04%	4.51%	3.43%	2.42%

Figure 51 Levels of mobile number switching 2012 to 2015
Source Porting XS MNP Channel Island data 2012 to 2015

Porting activity in the Channel Islands continues to lag behind average levels in the UK where porting activity was 10% of the active subscriber base in 2015³².

The number of working days required to complete a successful port from one service provider to another fell in 2016 to 1.2 working days in Guernsey and 1.2 working days in Jersey (where as it took 1.8 working days in both Guernsey and Jersey in 2015).³³ These times compare to the European Commission’s Universal Service Directive, which requires operators to provide porting within 1 working day.³⁴

Out roaming

Out-roaming is the use of mobile services by customers of Channel Island operators while roaming on networks outside of the Channel Islands.

Out-roaming revenues

In 2016, operators in the Channel Islands generated total revenues of £10.1m from out-roaming activities, approximate 16% of total mobile revenue (excluding in-roaming revenues). This is the marginally lower than 2015 (18%).

Figure 52 shows total out-roaming revenues in the period 2012 to 2016, combining Guernsey and Jersey.

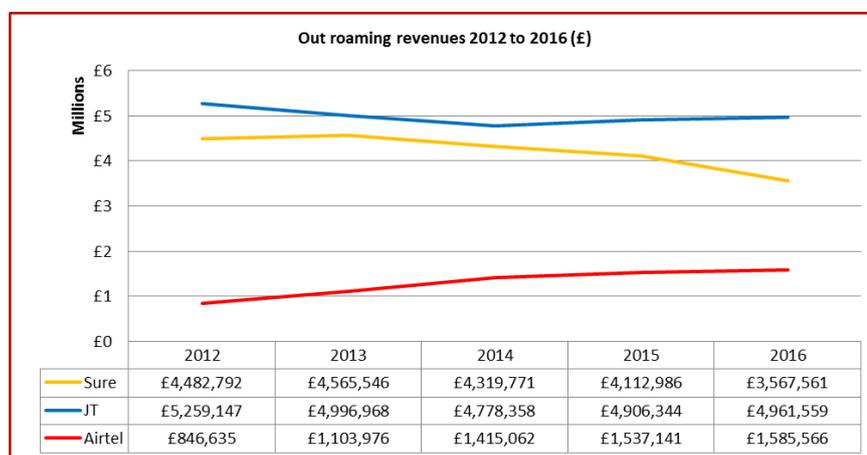


Figure 52 Total out-roaming revenues 2012 to 2016, Guernsey and Jersey combined
Source CICRA industry questionnaires

³² https://www.ofcom.org.uk/data/assets/pdf_file/0023/38543/annex.pdf Page 38

³³ Porting XS

³⁴ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002L0022&from=en>

Out-roaming traffic levels

Out-roaming outgoing call minutes are call minutes made by the mobile customers of Channel Island operators while roaming on networks outside the Channel Islands. Similarly outgoing SMS texts are those sent by Channel Island customers from non Channel Island networks.

Out-roaming incoming refers to call minutes and SMS text received by Channel Island customers while using non Channel Island networks.

Out-roaming data is data both sent and received by Channel Island customers while using non Channel Island networks.

Figure 53 shows the total numbers of out-roaming incoming and outgoing minutes, SMS text and Gbytes of data for Channel Island customers in 2016.

	Guernsey	Jersey
Minutes	3,435,990	7,421,742
SMS texts	3,398,951	5,244,661
Data (Gbytes)	1,708	3,917

Figure 53 Out-roaming minutes, SMS texts and data volumes in 2016
Source CICRA industry questionnaires

9. REPORT DEFINITIONS

- Broadband connection - active high-speed Internet access connection, provided by either wireline or wireless delivery technologies, which could be provided with other fixed or mobile services.
- Inhabitants – the number of inhabitants of the islands is used to standardise various metrics throughout the report. The numbers are as follows

Guernsey	63,026 estimate at end 2016 ³⁵
Jersey	104,500 estimate at end 2016 ³⁶

- Fixed calls - calls billed as part of a monthly subscription allowance and billed separately (when charged per minute) of all outgoing calls originating on a fixed network in the Channel Islands during the year, to all destinations i.e., Channel Islands, international, non-geographic, fixed and mobile.
- Fixed connection – active telephone line (PSTN or ISDN) retailed by a telecom operator, identified by having a fixed line telephone number (area code + 6 digit local number) plus fixed wireless connections which may or may not have an associated telephone number.
- Mobile connection – mobile phone retail connection on a telecom operator’s network with a mobile telephone number that has been active within the previous 90 days.
- Subscription - individual telephone number or connection, whether fixed or mobile. It is important to bear in mind that it does not apply to an individual; a person or a business may use a number of connections and telephone numbers each of which counts as one subscription.

³⁵ Guernsey Population, Employment and Earnings Bulletin, 28th April 2017 <https://www.gov.gg/population>

³⁶ Jersey in Figures www.gov.je/Government/JerseyInFigures/Population/Pages/Population.aspx for 2014, with net change of 300 and net migration of 1500 for 2015 and 2016

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