

**Comments on select aspects of the EC
Amendment Bill**

23 January 2018

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1 Introduction

- 1 There is general consensus amongst academics and policy analysts that access to broadband stimulates economic growth. In South Africa, the ICT¹ sector is characterised by high prices compared to middle-income peer countries². The ICT White Paper, published in 2016, emphasised the need for more competition in the ICT sector to reduce prices and stimulate economic growth. The ICT sector is an important enabler of economic growth and bottlenecks in this sector have to be addressed as a matter of urgency. The ICT White Paper envisaged that certain changes to legislation will have to be made to enable the fulfilment of these goals.
- 2 These changes have now been published in the form of the EC Amendment Bill (“the Amendment Bill”) published on 17 November 2017. One of the most important issues that will determine the future evolution of the ICT sector is the allocation of High Demand Spectrum (“HDS”) that is currently unassigned. Access to bandwidth is a constraint for telecoms operators in South Africa. However, the remaining HDS must be assigned in a way which does not negatively impact competition in the mobile sector and the economy as a whole. Telkom pointed out in their submission to the 2016 Invitation to Apply for Spectrum by the Independent Communications Authority of South Africa (“**the Authority**”) that the proposed spectrum auctions might very well have adverse economic effects, and below we again caution about the effect that a spectrum auction might have.
- 3 An alternative approach to spectrum allocation has now been put forward in the Amendment Bill, i.e. the creation of a Wireless Open Access Network (“WOAN”). The aim is to: “promote service-based competition and avoid concentration and duplication of electronic communications infrastructure in urban areas”. To help achieve these objectives, it envisages the creation of a WOAN that would obtain unassigned spectrum and provide access to MNOs and MVNOs on equal access terms. While more detail is needed on specific aspects – such as the amount of spectrum that will be assigned to the WOAN and whether it will be mandatory for all mobile network operators (MNO’s) to obtain access through the WOAN – we nevertheless comment on the economic implications of the general principles of the WOAN as a solution to the spectrum assignment problem in South Africa.
- 4 We start by explaining why the proposed WOAN will likely provide a more favourable outcome than a spectrum auction in terms of the impact on the economy and competition. A spectrum auction would result in the incumbents – who have deeper pockets than smaller players –

¹ Information and communications technology (ICT).

² Research ICT Africa, various reports. <https://researchictafrica.net>

obtaining the most valuable spectrum bands. This will further increase their market power and entrench the existing market structure. We argue that a move towards service based competition – away from network competition – will favour the smaller players and create a more equal playing field in the longer term. This will serve the objectives of the ECA, i.e. lower prices and higher economic growth. We point out however that the form the WOAN will take will be important in terms of the economic effects. We show that a single wholesale network (“SWN”) which would require all spectrum to be returned to the state and assigned to the WOAN will likely impose more costs than benefits, as it will create significant uncertainty. We also show that while cost-based pricing is the correct method to ensure open access, there are certain caveats and challenges which the Minister needs to take into account.

- 5 In section 3 we argue that the Amendment Bill’s prohibition on HDS trading will prevent the full economic value of spectrum to be realised. We argue that spectrum trading will allow for a more efficient use of the resource and may even help the WOAN to achieve its objectives.
- 6 Section 4 considers two further propositions of the Amendment Bill: the definition of “deemed entities”, and cost-based access to fixed infrastructure. The Bill recommends that ECNS licensees with significant market power (“SMP”) or more than twenty-five percent market share of total electronic communications infrastructure should be considered as deemed entities. We point out that there may be a number of problems with this definition, and propose that it will be more effective to define deemed entities as only those ECNS licensees with SMP. We also explain that while it is necessary to increase competition in the wholesale mobile market, this is not the case in the market for fixed line access.
- 7 In section 5 we deal with the Amendment Bill’s proposal to implement international roaming regulations for the SADC region, and we provide some guidance from other jurisdictions that the Minister of Telecommunications and Postal Services (**DTPS**) should consider in developing the roaming regulations.
- 8 The importance of close collaboration between the sector regulator and the Competition Authorities (i.e. the Competition Commission and Competition Tribunal) is dealt with in section 6, where we also illustrate the important role that regular market reviews can play in this regard.
- 9 Section 7 concludes with final remarks.

2 Section 19(A): The implementation of the WOAN and its impact on the economy

2.1 Why would the WOAN provide a better outcome for the economy than a spectrum auction?

- 10 An important benefit of the WOAN is that it creates a fair way of allowing operators to access the currently unassigned high demand spectrum (HDS), and its outcome should be compared to the most likely alternative, which is an auction where the most valuable spectrum bands would be assigned to the highest bidder – as proposed in the previous Invitation to Apply (ITA, 2016). In its submissions to the 2016 ITA, Telkom pointed out that the objectives of the ITA would not be achieved if most of the high demand spectrum is assigned to the incumbents (Vodacom and MTN) via the proposed auction process. The objectives of the ITA included greater consumer choice, quality of access and affordability, which are also reflected in the Electronic Communications Act (ECA). We know that there is a real advantage in telecoms markets for a first mover. Current market shares in the MNO market, where Vodacom and MTN still control more than 80% of the market (by revenue)³, indicate that later entrants have not made significant inroads. The difficulties that smaller players face in growing their market shares will be worsened if a spectrum auction puts them at a further disadvantage.
- 11 Telecommunications markets are characterised by economies of scale and scope and large upfront investments are required to compete. It is for this reason that the move towards more service-based competition that the WOAN will introduce – as opposed to infrastructure-based competition – is to be welcomed. The creation of the WOAN will stimulate service-based competition as smaller players will not be hampered by the need for extensive investment in infrastructure. This will increase competition in these markets and will eventually lower prices to consumers.
- 12 Any MNO that is at a spectrum disadvantage relative to its competitors needs to invest more in its radio access network (RAN) to achieve the same amount of coverage. This comes at a cost, which impacts an MNO's margins and its ability to compete in future. High-level estimates show that without access to spectrum in sub-1GHz bands, the additional capex that Telkom would need

³ See e.g. ICASA (2017) 'Analysis of review of pro-competitive conditions'. Government Gazette, 9 June 2017, Number 40911

to cover a 2,000km² area would be more than double its total RAN annual capex costs (for FY2016).

- 13 In the worst case, this may cause South Africa's MNO market to revert back to a duopoly. The concentrated nature of such a market without sufficient competition will lead to even higher telecommunication prices. Importantly, such an outcome will be counter to the objectives of the ECA, i.e. to increase consumer choice and provide access at competitive prices.
- 14 There is therefore a huge advantage to obtaining the unassigned spectrum. If the incumbents obtain this spectrum via an auction they will get a first mover advantage that will further entrench the current duopoly structure in the mobile markets. Importantly, this has also been recognised by the Competition Commission (**CC**) in their analysis of the proposed merger between Vodacom and Neotel during 2015. It was common knowledge at the time that the main rationale for the merger was the spectrum that Vodacom would obtain as part of the merger. The CC emphasised the competitive advantage that Vodacom would gain and therefore approved the merger on the condition that Vodacom could not use the spectrum for a period of two years⁴, effectively arguing that Vodacom will benefit unfairly until the rest of the spectrum has been assigned. The CC understood that there is a real advantage in telecoms markets for a first mover and that these effects persist over time. This merger was abandoned by the parties.
- 15 Smaller MNOs, like Telkom, play an important role as disruptors who can exert pressure on incumbents through innovation. For example, during 2016 Telkom's FreeMe packages were analysed by Tarifica⁵, who found that these plans offer the best value for consumers in the SA market due to data-centric plans, inclusion of zero rated over the top (OTT) services, and simplicity of plan structure and design, enabling consumers to choose an option that meets their needs. Although prices in the mobile telecommunications market can be sticky, more competition can lead to price reductions and better quality of service.
- 16 The economic effects of the WOAN should also be seen in the context of a trade-off between short and long-term gains. While it might be very attractive for government to use the auction income to reduce the budget deficit, this is only a short-term solution. In the longer term, the effect of a less competitive mobile market with higher prices will be more detrimental to economic growth and development. A more competitive market that stimulates economic activity will yield higher tax income in the longer term.

⁴ Competition Commission, Competitiveness report Vodacom/ Neotel merger, 2015. P. 162.

⁵ Tarifica (2016). FreeMe Competitive Research. 31 August.

2.2 The impact of the WOAN on efficiency and competition

- 17 The Amendment Bill recommends that the WOAN should offer wholesale access to its electronic communications network according to stipulated open access principles. The standard criticism against such open access is that it reduces the incentive to invest in network infrastructure. However, in order to evaluate the economic impact one has to consider economic theory on network and service-based competition, and the resulting effects on static and dynamic efficiency within the South African context.
- 18 The telecoms sector can be characterised through two types of competition: network competition and service-based competition. *Network competition* (also known as facility-based or infrastructure competition) relates to competition between infrastructure networks, and in the context of mobile services relates specifically to competition between the physical networks of MNOs. In other words, an MNO sees investment in its network as a way of gaining a competitive edge. If MNOs are vertically integrated and there are no mandatory access obligations in place, an operator's ability to compete at the retail level is affected by the quality of its mobile network.
- 19 At the retail level, MNOs compete for subscribers through *service-based competition*. In the mobile sector, the quality of a MNOs network and ability to attract subscribers are, however, not only a function of its own investment, but also of the spectrum that is assigned to it. As mentioned above, this was largely why access to bandwidth was the key motivation behind the abandoned Vodacom / Neotel merger (2015).
- 20 Competition encourages firms to decrease profit margins, increase their productivity, and/or to invest in technological progress and innovation which improves consumer welfare over time: anything that hinders competition from taking place unnecessarily reduces consumer welfare. The critical question is how the WOAN will change the competitive dynamics between MNOs.
- 21 Given the dominance of the two incumbent mobile operators, it is not clear that the smaller players will become effective competitors via infrastructure investment. Telkom is at a severe disadvantage in terms of spectrum distribution as it does not have any spectrum in the sub-1GHz bands.
- 22 Vodacom's 2G voice network covers 99.9% of the South African population⁶ while their 4G network covers around 91% of population in metro areas and 44% of the population in rural areas⁷. In 2017, Vodacom reached 70% coverage on LTE⁸. In the third quarter of 2017 MTN grew

⁶ Vodacom group limited fact sheet as at 31 March 2017

⁷ <https://techcentral.co.za/run-spectrum-vodacom/76040/>

⁸ <https://techcentral.co.za/cell-c-soon-roaming-on-vodacom-4g/72558/>

its 2G population coverage from 95% to 97%⁹. Telkom Mobile, in contrast, has limited coverage, particularly in rural areas. Cell C roams on the Vodacom network to increase its coverage, and Telkom Mobile roams on the MTN network.

23 Critics of open access could point out that the WOAN may reduce necessary investment in network infrastructure, especially in underserved areas. It is however not clear that duplicating infrastructure investment is the best option for South Africa, where capital is expensive and difficult to access. The Amendment Bill proposes to address the lack of coverage by requiring the WOAN to meet “specific network and population coverage targets” (19A(2)(iv)). It is however important that these targets are set at a level that does not negatively impact on the business case of the WOAN, as we discuss in more detail below.

2.3 Implementing the WOAN

24 The proposed WOAN has the potential of creating a more competitive ICT sector (especially in the mobile market) but it is important that it is implemented in the correct manner. In the simplest terms, the WOAN could increase competition in the retail market by allowing new and established operators and MVNOs to increase their coverage without having to invest in physical network infrastructure or acquire access to spectrum at a high price, e.g. through an auction. Lower costs of entry and network access resulting in more competition should drive down retail prices which, as the Minister is aware¹⁰, will have a considerable impact on the South African economy.

25 In addition, the WOAN appears to be one of the only ways in which the Authority can assign the remaining HDS on a fair basis that will not reinforce the duopoly that currently characterises the South African mobile sector. However, a lot of uncertainty remains about how the WOAN is to be structured, and what will happen to the HDS that is currently assigned to MNOs. We deal with these issues next.

2.3.1 Section 31E(6): What if all MNOs have to return their HDS?

26 One of the central questions concerning the WOAN is what will happen to the HDS that is currently assigned. One possibility is that the WOAN will be established as the only wholesale open access network with HDS, and that HDS currently assigned to other operators will have to be returned to the state and possibly transferred to the WOAN. This is raised in the Bill under 31E(6), which states that “*The Authority must, within 24 months of the commencement of the EC Amendment Act, ... conduct an inquiry as contemplated in section 4B of the ICASA Act and make*

⁹ MTN Group Ltd Q3 results. 24 October 2017

¹⁰ ICT White Paper, 3 October 2016.

recommendations to the Minister on the terms and conditions, as well as the time frame under which the exclusively/individually assigned high demand spectrum, excluding the high demand spectrum assigned to the Wireless Open Access Network, must be returned to the Authority, taking into account policy, market developments and extent of availability of open access networks” [own emphasis].

- 27 If all HDS currently assigned to operators is returned to the state and transferred to the WOAN, it would essentially become a Single Wholesale Network (“SWN”) which would have to operate as a regulated monopoly with the access price determined by the Authority. While such a model allows attractive economies of scale to be achieved, it also holds a cost in terms of a loss in competition. In the absence of competitive pressure from other operators that compete to attract retailers to their wholesale platforms, the WOAN will have little incentive to supply an efficient service. In addition, as the only wholesale provider with HDS, any productive or cost inefficiencies of the WOAN will filter through to the rest of the mobile market, and ultimately to the South African economy.
- 28 Besides concerns about the efficiency of regulated monopolies, a further question is how having a single wholesale network for HDS will impact on network competition between operators and specifically on their incentives to invest in expanding their physical network infrastructure. Mobile coverage not only requires spectrum, but also a physical network of infrastructure, such as base stations, RAN sites, etc. To supply services in the mobile retail market, operators or new entrants need access to bandwidth as well as a physical network. If the WOAN in any way reduces the incentives of ECNS licensees to invest in their networks, this would lead to further constraints in the sector, and potentially to unnecessary pressure on the fiscus if the government then needs to build, implement and manage a network that would otherwise have been supplied by the private sector.
- 29 Any uncertainty about access to HDS will certainly impact on the investment incentives of operators. The cost of establishing physical network infrastructure is high, and operators will not risk long term investments if access to spectrum is not guaranteed. Even if the WOAN provides wholesale open access to HDS, the terms under which the regulated monopoly will function will still create too much uncertainty to allow operators to invest.
- 30 To our knowledge, no countries have established a WOAN that aligns with the principles set out in the Amendment Bill. There are however some lessons that can be learnt from countries which have tried to establish Single Wireless Networks. Below we summarise some high level key

lessons as reported by the GSMA in a recent report.¹¹ In none of these examples has the SWN so far had the desired outcomes.

- 31 In **Kenya**, the initiative to establish a SWN was delayed due to difficult negotiations between stakeholders. The SWN was originally proposed as a public-private partnership to “fast track” the rollout of LTE services, through which the government would provide spectrum and private companies would establish and operate the wholesale network. This seems to broadly align with the ownership model that the Amendment Bill recommended in South Africa. In Kenya, however, it seems that the plans to establish a SWN have been abandoned: the spectrum in the 800MHz band has recently been assigned to operators who have started with their broadband rollout using this spectrum.¹²
- 32 **Mexico** started with the process of establishing a SWN in 2014, and after various delays a bid to build the network was awarded in November 2016 (to the Altán consortium). According to the GSMA, most of the 21 original bidders who qualified struggled to establish a viable business case under the targets that were set. Consequently, the investment target was reduced from \$10 billion to \$7 billion, and the number of cell towers to be established from 20,000 to 12,000. Having been awarded the bid, Altán consortium has gained access to 90MHz of spectrum in the 700MHz band with which to establish a wholesale LTE network.
- 33 **Rwanda** appears to be the country that has made the most progress with establishing a SWN network, through a partnership between the Rwandan government and Korean telecommunications operator, KT. While the network has been established, it is not yet clear if the coverage, price and competition goals will be achieved. In terms of coverage, estimated population coverage of 30% has been achieved, but is a long way from the 95% target by the end of 2017 that was set. Furthermore, the high cost of services appears to have suppressed take-up. GSMA reports that the wholesale prices for access to the network are set through commercial negotiations that take place twice a year, and that while there have been significant reductions in these prices, it is not clear that these have translated into lower prices at the retail level. The SWN is the only network through which 4G services can be provided (as no 4G spectrum is allocated to MNOs), but MNOs are under no obligation to offer 4G services. The issue is further complicated by the fact that any issues with the coverage and quality of the 4G network is perceived as the fault of the MNO, and not of the wholesale provider, KT. The incentives created by the SWN in Rwanda are, however, different from what would be the case in South Africa if MNOs remain able

¹¹ GSMA (2017). Wholesale open access networks. Available online: https://www.gsma.com/spectrum/wp-content/uploads/2017/07/GSMA_SWN-8-pager_R3_Web_Singles.pdf

¹² Ibid.

to operate their existing 4G networks in parallel to the WOAN. This is an important issue that we return to in section 2.3.1.

- 34 In **Russia**, Scartel (Yota) was allocated 40MHz of spectrum in the 2.6GHz band, under the condition that it needs to offer wholesale access to other mobile operators for LTE services. The initiative reportedly failed due to carriers not being able to reach agreements with Yota and wanting to choose their own vendors. It seems that the problem stemmed from Yota being allowed to operate as both a wholesaler and a retailer, which limited its incentive to provide wholesale access to downstream competitors on attractive terms.
- 35 These examples illustrate the difficulties and risks of establishing a SWN. While this is an extreme form of a WOAN, it also holds some important lessons for establishing a WOAN. From Kenya, we learn that negotiations between regulators and operators can delay and derail the process and that it is important to make sure that everyone's objectives are aligned before going forward. The experience of Mexico illustrates that the business case of the SWN/ WOAN is important, and that setting unreasonable targets will only delay the process. In Rwanda, it seems that part of the reason for the SWN's poor outcomes may be that it was created as a regulated monopoly for wholesale access to 4G services. Finally, the Russian example illustrates the dangers of allocating HDS to an existing operator, who – even under open access conditions – may use it to strengthen its position in the retail market.
- 36 It is not clear what the Minister's reasoning would be for requiring operators to return their HDS to the state, or the form that it would take. One rationale might be that the Minister expects that it will guarantee a demand for the services supplied by the WOAN and hence a good business case. However, the shortage of HDS currently assigned to operators coupled with the high and growing demand for mobile services (esp. data services), suggest a viable business case for the WOAN even if operators retain their HDS.
- 37 The benefits of returning HDS to the state and establishing a SWN are low, and the costs in terms of its negative impact on efficiency and network competition are high. Furthermore, the clause in the Amendment Bill as it currently stands creates considerable uncertainty in the market. Network operators will in all likelihood become very hesitant to invest in expanding their coverage, as the Amendment Bill removes the guarantee that they will have spectrum available to make use of the network. It will be imprudent of the Minister to introduce this level of uncertainty into the market, especially as we see no clear benefits associated with the proposal.

2.3.2 Implications of cost-based access through the WOAN

- 38 While there is some uncertainty around how the WOAN will operate, the principle of an open access network provider where prices will be either regulated or cost-based is welcomed. It is, however, important that the Minister is aware of the implications of cost-based pricing and we discuss this in more detail here.
- 39 The rationale behind open access and cost-based pricing is to promote service-based competition and to ultimately reduce the price of mobile communication in the retail market. Due to considerable economies of scale and scope, the WOAN will be able to offer access at a cost below that of incumbent operators. It will enable new entry to take place without the need for entrants to incur high capital outlays of investing in network infrastructure. While it is important to sustain and encourage network competition so that investment in physical infrastructure is not discouraged, this could partly be accommodated by requiring the WOAN to meet certain network and population coverage targets. In implementing open access through cost-based pricing, the key consideration is the design of a pricing mechanism that will level the playing field and ensure optimal competition, while not having a negative impact on the quality and availability of network infrastructure. Access tariffs should not be so high as to discourage service-based competition, nor so low that they will delay network competition.
- 40 As with any policy measure, there are advantages and disadvantages associated with cost-based pricing. It is the best way to promote entry and thus competition in the retail market, but could reduce the incentive for entrants to build or expand their own networks. It is the most efficient means of access over the long term, but could give incumbents the incentive to discriminate against competitors in the retail market. This should however not be a concern in the context of the WOAN, as it will only operate at the wholesale level of the market, with no retail offering. Cost-based pricing may also prevent the duplication of essential facilities and encourage the efficient use of network infrastructure, but could make it more difficult for the WOAN to recover its fixed costs. As the WOAN will likely face considerable fixed costs in establishing its network, it is important that these are taken into account in the cost model and the determination of the access price.
- 41 The latter concern is also important in terms of the network and population coverage targets that will be set for the WOAN. It is important that the WOAN is established with a sustainable business case: it should provide access to bandwidth and its network at a lower price than the next-best access alternatives for new entrants and existing MNOs. Initial network and population coverage targets that are overly ambitious will increase the WOAN's costs and negatively impact on its business case. Once the WOAN has been established as a sustainable entity, it will be able to expand its network and population coverage targets.

42 The Minister needs to be aware that a cost-study is an extensive exercise, as was seen in the determination of termination rates for the Voice Call Termination Regulations. Aspects of a cost study include the cost study methodology, the identification of an appropriate cost model, data collection, the calculation of the cost of the network components and the cost of providing the service, and the validation of the service cost.¹³ The Authority will have to determine which cost methodology and cost model would be most appropriate, to make sure that the access price is set at the correct level. If the access price is too low, it will transfer profits and rents to new entrants and lead to excessive entry by retail operators. It will also not allow the WOAN to recover its costs to operate on a sustainable basis. However, if the access price is too high, operators will rather invest in rolling out additional RAN sites than accessing bandwidth through the WOAN, again jeopardising its business case. Network access is an important input into downstream mobile services, and access prices are reflected in the retail tariffs at which services are sold. If the price of obtaining wholesale access is too high, this will translate into high retail prices, counter to the objectives that the WOAN should achieve.

2.4 Regulatory conditions that would allow the WOAN to succeed

43 Our analysis above has highlighted some of the opportunities and risks of the policy proposals contained in the EC Amendment Bill. In this final section, we summarise some of the regulatory conditions that would allow the WOAN to succeed, but first we highlight some risks and challenges of which the Minister needs to be aware. These include (a) the difficulty associated with regulating a wholesale monopoly, (b) the risk that the WOAN will not attract enough traffic to ensure a sustainable business case, (c) the risk that it will diminish competitive differentiation between retail service providers if they all depend on the same wholesale network, and (d) the risk that the capacity of retail providers to deliver services to their customers will be diminished.¹⁴ It is important to consider these factors when designing the regulations that will determine the functioning of the WOAN, and we briefly discuss here how they can be overcome.

44 The first concern relates to the difficulty of regulating a wholesale monopoly, but one way in which this can be prevented is to allow MNOs to keep their assigned HDS. We explained the problems associated with requiring MNOs to return their spectrum to the Authority, in particular the disincentives for investment and the uncertainty that it will create. Allowing MNOs to keep their spectrum has the additional benefit of retaining a degree of competition in the wholesale market.

¹³ Franklin, S.L. *et al.* (2010). Cost-based access pricing and regulatory challenges. *Brazilian Journal of Operations and Production Management*. 7(1) p.37-51.

¹⁴ BMI-T (2015). Can open access wholesale-only wireless networks be viable? *BMI-T Technology White Paper*.

- 45 The second risk is that the WOAN will not attract sufficient traffic to ensure a sustainable business case. However, if all HDS bandwidth that is currently unassigned is assigned to the WOAN, it will allow the WOAN to achieve more favourable economies of scale than the other MNOs and hence allow the WOAN to offer its wholesale services at a lower rate. If the WOAN is able to lease physical infrastructure from existing MNOs on a wholesale basis and at cost-based pricing, it will not need to incur considerable network investment. This will further allow it to reduce the costs associated with establishing its network.
- 46 The business case in rural areas is often poor, but with the largest contiguous band of sub-GHz spectrum the WOAN will be able to roll out its network in these areas at a lower cost than any other MNO. Through open access it should also be able to rely on RAN sharing as a means of lowering its costs in these areas. Despite this, the WOAN will likely have to substitute these areas with income from more densely populated regions and will have to make sure that its network and population coverage targets allow a viable business case.
- 47 The third risk is that the WOAN will reduce the competitive differentiation between retail operators. In our view this is not a significant threat, as it will force retailers to compete based on price, which should drive down the cost of mobile services (especially data). Mobile operators largely deploy the same technology and aim for the same Quality of Service targets as measured by the Authority. In addition, the small degree of differentiation achieved through differences in coverage and signal strength will be maintained if the WOAN is not established as a monopoly and if ECNS licensees are allowed to retain the HDS that is currently assigned to them.
- 48 A final – and considerable – risk may occur if the WOAN leads to a worsening of the services that ECNS licensees currently provide to their customers. This could happen if licensees are required to return their current spectrum assignments to the Authority. This will severely impact on their network planning and the associated investments. Furthermore, it also increases the economy-wide costs of problems in obtaining access to bandwidth through the WOAN.
- 49 From the above we can derive some regulatory conditions that would contribute to the successful functioning of the WOAN and competition in the telecoms sector:
- Minimise uncertainty in the market by removing the condition that HDS might have to be returned at the Minister's discretion;
 - Be clear on the terms and price at which wholesale access to the WOAN will be granted, especially if limited spectrum capacity could be a problem. Specify the conditions that will be put in place to ensure that access is granted in a fair manner to avoid non-price discrimination;

- Encourage the efficient use of spectrum by allowing ECNS licensees to trade in HDS, with the approval of the Authority. This will encourage operators to make use of the WOAN if the cost of wholesale access is below the price at which they can sell their spectrum. It also creates an opportunity for the WOAN to increase its spectrum holding through commercial arrangements, without requiring ECNS licensees to return their bandwidth;
- Require all mobile ECNS licensees with SMP to comply with open access regulations through cost-based pricing (we discuss this in more detail in a later section).
- The buy-in of MNOs and MVNOs will be imperative to the success of the WOAN. The Minister should ensure that the policy environment does not create unnecessary uncertainty.
- Make sure that there is a sustainable business case for the WOAN, even if it does not allow all network and population coverage targets to be immediately achieved. It will be more prudent to set reasonable coverage targets that should be increased as the WOAN grows and the business case improves.

3 Section 31B(4): Radio Frequency Spectrum Trading

- 50 The Amendment Bill stipulates that trading of HDS will not be allowed, and trading of non-HDS will only be allowed with the Authority’s approval. While this “command and control” approach remains common in many countries, regulators are increasingly starting to realise that it does not allow the economic value of spectrum to be maximised.¹⁵ Market-based mechanisms – such as spectrum trading – can provide preferred outcomes if property rights are clearly defined. The reasoning is that the operator who is best able to use the spectrum, will be most willing to pay for it. We explain below why the Minister should do away with the condition that HDS may not be traded.
- 51 Spectrum trading provides a mechanism for the secondary assignment of spectrum, and can be implemented in conjunction with any primary assignment mechanisms (e.g. beauty contests, auctions, etc.), and even in conjunction with the proposed WOAN. We show below that it might even contribute to helping the WOAN achieve its objectives.
- 52 The International Telecommunications Union (“ITU”) notes that “much of the debate in relation to spectrum placed in private use has been around a move from command and control exclusive access to market-based exclusive access. It is widely accepted that appropriately supervised markets can yield superior outcomes to the command and control methods. Market-based mechanisms have to date been used to grant licenses (principally through auctions) and to accommodate secondary trading of licenses. Spectrum trading is arguably the most potent market-based mechanism available, yet, in practice its impact has been minimal to date. To increase spectrum trading activity, regulators and governments can help satisfy key efficiency criteria including to ensure that there are well-defined property rights, thick markets with limits on abuse of market power, better information and limitations on unforeseen externalities”¹⁶ [own emphasis].
- 53 By allowing operators to trade in spectrum, the overall amount of spectrum is used more efficiently. The value that operators attach to certain frequency bands change over time, or the amount of spectrum that an operator received during ‘primary assignment’ might no longer be optimal for the way in which its network has developed. Spectrum trading also prevents operators

¹⁵ ITU (2017). ICT-centric economic growth, innovation and job creation. Eds. A.R. Sharafat & W.H. Lehr (p.136)

¹⁶ ITU (2017). ICT-centric economic growth, innovation and job creation. Eds. A.R. Sharafat & W.H. Lehr (p.138)

from using spectrum inefficiently to avoid being subjected to the “use it or lose it” principle in the regulations.

54 We posit that the resistance towards spectrum trading revealed in the Amendment Bill is motivated on three grounds: (a) a concern that it will reduce the demand for the services to be provided by the WOAN and hence jeopardise its commercial viability; (b) a concern that dominant operators will gain access to more spectrum to further strengthen their position in the market; and (c) a fear of losing control over a national resource.

55 The commercial viability of the WOAN will be imperative to its success. It is true that if spectrum trading is allowed, the bandwidth that is currently assigned could be used more efficiently to increase capacity and coverage. However, even if this is the case, the significant shortage of HDS will still push operators towards purchasing services from the WOAN. To our knowledge congestion on existing networks is so severe that even if spectrum trading frees up a small amount of bandwidth through more efficient use, MNOs will still have to turn to the WOAN to increase their network capacity in any meaningful manner.

56 In relation to the second concern, we recognise that there is a risk that spectrum trading can cause dominant operators with the ‘deepest pockets’ to gain control over large portions of the most important bands of spectrum. However, there are a range of policy options between allowing HDS to be freely traded, or not at all. Importantly, allowing spectrum to be traded does not mean that regulators have to cede control over how spectrum is assigned. Regulators can for instance enforce rules to control the amount of spectrum owned by an operator to prevent it from accumulating spectrum to the extent that it threatens competition and innovation. The Amendment Bill recommends that non-HDS may be traded with the Authority’s approval, and we see no reason why this should not also apply to HDS. The Authority and the CC through their proposed concurrent jurisdiction agreement can collectively assess the competitive impact of spectrum transactions, also taking public interest considerations into account.

57 The above also solves the third concern, which is that the Authority will lose control over a national resource. If two operators agree on a price at which spectrum is to be traded, the Authority should still approve the transfer of the licence. In this way, the Authority will encourage the efficient use of spectrum while still maintaining control over the allocation of the resource.

58 There is a further and final implication that a prohibition on HDS trading may have on the market, and that is by limiting consolidation. The policy creates a disincentive for merger and acquisition activity that might allow small players to become stronger competitors. South Africa’s duopolistic mobile telecommunications market makes it very difficult for smaller operators – such as Telkom Mobile – to grow their market share. This is despite there being a strong policy focus on increasing

competition in the sector. Allowing these firms to grow through consolidation can enhance competition. If spectrum trading or the transfer of spectrum is not allowed, the value of these transactions is severely diminished, and will cause the duopolistic market structure to remain in place for a longer period of time.

4 Section 43 & 44: Open access and the determination of deemed entities

59 The Amendment Bill proposes that an operator will be considered a “deemed entity” if it has significant market power (“SMP”) or has more than “twenty-five percent of the total electronic communication infrastructure” in a given market. Any ECNS licensee that controls an essential facility or scarce resource will also be considered a “deemed entity”. The definition of deemed entities is important, as this is what will determine whether a ECNS licensee will be mandated to comply with open access policies, including active infrastructure sharing, cost-based pricing, access to its ECN and EC facilities, and specific network and coverage targets.

60 There are a few important points that the Minister needs to consider in the determination of deemed entities.

61 The first is that the Minister does not need to determine “deemed entities” in the fixed broadband market. The regulation of telecommunications markets is required when market failures are identified, and while the South African *mobile* telecommunications market is dominated by two incumbents whose position will further be entrenched if they are assigned more spectrum, the same does not apply to the fixed market.

62 At the wholesale level, fixed telecommunication infrastructure can be divided into three layers: transmission, backhaul and access. Typically, the type of access and transmission required determine the geographic reach and technology. In the Telkom/ BCX and Vodacom/ Neotel cases, the Competition Commission (CC) distinguished between International Connectivity, National connectivity (Long Haul), Metropolitan connectivity and Last Mile. If one takes into consideration that in the fixed broadband space copper is being replaced by fibre at national, metropolitan and local levels, one observes that there are numerous fibre providers and that competition for fibre provision has significantly increased. A number of network operators already offer wholesale access to their networks, of which Openserve is one example. The large number of players that are active in e.g. the fibre to the home (FTTH) market is evidence of the competitiveness of the market at the wholesale access level. Regulating access at cost-based prices would therefore be counterproductive, as the desired outcome is currently being achieved through competitive pressures. Prices for fixed access are therefore already determined by competition and there is no need for ex-ante regulation in this space. Over-regulating a market in which effective competition is already taking place imposes unnecessary costs on the fiscus, operators and the economy.

- 63 Second, the Bill does not make it clear on what basis the electronic communications infrastructure will be measured. Does it refer to twenty-five percent in terms of value, or in terms of network coverage? If it refers to twenty-five percent in terms of value, should depreciation be taken into account? If it refers to coverage, what type of networks elements are to be included and will different networks (e.g. 2G, 3G and 4G) be considered as part of the same or separate markets? Market definition in the telecommunications sector can be complex, made more so by rapid technological change and convergence. This could delay the process whereby licensees are identified as deemed entities.
- 64 Third, a complicating factor with specifying a 25% market share cut-off as well as SMP can create confusion about the operators to which the open access regulations should apply. SMP is defined in Section 67 of the ECA, with one of the conditions of SMP being dominance. A dominant firm is defined in the Competition Act (section 7) as a firm with a market share of at least 45%, or 35% unless it can show that it does not have market power, or less than 35% but with market power. Relying on SMP makes it easier to align policy between the Competition Authorities and the Sector Regulator (we discuss this in more detail in section 6) and will create less uncertainty or room for regulatory arbitrage in the market. We suggest that the regulations will be easier to implement and enforce and clearer to interpret if they only apply to ECNS licensees with SMP in a relevant market, irrespective of their market shares.
- 65 Fourth, the Minister must be made aware that regulatory interventions that discriminate between firms can often lead to regulatory arbitrage, as players search for loopholes that allow them to circumvent regulations. Specifying a market share above which ECNS licensees need to comply with open access regulations may incentivise them to adjust their behaviour to fall below the market share threshold to avoid having to comply. There is a risk that this might reduce investment in general, as licensees try to remain below the specified level. This will be a strong signal of regulatory failure, as the purpose of the regulations is to increase rather than decrease network capacity and access.
- 66 The effect that the open access regulations will have on the behaviour of operators will depend on the trade-off between the cost of complying with the regulations (e.g. achieving the specified network and population coverage targets) and the potential income stream derived from providing retail operators with wholesale access. The Bill proposes that access must be granted according to cost-based pricing – in other words, ECNS licensees should not make an economic profit or loss from providing wholesale access. However, there might be costs associated with achieving the coverage targets, which may increase the cost of complying with the regulations without an accompanying benefit in revenue. It might be reasonable to consider allowing for a small profit margin to accommodate these costs.

67 Irrespective of whether SMP or a specific market share is used to identify licensees that have to comply with the open access regulations, the Minister will have to put clear policy in place to explain how network capacity constraints are to be dealt with. If an ECNS licensee that is also active in the retail market has limited capacity on its network, it may search for other ways of discriminating between its own retail network and that of the operators to which it provides wholesale access – for instance by delaying access or providing inferior services. These forms of discrimination, when they occur, will have to be dealt with by the Authority and Competition Commission. The frequency of such behaviour will likely increase if the regulations create a disincentive for ECNS licensees to invest in their networks, keeping capacity constrained. It is therefore imperative that the coverage targets are set at a reasonable level so that ECNS licence holders do not consider the open access regulations as a reason not to invest.

5 Section 42A: Impact of introducing regulated international roaming in SADC

68 The EC Amendment Bill aims to “provide for the regulation of international roaming including SADC roaming to ensure regulated roaming costs, quality of service and transparency.”¹⁷ The amendment will enable the Minister to prescribe regulations in accordance with SADC Roaming Policy Guidelines and SADC Model Roaming Regulations which includes price controls for SADC roaming.¹⁸

69 This regulatory change is necessitated by the market failure that is displayed through the high price of roaming within the SADC region as a result of the failure of competition to exert downward pressure on prices. A study conducted by Analysys Mason in 2010¹⁹ analysed the status of roaming in the SADC region on behalf of the Communications Regulators’ Association of Southern Africa (CRASA) with the aim of developing a programme that would reduce the cost of roaming in the SADC region. Analysys Mason arrived at the following conclusion: *“In many cases, prices for SADC-wide roaming at the wholesale level appear to be above the costs of providing the service. Retail margins vary significantly between operators and also appear to be above cost. These problems are compounded by a lack of transparency and consumer awareness of prices at the retail level which have affected consumer choice and competition.... SADC markets are at different stages of development, with regard to the degree of market liberalisation and market competition, which has a bearing on costs.”*²⁰

70 It is evident from the Analysys Mason assessment that the price of roaming in the SADC region is too high. The introduction of international roaming regulation will be favourable for SADC in many ways: it will result in lower tariffs for consumers travelling within the region, it will reduce transaction costs and contribute to the ease of doing business as well as increase the efficiency of companies in the region as companies would now be able to channel resources into other areas of business, and may also result in more competition from international networks and encourage better regional integration.

¹⁷ Memorandum on the objects of the electronic communications amendment bill, 2017. Page 83 (para 2)

¹⁸ Memorandum on the objects of the electronic communications amendment bill, 2017. Page 105 (para 3.23)

¹⁹ Analysys Mason. 2010. Final report for CRASA. Regulatory impact assessment study on SADC Home and Away roaming.

²⁰ Analysys Mason. 2010. Final report for CRASA. Regulatory impact assessment study on SADC Home and Away roaming. p.5

5.1 International precedent

71 Regulating roaming rates is not a novel idea, and has been implemented in many parts of the world, e.g. between New Zealand and Australia (referred to as “Trans-Tasman roaming”) and the EU. What follows is a brief overview of the imposition of roaming regulations in these two regions.

5.1.1 Trans-Tasman (New Zealand and Australia)

72 In February of 2013, the Australian and New Zealand governments decided to jointly regulate Trans-Tasman mobile roaming rates after several consultations and market studies. The problem here was that, prior to the regulations, mobile operators did not compete in the provision of roaming services. Travellers between the two countries were subject to uncompetitive prices in the visited country, which unnecessarily increased the cost of using roaming services.²¹ The objective of introducing roaming regulations was to encourage competition in the “*provision of international roaming services for the long-term benefit of end-users in New Zealand and Australia*”. In addition to the competition concerns, the governments’ objective was also to increase regional integration through this regulation.

73 In the Regulatory Impact Statement, which was compiled to provide an analysis of options to address the lack of competition in the Trans-Tasman mobile roaming telecommunications services, the following interventions were analysed: (1) Maintaining a watching brief²², (2) the direct intervention in the market by Government, (3) measures to promote pricing transparency and (4) enhancing the regulatory constraint posed by the two countries’ regulators. After a thorough cost benefit analysis was conducted, it was concluded that options 3 and 4 would be the most efficient and effective measures to introduce more competition in the international roaming market.

5.1.2 European Union

74 More recently, on the 15th of June 2017, roaming surcharges were abolished in the European Union (EU) through Regulation (EU) 2015/2120, also known as ‘roam-like-at-home’ (RLAH), in support of the establishment of the Digital Single Market Strategy in the Union.²³ The overarching objective underpinning this regulatory change is to achieve a single market for mobile communication services such that there is no differentiation between national and roaming tariffs.

²¹ Regulatory Impact Statement. Trans-Tasman mobile roaming: final report. 15 November 2012. (para 18,20)

²² Following the threat of regulation, there were initial price drops in the Trans-Tasman roaming region. Maintaining a “watching brief” entailed taking no action, observing the market and recommencing investigation if the circumstance requires it.

²³ Official Journal of the European Union. Regulation (EU) 2017/920 of the European Parliament and of the council of 17 May 2017. Page L147/1

Before the introduction of RLAH, customers travelling to EU member states were charged very high prices for using their mobile phones in the Union.

- 75 The European Commission²⁴ conducted an analysis of the wholesale roaming market and found that to sustainably abolish retail roaming surcharges, national wholesale roaming markets in the region would need to be competitive and the wholesale charges provided to operators would need to be at a level that enables them to sustainably offer retail roaming services without any additional charges.
- 76 The Commission's assessment of the abolishment of roaming surcharges found that it would have a threefold impact on the wholesale roaming market: (1) The increase in roaming traffic because of the implementation of RLAH could contribute to a reduction in wholesale roaming charges due to economies of scale. (2) It was also anticipated that the introduction of RLAH had the potential of strengthening the negotiation position of net receivers of roaming traffic and weaken that of the net senders due to the pressure placed on operators to provide their customers with the service. (3) The introduction of wholesale roaming regulations may lead net receivers of roaming traffic to recouping lost revenues in other parts of the retail business²⁵. It was because of the latter that the European Commission concluded that it was important to ensure that measures applicable to the wholesale roaming market were amended by adjusting the level of wholesale roaming charges to a level that facilitates the sustainable provision of RLAH in the Union.²⁶
- 77 These examples show that effective regulation should influence the functioning of the wholesale roaming market to enhance competition. It should also improve price transparency to contribute to the effective and efficient implementation of international roaming regulations.

5.2 At which level of the supply chain should roaming regulations be implemented?

- 78 The EC Amendment Bill states that "the regulations may include rate regulation for the provision of roaming services, including without limitation price controls on the wholesale and retail rates as determined by the Authority."²⁷ Whether regulation should take place at the wholesale or at the retail level is an important consideration in effectively regulating international roaming markets. In defining markets for ex ante regulation, a lack of competition in the retail market does

²⁴ European Commission. 2016. Report from the Commission to the European Parliament and the Council on the review of the wholesale roaming market.

²⁵ European Commission. 2016. Report from the Commission to the European Parliament and the Council on the review of the wholesale roaming market. Page 7

²⁶ Official Journal of the European Union. Regulation (EU) 2017/920 of the European Parliament and of the Council of 17 May 2017. Page L147/2.

²⁷ Memorandum on the objects of the electronic communications amendment bill, 2017. Page 57 (para 4(b))

not necessarily imply a need for ex ante regulation at this level. Ex ante regulation at the retail level should only be implemented if regulation at the wholesale level has failed to affect competition. The rationale is that “[by] intervening at the wholesale level, [National Regulatory Authorities] can ensure that as much of the value chain is subject to the competition process as possible, thereby delivering the best outcomes for end-users” (European Commission, 2014, p. 19).

79 As shown above, roaming regulations in the EU also followed this approach. Regulating the wholesale level was deemed to be effective in ensuring that the prices at the retail level would be affected. *“The Commission finds that in order to ensure that retail roaming services can be provided at domestic retail prices, wholesale roaming inputs must be available at a level that allows home operators to provide RLAH.”*²⁸ This stemmed from the excessively high price of wholesale roaming rates in Europe. Furthermore, according to the European Competitive Telecommunications Association (ECTA), regulating of retail prices is considered an intrusive measure and shouldn’t be considered a long-term regulatory solution. The ECTA argues that *“the appropriate form of wholesale regulation should result in no need for retail price regulation.”*²⁹ It is therefore reasonable to conclude that regulation at the wholesale level would be the most effective measure. The Amendment Bill should phrase its proposals on regulating international roaming in the SADC region in this manner.

²⁸ Official Journal of the European Union. Regulation (EU) 2017/920 of the European Parliament and of the council of 17 May 2017. Page L147/2

²⁹ ECTA.

6 Section 67: Introduction of regular market reviews

80 The need for closer collaboration between the communications sector regulator and Competition Authorities in South Africa has been evidenced by events of the past few years. Examples include the abandoned Vodacom/ Neotel merger for which approvals by both the CC and the Authority were required, and the launch of inquiries into the telecoms sector by both authorities. Currently, the relationship between the Authority and the CC is dictated by a Memorandum of Understanding, but the Amendment Bill proposes to create a closer relationship through entering into a concurrent jurisdiction agreement. It states specifically that the agreement must allow for regular consultation on market definition, market reviews and mergers.

81 We want to emphasise that this does not mean that the policy focus areas of the Authorities need to change. To avoid over-regulating a sector, ex ante regulation should in principle only be applied if ex post competition policy alone cannot address observed market failure. In contrast, ex post competition policy should address competition concerns by identifying harm and implementing necessary penalties or remedies. Forward looking ex ante regulation prescribes business conduct in markets where structural problems cause market failure, such as in the present case where HDS remains unassigned.

82 The regulatory remedies that are proposed in the Amendment Bill – such as open access and establishing a WOAN – could, however, create concerns that fall in the realm of ex post competition policy. Potential competition concerns in the telecommunications sector include denying access to infrastructure for downstream service providers (i.e. a refusal to deal), implementing non-price strategies (such as bundling and tying, delaying tactics, quality issues, etc.) or price strategies (such as price discrimination, predatory pricing, margin squeeze and cross subsidisation) with the aim of excluding other market participants. It is therefore imperative that the two authorities have an agreement in place that clearly sets out how they are to work together.

83 One of the conditions that the Amendment Bill proposes is “a mechanism to facilitate consultation between the Authority and the Competition Commission on ... market reviews”. As mentioned earlier, both authorities have recently launched inquiries into the telecommunications market. The CC’s inquiry deals specifically with data prices and has the objective to identify whether there are “features in data services markets which prevent, distort or restrict competition”³⁰. In contrast, the Authority’s market review is mandated under Section 67(4) of the ECA, with the objective of defining priority markets where there is ineffective competition or players with SMP, and to impose the necessary regulations and licencing conditions to correct these failures. While the objectives

³⁰ Competition Commission (2017). Data Services Market Inquiry. *Terms of Reference*. Government Gazette, 18 August 2017.

of the inquiries are different, they deal with many of the same issues and themes, and it is important that their views are aligned. Reaching common ground on matters such as market definition and the presence of market failure will make it easier for both Authorities to reach their objectives. It will also reduce uncertainty in the market and limit debates around which Authority has the prevailing jurisdiction in certain matters, especially in relation to merger activity where different aspects of a transaction need to be approved by different authorities.

- 84 Regular market reviews could make it easier for the Authorities to work together. The EU provides useful precedent for how such reviews are to be conducted. In the European telecommunications regime, market definition for the purpose of identifying a need for ex ante regulation is common practice. In line with the requirement to reduce regulation as competition develops, Article 16(6) of Directive 2002/21/EC (“the Framework Directive”) stipulates that national regulators need to carry out a round of market analyses every three years to ensure that the markets defined as requiring ex ante regulation still satisfy the criteria. While it should remain the priority of the Authority to implement and enforce ex ante regulation, the CC can be of great assistance to the Authority in determining the relevant market definitions in these reviews.
- 85 Regular market reviews may increase costs in the short term, but are imperative in a sector where regulatory intervention needs to keep up with technological change. By reviewing the state of competition in different relevant markets on a frequent basis, it will be easier to ensure that more competition is introduced and maintained.
- 86 It is feasible that the Authority and the CC should work together to achieve this goal. In the Netherlands, the sector regulator and competition authority were consolidated into a single entity in 2013 to focus on consumer protection, industry-specific regulation, and competition oversight. It combined the Netherlands Competition Authority (NMa), the Netherlands Consumer Authority, and the Independent Post and Telecommunications Authority of the Netherlands (OPTA) into the Netherlands Authority for Consumers and Markets. This illustrates the need for and benefit of regulators and Competition Authorities to work more closely together, enabling important economies of scale.

7 Summary remarks

- 87 The policy proposals contained in the EC Amendment Bill have the potential to bring considerable change to South Africa's telecommunications sector through introducing much needed competition into the mobile market. There are however aspects of the Amendment Bill as it currently stands that can lead to increased inefficiencies, higher prices and loss of investor confidence. Given the important role of affordable access to telecommunications services for economic growth, the Minister can hardly afford this scenario to play out. In this report, we have therefore commented on some of the most important aspects of the Amendment Bill.
- 88 We specifically considered the implications of implementing a WOAN and the regulatory approaches that would ensure the highest level of success. The proposed WOAN is attractive in the sense that it provides a way for mobile operators to obtain access to bandwidth in a manner that does not entrench the existing duopolistic market structure. It has the potential to encourage service-based competition in the retail market, but the benefits of more competition downstream can easily be eradicated by creating a monopoly (albeit regulated) at the wholesale level. It is therefore imperative that existing assignments of HDS should not have to be returned to the state.
- 89 We also evaluated the benefits and risks that can come from allowing HDS trading, to show that it will allow the economic value of spectrum to be maximised. We understand that the Authority wants to retain control over how spectrum is assigned, and argue that by requiring any spectrum trading to be approved by the Authority this objective can still be achieved. The benefits of allowing spectrum trading includes providing a way for the WOAN to obtain more spectrum without introducing uncertainty into the market, and also allowing consolidations to take place that can challenge the existing duopolistic structure of the market.
- 90 We further commented on the determination of deemed entities, to say that the Minister should restrict the definition to mobile operators with SMP in the market for electronic network infrastructure. This will allow for closer policy alignment between the Authority and the Competition Authorities, and would make the open access regulations easier to implement and monitor. We further explained that in the fixed broadband market, wholesale access is already provided at competitive prices, and that it would be unnecessary to impose open access conditions on fixed network providers.
- 91 In respect of the proposal to implement international roaming regulations for the SADC region, we looked at similar policies that have been implemented in two other regions. Based on this analysis, we argued that it would be most effective to implement roaming regulation on wholesale prices rather than regulating the retail roaming market.

- 92 Finally, we considered the relationship between the Authority and the Competition Authorities. We explained the need for closer collaboration between these Authorities. We also highlighted that regular market reviews would not only make it easier for these parties to achieve their policy objectives, but would also ensure that regulatory measures keep up with rapid technological change in the telecoms sector.
- 93 The Amendment Bill has the potential to bring much needed change to South Africa's mobile telecoms market – and ultimately the South African economy – but certain areas need further refinement or clarification. The aim of this report was to make recommendations and highlight important caveats, as inputs into the policy making process.