

JT/AIRTEL

Merger Application Form

Non-confidential version

- 1 As explained in the letter to CICRA on 24 June 2015, JT Group Limited (**JT**) and Indian Continent Investments Limited (**ICIL**) (a subsidiary of the Bharti (the **Seller**)) have publicly announced their intention to merge the Airtel and JT businesses in Jersey and Guernsey. JT will acquire the whole of the issued share capital of Jersey Airtel Limited and Guernsey Airtel Limited (together, **Airtel**) (the **Proposed Transaction**) in return for a percentage ownership in the merged entity.
- 2 This document constitutes the Merger Application Form (**MAF**) for the Proposed Transaction. It has been prepared in accordance with CICRA Guideline 6.
- 3 Both JT and Airtel (the **Parties**) have considered carefully the evidence relating to the counterfactual, in line with CICRA Guideline 6 and the Merger Assessment Guidelines issued by the UK Competition and Markets Authority (**CMA**). For the reasons set out in this MAF, the Parties consider that the competitive impact of the Proposed Transaction should be considered against a counterfactual in which Airtel would not provide any meaningful competition to JT and Sure. The arguments relating to the counterfactual, and the supporting financial and documentary evidence, are set out in more detail in the MAF and in the Confidential Annex. However, the key points are as follows:
 - (a) Airtel has faced, and continues to face, a number of acute structural challenges that means that it does not act as a significant competitive constraint on its rivals (JT and Sure). In particular, Airtel has a "mobile only" offering, lacks the economies of scale and scope available to its rivals across both islands and has significant investment requirements. Although a share of 20% would be sustainable for a mobile entrant in many larger markets in Europe or elsewhere, this is not the case for a market the size of the Channel Islands (with a combined population of 165,000 – almost 0.2% of the UK).
 - (b) Bharti and Airtel's current management team have explored a range of options to reduce the cost base of the business and introduce new revenue streams. These have not helped Airtel achieve a market share which will make its investments sustainable and allow it to be an effective competitor to JT and Sure. ["]
 - (c) In the absence of the Proposed Transaction (i.e. under the counterfactual), the challenges which Airtel is currently experiencing will only be exacerbated by, amongst other things, the wave of investment required in the short to medium term. As a result, there is no prospect of any material improvement in Airtel's competitive offering or its financial performance.
 - (d) Airtel ["].
- 4 When viewed against that counterfactual, the Parties do not believe the Proposed Transaction would give rise to a substantial lessening of competition (**SLC**). Nevertheless, the Parties recognise that CICRA will wish to consider these points (and the supporting evidence) in detail and in line with previous decisions of the European Commission. Accordingly, and without prejudice to the argument that the Proposed Transaction would be unlikely to result in a SLC, the Parties are submitting a standard MAF on the basis that they recognise that this is a credible candidate case for a second detailed review. Since there is

some urgency relating to the timetable for the Proposed Transaction, the Parties wish to facilitate a timely review by CICRA and are willing to provide their full cooperation.

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1 Preliminary Information

- 1.1 Provide the contact details of all Parties, including the business website address where applicable. For corporate undertakings, please state where the company is incorporated. If any of the Parties or their parent entities are listed companies, please state the locations of listing.

JT		
Contact details	Daragh McDermott, Director of Corporate Affairs and Company Secretary	["]
Business website	http://www.jtglobal.com/Global/	
Address	PO Box 53 No1 The Forum Grenville Street St Helier JE4 8PB	
Place of incorporation	Jersey	
Airtel		
Contact details	Ian Campbell CEO	["]
Business website	https://airtel-vodafone.com/	
Address	1st Floor Le Masurier House La Rue Le Masurier St Helier Jersey JE2 4YE	
Place of incorporation	Jersey and Guernsey	

- 1.2 If any party is part of a larger corporate group, provide the contact details for the ultimate parent entity and state where it is incorporated.

- 5 Bharti Overseas Pvt Limited. is the ultimate holding company of BGL, ICIL, Jersey Airtel Limited and Guernsey Airtel Limited. Bharti Overseas Private Limited, is incorporated in India.

Address: Bharti Crescent 1, Nelson Mandela Road, Vasant Kunj, Phase II, New Delhi – 110070

Contact: Sanjay Berry, Senior Vice President,

Email: Sanjay.Berry@bharti.in

1.3 Provide the contact details for each party's authorised legal representative(s).

6 JT is authorised to submit the MAF on behalf of the Parties. Details of JT's competition law advisers are set out below.

Firm: **Addleshaw Goddard LLP**

Address: Milton Gate
60 Chiswell Street
London
EC1Y 4AG

Partner: Bruce Kilpatrick
020 7544 5214
bruce.kilpatrick@addleshawgoddard.com

1.4 Provide the contact details of the person who should receive the filing fee receipt (and the invoice for a fee for a second detailed review).

7 Daragh McDermott of JT Group Limited, as detailed above.

1.5 Indicate whether the application is made under Article 21 of the Competition (Jersey) Law 2005 and/or regulation 5 of The Competition (Prescribed Mergers and Acquisitions) (Guernsey) Regulations, 2012, and explain why the Parties are required to seek approval for the merger under that legislation.

8 This application is made under Article 21 of the *Competition (Jersey) Law 2005* as it results in a share of supply or purchase of 25% or more being achieved as identified in section 4.2 below.

9 This application is also made under regulation 5 of *The Competition (Prescribed Mergers and Acquisitions) (Guernsey) Regulations, 2012* as the combined applicable turnover of the undertakings involved exceeds £5 million in the Channel Islands and both Airtel and JT have applicable turnover arising in Guernsey which exceeds £2 million.

1.6 Indicate whether the Parties are making a joint application.

10 The Parties confirm that they submit this merger application form jointly to CICRA.

1.7 What is the expected timescale for exchange of contracts and completion of the merger?

- 11 The Parties are currently engaged in a due diligence process to ensure that the terms of the Proposed Transaction (as outlined above) conform with the position of the businesses in each of Jersey and Guernsey, and that the legal structure accurately reflects this.
- 12 The Parties have produced an indicative timetable for the due diligence process, and it is envisaged that the majority of this process will be completed by the end of August 2015.
- 13 The transaction documents are due to be entered into by the JT Board and Airtel imminently, but completion of the Proposed Transaction is conditional upon completion of certain steps, including approval of CICRA as well as JT's sole shareholder, the States of Jersey. The Members of the States Assembly will expect some view of CICRA's position when it comes to debating the proposition, which is expected to be tabled early during the current States session.
- 14 Due to the public announcement and the board-level consideration of the Proposed Transaction, the Parties have established that they have a good faith intention to conclude an agreement in relation to the Proposed Transaction in accordance with the guidelines issued by CICRA.¹

1.8 Indicate whether any of the Parties or their parent entities have previously received merger approval in Guernsey or Jersey.

- 15 JT previously received approval from CICRA for the acquisition of Channel Island Voucher Limited on 18 April 2013.
- 16 JT, through its then subsidiary WaveTelecom Ltd, also previously received approval from the GCRA (formerly OUR) for the acquisition of Newtel Guernsey Limited on 16 November 2009.

1.9 List any other competition authorities to whom the merger has been notified.

- 17 The Proposed Transaction has not been notified to any other competition authorities.

1.10 List any other regulatory body, whether in Guernsey or Jersey or elsewhere, that has been notified or will be notified of the merger. Please describe any pre-completion requirements that have been imposed and the expected satisfaction date of any such requirements.

- 18 The Proposed Transaction has not been notified to any other regulatory authorities.

2 Description of the Merger

2.1 Provide an executive summary of the merger, describing the Parties involved and their areas of activity, a brief description of the business/es being acquired and their areas of activity, the reasons for the merger and the nature of the transaction (i.e.

¹ See CICRA Guideline 6 – Mergers & Acquisitions, at page 20.

statutory merger, share or asset acquisition, joint venture, public offer).The Parties

- 19 Both Parties are active in the provision of mobile communication services in the Channel Islands.
- 20 JT is 100% owned by the States of Jersey, and until 2003 was the only telecoms provider in Jersey, active in the provision of fixed line phone, mobile and internet services. In 2002 JT entered the market in Guernsey under the brand name "Wave Telecom Limited", and rebranded its Guernsey business as JT in 2012.
- 21 Currently, Indian Continent Investment Limited (ICIL) holds 100% equity stakes in Jersey Airtel Limited (JAL) and Guernsey Airtel Limited (GAL). Jersey Airtel Limited operates a license for mobile telephony services in Jersey and Guernsey Airtel Limited for mobile telephony services in Guernsey. ICIL [" "].
- 22 Both [" "].

The Proposed Transaction

- 23 It is anticipated that the Proposed Transaction would have two elements:
- (a) A purchase by JT of the entire issued share capital of Airtel in exchange for part ownership of the enlarged JT (approximately 11% ownership) through the issue of new Ordinary Shares in JT (the **Merger**) to be held by BGL; and
- (b) A purchase of existing ordinary Shares in JT immediately following the Merger, for cash, from the States of Jersey for c.£ [" "], to increase BGL's investment in JT from [" "]% to [" "]% plus 1 of the Ordinary Shares on a fully diluted basis in issue following the Merger (the **Share Purchase**).

Commercial Rationale

- 24 As explored above, the proposed transaction would offer the following benefits for Bharti:
- (a) A sale of the Airtel business would allow Bharti to convert its unprofitable investments in the Channel Islands into a significant interest in a profitable JT with significant prospects of further growth, particularly in international markets; and
- (b) A sale would also enable Bharti to avoid continued financial support for the business whilst transferring customers and employees to a sustainable supplier and employer.
- 25 For JT, in addition to the synergies to be derived from the combination of the Subsidiaries with JT, the benefits from being part of the wider Bharti Group include:
- (a) Mobile alliance
- Bharti is a key member of the Bridge Alliance, a leading alliance of 36 mobile operators, serving over 680 million customers. The Bridge Alliance provides seamless roaming and multi-country enterprise services to the customers of its members. Bharti and JT would have the opportunity of working towards enabling JT becoming a part of the alliance.
- (b) International roaming consortia

JT and Bharti can work towards deriving benefit from Bharti's existing arrangements for achieving better international roaming and ILD inter-connect, SMS hub and roaming pricing.

(c) Network equipment procurement

JT and Bharti would examine the feasibility of leveraging Bharti's strong relationship with the network vendors (including Ericsson, Nokia, Huawei and ZTE) and the scale of Bharti's procurement and engagement with these vendors to improve JT's procurement economics to support its capex requirements.

(d) Network outsourcing model

Bharti has been a pioneer in the Network Outsourcing Model, which has also been featured as a case study by Harvard Business School. This model facilitates the lowest cost per minute while maintaining and growing margins. Bharti could share this knowledge with JT to assess whether JT would benefit from this model in its operations.

(e) Business Process Outsourcing (BPO) alliances

Bharti has a number of alliances with a wide set of BPO service providers such as Aegis and Tech Mahindra, catering for its Indian and international operations. JT could benefit from leveraging Bharti's existing established relationships with these companies.

(f) Technology relationships

JT and Bharti would examine the feasibility of leveraging the benefits of scale and the latest interventions in the technology space arising from Bharti's existing arrangements with IBM, Wipro, Avaya, and several other service providers in the information technology domain.

(g) Handset procurement and supply

Bharti has many existing arrangements in the handset supply space. We could examine the feasibility of JT leveraging Bharti's existing scale as well as its relationships with these suppliers.

(h) Mobile money

Bharti has launched mobile money/mobile financial services in India and across all our countries of operation in Africa. The new service, offering the convenience of payments and money transfers on mobile phones over a secure and stable platform, has resulted in a new revenue stream for both domestic and international customers and has acted as a tool for enhancing usage and retention, as well as facilitating greater financial inclusion for those without bank accounts.

Mobile Money is an account on the phone, in which subscribers can load money and then use it for a host of services. Subscribers can send money, pay bills and recharge, directly from their mobile. Mobile operators are already experiencing significant volumes, both in terms of customers and transactions. JT could benefit from the expertise that Bharti has built in this area, in particular around technology and consumer behaviour.

- (i) Best practices and customer insights

JT could also benefit from the sharing of best practices and customer insights across its products and segments.

2.2 Indicate whether the merger involves the whole of the Parties involved, or whether some divisions or subsidiaries of the Parties are not involved in the merger.

26 The Proposed Transaction involves the whole of JT, which will acquire the entire issued share capital of Airtel Guernsey Limited and Airtel Jersey Limited.

2.3 Provide a diagram showing the structure of the Parties involved (including any companies which have ultimate control of the Parties to the merger) before and after completion of the merger.

27 Please see Annex I for a structure chart of JT both before and after the Proposed Transaction.

28 Please see Annex II for a structure chart of Airtel and its parent companies.

2.4 Provide details of any ancillary arrangements between the Parties or their parent entities that you believe are directly related and necessary to implement the merger.

29 Other than the agreements referred to in 2.5, below, there are no ancillary arrangements necessary and directly related to the implementation of the merger.

2.5 Provide a copy of the agreement between the Parties effecting the merger (if available), and all ancillary agreements.

30 As detailed above, the Parties have evidenced a good faith intention to proceed with the Proposed Transaction. The SPA giving effect to the transaction is still in draft form, and is appended to this MAF at Annex III.

2.6 Provide copies of all internal and/or external studies, analyses, reports, and surveys prepared by or for any of the Parties for the purpose of assessing or analysing the benefits or effects of the merger on markets, market shares, competition, competitors, potential for sales growth or expansion into new markets, and indicate (if not otherwise contained in the document itself) the date of preparation, and the name and title of the principal person who prepared each document. This includes any documents submitted to or prepared for any member/s of the board of directors and/or the shareholders' meeting for the purposes of assessing and analysing the merger.

31 The documents included at Annex IV (a) include responsive documents prepared by/for JT.

32 The documents included at Annex IV (b) include responsive documents prepared by/for ICIL in respect of Airtel.

2.7 If the proposed transaction is a public bid, provide a copy of the Offer Document and

Listing Particulars.

33 N/A – all entities are private unlisted companies.

2.8 Provide a copy of any press release (including those in specialist or trading journals) announcing the merger and details of any official notifications to stock exchanges.

34 Please see Annex V for a copy of Parties' press release announcing the Proposed Transaction.

3 Details of the Parties

3.1 Specify the industries, in Guernsey and/or Jersey and abroad, in which the Parties to the merger, or, if different, their corporate groups, are active.

35 In the Channel Islands, JT operates through the "JT" brand, offering telephony and related services to the Channel Islands. JT operates as a carrier in Jersey with premises on Queen Street and an internet retail site: <http://www.jtglobal.com/Jersey/>. It also operates as an alternative carrier in Guernsey with a physical retail presence on the High Street as well as an internet retail site: <http://www.jtglobal.com/Guernsey/>.

36 Airtel is active in telephony and related services in both Guernsey and Jersey, where it operates under the "Airtel-Vodafone" brand. It has retail premises on the High Street in Guernsey and Queen Street in Jersey, and maintains an internet retail site: <http://www.airtel-vodafone.com/>

37 Through its global telecom operations the Bharti Group operates under the 'Airtel' brand in 20 countries across Asia and Africa – India, Sri Lanka, Bangladesh, Seychelles, Burkina Faso, Chad, Congo Brazzaville, Democratic Republic of Congo, Gabon, Ghana, Kenya, Madagascar, Malawi, Niger, Nigeria, Rwanda, Sierra Leone, Tanzania, Uganda, and Zambia. In addition, the group also has mobile operations in Jersey and Guernsey. Over the past few years, Bharti has diversified into emerging business areas in the fast expanding Indian economy. The group has forayed into the retail sector by opening retail stores – small and medium formats. The group offers life insurance and general insurance to customers across India. Bharti also serves customers through its fresh and processed foods business. The group has growing interests in other areas such as mobile internet, real estate, training and capacity building, and distribution of telecom / IT products. Further details on the group can be found at its website: www.bharti.com

3.2 Provide the turnover for each party involved in the merger and, if different, their corporate groups, (i) worldwide, (ii) in Guernsey and (iii) in Jersey, for the last financial year for which such information is available and for any available interim period in the current year.

38 The turnover of the Parties in 2014/2015 is set out below.

Table 1

	Accounting reference date	Turnover (£ Millions)
JT (Worldwide)	FY ended 31 December 2014	["]

JT (Guernsey)	FY ended 31 December 2014	["]
JT (Jersey)	FY ended 31 December 2014	["]
Airtel (Guernsey)	FY ended 31 March 2015	["]
Airtel (Jersey)	FY ended 31 March 2015	["]

3.3 Provide copies of the most recent annual reports, or (if no annual reports are available) the most recent audited financial statements, of the Parties to the merger and, if different, their corporate groups.

39 The most recent annual reports of JT are appended to this MAF at Annex VI.

40 The most recent annual reports of Airtel are appended to this MAF at Annex VII.

4 Effects on Competition

41 In order to assist CICRA in assessing the competitive impact of the Proposed Transaction, the Parties have included an overview of the evolution of the mobile telecoms market in the Channel Islands, before considering the arguments relating to the counterfactual (which is the framework against which the impact of the Proposed Transaction should be assessed). Please see the Market Introduction Annex for an overview of the telecoms market in the Channel Islands.

Market context

42 The Proposed Transaction is set in the context of a wider trend of mobile operator consolidation across Europe. Such consolidation responds to the need for continued investment requirements in an industry where technology evolves very rapidly and customers are well informed and able to switch. The development of fourth generation mobile data services is a case in point: operators have to face significant costs to acquire spectrum rights and to upgrade their network infrastructure in order to deliver these services so as to guarantee their own survival. As such, some operators have sought to expand their share of the market through mergers and acquisitions in order to spread the costs of these investments over a larger subscriber base, and thus ensure the economic viability of their operations.

43 The mobile market in the Channel Islands has evolved from a position where Jersey and Guernsey were each historically served by their respective incumbent operators (JT in Jersey and Cable & Wireless, now Sure, in Guernsey). In 2007, the States of Jersey and Guernsey opened up each island to further competition: licences were issued to a small number of players – notably Airtel in Guernsey and Jersey. There were no other interested Parties other than COLT, who obtained limited spectrum but did not subsequently invest in network infrastructure.

44 Airtel was the only 'stand alone' entrant that was not in a position to leverage existing assets and a market leading position on the other island. Nonetheless, at that time the mobile sector in Europe (including the Channel Islands market) was growing strongly, and Airtel was projecting strong returns and market shares of [30-40]% in 2G and 3G in Guernsey, and [30-

40]% in 2G and [40-50]% in 3G in Jersey within three years of launch, and EBITDA of £["] and £["] respectively. Airtel initially forecast an EBITDA breakeven date of ["].²

45 As demonstrated in the Minimum Efficient Scale Annex, an MNO in the Channel Islands requires 37-39% across both Jersey and Guernsey to be profitable (this rises to 43-46% if active in Jersey only, and 60-69% if active in Guernsey only). Airtel has only been able to gain a market share of around [10-20]% across both islands.

46 Airtel's market share has not grown in recent years, and it has been unable to achieve profitability. This is set against a mobile market in the Channel Islands that is now mature, and is characterised by high levels of market penetration and sophisticated consumers. Average Revenue per User (ARPU) levels in the market have reduced as voice and SMS services have become increasingly commoditised and traditional telecoms service revenues are competed for by over-the-top (OTT) service providers, such as WhatsApp and Skype. ["].

Figure 1: ["]

["]

47 In order to remain competitive, Airtel will be required to make significant further investments in its network (in rolling out a new 4G network and, subsequently, with the introduction of 5G, which is planned for roll-out in 2020).

The Counterfactual

48 As indicated above, the Parties submit that the appropriate counterfactual is one where, absent the Proposed Transaction, Airtel would not provide any meaningful competitive constraint on either JT or Sure. For further details relating to this counterfactual, please see the Confidential Annex. It is the Parties' view that, on that basis, the Proposed Transaction would not result in a substantial lessening of competition.

4.1 Specify each category of good or service produced, supplied, distributed or otherwise sold in Guernsey and/or Jersey during the previous two years by each party involved in the merger and provide each party's sales in Guernsey and/or Jersey for each category listed.

Description of the Parties

49 JT and Airtel provide a range of services in Jersey and Guernsey. Table 2 shows a breakdown of the services they provide.

Table 2: Services provided by JT and Airtel

	Jersey	Turnover	Guernsey	Turnover
Fixed line services	JT	["]	JT	["]
Leased line private circuit services	JT	["]	JT	["]
Broadband	JT	["]	JT	["]

² See p.6 of the Airtel business plan – Jersey, 11 July 2006 and Airtel business plan - Guernsey, 28 July 2007, included at Annex VII

Fibre broadband	JT		JT	["]
Mobile services	JT	["]	JT	["]
	Airtel	["]	Airtel	["]

50 As shown above, JT and Airtel overlap in providing mobile services in both Jersey and Guernsey. Both Parties provide mobile services to different customer segments. The leased line private circuit services offered by JT can act as an input to MNOs as discussed above. Although this description of services does not match the market definitions at 4.2 below, this reflects how the Parties categorise their activities.

4.2 With reference to CICRA Guideline 7 – Market Definition, explain what you consider to be the economic market(s) for the purpose of assessing the competition effects of the merger, giving reasons. Markets should be defined in terms of (i) product; and (ii) geography.

51 In order to determine the potential and actual effect on competition of merger, we define the market (or markets) relevant to the assessment of the effect of the transaction, as consistent with CICRA's guidelines.³

Retail telecommunications services in Jersey and Guernsey

52 In previous European Commission ("Commission") merger decisions⁴, mobile and fixed services have been found to constitute separate relevant product markets within the broader retail telecommunications market. These decisions acknowledged that there is a competitive constraint imposed by fixed data services on mobile broadband services⁵ and limited substitutability between them⁶, but have concluded that the constraint was not material enough to justify broadening the market definition to include fixed services. We consider the definition to be appropriate in Jersey and Guernsey for the reasons set out below.

53 Fixed and mobile services are not viewed as fully substitutable by all consumers. Mobile services provide end users with the ability to communicate and to send and receive data on the go, which fixed services do not. Fixed services provide end users with more reliable in-building connections and faster data speeds. Customers generally purchase both fixed line and mobile phone services and cannot fully substitute one for the other in response to a SSNIP.

54 However the fixed and mobile services are increasingly converging from a demand perspective. Consumers are more interested in whether they can get reliable telecommunications services as opposed to the means in which these are delivered. Smartphone users will in fact often be provided a fixed service as call, SMS and data traffic is routed via Wi-Fi where possible. As a result the traditional distinction between mobile and fixed services is often blurred.

55 Similarly convergence also means that many customers choose to bundle their fixed and mobile services together. There has been an increased prevalence of "multi-play" offerings across Europe and in the Channel Islands as both Sure and JT offer fixed-mobile bundles to

³ CICRA, Channel Islands Competition Laws: CICRA Guidelines 7 – Market Definition, December 2012

⁴ These include: COMP/M.5650 – T-Mobile/ Orange; COMP/M.6497 – Hutchison 3G Austria/ Orange Austria; COMP/M.7018 – Telefonica Deutschland/ E-Plus; COMP/M.6992 Hutchison 3G UK/ Telefonica Ireland.

⁵ See e-plus/Telefonica decision in Germany, paragraph 63,

⁶ See H3G/Orange decision in Austria, paragraph 56

consumers⁷. This ability to bundle these services is increasingly important to some segments of the traditional mobile market (e.g. business customers).

- 56 From a supply-side perspective, fixed and mobile services operate on different networks and therefore operators offering one service could not easily supply the other. A fixed-line operator would need to build a separate mobile network (and acquire spectrum) in order to supply mobile services. Similarly, a mobile operator could not quickly offer fixed-line services. In other words, there is no supply-side substitution between fixed and mobile services.
- 57 Consistent with precedent cases investigated by the Commission, we submit that mobile and fixed services constitute separate relevant product markets. However it is still important to account for the competitive constraints imposed by fixed services. The CMA's Merger Assessment guidance explains that it is important to consider constraints coming from outside the strict definition of the product market in order to avoid a 'zero-one' fallacy where the focus is only on the constraints deriving from the relevant market, whilst still relevant constraints lying just outside the boundary of that market are ignored.⁸

Retail mobile telecommunications market

- 58 Retail mobile telecommunications services allow end customers to purchase voice calls, SMS and data services from MNOs or from MVNOs.
- 59 In previous Commission decisions⁹ the retail market for mobile telecommunications services has been defined as comprising the following segments:
- (a) services offered through **different technologies**, namely 2G, 3G or 4G;
 - (b) **different types of customers**, i.e. residential customers and business customers, pre-paid and post-paid customers; and
 - (c) **different types of services** transmitted over mobile telecommunications networks, namely voice, SMS and data.
- 60 We consider this market definition to be appropriate in Jersey and Guernsey for the reasons set out below:

Type of technology (2G, 3G and 4G)

- 61 As explained above, there are a number of different mobile technologies currently utilised by MNOs. Depending on the contract and mobile handset purchased, different customers can be considered as either 2G, 3G or 4G customers.
- 62 In each of Jersey and Guernsey, there is little evidence of price differentials between the three technologies. For example, customers do not pay a premium to use 3G services. In Jersey, JT is also not charging a premium for 4G services¹⁰. This indicates that customers would switch between technologies in the event of a SSNIP.

⁷ See <https://web.sure.com/jersey/home-phone/bundles> and <http://www.itglobal.com/Jersey/Personal/Landline/Coreline/JT-One/>

⁸ "Market definition is a useful tool, but not an end in itself, and identifying the relevant market involves an element of judgement. The boundaries of the market do not determine the outcome of the Authorities' analysis of the competitive effects of the merger in any mechanistic way. In assessing whether a merger may give rise to an SLC the Authorities may take into account constraints outside the relevant market" CMA, Merger Assessment Guidance, September 2010 Paragraph 5.2.2.

⁹ See E-Plus/Telefonica – at paragraph 62

¹⁰ For instance, see its 4G Customer FAQs, at page 5: http://www.itglobal.com/Global/Website%20Assets/Mobile/4G/Pan-Island_4G_FAQs_%20June_15.pdf

- 63 For technical reasons, customers are not bound to a specific network. Customers on a 4G price plan will still make use of the 2G and 3G networks. Since Voice over LTE (VOLTE) technology is not yet in use in Europe, customers on 4G plans will continue to have their voice calls supplied on 2G and 3G networks for the immediate future. In addition, there are areas where there is limited coverage for a particular network and so the mobile phone automatically switches to a 2G or 3G network, often with the customer not noticing the move across technologies. Customers are therefore often unaware which technology they will be using.
- 64 For these reasons, different technologies should be regarded as part of the same relevant market.

Type of Customer

- 65 There are a number of different mobile products available for consumers. Customer offerings can generally be differentiated according to two dimensions:
- (a) Customers can decide to sign up for a standard long-term contract (post-paid customers) or pay standard tariffs for these services on a usage basis (pre-paid customers).
 - (b) Registered businesses can sign up for bespoke contracts designed for their business needs which differ from standard advertised offers open to individual consumers.
- 66 In the industry, there is no clear distinction between business and retail segments or post-pay and pre-paid segments. The distinction between the two segments is blurred due to the development of different types of offers. For example, MNOs offer hybrid SIM-only products, where customers can have the calling allowance benefits of a contract with the flexibility offered through a pre-paid deal. Similarly some business customers prefer to use consumer tariffs.
- 67 Therefore, whilst there are customers who would not switch directly from one segment to another, chains of substitution exist throughout the mobile customer base. This means that there is no clear point to delineate between segments, and a SSNIP in one segment would cause customers to move between them. Demand side substitutability ensures that different customer segments are included in the same relevant market.
- 68 The technology needed to supply mobile services is the same for each customer segment. As a result, even if a mobile operator chose not to supply services to a particular customer group (e.g. business customers), it could very easily respond to a SSNIP in that segment and begin to offer services. Supply-side substitutability also ensures that different customer segments are included in the same relevant market.

Voice/SMS and data services

- 69 Voice communications, SMS and data services, such as access to e-mail services and general internet services, are often provided together as part of a mobile tariff. A customer with a mobile SIM card and a compatible device will be able to access all these services. Data services are also offered on a stand-alone basis, separate from voice services, through mobile broadband dongles (typically attached to a laptop), 3G/ 4G enabled tablets or mobile 3G/ 4G routers.

- 70 Consumers generally will not switch between these different services on the basis of price (i.e. even if the price of calls increased, customers would not choose to send an SMS instead). There is therefore no demand-side substitutability between these services.
- 71 The technology needed to supply voice, SMS, and data services is generally the same. Even if an operator sold a stand-alone data service, the SIM card used can carry voice and SMS services if used in another device. As a result, even if a mobile operator chose not to supply a specific service, it could very easily respond to a SSNIP and begin to offer that service using its existing technology. Supply-side substitutability therefore ensures that different mobile services are included in the same relevant market.

Wholesale market for access and call origination on public mobile networks

- 72 In this market, MNOs sell access to their network and the ability to initiate calls to MVNOs. MVNOs use the wholesale access granted by MNOs to sell mobile telecommunications services under their own brands and in their own name on the retail market. These MVNOs will have elements of their own core networks to manage billing and customer services for their own customers.
- 73 In previous merger decisions,¹¹ the European Commission has defined a wholesale market for access and call origination on public mobile networks, separate from the retail market for mobile telecommunications services. We consider this market definition to be appropriate in Jersey and Guernsey for the reasons set out below:
- 74 Consumers purchasing retail mobile services will not switch to the purchase of wholesale mobile services in response to a SSNIP. Wholesale services are not bought on an individual basis and the MVNO needs to invest in a significant amount of infrastructure in order to offer an equivalent retail service. For these demand-side reasons, the wholesale market is distinct from the retail market.
- 75 MNOs that supply products to MVNOs in the wholesale market will supply access and call origination together. Both these products are required for the MVNO to offer services at the retail level and the network technology is the same to supply both. There are therefore supply-side reasons for including the wholesale market for access and call origination in the same market.

Wholesale market for international roaming

- 76 In order for a provider of retail mobile services to be able to provide its end customers with telecommunication services outside their home countries, it must enter into agreements with providers of wholesale international roaming which are primarily active in other national markets. A market therefore exists in which network operators in Jersey and Guernsey supply wholesale access and capacity to foreign operators so that they can offer roaming services to their end users.
- 77 In previous merger decisions,¹² the Commission has defined a wholesale market for international roaming. This market definition is equally applicable to Jersey and Guernsey as explained below:
- 78 Foreign operators will not be able to use either of the wholesale access and origination services or retail mobile services in order to offer international roaming services to their end users. As a result, even if there was a SSNIP in the price of the international roaming product,

¹¹ *Id*

¹² *Ibid*

they would not switch to either of the other services. For this reason, the wholesale market for international roaming is a distinct product market.

Wholesale market for mobile call termination services

- 79 Call termination services are provided when calls originate from one network and terminate on another network. For such calls, the operator on whose network the call terminates routes the call and connects it to the called party. This interconnection service is provided at wholesale level between two network operators.
- 80 There is no substitute for call termination on each individual network since the operator transmitting the outgoing call can reach the intended recipient only through the network to which the recipient is connected.
- 81 In previous merger decisions,¹³ the Commission has defined a wholesale market for mobile call termination services. We consider this market definition to be appropriate also for Jersey and Guernsey.
- 82 The demand for mobile call termination services comes from existing MNOs who have their own network to offer services to end-users. The wholesale agreement is needed to connect calls to customers on other networks. This market is distinct from other wholesale markets, where operators instead seek access to an MNO as they do not have a separate network. For this reason, MNOs that have invested in a network and seek wholesale termination services, would not switch to alternative wholesale access products.

Wholesale market for backhaul services

- 83 Backhaul services are required to transmit mobile phone signals from the base stations to the MNO's core network. As explained in the annex, this backhaul can be provided through a number of ways. We consider that the market definition should be the wholesale market for fixed backhaul and microwave link services for the reasons set out below.
- 84 The demand for backhaul services comes from existing MNOs who need to make connections between their base stations and their core network. These backhaul services can either be self-supplied, using microwave links, or supplied from a fixed network operator, in the form of leased line private circuits. There are technical differences between the form of backhaul used in terms of the speed of data that can be carried through the network, and the distance over which the data can be carried. These differences mean that in some instances it will be necessary to use only fixed backhaul services, whereas in other instances either fixed backhaul or microwave links would be appropriate.
- 85 In instances where either option is appropriate the key reason for choosing one over the other is the overall cost. If there was a SSNIP in the price of the fixed backhaul service, customers would consider self-supplying microwave links instead. For these demand-side reasons, the market should encompass both fixed backhaul and microwave links.

Relevant Geographic market

- 86 The relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas. It is important to consider what the relevant market is for each of the product markets.

¹³ *Ibid*

Retail mobile telecommunication services

- 87 In previous merger decisions¹⁴ the Commission has defined the relevant geographic market for all retail telecommunication services to be national in scope. We consider the relevant geographic market to be the Channel Islands (encompassing the Bailiwick of Jersey and the Bailiwick of Guernsey) for the reasons set out below.
- (a) Consumers will seek to make use of the mobile services across the Channel Islands. For example, customers are offered the same tariffs across Jersey and Guernsey and no price discrimination occurs. The branding and marketing used by suppliers is also the same in each island, with common advertising campaigns across both Bailiwicks.
 - (b) In addition, consumers in the Channel Islands are not charged to roam across either island. Normally, when a consumer is roaming in another country they would automatically switch to a foreign network and roaming charges would be incurred. This means that the consumer incurs additional costs for using their mobile device abroad. Since the costs to roam abroad are significantly higher than domestic charges, there is no demand-side substitutability across national borders. Customers would not respond to a SSNIP by purchasing their mobile devices abroad as using their device domestically would be extremely costly.
 - (c) In the Channel Islands, when a consumer travels between Jersey and Guernsey they are able to make full use of their mobile services regardless of which island the services were purchased on. Consumers roam as if on their domestic network in both Jersey and Guernsey and domestic pricing applies. Given that there would be no distinction in the service offered, if there was a SSNIP in the price on one island, Pre-paid customers would instead purchase services on the other island.
 - (d) Finally, on the supply-side, all firms compete in both islands and JT and Sure are only sustainable because they run their operations as a single unit rather than on a standalone basis.

Wholesale access and call origination on public mobile telephone networks

- 88 As explained above, there are currently no MVNOs operating in the Channel Islands. However if an MVNO wished to enter the market, they would need to seek a wholesale arrangement to access the network of one of the existing MNOs. As all the MNOs operate across both islands, with core networks encompassing both islands, it is likely that any wholesale arrangement would be for both islands. This is the situation with other wholesale contracts (e.g. international roaming) and would mimic the retail market with the same geographic market.
- 89 We consider the relevant geographic market to be the Channel Islands (encompassing the Bailiwick of Jersey and the Bailiwick of Guernsey).

Wholesale international roaming

- 90 When the MNOs negotiate wholesale international roaming contracts, these are done on a Channel Islands basis, with the same prices and terms agreed for roamers on Jersey and Guernsey. For this reason we consider the relevant geographic market to be the Channel Islands (encompassing the Bailiwick of Jersey and the Bailiwick of Guernsey).

Wholesale mobile call termination

¹⁴ *Ibid*

- 91 This market represents the calls terminating on a specific mobile phone network. In the Channel Islands, when a consumer travels between Jersey and Guernsey they are able to make full use of their mobile services regardless of which island the services were purchased on. Consumers roam as if on their domestic network in both Jersey and Guernsey and domestic pricing applies. As a result the termination of calls is the same whether the customer is in Jersey or Guernsey. For this reason we consider the relevant geographic market to be the Channel Islands (encompassing the Bailiwick of Jersey and the Bailiwick of Guernsey).

Wholesale fixed backhaul and microwave link services

- 92 MNOs will require a variety of backhaul services, including in-island and off-island links. The off-island links will connect the segments of their network in Jersey and Guernsey, as well as providing backhaul links to other countries (i.e. UK, France). The specific on-island backhaul links will need to be at a local geographic level, as these will need to be connected to an existing mobile base station. However the price for these specific links will be negotiated on a Channel Islands basis, based on all the backhaul options chosen. This indicates that a wider geographic market is relevant.
- 93 There are a number of options for off-island connectivity from the Channel Islands and MNOs can respond to a SSNIP by switching between connecting from Jersey or Guernsey. For these reasons we consider the relevant geographic market to be the Channel Islands (encompassing the Bailiwick of Jersey and the Bailiwick of Guernsey).

List of relevant markets

- 94 Based on the demand and supply-side substitution arguments presented above, the following economic markets could conceivably be affected by the Proposed Transaction:
- (a) **The market for retail mobile telecommunications services in the Channel Islands;**
 - (b) **The market for wholesale access and call origination on public mobile telephone networks in the Channel Islands;**
 - (c) **The market for wholesale international roaming in the Channel Islands;**
 - (d) **The markets for wholesale mobile call termination in the Channel Islands; and**
 - (e) **The market for wholesale fixed backhaul and microwave link services in the Channel Islands.**
- 95 Furthermore, for completeness we also consider the impact of and present data relating to the transaction the individual Jersey and Guernsey segments of the market.

4.3 For each of the market(s) identified in 4.2, identify the areas of overlap between the Parties to the merger, as appropriate.

The market for retail mobile telecommunications services in the Channel Islands.

- 96 Both JT and Airtel provide a full range of mobile services in Jersey and Guernsey. Both companies provide services to all customer segments. There is therefore an overlap in the services which are currently provided by the Parties in this market.

The market for wholesale access and call origination on public mobile telephone networks in the Channel Islands

97 In this market, MNOs sell access to their network as well as the ability to initiate calls to MVNOs. As explained above, there are no MVNOs active in either Jersey or Guernsey, although all MNOs would be able to supply wholesale access and call origination services if MVNOs wanted to enter the market. As a result neither JT nor Airtel are active in this market, and there is no overlap in the services which are currently provided by the Parties.

The market for wholesale international roaming in the Channel Islands

98 Both JT and Airtel negotiate roaming agreements with international operators in order to allow their customers to roam when in the Channel Islands. There is therefore an overlap in the services which are currently provided by the Parties in this market.

The market for wholesale mobile call termination in the Channel Islands

99 As explained above, there is no substitute for call termination on each individual network since the operator transmitting the outgoing call can reach the intended recipient only through the network to which the recipient is connected. Each of JT and Airtel has a 100% market share for wholesale mobile call termination on their individual mobile networks. As a result there is no overlap in the services which are currently provided by the Parties in this market.¹⁵

The market for wholesale fixed backhaul and microwave link services in the Channel Islands

100 Whilst both JT and Airtel self-supply microwave link services, only JT is able to provide fixed backhaul services (both on-island and off-island) in Jersey using its fixed telecommunications network. These services are provided to all the MNOs, including Airtel. Given that Airtel is unable to supply these services on either Island, there is no overlap between the Parties in this market.

4.4 For each of the market(s) identified in 4.2, specify market shares in Guernsey and/or Jersey (as relevant), before and after the merger, for each competitor (including the merging Parties). Explain how you have calculated market shares and provide supporting evidence (e.g. turnover of the Parties in the relevant market compared to turnover in Guernsey/Jersey as a whole).

The market for retail mobile telecommunications services in the Channel Islands.

101 Table 4 below shows the market share of the three MNOs in the Channel Islands mobile market based on subscriber numbers. Tables 5 and 6 indicate the shares of supply in Jersey and Guernsey, respectively.

102 Although the number of MNOs would reduce from three to two following the Proposed Transaction, the Parties consider that Airtel would not provide any meaningful competitive constraint on either JT or Sure under the counterfactual. Accordingly, the Parties do not believe the Proposed Transaction would be likely to result in a substantial lessening of competition. Nevertheless, and without prejudice to the Parties' submissions on this point, the Parties have provided data in the tables below showing the market shares of the individual MNOs and the combined Parties from 2012 to 2014. The Parties estimate that their combined market share in the Channel Islands mobile market in 2014 was approximately [50-60]%.

¹⁵ This reasoning is consistent with the European Commission's in *Hutchinson 3G Austria / Orange Austria*, at paragraph 464

103 Subscriber numbers across providers in the mobile market are shown in Table 3 below. Actual subscriber data has been provided by Airtel and JT for 2012, 2013 and 2014. The subscriber numbers of Sure are calculated as the residual of the total number of subscribers in the market minus the subscribers serviced by JT and Airtel.

104 The total number of subscribers in the mobile market in 2012 was 199,405.¹⁶ In 2013 the figure rose to 204,903¹⁷

Table 3: Number of subscribers in the Channel Islands mobile market

Provider	2012	2013	2014
Sure	["]	["]	["]
JT	["]	["]	["]
Airtel	["]	["]	["]
Market total	199,405	204,903	210,400

Table 4: Market shares in the Channel Islands mobile market, based on number of subscribers

Provider	2012	2013	2014
Sure	[30-40]%	[40-50]%	[40-50]%
JT	[40-50]%	[30-40]%	[30-40]%
Airtel	[10-20]%	[10-20]%	[10-20]%
Parties combined	[60-70]%	[50-60]%	[50-60]%

Table 5: Market shares in the Jersey mobile market segment, based on number of subscribers

Provider	2012	2013	2014
Sure	[20-30]%	[30-40]%	[30-40]%
JT	[50-60]%	[50-60]%	[40-50]%
Airtel	[10-20]%	[10-20]%	[10-20]%
Parties combined	[70-80]%	[60-70]%	[60-70]%

Table 6: Market shares in the Guernsey mobile market segment, based on number of subscribers

Provider	2012	2013	2014
Sure	[60-70]%	[60-70]%	[60-70]%
JT	[10-20]%	[10-20]%	[10-20]%
Airtel	[10-20]%	[10-20]%	[10-20]%
Parties combined	[30-40]%	[30-40]%	[30-40]%

¹⁶ CICRA, Telecommunication Statistics Market Report (2011)

¹⁷ This figure is the average of 2012 and 2014 total number of subscribers in the mobile market as no data is available.

105 Based on revenue information provided by JT and Airtel, we have been able to construct the equivalent market share of the three MNOs in the Channel Islands mobile market based on revenues. As there is no publicly available revenue data for Sure or the total mobile market, we have assumed that the ARPU for Sure subscribers is the same as that for JT subscribers.

106 Table 7 below shows the estimate of the revenue across providers in the mobile market. Table 8 below shows the market share of the three MNOs in the Channel Islands mobile market based on revenue. The combined market share of the Parties in the Channel Islands mobile market in 2014, based on revenue, would have been [40-50]%. Tables 9 and 10 indicate the shares of supply in Jersey and Guernsey, respectively.

Table 7: Revenue in the Channel Islands mobile market (£)

Provider	2012	2013	2014
Sure	["]	["]	["]
JT	["]	["]	["]
Airtel	["]	["]	["]
	["]	["]	["]
Market total	["]	["]	["]

Table 8: Market shares in the Channel Islands mobile market, based on revenue

Provider	2012	2013	2014
Sure	[40-50]%	[40-50]%	[40-50]%
JT	[40-50]%	[30-40]%	[30-40]%
Airtel	[10-20]%	[10-20]%	[10-20]%
Parties combined	[50-60]%	[50-60]%	[50-60]%

Table 9: Market shares in the Jersey mobile market segment, based on revenue

Provider	2012	2013	2014
Sure	[20-30]%	[30-40]%	[30-40]%
JT	[50-60]%	[50-60]%	[50-60]%
Airtel	[10-20]%	[10-20]%	[10-20]%
Parties combined	[70-80]%	[60-70]%	[60-70]%

Table 10: Market shares in the Guernsey mobile market segment, based on revenue

Provider	2012	2013	2014
Sure	[70-80]%	[70-80]%	[70-80]%
JT	[10-20]%	[10-20]%	[10-20]%
Airtel	[10-20]%	[10-20]%	[10-20]%
Parties combined	[20-30]%	[20-30]%	[20-30]%

The market for wholesale access and call origination on public mobile telephone networks in the Channel Islands

107 As explained in Section 4.3, neither party currently supplies services in this market in either Jersey or Guernsey.

The market for wholesale international roaming in the Channel Islands

108 Each player in the Channel Islands market enters into international roaming agreements with providers primarily active in other national markets. In order to do this, all players negotiate with multi-national telecommunications providers to agree specific service conditions. These roaming agreements are for roaming in the Channel Islands, across both Jersey and Guernsey. Both parties currently have hundreds of roaming contracts in place.

109 The Parties do not have access to the data required in order to generate market shares for this market, given that foreign operators will enter wholesale agreements with all the Channel Islands operators. Individual customers may be directed to a specific network (based on operator preference) or may roam on a network depending on which operator has the strongest signal when they turn on their mobile device.

110 The revenue associated with international inbound roaming traffic is dependent on a variety of factors which will be included in each specific wholesale contract. For example, some contracts will specify that a higher price will be charged if there is asymmetry in inbound and outbound roaming traffic between the networks.

111 Please see usage data below for inbound international roaming services for Airtel and JT in the Channel Islands. The parties do not split this data out into traffic associated with roamers in Jersey and Guernsey separately. The parties do not have access to usage data for Sure or total market data, in order to generate market shares based on usage.

Table 11: Inbound international roaming usage in the Channel Islands mobile market

Provider	Roaming service	2012	2013	2014
JT	Outgoing calls (minutes)	["]	["]	["]
JT	Terminating calls (minutes)	["]	["]	["]
JT	SMS messages (number)	["]	["]	["]
JT	Data (MB)	["]	["]	["]
Airtel	Outgoing calls (minutes)	["]	["]	["]
Airtel	Terminating calls (minutes)	["]	["]	["]
Airtel	SMS messages (number)	["]	["]	["]
Airtel	Data (MB)	["]	["]	["]

The market for wholesale mobile call termination in the Channel Islands

112 As described in Section 4.3, there is no substitute to mobile call termination on each operator's network. Therefore, each provider has 100% market share on their own call termination services.¹⁸

The market for wholesale fixed backhaul and microwave link services in the Channel Islands

¹⁸ This reasoning is consistent with the European Commission's in *Hutchinson 3G Austria / Orange Austria*, at para. 467

113 As explained above, there is no overlap in the supply of these services. Please see Section 4.18 below for consideration of vertical issues related to this market.

4.5 Provide a description of how competition works in the market(s) identified in 4.2 above. For example, do businesses compete on price, service, quality or innovation? What are the customary terms with suppliers and customers?

114 As the Parties do not compete in the markets set out in 4.2 where they do not overlap, a description of competition in the markets is limited to the market for retail mobile telecommunications services and the market for wholesale international roaming in the Channel Islands.

The market for retail mobile telecommunications services in the Channel Islands

115 All the MNOs provide data, voice and SMS services which fully and adequately satisfy the mobile connectivity requirements of customers. The basic service offering is therefore largely commoditised and the same in a purely functional sense.

116 Competition therefore primarily works through a focus by providers on price and service quality. Mobile telecommunications services vary for a number of factors including network technology, extent of coverage, branding and price.

117 In previous decisions, the Commission has concluded that retail mobile telecommunications services constitute a differentiated product¹⁹. The most common analytical framework used to model competition in a market with differentiated products is the Bertrand-Nash Framework. The Commission has used this framework in previous mobile mergers,²⁰ and the Parties' view is that this model is appropriate here.

118 The differentiated Bertrand model explains how firms compete on price, taking account of the differentiation between them. In this Bertrand model, unilateral price changes by one operator will lead to price reactions by rivals with the result that all firms' prices may change. The overall extent of the price changes will depend on the degree of competition from each of the rivals, and the extent to which they are differentiated. The behaviour of the MNOs in setting prices in the Channel Islands mobile market indicates that this is the appropriate model to describe how competition works in the market.

119 In order to differentiate itself in the retail mobile market, JT has sought to ensure that it can provide high levels of network coverage at competitive prices. For instance, JT has used its ownership of a fixed line network to provide a multiple product (bundled) offering, including retail mobile telecommunications, fixed line calling and fixed line broadband services. This allows it to compete vigorously on price and quality (by providing reliable products and ease of access). Since Sure also has fixed line capability across the Channel Islands, it also offers bundled products in direct competition with JT. However the fixed line capabilities differ, with JT investing more in its own fibre network in Guernsey than Sure in its Jersey network.

120 Airtel, however, does not have any fixed line capability, and as a result cannot compete by bundling its mobile product with a fixed product. This means that it is unable to compete within segments of the market where customers value bundling all their communication services.

¹⁹ For example see e-plus/Telefonica decision, paragraph 269.

²⁰ For example see e-plus/Telefonica decision, Annex A: The Commission's quantitative analysis, paragraph 17.

121 This is reflected by the extent to which JT closely monitors Sure's pricing when carrying out analyses, but provides less weight to Airtel's pricing. As a result Airtel is not seen as a real competitive constraint in the market. This is demonstrated by ["]:

(a) ["].

(b) ["].

(c) ["].

122 On entering the market Airtel adopted an aggressive pricing strategy in order to build its customer base. However, following global trends of declining ARPUs, a sustained aggressive pricing policy yielded limited increases in customer numbers for Airtel. As a consequence, in recent years it decided to revert to a more mature player strategy in the market by offering better value, e.g. through simpler tariffs and ease of switching. ["]:

(a) ["].

(b) ["].

The market for wholesale international roaming in the Channel Islands.

123 As set out above, carriers in the Channel Islands negotiate bilaterally with foreign carriers for roaming access to their Channel Island network, and these negotiations will proceed with price as the primary basis.

4.6 Provide the contact details for each of the Parties' top five competitors (whether located in Guernsey and/or Jersey or abroad) in the market(s) identified in 4.2.

The market for retail mobile telecommunications services in the Channel Islands.

124 The Parties' only competitor in the Channel Islands for retail mobile telecommunications is Sure.

The market for wholesale access and call origination on public mobile telephone networks in the Channel Islands

125 As detailed above, neither of the Parties is active in the market for wholesale access and call origination on public mobile telephone networks in the Channel Islands.

The market for wholesale international roaming in the Channel Islands

126 The Parties' only competitor for the supply of wholesale international roaming services in the Channel Islands is Sure. Sure's contact details are set out above.

The markets for wholesale mobile call termination in the Channel Islands

127 As described above, each carrier has a 100% market share for wholesale mobile call termination on their own networks. Therefore, the Parties do not compete with each other for the supply of wholesale mobile call termination services on their respective networks in the Channel Islands.

The market for wholesale fixed backhaul and microwave link services in the Channel Islands

128 Sure provides wholesale fixed backhaul and microwave link services in Guernsey. It is therefore JT's only competitor in the market for wholesale fixed backhaul and microwave link services to the extent that their services overlap in Guernsey.

4.7 Provide the contact details for each of the Parties' top five suppliers (whether located in Guernsey and/or Jersey or abroad) in the market(s) identified in 4.2.

129 The Parties are unable to provide a breakdown of their suppliers on the basis of the specific markets set out in question 4.2. Accordingly the Parties set out each of their top 5 overall suppliers below:

Party		Supplier	Contact details
JT	Jersey	["]	["]
		["]	["]
		["]	["]
		["]	["]
		["]	["]
	Guernsey	["]	["]
		["]	["]
		["]	["]
		["]	["]
		["]	["]
Airtel	Jersey	["]	["]
		["]	["]
		["]	["]
		["]	["]
		["]	["]
	Guernsey	["]	["]
		["]	["]
		["]	["]
		["]	["]
		["]	["]

4.8 Provide the contact details for each of the Parties' top five customers (whether located in Guernsey and/or Jersey or abroad) in the market(s) identified in 4.2.

130 The Parties are unable to provide a breakdown of their customers on the basis of the specific markets set out in question 4.2. Accordingly the Parties set out each of their top 5 overall customers for retail mobile telecommunication services and wholesale mobile call termination services below:

Retail mobile telecommunication services			
Party		Customer	Contact details
JT	Jersey	["]	["]
		["]	["]
	Jersey	["]	["]
		["]	["]
		["]	["]
		["]	["]
		["]	["]
	Guernsey	["]	["]
		["]	["]
		["]	["]
Airtel	Jersey	["]	["]
		["]	["]
		["]	["]
		["]	["]
		["]	["]
	Guernsey	["]	["]
		["]	["]
		["]	["]
		["]	["]
		["]	["]
Wholesale mobile call termination			
Party		Customer	Contact details
JT		["]	["]
		["]	["]
		["]	["]
Airtel		["]	["]
		["]	["]
		["]	["]

4.9 Provide the contact details for any trade association or other industry organisation in Guernsey and/or Jersey concerned with the market(s) identified in 4.2.

131 There is no relevant trade association or other industry organisation in Guernsey and/or Jersey for the markets identified in Section 4.2.

4.10 Provide details of any joint ownership, agreements or joint ventures among the competitors identified in 4.4.

132 The competitors identified in Section 4.4 do not have any joint ownership, agreements or joint ventures.

4.11 Discuss the extent to which imports provide actual or potential competition in the market(s) identified in 4.2. (Cover factors such as transport costs, tariffs, quotas,

standards, government regulations etc).

- 133 Imports do not act as a significant competitive constraint on any part of the markets due to the need for providers to be licensed. However, with the rise of data packages there is an increasing importance of OTT providers in areas such as voice calling and text services.
- 4.12 Describe the barriers to entry or expansion that exist for the market(s) identified in 4.2, including, but not limited to, the capital expenditure required, permits or approvals required, planning restraints, health and safety restraints, availability of raw materials, R&D requirements, the necessary intellectual property or expertise, advertising/promotional requirements, and where possible, an estimate of the time required and resources needed to overcome these factors, including an estimate of the extent to which costs are recoverable.**
- 134 Only MNOs can enter all the retail and wholesale mobile markets in the Channel Islands. For an MNO to operate in the Channel Islands there are a number of entry requirements; namely, operational licences, having access to spectrum and operating a mobile network. These act as barriers to entry and new entrants cannot become MNOs without meeting all of these entry requirements. Currently Sure, JT and Airtel operate as MNOs in the Channel Islands.
- 135 As explained above, MVNOs can also enter the market for retail mobile telecommunications services after entering into a wholesale access and call origination agreement with an existing MNO. These MVNOs would only require an operational licence in order to participate in this market.

Operational Licences

- 136 In the Channel Islands, CICRA issues telecommunications licences in Jersey and Guernsey.
- 137 In Jersey, CICRA's licencing structure is based upon three classes of telecommunications licence:
- (a) Telecommunications Operator Licence - Class I To cover telecommunication operations which are licensable under the Law, but which have no discernible impact on a competitive market;
 - (b) Telecommunications Operator Licence - Class II which applies to entities providing telecommunications systems to the public, not possessing significant market power; and
 - (c) Telecommunications Operator Licence – Class III which applies to entities providing telecommunications systems to the public who do have significant market power.
- 138 There is a fourth General Class which applies where there is a need for a licence but where, in the opinion of the JCRA, a formal application is too rigorous for the requirement. There is no need for an application or for notification to be made, but the licensee is required to know the limitations and responsibilities of the General Class licence.

The Table below shows the number of licences issued in Jersey

Table 11: Number of licences in Jersey

<i>Licence type</i>	<i>Number of licences</i>
Number of Class I licences	12
Number of Class II licences	4
Number of Class III licences	1
Total	17

139 In Guernsey, the licensing system distinguishes between mobile and fixed licences, each with a special section applicable to a licensee that has market power in any particular market. The mobile licences awarded in Guernsey are identical for all three operators. The Table below shows the shows the number of licences issued in Guernsey.

Table 12: Number of licences in Guernsey

<i>Licence type</i>	<i>Number of licences</i>
Number of fixed licences	11
Number of mobile licences	3
Total	14

140 Those who wish to supply mobile services in the Channel Islands need to apply to CICRA for an operational licence. The length of time for being allocated a licence will depend on the process followed by CICRA in considering the application.

Spectrum

141 The use of spectrum in the Channel Islands is governed by UK legislation that has been extended to Guernsey and Jersey. The licensing of spectrum, in the UK and in these Crown Dependencies, is carried out by the Office of Communications (Ofcom), by virtue of the powers given to it by the Wireless Telegraphy Act 2006 (WTA) and the Communications Act 2003, as and to the extent that these Acts are extended to the respective islands.

142 The table below shows the spectrum licences issued in Jersey and Guernsey at 24 April 2015 in the main mobile spectrum bands. These main spectrum bands have different characteristics, with lower frequency spectrum being better in providing coverage and higher frequency spectrum being better at providing capacity. MNOs require some spectrum in these bands in order to run a mobile network. Spectrum in other bands is not suitable due to interference issues and a lack of suitable mobile equipment.

143 In the Channel Islands JT, Airtel and Sure each have spectrum in the 800MHz, 900MHz, 1800MHz, 2100MHz and 2600MHz bands. In Jersey a fourth player, Marathon, has spectrum in the 1800MHz and 2100Mhz band. Marathon has a Class I operating licence in Jersey, and currently does not utilise its mobile spectrum.

- 144 There is currently unallocated spectrum in the 900MHz, 2100MHz and 2600MHz spectrum bands in both Jersey and Guernsey. This has been held back by CICRA in order to be given to a potential new entrant to the mobile market.

Table 13: Channel Island spectrum bands

<i>Band</i>	<i>MNO Jersey</i>	<i>MNO Guernsey</i>	<i>Downlink</i>	<i>Uplink</i>
800MHz	Sure	Sure	791-801	832-842
	JT	JT	801-811	842-852
	Airtel	Airtel	811-821	852-862
900MHz	Airtel	Airtel	925-930	880-885
	Unallocated	Unallocated	930-935	885-890
	Sure	Sure	935-940	890-895
	Unallocated	Sure	940-945	895-900
	JT	Sure	945-950	900-905
	JT	JT	950-960	905-915
1800MHz	JT	JT	1805-1825	1710-1730
	Airtel	Airtel	1825-1845	1730-1750
	Sure	Sure	1845-1865	1750-1770
2100MHz	Marathon	Unallocated	2115-2120	1925-1930
	Airtel	Airtel	2120-2130	1930-1940
	Unallocated	Airtel	2130-2135	1940-1945
	Unallocated	Unallocated	2135-2140	1945-1950
	JT	JT	2140-2150	1950-1960
	Sure	Sure	2150-2160	1960-1970
	Unallocated	Unallocated	2160-2170	1970-1980
	Marathon	Unallocated	1900-1905 (TDD)	
	Airtel	JT ²¹	1905-1910 (TDD)	
	JT	Unallocated	1910-1915 (TDD)	
Sure	Unallocated	1915-1920 (TDD)		
2600MHz	Sure	Sure	2620-2630	2500-2510
	Airtel	Airtel	2630-2640	2510-2520
	JT	JT	2640-2650	2520-2530
	Unallocated	Unallocated	2650-2690	2530-2570
	Unallocated	Unallocated	2570-2620 (TDD)	

- 145 Those who wish to supply mobile services in the Channel Islands need first to apply to CICRA which will consider the application and whether there is a need either to consult or, sometimes depending on the result of consultation, to hold a competitive award for spectrum. The regulator will then make its recommendation for spectrum licensing to Ofcom. Where Ofcom judges the recommendation to be consistent with its statutory duties, a licence may then be granted subject to payment of the appropriate spectrum fee. This length of time for this process will depend on the process followed by CICRA.

Mobile Network

²¹ JT's spectrum in Guernsey starts at 1904.9MHz and runs until 1909.9 MHz

146 In order to provide mobile services, MNOs must build a complete mobile network, consisting of access, backhaul and core elements. Building a network will be costly and take time as planning permission needs to be obtained for each base station. Based on previous entry in the Channel Islands from Airtel in 2007, after being awarded a licence in 2005, we expect that it would take between 12 and 24 months to build a network. Whilst developing its network, a new entrant can use "national roaming" on an existing MNO's access network to provide full network coverage. This could reduce the time needed to enter the market.

4.13 Identify separately any competitors that have entered, significantly expanded in, or exited the market(s) identified in 4.2 in the past three years.

147 Other than the Parties referred to in the above sections, there has been no entry or expansion in the relevant segments in the past three years.

4.14 Identify any firms, currently not in the market(s) identified in 4.2, that could reasonably enter such markets.

148 The Parties are not aware of any firms that are currently planning to enter the markets identified in 4.2.

4.15 Provide an assessment of any effects the merger may have within any part of Guernsey or Jersey (identifying any particular parishes/local areas affected), if different than those already described.

149 As supported by the EC precedents referred to above, the Parties consider the impact of the merger to be market-wide within the Channel Islands, or at the least Bailiwick-wide.

4.16 Describe any efficiencies and/or customer benefits that the Parties expect the merger to bring and provide copies of any documents describing or quantifying efficiencies, cost savings or other benefits, and indicate (if not otherwise contained in the document itself) the date of preparation.

150 The Proposed Transaction will give rise to efficiencies which are:

- (a) timely, likely and sufficient;
- (b) merger-specific; and
- (c) would be passed on to consumers.

151 There will be efficiency benefits for JT associated with being part of Bharti, an international telecommunications group active in 20 countries worldwide. JT is currently an independent State-owned operator in the Channel Islands with a subscriber base of ["]. There will be a number of benefits associated with being part of a larger group with over 200m subscribers worldwide.

152 Example of key areas where JT could benefit from being part of the wider group is in capital procurement. JT currently spends approximately £["] a year on capital procurement, through independent deals achieved. This represents a saving of approximately ["]% from the list prices of £["]. Due to its economies of scale, Bharti typically achieves a saving of ["]% from

list prices for capital procurement. JT should be able to achieve similar prices once it is part of the wider Bharti Group, and can expect to spend approximately £["] for the same capital procurement. This would represent a saving of £["].

- 153 Another area in which JT will benefit is the ability to make use of Bharti Group services from India.
- 154 There will be cost savings arising from the integration of the Parties' networks. Given the small number of subscribers in the Channel Islands, most of JT's network is running at below capacity. As a result, in many areas, JT will be able to add Airtel's customers to its network, without the need for using all of Airtel's existing base stations. This will lead to economies of scale as the network costs will be spread over more consumers.
- 155 Currently JT operates ["] base stations and Airtel operates ["] base stations. The Parties conservatively estimate that the combined network would incorporate all of JT's existing sites and approximately ["]% of Airtel's sites in urban areas and ["]% in rural areas. The combined network would comprise of ["] base stations, a reduction of ["] (or ["]%) from the separate networks currently in operation. This would also provide a public good by reducing the negative externalities associated with such sites.
- 156 The reduction in base stations on the combined network will lead to significant operational cost savings each year:
- (a) Having ["]% fewer base stations will produce at least a ["]% saving in electricity costs. This will lead to savings of at least £["] per year
 - (b) There will be savings in the site lease costs. These are on average £["] per site. The smaller combined network will therefore lead to savings of £["] per year.
 - (c) There will be savings in the backhaul needed to service the base stations. The ten Ethernet leased line circuits that Airtel currently purchases from Sure and JT will not be needed in the combined network. These cost approximately £["] per circuit, bringing a saving of £["] per year.
 - (d) Airtel and JT currently both have separate single vendor support agreements in place for their networks. There will be no need for a separate Airtel agreement, bringing a saving of approximately £["] per year.
- 157 Therefore it is clear that the Proposed Transaction will give rise to efficiency savings, a proportion of which will be passed on to consumers.

4.17 Identify any product(s) (including raw material(s) or service(s)) for which the combined purchases of the Parties will account for more than 10% of the total sales in Guernsey or Jersey of that product or service.

- 158 Without clear data on overall market sizes, the Parties are unable to identify any product(s) for which the combined purchases of the parties will account for more than 10% of the total sales in Guernsey or Jersey.

4.18 Are there any markets in which one or more of the undertakings concerned is engaged in business activities which are upstream or downstream of a product market in which any of the other Parties or undertakings are engaged, regardless of

whether there is an existing customer/ supplier relationship?

- 159 As described in Figures 2 and 3 in the Market Introduction Annex, the mobile network architecture consists of three sections: Access, backhaul and core. In the Channel Islands operators require on-island and off-island backhaul connections.
- 160 The backhaul section of an operator's network, linking base stations to the rest of the network can be achieved through self-supply of microwave links or fixed line connections. Operators who do not own their own fixed line networks rely on wholesale leased line private circuits for much of their backhaul arrangements. JT, using its fixed network, supplies leased line private circuits to both Airtel and Sure in Jersey. These act as an upstream input to their mobile services.
- 161 Off-island cables are owned or co-owned by JT, JT/Sure/BT, Vodafone/Sure and CIEG. Cables connect Jersey to Guernsey, and there are also direct connections to the UK (via a cable co-owned by BT, JT and Sure) and to France. Sure and Newtel have their own infrastructure on all off-island routes and these two operators as well as JT offer wholesale off-island leased lines. Figure 2 shows the off-island connectivity²².

Figure 2: Off-island connectivity in the Channel Islands

²² CICRA, Business connectivity market review: Guernsey consultation (8 April 2014)

- 163 The transaction will not lead to any vertical concerns for a number of reasons:
- (a) The prices for on-island leased lines supplied by JT in Jersey are regulated by CICRA. JT provides access inputs for backhaul services on exactly the same terms and at regulated prices to all its communications network customers (including, specifically in this context, MNOs), as required by CICRA regulations, such that there is no possibility of JT being able to discriminate or to foreclose supply to any extent. There cannot be any merger effect in relation to these products.
 - (b) The market for off-island leased lines has been determined to be competitive, as CICRA noted the existence of parallel sub-sea cables in which five different operators hold ownership rights and that there is a significant amount of actual and planned sub-sea off-island capacity in place.²³ CICRA has explicitly determined that regulation is not required indicating that CICRA does not consider that market power could be exerted. This will not change as a result of the Transaction.
 - (c) All the MNOs in the Channel Islands use multiple options for sourcing both on-island and off-island backhaul provision, including self-supply of microwave links. There are therefore a number of options available to each MNO, including relying on JT's fixed network. This is evidenced from the numerous backhaul arrangements which Airtel currently has. Backhaul costs are a relatively small proportion of the MNO's total costs. This reduces any incentive to pursue a foreclosure strategy based on pricing given that there can only be an insignificant effect on retail customers, meaning that JT could not hope materially to gain from such a strategy.
 - (d) JT is currently a vertically integrated fixed and mobile operator, supplying mobile backhaul to its competitors in the mobile market. The transaction will not introduce any additional vertical relationships, irrespective of the counterfactual that is being used for the comparison. If JT does not have the incentive nor ability to foreclose MNOs currently, there is no reason why it would have this incentive or ability after the transaction.
- 164 For these reasons we do not consider that the transaction will lead to an SLC as a result of foreclosure of backhaul products. The merged entity will not have the incentive nor ability to unduly favour its mobile business over another MNO.

4.19 Provide a brief assessment of any other features that should be taken into account in considering the effect of the merger.

165 Not applicable.

4.20 Identify any trade websites or other sources of information, not previously identified, which to your knowledge may contain information relevant to the assessment of the merger.

²³ http://www.cicra.gg/_files/Business%20Connectivity%20-%20Jersey.pdf

166 Not applicable.

5 Public interest considerations (mergers notifiable in Guernsey only)

5.1 For mergers that are notifiable in Guernsey, provide an explanation of why the Parties consider that the merger will not be to the prejudice of: consumers, or any class or description thereof; the economic development and well-being of the Bailiwick of Guernsey; and the public interest.

167 Compared to the counterfactual, the Proposed Transaction would mitigate against the potential loss of employment in Guernsey. As of June 2015, Guernsey Airtel employed [] members of staff.

168 Similarly, the Proposed Transaction will safeguard the economic well-being of the Bailiwick by allowing for an orderly transition for suppliers and business customers.

6 Calculation of fees (mergers notifiable in Jersey only)

6.1 For mergers that are notifiable in Jersey, provide details of how you calculated the merger's fair market value for the purpose of determining the appropriate filing fee.

169 Please see paragraph 23

Declaration

I declare that:

- The information given herein and in any appendices and attachments hereto is, to the best of my knowledge and belief, accurate and complete, and any opinions expressed herein are sincere.
- All estimates are identified as such and are the best estimates of the underlying facts.
- Photocopies of any documents submitted with this Merger Application Form are exact duplicates of the original documents.
- I have read and am aware of the provisions of Sections 13, 16, 17 and 48 of The Competition (Guernsey) Ordinance, 2012 and/or Articles 20, 21, 22 and 25 of the Competition (Jersey) Law 2005 (as applicable).
- I have the authority to sign this declaration on behalf of all parties to the Proposed Transaction.
- The initial fee required for conducting a first detailed review of the merger has been paid or is submitted with this Merger Application Form.

First

Signed

Name: (block letters)

Company:

Position: (block letters)

Date:

For and on behalf of:

MARKET INTRODUCTION ANNEX

INTRODUCTION TO THE OVERALL TELECOMS MARKET IN THE CHANNEL ISLANDS

- 1 The telecommunications market in Jersey and Guernsey covers a range of services including mobile, fixed line, broadband, leased line telecommunication services and data centre services. This market includes services provided to both retail and wholesale customers:
- (a) Within the retail market end-users purchase network access and telephone services (e.g. calling, messaging and data) from telecoms operators. These operators can technically be either network operators or operators that purchase wholesale access to a network. End-users are also able to purchase bespoke call and messaging services from over-the-top (“OTT”) providers, utilising the data services of an operator. Examples of these services are Skype calls and WhatsApp messaging.
 - (b) In the wholesale market, network operators can sell access and interconnection services to other operators. The access services allow operators to operate in the retail market, despite not having a network. Mobile Virtual Network Operators (“MVNOs”) purchase network access from Mobile Network Operators (“MNOs”). Interconnection services allow end-users to connect with end-users on another network. OTT providers do not need to purchase any wholesale products from other operators.
- 2 There are no MVNOs currently operating in either Jersey or Guernsey.
- 3 At the end of 2014 the population of Jersey was estimated at 100,800.²⁴ The 2011 census identified 44,698 private dwellings in Jersey²⁵. In 2014 Guernsey had a population of 65,849²⁶ and 22,692²⁷ domestic property units. At the end of 2012 the number of subscribers for fixed, mobile and broadband services across Jersey and Guernsey was 358,968²⁸. Table 1 shows the number of subscribers across Jersey and Guernsey by fixed, mobile and broadband customers.

Table 1: Number of subscribers in Jersey and Guernsey 2012

	Jersey	Guernsey	Total
Fixed	64,455	40,958	105,413
Mobile	131,680	67,725	199,405
Broadband	32,985	21,165	54,150
Total	229,120	129,848	358,968

- 4 Since 2009 there has been a significant drop in the number of minutes originated on fixed networks, with a fall in the number of fixed line subscribers likely to be a contributing factor²⁹. Over the same period CICRA note high growth in mobile take up, with increase in the subscriber base in each of Jersey and Guernsey.³⁰ There has therefore been a migration of

²⁴ Jersey Evening Post – 24 June 2015

²⁵ <http://www.gov.je/Government/Census/Census2011/Pages/2011CensusResults.aspx#anchor-3>

²⁶ CIA World Factbook, Available at: <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2119rank.html> (Accessed 31 July 2015)

²⁷ <http://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/R%20Chapter3Households%2020120808%20SU.pdf>

²⁸ CICRA Telecommunication market report 2011, CICRA industry questionnaire 2012

²⁹ CICRA Telecommunication Statistics Market Report (May 2013) page 5

³⁰ CICRA Telecommunication market report 2011, page 5

voice traffic from fixed to mobile networks. However at the same time, mobile technological changes have meant that traditional voice and SMS traffic has fallen whilst data usage has increased significantly.

Number of MNOs: comparison with other islands/jurisdictions similar to the Channel Islands (including members of the International Island Games Association)

- 5 Table 2 below presents a list of territories including all members of the International Island Games Association as well as other countries or regions with a population of between 16,000 and 300,000. The table indicates the island or region in question, as well as whether it is part of a wider country or jurisdiction, the population and the number of MNOs which operate in the island/region.
- 6 There is a clear trend that emerges from the table: islands that are part of a larger jurisdiction (such as Anglesey or the Isle of Wight) have a larger number of MNOs as a result of the national coverage of such operators. Similarly, many islands in the Caribbean archipelago are served by multiple MNOs, as such operators are able acquire efficient scale via operations throughout the region.
- 7 Conversely, those islands that remain (including Jersey and Guernsey) are unable to sustain more than two MNOs.

Table 2: Number of MNOs in small territories

Island/Region	Jurisdiction/Country	Population ³¹	Number of operators ³²
Aland	Finland	28,666 ³³	4
Gotland	Sweden	57,161 ³⁴	4
Guam (U.S.)	-	161,001	4
Isle of Wight	UK	138,400 ³⁵	4
Menorca	Spain	93,313 ³⁶	4
Orkney	UK	21,590 ³⁷	4
Saint Martin	-	31,530	4 ³⁸
Shetland Islands	UK	23,230 ³⁹	4
Western Isles	UK	27,250 ⁴⁰	4
Ynys Mon (Isle of Anglesey)	UK	69,751 ⁴¹	4
Jersey	-	100,800	3
Guernsey	-	65,849	3
Alderney	Bailiwick of Guernsey	1,903 ⁴²	3

³¹ Population taken from CIA World Factbook unless noted. Available at: <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2119rank.html> (Accessed 31 July 2015)

³² Number of operators taken from GSMA Intelligence unless noted. Available at: <http://maps.mobileworldlive.com/index.php> (Accessed 31 July 2015)

³³ [Statistics and Research Åland](#) (Accessed 3 August 2015) Available at: http://www.asub.ax/archive.con?iPage=12&art_id=1563

³⁴ Statistics Sweden (Accessed 3 August 2015) Available at: http://www.scb.se/en_/Finding-statistics/

³⁵ Isle of Wight council - [Demographics & Population Factsheet \(September 2013\)](#) Available at:

<https://www.iwight.com/azservices/documents/2552-Islands-Demographic-and-Population-2012-13.pdf>

³⁶ Spanish statistical office (Accessed 3 August 2014) Available at: <http://www.ine.es/jaxiT3/Datos.htm?t=2910&L=1>

³⁷ Office of National Statistics - MYEDE Population Estimates for High Level Areas (2014)

³⁸ Information was not available from GSMA. This figure should be treated with caution.

³⁹ As footnote 37

⁴⁰ Comhairle nan Eilean Siar website (Accessed 3 August 2015) <http://www.cne-siar.gov.uk/factfile/population/>

⁴¹ Isle of Anglesey County Council Website - Background Paper - Gwynedd and Anglesey Demographic (Forecasts 2014) Available at: <http://www.anglesey.gov.uk/download/42634>

⁴² Alderney Census Report (June 2013) Available at: <http://www.alderney.gov.gg/CHttpHandler.ashx?id=83302&p=0>

Sark	Bailiwick of Guernsey	492 ⁴³	3
Antigua and Barbuda	-	91,295	3
British Virgin Islands (UK)	-	32,680	3
Froya	Norway	4,634 ⁴⁴	3
Hitra	Norway	4,659 ⁴⁵	3
Liechtenstein	-	37,313	3
Rhodes	Greece	115,490 ⁴⁶	3
Saaremaa	Estonia	31,317 ⁴⁷	3
Turks and Caicos Islands (UK)	-	49,070	3
Bonaire	-	17,408 ⁴⁸	2 ⁴⁹
Curacao	-	146,863	2 ⁵⁰
Anguilla (UK)	-	16,086	2
Aruba (Netherlands)	-	110,663	2
Barbados	-	289,680	2
Bermuda	-	69,839	2
Cayman Islands	-	54,914	2
Dominica		73,449	2
Faroe Islands	Denmark	49,947	2
Grenada	-	110,152	2
Isle of Man	-	86,866	2
Northern Mariana Island	-	51,483	2
Saint Kitts and Nevis	-	51,538	2
Saint Lucia	-	163,362	2
Saint Vincent and Grenadines	-	102,918	2
Samoa	-	196,628	2
Seychelles	-	91,295	2
Saint Marten	-	39,689	2 ⁵¹
Tonga	-	106,440	2
Vanuatu	-	288,937	2
American Samoa	-	54,517	1
Andorra	-	85,458	1
Falkland Islands	-	3,361	1
French Polynesia	-	280,026	1
Gibraltar	-	29,185	1
Greenland	-	57,728	1
Kiribati	-	104,488	1

⁴³Sark Chamber of Commerce press release (2015) Available at:

<http://sarkchamber.com/uploads/pdf/150311%20Press%20Release%20Sarks%20Population%20in%20Decline.pdf>

⁴⁴Statistic Norway (Accessed 3 August 2015) Available at: <http://www.ssb.no/en/befolkning/statistikker/folkendrkv/kvartal/2015-05-19?fane=tabell&sort=nummer&tabell=227584>

⁴⁵As footnote 44

⁴⁶Greek National Statistical Service, Census (2011)

⁴⁷Population of Saare County. Statistics Estonia Census (2011) Available at: <http://pub.stat.ee/px-web.2001/Dialog/Saveshow.asp>

⁴⁸Statistics Netherlands (2013) Available at: <http://statline.cbs.nl/StatWeb/publication/?DM=SLNL&PA=80539ned&D1=0-1,9-10&D2=a&D3=a&HDR=T&STB=G1,G2&CHARTTYPE=1&VW=T>

⁴⁹Information was not available from GSMA. This figure should be treated with caution.

⁵⁰Information was not available from GSMA. This figure should be treated with caution.

⁵¹Information was not available from GSMA. This figure should be treated with caution.

Marshall Islands	-	70,983	1
Micronesia	-	105,681	1
Monaco	-	30,508	1
New Caledonia	-	267,840	1
Republic of Palau	-	21,186	1
San Marino	-	32,742	1
Sao Tome and Principe	-	190,428	1
Virgin Islands (U.S.)	-	104,170	1
St Helena	-	4,513 ⁵²	0 ⁵³

Notes on Table 2:

- 8 The table shows that, with the exception of Guam (U.S.) and Saint Martin, all the islands or regions with four operators are part of a wider jurisdiction. Saint Martin is serviced by Orange, Digicel, CHIPPIE (UTS) and Dauphin Telecom, all of which operate in three or more Caribbean islands. Moreover, there are only three territories, all Caribbean islands (Antigua and Barbuda, British Virgin Islands (UK), and Turks and Caicos Islands), which have three MNOs and are not part of a wider jurisdiction. Similar to Saint Martin, it is important to note that these islands are all serviced by two large pan-Caribbean operators, Cable and Wireless (Lime) and Digicel. This indicates that their viability is not dependent on operation on a single island, as, in fact these are the largest operators in the Caribbean based on the number of countries they operate in.
- 9 In addition, Lichtenstein is serviced by three MNOs, the national incumbent and the Liechtenstein operations of two Swiss MNOs.

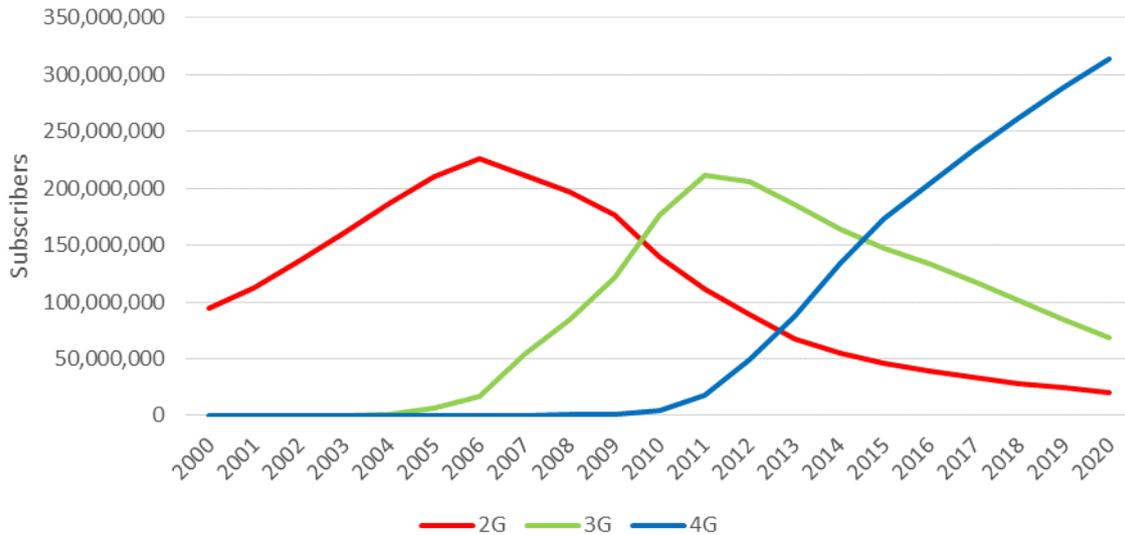
Developments in technology

- 10 Since 2000, there have been significant developments in global mobile technology. The main change has been in the access network, connecting the mobile phone to the network. There are three different mobile access networks that are currently operational:
- (a) Global System for Mobile Communications, the so-called second generation of digital cellular networks ("GSM" or "2G") have been operational since 1992. These networks allow for voice and messaging services. It is only possible to use basic narrowband data services on a 2G network.
 - (b) Universal Mobile Telecommunications System, the third generation networks ("UMTS" or "3G") have been operational since 2000. These networks also allow for high-speed broadband services.
 - (c) Long-Term Evolution, the fourth generation networks ("LTE" or "4G") have been operational since 2009. These networks offer higher-speed mobile broadband services. This technology is expected to be the predominant technology over the next five to ten years.
- 11 Most mobile operators continue to maintain all three networks, however some have plans to decommission older 2G or 3G networks as take-up increases on 4G. Figure 1, below, using data from North America, sets out how subscriber numbers have changed on the three technologies over time.

⁵² St Helena Government, Quarterly Statistical News Bulletin (August 2015)

⁵³ News article (6 march 2015) Available at: <http://sainthelena.island.info/communications.htm#mobilephones>

Figure 1: Adoption of mobile technologies in North America, 2000-2020

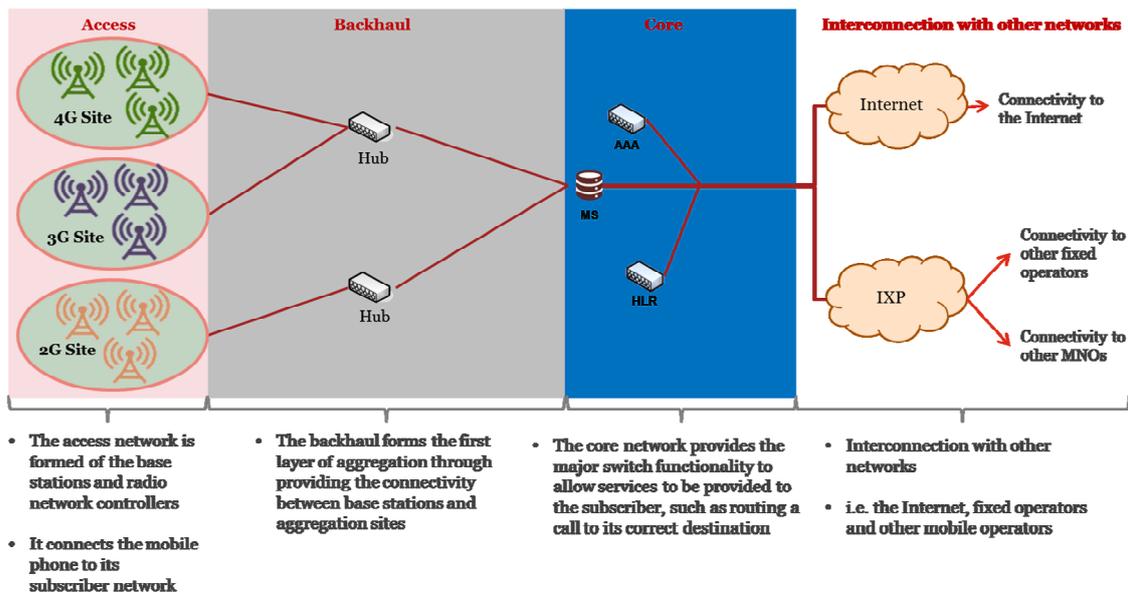


Source: 3GPP, 4G Americas, GSMA Intelligence, PwC Analysis

12 The 4G spectrum auction for Jersey and Guernsey was held in July 2014. JT launched the first 4G network in Jersey in February 2015, Sure launched the first 4G network in Guernsey in April 2015. In 2005 3G spectrum licences were granted in Jersey, the 3G networks became operational in 2007. The major technological changes that have happened in the mobile sector have meant that there has been a need for on-going capital investment in subsequent generations of technology.

13 Figure 2 below sets out how the 2G, 3G and 4G access networks fit in within the wider mobile network.

Figure 2: Mobile network architecture

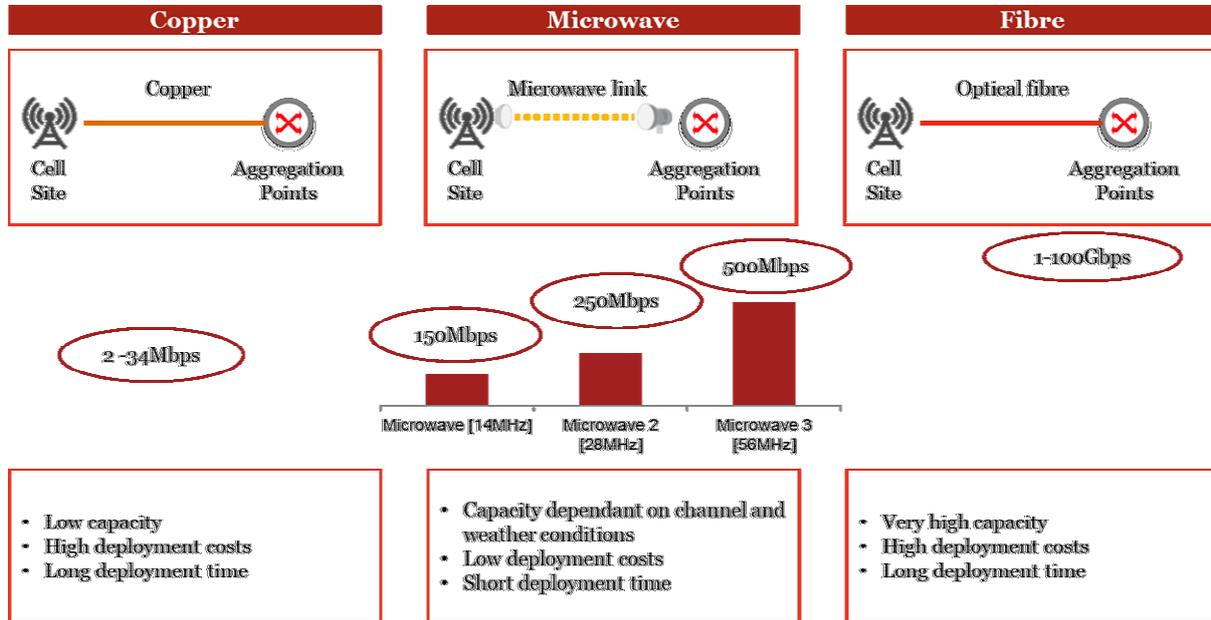


Source: PwC

14 As shown in Figure 2 each base station requires a connection to the core mobile network. This connection is known as backhaul. This backhaul can be self-supplied by the MNO using microwave links, or it can be supplied by fixed line operators using existing copper or fibre

cable. Figure 3 below shows the different types of backhaul connections available to MNOs, and the benefits and data speeds available to the MNO from each.

Figure 3: Comparison of backhaul options



Source: Ceragon, Rysavy, Ericsson

Note: Microwave link lengths are assumed to be tens of kilometres. Fibre is capable of speeds of hundreds of Gbps.

- 15 In Jersey MNOs purchase leased line private circuits from JT’s fixed network to act as a backhaul connection for their mobile networks. MNOs can also self-supply microwave links as a backhaul connection for their mobile networks.

AIRTEL ANNEX - COUNTERFACTUAL

- 1 This Confidential Annex has been prepared by Bharti and the Management of Airtel.
- 2 For the reasons set out in this MAF, the Parties consider that the competitive impact of the Proposed Transaction should be considered against a counterfactual in which (at most) Airtel would not provide any meaningful competition to JT and Sure. These factors are as follows:
- (a) Airtel has faced, and continues to face, a number of acute structural challenges with the result that it does not act as an effective competitor in the mobile market.
 - (b) Airtel has no prospect of being able to restructure its business in a way which would improve its ability to compete profitably against its rivals: Bharti and Airtel's current management team have explored a range of options to reduce the cost base of the business and introduce new revenue streams but these have not succeeded in making Airtel an effective competitor or enabling it to generate a return on its investments.
 - (c) There is no realistic prospect in the foreseeable future of any material improvement in Airtel's competitive offering or its financial performance. Airtel will not be able to obtain sufficient scale in the foreseeable future and the challenges it faces will only be exacerbated by, amongst other things, the wave of investment required in the short to medium term (4G and 5G).
 - (d) Airtel has been marketed to ["] and there have been no credible expressions of interest from any third party which would result in a more competitive outcome. The Proposed Transaction is therefore the only way for Bharti to realise its investment.
 - (e) ["].
- 3 Therefore, in the absence of the Proposed Transaction, Airtel would (at best) not provide an effective competitive constraint on its larger rivals, and this constraint will further diminish as new investments are required to sustain a position in the market.
- (a) *Airtel has faced, and continues to face, a number of acute, structural challenges*
- 4 When Airtel entered the market in 2007, it was projecting strong returns and market shares of ["]% in 2G and 3G in Guernsey, and ["]% in 2G and ["]% in 3G in Jersey within three years of launch, and EBITDA of £["] million and £["] million respectively. Airtel initially forecast an EBITDA breakeven date of ["] – in ["] year of entry.
- 5 In fact, Airtel has only been able to gain a market share similar to that of JT in Guernsey and Sure in Jersey (around ["]%), which is insufficient for its operations to be profitable.
- 6 That is because Airtel has faced, and continues to face, a number of acute structural challenges which means that it does not act as an effective competitor in the mobile market. Specifically, Airtel:
- (a) has a "mobile only" offering;
 - (b) lacks the economies of scale and scope available to its rivals across both islands – i.e. it was not in a position to leverage existing assets and a market leading position on the other island);
 - (c) has significant investment requirements; and

(d) is the third entrant in a market which is too small to sustain three effective MNOs.

7 Although a share of ["]% would be sustainable for a mobile entrant in many larger markets in Europe or elsewhere, the size of the Jersey and Guernsey market (with a combined population of 165,000, almost 0.2% of the UK), in an industry with significant fixed costs, means that Airtel has been unable to generate a return on its investments to date and it has no prospect of doing so in the future.

8 In the Minimum Efficient Scale Annex, we provide details of modelling undertaken by PwC which considers the scale required for an MNO in the Channel Islands to be sustainable. This utilises actual cost and revenue information from Airtel⁵⁴ and models how these would change as subscriber numbers increase. This modelling indicates that an MNO would not be sustainable until it reaches a market share of approximately 37-39%. The market can not support three operators of this size and the competitive irrelevance of one player is inevitable. Airtel, the only operator with an overall market share below this efficient level. It has therefore not been able to generate a return on its investments and, 8 years after launch, it remains unprofitable, as indicated below.

9 In contrast, JT and Sure are able to sustain their smaller operations in Guernsey and Jersey respectively only by sharing a very significant proportion of their network and operational costs across operations on the other island in which each enjoys a mobile market share of 50-60%. The mobile business in the second island is operated as an extension of a unitary network, rather than a separate network. In addition, both JT and Sure benefit from cost synergies between mobile and fixed operations which are not available to Airtel internally. In particular:

(a) both JT and Sure have access to self-provided mobile backhaul services on at least one island and off-island capacity, a capability which Airtel does not have and a therefore cannot procure as cost-effectively; and

(b) both JT and Sure also have extensive customer access in terms of their mobile and fixed (retail and wholesale) telecoms offerings. This means that they are each more readily able to offer bundled products, which has been a fundamental driver for growth for Sure in Jersey and JT in Guernsey. In contrast, Airtel only has a mobile telecoms offering.⁵⁵

Historical financial performance of the Airtel business

10 As a result of these acute structural challenges, eight years after launch Airtel remains unprofitable. Indeed, as indicated in Table 1 below, in each of ["] Airtel has made a loss, bringing its accumulated losses ["] to £["]m

Table 1: Airtel's accumulated losses until March 2015 (£m)

["]	["]	["]	["]	["]	["]
["]	["]	["]	["]	["]	["]

11 These losses are largely structural and driven by the small margin between Airtel's revenue and operating expenses, ["].

⁵⁴ Based on our experience, and the cost-cutting measure employed, we consider Airtel's costs to be efficient.

⁵⁵ ["].

Figure 1: []

[]

- 12 As indicated above, the constant decline in ARPU over time has led to Airtel's expectations not being realised and financial losses. In particular, there has been a significant decline in ARPU between [] as shown in []. Gross ARPU has fallen by around £[] over the period, with net ARPU falling at a similar rate. This has contributed to Airtel's cumulative losses.

Figure 2: []

[]

(b) Steps taken by Airtel's management team to reduce its cost base and improve profitability

- 13 As evidenced by Airtel's board minutes and internal documents, finding a solution to Airtel's deteriorating long-term position in the market and making changes so as to boost profitability have been key concerns of the business. Within that context, Airtel's management has taken all available steps to improve the financial and commercial performance of its operations. These have included:

- (a) taking steps to reduce the operational costs of the Airtel business, and improving its cash flow and EBITDA measures;⁵⁶ and
- (b) investigating ways to enhance off-island revenue streams.

- 14 The steps taken by Airtel's management team to improve its financial performance include rationalising the tariff structures which Airtel offers (from approximately [] variants to [] simplified products) and the contract terms (reduced to [] variants: []);

- 15 The steps taken by Airtel have led to significant reductions in the per-subscriber operating expenditure in both Jersey and Guernsey in the last two years. [].

Figure 3: []

[]

Figure 4: []

[]

- 16 [].

Table 2: []

£	Jersey	Guernsey
Network Expenses	[]	[]
Marketing Expenses	[]	[]

⁵⁶ [].

Sales & Distribution Expenses	["]	["]
IT Cost	["]	["]
Billing & Collection Cost	["]	["]
Personnel Expenses	["]	["]
Administration Expenses	["]	["]
Customer Service Delivery Expenses	["]	["]
Doubtful Debts	["]	["]
Management Fees	["]	["]
Total Operating Expenses	["]	["]

Alternative arrangements which Airtel's management team have explored with third Parties in an attempt to improve profitability

17 The following arrangements have been explored by Airtel's management team:

- (a) Tower sharing between Airtel and ["];
- (b) RAN-sharing between Airtel and ["];
- (c) The possibility of sharing networks (as above) with ["] in Guernsey and ["] in Jersey;
- (d) ["]; and
- (e) The possibility of entering the fixed line broadband market organically.

Network sharing with ["]

18 ["]:

- (a) ["]; and
- (b) ["].

19 ["]:

- (a) ["];
- (b) ["];
- (c) ["]; and
- (d) ["].

20 ["]:

- (a) ["].
- (b) ["].

21 ["].

Network sharing with ["]

22 ["].⁵⁷

No prospect of network sharing with ["] on Guernsey and ["] on Jersey

23 ["].

24 ["].

["]

25 ["]:

(a) ["]; and/or

(b) ["].

26 ["].

27 ["]:

(a) ["];

(b) ["]; and

(c) ["].

28 ["].

Fixed line services – potential organic entry

29 Airtel looked at the feasibility of entering the fixed line broadband market on an organic basis,⁵⁸ but this was not commercially viable as:

(a) The gap between wholesale and retail was too narrow;

(b) The backhaul costs were prohibitive;

(c) There was no wholesale on fixed line; and

(d) The high capital cost meant that the investment would not generate a sufficient return on investment.

30 The combination of these factors made it uneconomical for Airtel to enter the market and the decision was made not to proceed.

Off Island connectivity

31 Airtel has also explored the possibility of enhancing its off-island revenue streams. In particular:

(a) ["].

⁵⁸ ["].

(b) ["]:

(i) ["]; and

(ii) ["].

(c) ["].

32 Moreover, Airtel continues to lack the scale required to justify an IRU investment, which means that it does not generate any revenues (and profits) from the provision of off-island backhaul services, unlike JT and Sure, both of which own or have sole access to all the major fixed-line off-island cables. This problem will be exacerbated going forward as data usage increases with the increased take-up of 4G services.

(c) *There is no realistic prospect of any improvement in Airtel's competitive offering or its financial performance.*

33 As noted above, the financial performance of Airtel in the Channel Islands is a reflection of the small size of the market and its limited capacity to support three profitable players. As a result, Airtel's returns have not reflected its original business plan, despite the significant investments made by Bharti throughout the period.

34 There is no realistic prospect of any material improvement in Airtel's competitive offering or its financial performance. In particular:

(a) All opportunities to improve the profitability of Airtel by reducing costs on the current platform, or by restructuring the business, have been exhausted by Airtel's current management team;

(b) Airtel will not be able to obtain sufficient scale in the foreseeable future;

(c) Customer tariffs are not expected to increase in the foreseeable future to a level which would enable Airtel to generate profit (as a sub-scale business); and

(d) The challenges which the business faces will only be exacerbated by, amongst other things, the wave of investment required in the short to medium term (4G and 5G).

35 Accordingly, in the absence of a significant and rapid change to the costs or revenues that the company can expect to earn (which the Proposed Transaction will deliver), there is no realistic prospect that Airtel would make a return on investment and function as an effective competitor.

(d) *The Airtel business would not be acquired by an alternative purchaser in the absence of the Proposed Transaction*

36 The Proposed Transaction is the culmination of two years of business planning, engagement and negotiation, ["]:

(a) Various shareholder initiated contacts with major operators;

(b) ["];

(c) ["];

(d) ["];

(e) ["]; and

(f) ["].

37 These discussions are considered in greater detail below.

Shareholder initiated contacts

The shareholder has over ["] engaged with a number of major operators to asses their interest in entering the Channel Islands. These operators have included ["]. Each has rejected any advance due to the business' small size.

Negotiations with ["]

38 ["].⁵⁹

39 ["].

Discussions with ["]

40 ["].⁶⁰

41 ["].⁶¹

["]

42 ["]:

["]⁶²

43 ["].⁶³

44 ["].⁶⁴

Other deals

45 ["].

46 Despite Arma having also discussed the Airtel business more widely, there have been no credible expressions of interest from parties other than JT. In particular:

(a) ["].

(b) ["].

⁵⁹ ["]

⁶⁰ ["]

⁶¹ ["]

⁶² ["]

⁶³ ["]

⁶⁴ ["]

- 47 None of Bharti, Sunil Mittal or Arma Partners have, prior to the announcement of this transaction, received any unsolicited approaches from third Parties for the Airtel business (being either Jersey or Guernsey or both operations) from a purchaser not already in the market.
- 48 ["].
- 49 ["].
- 50 In summary, there are no credible and stable alternative purchasers to JT that will make the required long-term commitment to the market and bear the risk of several years of additional losses. This is unsurprising given the lack of any business case for a buyer that did not have synergies arising out of existing operations in the Channel Islands.

Conclusion: Airtel will not provide any meaningful competition to JT and Sure

- 51 Airtel has been consistently unprofitable and has failed to provide a return on the investment by Bharti.
- 52 All opportunities to improve the profitability of Airtel by reducing costs on the current platform, or by restructuring the business, have been exhausted by Airtel's current management team. Moreover, prices are not expected to increase in the foreseeable future to a level which would enable Airtel to generate sustainable levels of profit.
- 53 Even if the Airtel business were in a position to increase its subscriber base by 50% across both islands (for instance, through substantial further investment), it would, based on current ARPU, not be able to reach a break-even point.
- 54 These factors, added to the failure to find any alternative buyers, mean that the Proposed Transaction is the final option for Bharti to realise its investment.
- 55 Accordingly, it is clear that if the Proposed Transaction does not proceed, Airtel's position would deteriorate yet further, and the business would (at best) fail to provide any meaningful competition to JT and Sure. ["].

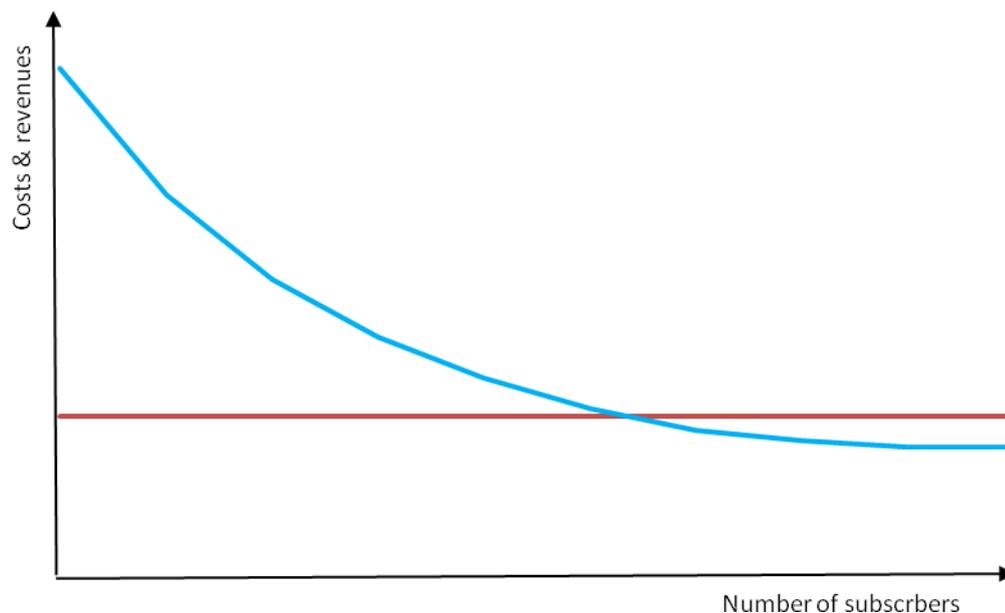
MINIMUM EFFICIENT SCALE ANNEX

Minimum efficient scale of a mobile operator in the Channel Islands

Introduction

- 1 There are considerable fixed costs involved with becoming a mobile network operator (“MNO”) particularly for an MNO which operates as an “MNO only” and cannot take advantage of any potential economies of scope deriving from a presence in the fixed line market. As a result, there is a minimum efficient scale which an MNO only operator must achieve in order to become financially viable.
- 2 An MNO must have adequate network and backhaul infrastructure to provide full coverage of the relevant market and have sufficient capacity to meet demand. In current mobile markets this would require an MNO to have spectrum and network equipment to operate 2G, 3G and 4G services as well as a sufficient backhaul network. In addition to the initial capital costs an MNO would incur to purchase and install such infrastructure, high on-going operating network costs would also be incurred. These include operating costs associated with providing mobile services to customers such as marketing expenses, sales & distribution expenses, IT costs, billing and collection costs, personnel expenses, administration expenses, customer service delivery expenses, doubtful debts and management fees.
- 3 Figure 1 below shows a typical average cost and average revenue curve in a mobile telecommunications market. Average costs fall sharply with the number of customers, however average revenue is assumed to be constant. This is because high fixed costs are spread over an increasing number of subscribers, whereas the revenue of an average subscriber (ARPU) is largely independent of the number of subscribers.

Figure 1: Average costs and average revenue in the mobile telecommunication market



- 4 Given this cost curve, an MNO needs to acquire a minimum number of subscribers, S^* , to avoid making losses. Whilst the minimum number of subscribers may be similar in different countries, the equivalent minimum market share will differ based on the overall market size.

Therefore in a smaller market with fewer total subscribers the minimum efficient scale in terms of market share will be higher.

- 5 In the Channel Islands there were 210,400⁶⁵ individual SIM cards in the mobile telecommunications market in 2014. This equates to 0.3% of the UK market. Using a model of the Channel Islands telecommunications market, described in more detail below, we estimate that for an MNO to be viable they would be required to achieve at least a 37-39% market share in the Channel Islands market. If the MNO only operated in one island, they would require a higher market share to be viable.

Description of the model

- 6 In order to understand the minimum efficient scale of an MNO in the Channel Islands we have prepared a model to estimate the minimum market share required for an MNO to be profitable in this market. The model is static and based on current costs and revenues. We have not considered how these costs and revenues may change over time.
- 7 The model estimates the economic returns for an MNO in the Channel Islands at varying market shares measured in terms of number of subscribers in a single year. Using assumptions on costs and revenue, the model estimates the following:
- (a) **total revenues:** including revenue from pre-paid and post-paid subscribers, data-card subscribers and roaming subscribers from other operators;
 - (b) **network related costs:** including the capital infrastructure expenditure and network operating costs necessary to run 2G, 3G and 4G networks and associated backhaul requirements to meet the usage levels of the subscriber base;
 - (c) **other non-network operating costs;** including marketing expenses, sales & distribution expenses, IT costs, billing and collection costs, personnel expenses, administration expenses, customer service delivery expenses, doubtful debts and management fees;
 - (d) **licence fees and spectrum charges:** based on current fees paid in the Channel Islands; and
 - (e) **annualised capital charges:** comprising returns of (depreciation) and on (cost of capital) invested capital are estimated using a simple annuity based on the level of capital investment required, the economic life of assets and the Weighted Average Cost of Capital (WACC).
- 8 The model estimates separate economic returns for Jersey and Guernsey to allow for differences in revenue and costs between the islands. We have assumed that the MNO would seek to build a Channel Islands network, with its core network equipment serving both islands as both Airtel and JT currently do. However the model allows for us to estimate the required size of an MNO if it chose to operate only on a single island.

⁶⁵ GSMA intelligence (2015) Available at: <https://gsmaintelligence.com> (Accessed 29 July 2015)

Inputs/assumptions*Revenue and usage*

- 9 Total revenue is estimated using Airtel's current average revenue data. Airtel's pricing and service offering distribution are reflective of the mobile telecommunications market in the Channel Islands and therefore provide a fair estimate of ARPU for a mobile-only MNO. We have conservatively assumed that this ARPU remains fixed, independent of the number of subscribers. In reality an MNO that seeks to grow its market share may choose to reduce prices, thus diluting its ARPU. This reduction in revenue would mean that the number of subscribers needed to be viable would be higher.
- 10 Table 1 below shows the average annual gross revenue per subscriber used in the model. Unless indicated otherwise, average monthly data has been derived from Airtel Jersey and Airtel Guernsey FY14/15 accounts.

Table 1: Average revenue per subscriber FY14/15

	<i>Unit</i>	<i>Jersey</i>	<i>Guernsey</i>	<i>Source</i>
Average revenue per subscriber	Annual net revenue per subscriber	£["]	£["]	Airtel

- 11 Airtel's data is used to estimate average outgoing and incoming minutes per subscriber, average outgoing and incoming SMS per subscriber, and average data usage per subscriber. Table 2 below shows the assumptions on average usage per subscriber relied upon in the analysis. Unless indicated otherwise, average monthly data has been obtained from Airtel Jersey and Airtel Guernsey FY14/15 accounts.

Table 2: Average minutes, SMS and data usage per subscriber

	<i>Unit</i>	<i>Jersey</i>	<i>Guernsey</i>	<i>Assumption</i>
Outgoing call minutes used	Annual minutes per subscriber	["]	["]	Airtel average monthly data
Incoming call minutes used	Annual minutes per subscriber	["]	["]	Airtel average monthly data
Outgoing SMS messages	Annual SMS per subscriber	["]	["]	Airtel average monthly data
Incoming SMS messages	Annual SMS per subscriber	["]	["]	Airtel average monthly data
Average smartphone data usage	Annual GB per subscriber	18	18	Based on an average monthly allowance of 5GB (average of Airtel's service offerings), 50% of monthly allowance being used and a smartphone penetration of 60%
Average datacard data usage	Annual GB per subscriber	84	84	Based on an average monthly allowance of 10GB (average of Airtel's service offerings) and 70% of monthly allowance being used

- 12 In line with Airtel's current financial reporting, our model generates both gross and net revenue information. The net revenue is determined by subtracting interconnection costs and costs of sales related to handsets. Our modelling uses Airtel's actual costs from FY2014/15

and the costs within these categories increase proportionately with subscriber numbers⁶⁶. As explained in the main body of our submission Airtel has undertaken a number of initiatives to reduce their operating costs to the most efficient level. Based on this we believe it would be reliable to assume that any efficient third operator would face similar costs. Moreover, interconnection costs are set by CICRA and are the same on a per minute basis for all operators in the Channel Islands. The costs of handsets are determined by international handset manufacturers and are likely to be the same for any operator in the Channel Islands, given the size of the market and the associated purchasing power.

Network dimensioning and costs

- 13 Based on the market share of subscribers chosen, there will therefore be a specific volume of calls, SMS and data on the MNO's network. The MNO will need to choose the dimension of its network based on the expected busy hour traffic, to ensure it has sufficient capacity at all times. The busy hour traffic is estimated as 0.03% of the total traffic over the year based on network dimensioning rules from Ofcom's Mobile Call Termination model⁶⁷. Network dimensioning rules are then applied to estimate the quantity of network equipment required to meet both coverage and capacity requirements.
- 14 We have modelled for a combined 2G/3G/4G network, with the newer technology overlaying the pre-existing network technology, so as to reflect the actual deployment of mobile networks in the Channel Islands and other markets. The process followed to define the scale of the necessary network infrastructure is based on the following steps:
- (a) First, the model determines the number of 2G base stations required to provide coverage in the Channel Islands using network engineering principles and the size of the islands.
 - (b) Second, it determines the additional 2G equipment required to provide capacity given the expected busy hour voice and SMS traffic. This information is calibrated based on Airtel's existing number of base stations for robustness.
 - (c) Third, the model determines the number of 3G and 4G base stations that are required in order to process the expected data traffic based on the assumption that the 3G and 4G kit would be placed on existing 2G sites where possible. This is consistent with how these networks have been rolled out in practice.
 - (d) Fourth, the model determines the backhaul requirements for each base station based on the expected traffic.
 - (e) As a last step, the model generates the extent of core network equipment required by the MNO. A level of redundancy is built into the core network planning, this is to prevent a network outage occurring due to the reliance on a single piece of infrastructure.⁶⁸

⁶⁶As average usage from customers remains constant, as subscriber numbers increase the volume of call minutes will increase proportionately. As a result the interconnection costs should also increase by the same proportion. Similarly costs related to sales of handsets will be higher as subscriber numbers are higher.

⁶⁷ The link to the data file can be found at: <http://stakeholders.ofcom.org.uk/consultations/mobile-call-termination-14/>

⁶⁸We have assumed that the MNO would always require two pieces of core network infrastructure, even where one would technically suffice from a demand perspective. This is consistent with the redundancy we have experienced in international MNOs. When the MNO operates over both islands, we have assumed that these core network costs are split. When the MNO only operates in one island, we assume that both sets of core network are operational on that island.

Network equipment costs

- 15 Information from Ofcom's Mobile Call Termination model⁶⁹ has been used to estimate the current network equipment costs. These costs represent a conservative estimate of the efficient costs which an MNO would face in the Channel Islands if it were to enter the market. This is more appropriate than the historical prices paid for equipment by Airtel in the Channel Islands, given that equipment prices have become much cheaper over time. In reality, it is likely that a small MNO would face higher equipment costs than set out in Ofcom's model given reduced economies of scale and purchasing power. This increase in network costs would mean that the number of subscribers needed to be a viable operator would be higher than indicated by our model.
- 16 Table 3 below shows the network unit cost assumptions used to estimate the capital costs of building the necessary network infrastructure for an MNO.
- 17 As a robustness test capital cost assumptions derived from Ofcom's estimates were compared with the costs faced by JT for equivalent equipment. The costs were either in line or above those provided by Ofcom, with the only exception of the Media Gateway (MGW). JT's cost for the purchase of an "EPC circuit switch" MGW was £["]. Therefore, as a sensitivity test we also run the model on the assumption of this alternative cost.⁷⁰

Table 3: Network cost assumptions

Network Equipment	Unit	Cost	Source
Owned sites	GBP/Unit	86,375	Ofcom
TRXs	GBP/Unit	5,659	Ofcom
BSCs	GBP/Unit	80,307	Ofcom
3G Carriers	GBP/Unit	5,381	Ofcom
RNCs	GBP/Unit	103,323	Ofcom
Single RANs	GBP/Unit	8,988	Ofcom
HLR (including Mobile IN Platform)	GBP/Unit	2,000,000	Ofcom
SMSC platform	GBP/Unit	24,333	Ofcom
SGSN	GBP/Unit	248,662	Ofcom
GGSN	GBP/Unit	171,748	Ofcom
MGW	GBP/Unit	1,923,094 ⁷¹	Ofcom

- 18 The remainder of this document is based on the assumptions stated in Table 3 which use only Ofcom cost estimates for consistency.
- 19 The capital expenditure is spent in its entirety on a one-off basis as the network is rolled out. However there are two aspects of these capital costs which are relevant to the annual economic returns of an MNO and are incorporated into the annualised capital cost:

⁶⁹Data downloaded from Ofcom's cost module on 21 July 2015. Unit equipment prices were taken from 2014/15. The link to the data file can be found at: <http://stakeholders.ofcom.org.uk/consultations/mobile-call-termination-14/>

⁷⁰ When using Ofcom's cost estimate indicated in the table the market share that an MNO only would have to achieve in order to be viable in the Channel Islands market is 39%. When we use the alternative assumption of £["] based on the cost of the equipment purchased by JT, we obtain a minimum efficient scale of 37%.

⁷¹ See footnote above.

- (a) First, the cost of capital representing the annual opportunity cost of having funds tied up in the capital equipment. The model uses a WACC of 9.1%, which is consistent with Ofcom's pre-tax nominal WACC estimate for an efficient MNO in the UK from March 2015⁷².
- (b) Second, the annual depreciation cost. For simplicity we have assumed depreciation for all equipment over a twelve year economic lifetime. This is consistent with the weighted average of the economic lives of the network equipment in Ofcom's Mobile Call Termination model as shown in Table 4 below.

Table 4: Ofcom's economic life assumptions

Network Equipment	Economic life assumption
Owned sites	18 years
TRXs	8 years
BSCs	9 years
3G Carriers	8 years
RNCs	8 years
Single RANs	8 years
HLR (including Mobile IN Platform)	10 years
SMSC platform	10 years
SGSN	10 years
GGSN	10 years
MGW	10 years
Weighted Average	12 years

- 20 Based on international observations in other jurisdictions, the model includes a 10% mark-up over the estimated capital cost of the network assets to account for the capital cost of non-network assets.

Network operating expenses

- 21 There are two aspects to the network operating costs faced by an MNO:
- (a) The operating expenses associated with maintaining the capital equipment (e.g. electricity costs at base stations).
- (b) The backhaul required to process data traffic from each base station and to provide international connectivity and bandwidth.
- 22 In the model we have used Airtel's operating expenses from FY2014/15, on a per site basis. We have reviewed the per-site operating expenses against network operating expenses included in Ofcom's Mobile Call Termination model to ensure that these are reasonable, as would be expected given the cost-cutting measures employed by Airtel in recent years⁷³. These per-site costs have been applied to the network equipment numbers which are required for different market shares based on our modelling.
- 23 Similarly, we have included the international backhaul and bandwidth charges currently paid by Airtel for its existing customer base. We have assumed that these costs will increase

⁷²Ofcom, Mobile call termination market review 2015-18: Statement, 17 March 2015, Annex 10, Table A10.20

⁷³ Guernsey and Jersey Airtel board papers from 29 April 2015 and 7 August 2014 both reference savings due to 'cost controls'.

proportionately with subscriber numbers, given our assumption that per customer data usage will remain constant.

- 24 The monthly leasing costs of Ethernet and microwave links required to transit data traffic from each base station have been obtained from Ofcom's cost model. These costs represent a conservative estimate of the efficient cost which an MNO would face in the Channel Islands if it were to enter the market. In reality, it is likely that a small MNO would face higher equipment costs given reduced economies of scale and buyer power.
- 25 Table 5 below shows the operating cost assumptions used in our modelling.

Table 5: Operating cost assumptions

Assumption	Unit	Cost (Jersey)	Cost (Guernsey)	Source
Base Station operating expenses	GBP/Month	["]	["]	Airtel
MSC operating expenses	GBP/Month	["]	["]	Airtel
AMC's equipment operating expenses	GBP/Month	["]	["]	Airtel
Other network operating expenses	GBP/Month	["]	["]	Airtel
Ethernet Link 300 Mbit/s	GBP/Month		890	Ofcom
Ethernet Link 100 Mbit/s	GBP/Month		890	Ofcom
Microwave Link 8 Mbit/s	GBP/Month		194	Ofcom
Microwave Link 2 Mbit/s	GBP/Month		194	Ofcom
International Backhaul and bandwidth charges	GBP/Month	["]	["]	Airtel

Non-network operating expenses

- 26 As a starting point for our analysis we have taken Airtel's non-network operating expenses from FY2014/15 and considered whether they represent an efficient level for these costs, based on an understanding from previous experience from other MNOs. We found that most of Airtel's non-network costs were in-line with what we would expect from international experience. However Airtel's billing, collection and customer service costs were much lower than would be expected for an efficient MNO.
- 27 In 2014/15 Airtel's total monthly billing and collection expenses were equal to a cost of ["]p per subscriber in Jersey and ["]p per subscriber in Guernsey. Airtel's monthly customer service expenses were ["]p per subscriber in Jersey and ["]p per subscriber in Guernsey. Based on international experience we would expect billing and collection expenses to be around 50p per subscriber and customer service expenses £1 per subscriber, per month.
- 28 Given that the model seeks to establish the minimum efficient scale of an MNO in the Channel Islands, it is inappropriate to rely on Airtel's costs for these categories which are subsidised by the wider Bharti Group. Instead our model uses assumptions on the average monthly costs per subscriber for these categories.
- 29 We have also considered whether each category of costs would broadly remain fixed as subscriber numbers change, or would vary proportionately with subscribers. For costs that we consider to be variable, the model uses average cost per subscriber multiplied by the assumed subscriber base at the given market share. Where costs are fixed, we have adopted the actual average monthly Airtel costs from FY2014/15.
- 30 The treatment of each operating expense cost category is outlined in Table 6 below.

Table 6: Non-network operating expenses

Non-network costs	Variable or fixed with subscribers	Assumption
Marketing Expenses	Variable	Airtel average data used
Sales & Distribution Expenses	Variable	Airtel average data used
IT Cost	Fixed	Airtel average data used
Billing & Collection Cost	Variable	50p per subscriber/month
Personnel Expenses	Fixed	Airtel average data used
Administration Expenses	Fixed	Airtel average data used
Customer Service Delivery Expenses	Variable	£1 per subscriber/month
Doubtful Debts	Variable	Airtel average data used
Management Fees	Fixed	Airtel average data used

Other assumptions

- 31 A number of other assumptions have been made on licence fees, spectrum charges and international backhaul costs. Airtel data has been used where available and reasonable assumptions based on industry knowledge have been used elsewhere.

Table 7: Other assumptions

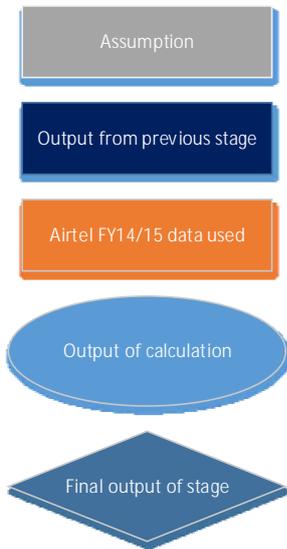
Item	Assumption	Source
Licence fees	Licence fee costs are taken from Airtel's financial accounts. These costs are assumed to increase in line with revenue, as per the CICRA regulations.	Airtel
Spectrum charges	Actual spectrum costs used from Airtel data. These costs are fixed.	Airtel
International backhaul costs	The model uses Airtel cost data from May 2015 only (["].)	Airtel

Model

- 32 The model uses the data and assumptions outlined above to estimate the revenues and costs for an MNO in the Channel Islands. The input variable to the model is number of subscribers, and hence, market share.
- 33 The model estimates the P&L in 4 stages;
- (a) Revenues Module;
 - (b) Network Module;
 - (c) Costs Module; and
 - (d) Results Module.

34 Each stage is outlined in text and flow diagrams below. Figure 3 shows the key used for each flow chart.

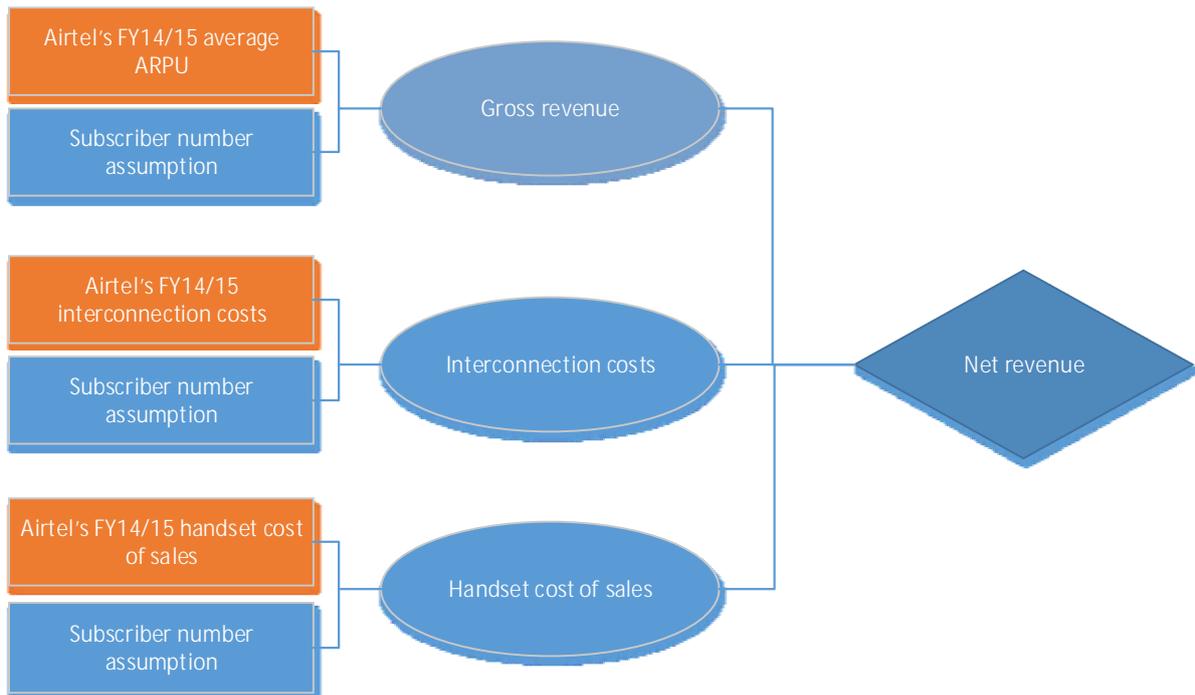
Figure 2: Key used for flow diagrams



Revenue Module

35 To estimate net revenue we use Airtel’s average revenue per user (ARPU) multiplied by the number of subscribers to estimate gross revenue. To estimate net revenue we estimate interconnection costs and handset cost of sales and subtract this from gross revenue. Each stage of the revenue estimation stage uses Airtel FY14/15 data and a subscriber numbers assumption as shown in Figure 4 below.

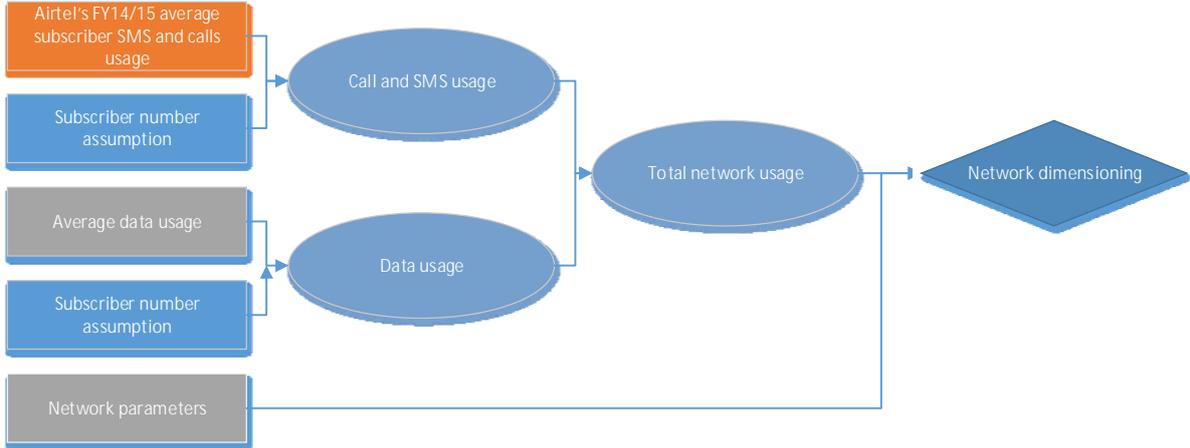
Figure 3: Revenue Module flow diagram



Network Module

36 To determine the network dimension required to have sufficient capacity to meet demand, we use a combination of Airtel’s network usage and other usage assumptions to understand total network usage for calls, SMS and data. By combining usage with network parameter requirements, we estimate the network equipment required for the 2G, 3G and 4G networks as well as transmission links needed for backhaul purposes. This is shown in Figure 5 below.

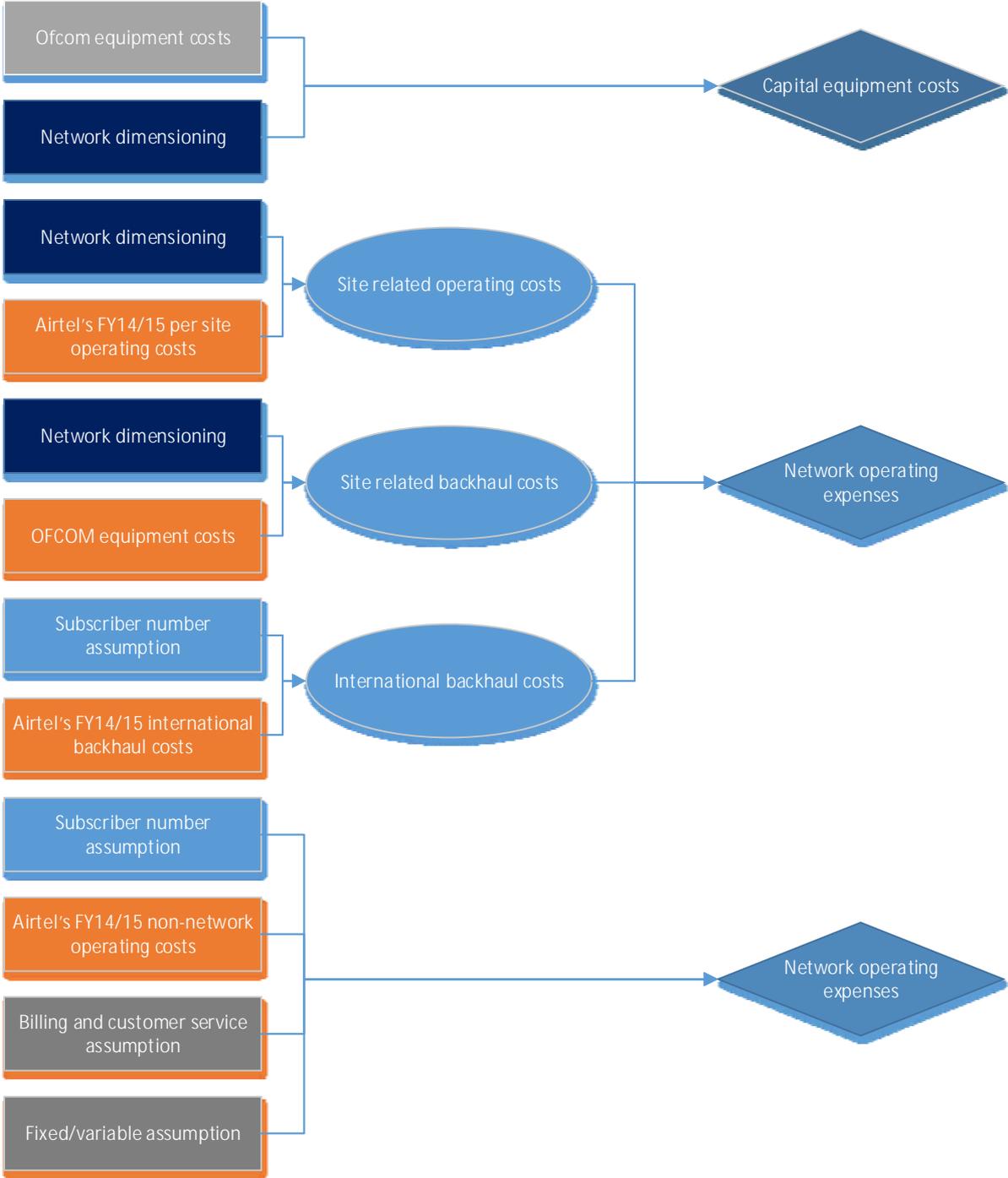
Figure 4: Network Module flow diagram



Costs Module

37 To estimate the network operating expenses, non-network operating expenses and capital equipment costs which would be incurred by an MNO, we use Airtel’s cost data where possible and Ofcom data for network equipment costs. The overall costs depend on the chosen subscriber numbers and the associated network dimension generated in the Network Module. This is shown in Figure 6 below.

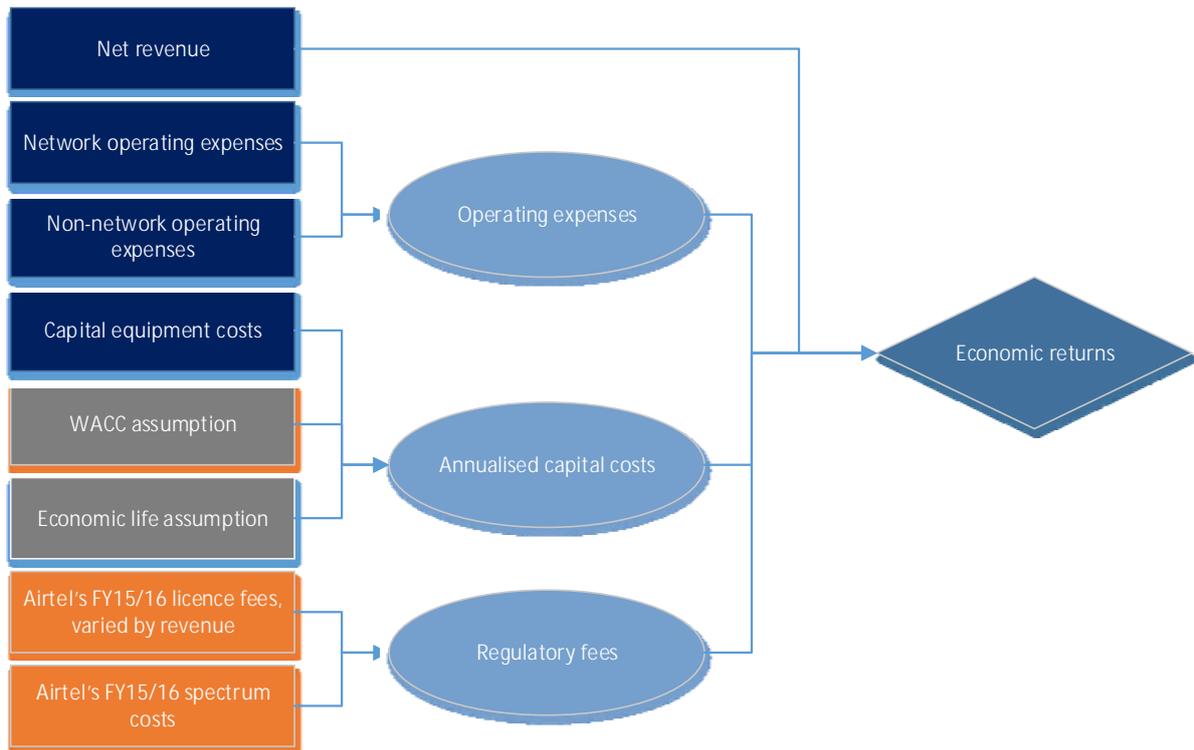
Figure 5: Costs module flow diagram



Economics Return Module

38 The final stage of the model estimates the economic returns of the MNO at an assumed level of subscribers. Economic returns are estimated as net revenue minus the operating expenses, regulatory fees and the annualised capital costs. This is shown in Figure 7 below.

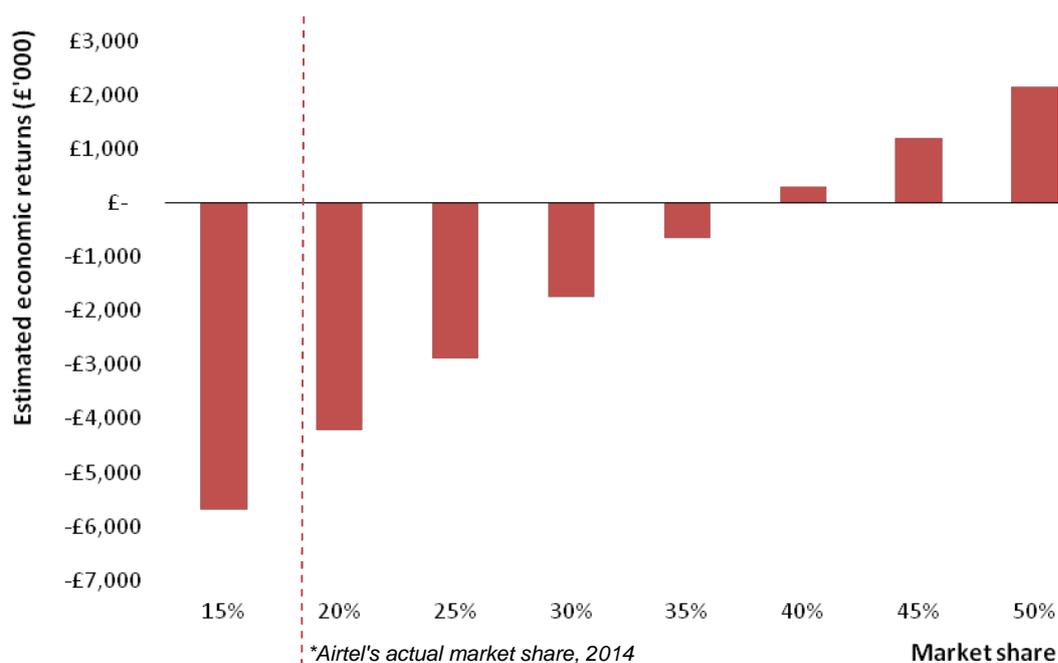
Figure 6: Results module flow diagram



Results of model

- 39 The model estimates the economic returns of an MNO at different market shares.
- 40 In order to understand whether an operator is viable it is important to consider what the economic returns are. These economic returns take account of the cost of necessary long term capital investment requirements. These capital costs need to be recovered over the lifetime of the assets. In order for an MNO to be viable in the long term it is necessary for the economic returns to be positive. This is particularly important given the extent of capital investment required by MNOs to roll-out new network technologies.
- 41 Figure 8 below shows the economic returns estimated by the model for an MNO at different market shares.

Figure 7: Economic Returns at different market shares



42 The model shows that in order for an MNO to only cover its economic costs in the Channel Islands, and generate a positive economic return, it must have a market share of at least 39%.⁷⁴ This represents the minimum efficient scale for long-term viability. The P&L for this hypothetical MNO at this market share is shown in Table 8 below.

Table 8: Economic returns of MNO at break-even market share of 39%

<i>Description</i>	<i>£</i>
Gross revenue	["]
Interconnection charges - voice	["]
Interconnection charges - SMS	["]
Cost of sale of products	["]
Net revenue	["]
Network expenses	["]
Marketing expenses	["]
Sales & distribution expenses	["]
IT cost	["]
Billing & collection cost	["]
Personnel expenses	["]
Administration expenses	["]
Customer service delivery expenses	["]
Doubtful debts	["]
Management fees	["]
Total operating expenses	["]
	["]
License fees	["]
Spectrum charges	["]

⁷⁴ As indicated above, under the different MGW cost assumption this share is equal to 37%.

Regulatory fees	["]
	["]
Annualised capital costs	["]
Economic returns	["]

- 43 The model also determines the market share needed to achieve a positive economic return if operating in only one island. This market share would be higher than a combined operator, given that the fixed network costs will be spread over fewer subscribers. If an MNO only operated in Jersey, it would require a 46% market share to achieve a positive economic return. Given the smaller market and lower usage, if an MNO only operated in Guernsey it would require a 69% market share to achieve a positive economic return.⁷⁵

⁷⁵ Under the alternative MGW cost assumption based on JT's cost, in order to be sustainable an MNO only operator would require a share of 43% if active in Jersey only, and 60% if active in Guernsey only.