# Submission in response to the Commerce Commission's mobile market study - preliminary findings

PUBLIC VERSION

# Competition at a turning point

June 2019

# 1 Executive summary

2degrees broadly supported the key findings from the Commerce Commission's Mobile Market Study Preliminary Views paper, which identified the importance of addressing asymmetric spectrum holdings for future retail and wholesale competition and the emergence of a wholesale MVNO market enabling new retail competition. We agreed no specific regulatory intervention of MVNOs or fourth national MNO entry is warranted at this time, and that the Schedule 3 reviews of MTAS, colocation, number portability and national roaming should remain as planned.

The Commission's view reflects that competition in the mobile market is generally working well - and with the addition of 2degrees - is now driven by three-player national infrastructure competition, without the need for the regulatory oversight and Government funding that stimulated investment in fixed fibre networks. Competitive private investors are delivering lower mobile prices and increasing mobile quality to consumers, with high 4G speeds and coverage, and continual investment in new services and technologies.

While smaller than the traditional mobile incumbents, 2degrees is growing fast. It marks its 10th year of operation with a national mobile network and expansion into the wholesale market. To recover past investments and fund those needed in future, 2degrees has outlined its ambition to grow in both the retail and wholesale markets. We consider the focus of regulators should be to ensure 2degrees has enough spectrum relative to its competitors to continue to be a competitive force.

We believe regulatory intervention now would hinder rather than promote competition, increasing regulatory uncertainty just as operators look to invest millions into the next generation of mobile services.

2degrees' previous submission on the Preliminary Views paper provided further comment and updates on spectrum issues, emerging MVNO competition and questions about the clarity of the Commission's objectives in progressing consumer engagement in a market where consumers were able to access usage information and switch with ease. It highlighted how quickly the retail market is evolving, pointing to the introduction of new offers for high data users, including our unlimited and pool plans.

This cross-submission comments on third party submissions on the Commission's Preliminary Views paper. The key areas our cross-submission elaborates on are:

- **Spectrum:**

  2degrees requires spectrum disparities to be addressed to ensure it can remain competitive over the long term. Differing and contradictory submissions discuss the reasons for and impacts of Spark and Vodafone having significantly larger holdings than 2degrees. There are misleading references to the reasons 2degrees secured a lower 700MHz holding and a blatant attempt to confuse the Commission on the extent of 2degrees' spectrum holdings. 2degrees has been fighting misleading incumbent arguments about spectrum for more than a decade. Although the arguments have varied, their common aim has been to ensure 2degrees continues to have significantly less spectrum than its major competitors, reducing its ability to compete effectively with them in future.

  At a time when 2degrees has invested in a comparable national mobile network and recently become profitable – while facing the challenges of future 5G investment – the Commission should be wary of attempts to frustrate 2degrees from creating more retail competition and enabling new wholesale competition to fully develop. The Commission should support 2degrees' call:

  - To ensure it acquires at least the same amount of 3.5GHz spectrum as Vodafone and Spark at the upcoming auction (and not perpetuate spectrum disparities as 5G networks are built); and
  - To acquire currently unused 2.1GHz spectrum, particularly given MBIEs recent decision to reduce 2degrees' existing 1.8GHz holding while allowing Vodafone to retain 2x10MHz more of 2.1GHz spectrum (over both 2degrees and Spark).

- **Wholesale competition and MVNOs:**

  2degrees encourages genuine MVNO access seekers to engage in genuine commercial discussions with all MNOs, including 2degrees, before seeking regulatory intervention. Some of the submitters calling for regulation have never attempted to negotiate agreements with 2degrees. Others mislead with claims about what is available at wholesale level and do not accurately reflect the progress of our own commercial MVNO negotiations.

  There are calls to adopt metrics to establish a certain number of MVNOs or target MVNO market share without any evidence as to how consumers will benefit or what the costs of regulatory intervention would be. 2degrees does not oppose MVNO monitoring, but considers the focus should be on consumer benefits. Calls for interventions such as 'reference offers' are inappropriate in a market where there is no demonstrated need for regulation - and harmful to the development of competition and innovation by genuine MVNO access seekers.

  Although New Zealand's small population and geography are challenging for MVNOs, there are opportunities for those ready to genuinely commit and invest in new consumer-benefitting services. 2degrees is keen to work with potential access seekers to develop these services and make use of its world-class network.

We also provide commentary on:

- **Consumer engagement:**

  We agree with Spark and Trustpower comments that not all customers who 'don't engage' represent an issue. This supports 2degrees' view that regulatory responses (if any) should be proportionate to perceived issues. We are not clear that there is merit focussing on this perceived issue, but appreciate the Commission is seeking greater understanding of the market and considering its new role in monitoring retail service quality issues.

- **Fibre backhaul and Fixed Wireless Access:**

  We agree with Chorus that wireless services are reliant on the fibre fixed access network to sustain the quality and speeds consumers are likely to demand in the future. This is why we support regulatory oversight of fibre monopoly inputs that will be key inputs to future 5G wireless solutions.

  We agree with Chorus that consumers should not be misinformed regarding capabilities of various access solutions. However, we do not think this is occurring, and FWA will be an appropriate service for some consumers. 2degrees anticipates offering FWA services over time, alongside its fibre offering.

## 2 Spectrum

### Addressing spectrum asymmetries is important for ongoing retail and wholesale competition

The critical role spectrum plays in mobile market competition was recognised in most submissions, as was the problem spectrum disparities will create for future competition.

2degrees reaffirms its view that future spectrum allocations must not widen the gap between the spectrum available to 2degrees and its incumbent competitors – or extend it to key 5G bands.

More balanced spectrum holdings will support ongoing retail competition and further wholesale competition, enabling MVNOs and future models (including network slicing). Consistent with a number of submissions (including TUANZ), and with our own experience, we do not believe a fourth national entrant is sustainable in New Zealand, but that the third player must remain an effective competitive constraint against incumbents in retail and wholesale markets.

2degrees will need comparable spectrum holdings to grow and achieve scale and cost benefits similar to competitors over time - and to offer the range of competing products incumbents with larger holdings can provide. The Commission should be very wary of arguments that long-term national spectrum allocations be determined on current market shares.

Addressing existing spectrum disparities is supported by MVNO access seekers. Vocus "supports measures to rebalance spectrum holdings as a means to bolster 2degrees' ability to compete in both retail and wholesale" and Nova Energy comments that 2degrees' (currently) lower relative spectrum holdings make it unable to deliver comparable MVNO services.

This is why 2degrees considers the Commission should support:

- 2degrees acquiring *at least the same amount* of 3.5GHz spectrum as Vodafone and Spark in the forthcoming 5G auction (supported by appropriate reserve pricing, payment over time options, and meaningful but realistic implementation obligations); and
- Acquisition of the currently unused 2x5MHz of 2.1GHz spectrum. Spark and Vodafone already have substantially more holdings in the '2GHz'[1] bands, which are required for 4G mobile, FWA and 5G. Acquiring this spectrum would offset the non-renewal of 2x5MHz of 1800MHz spectrum, which has a disproportionate impact on 2degrees, and will support much more efficient use of this spectrum to deliver significant consumer benefits.

The Commission's preliminary view that asymmetric spectrum holdings could impact future competition is a critical insight, so it is not surprising Spark and Vodafone are pushing back so hard.

Spark and Vodafone have produced differing and contradictory submissions on the reasons for and impacts of them having significantly larger holdings than 2degrees. There are references to historical merger decisions, auction results and commercial decisions by different parties.

There are misleading references to the reasons 2degrees secured a lower 700MHz holding at auction. This was not a 'choice' of whether to "direct capital into spectrum rather than into in-fill sites to meet capacity requirements…" because 2degrees was limited by capital at that time.

While Spark and Vodafone could draw on years of substantial profits, 2degrees had yet to turn a profit, was still rolling out national network and paying **[C-I-C]** in national roaming charges. Although 2degrees wanted to purchase its full 2x15 MHz spectrum allocation, this was not possible at that time. The three companies could hardly be considered as having an equal chance of purchasing this spectrum at that time.

Vodafone's submission makes a brazen attempt to confuse the Commission, referring to 2degrees holding more spectrum *per current subscribers* than Spark or Vodafone. It selectively excludes cellular

[1] 1.8 GHz, 2.1 GHz, 2.3 GHz and 2.6 GHz spectrum.

spectrum in its analysis.[2] Vodafone also says the distribution of spectrum is "not a competition problem…because different spectrum bands have different values and uses, and in the key bands the three MNOs are more closely aligned." These arguments are anti-competitive:

- 2degrees is a growing business. Spectrum capacity constrains growth and the ability to serve new markets. Spectrum must often be acquired, and networks built, in *advance* of customer usage. Using Vodafone-logic, on its first day of operation 2degrees would have had nearly 2x50MHz of spectrum for its first customers. What Vodafone is really arguing is that 2degrees should have its current market share frozen by lower spectrum holdings. We have seen this before when Telecom (now Spark) argued 2degrees did not need more spectrum given its strategy of "targeting of price conscious consumers".
- Vodafone ignores the significant differences in spectrum holdings in key spectrum bands, including 2GHz bands, and the challenges 2degrees faces regarding spectrum capacity planning **[C-I-C]**.
- Per subscriber comparisons are misleading because they do not acknowledge that higher spectrum holdings provide greater 'trunking efficiency'[3] and less costly expansion options, which a spectrum holdings per subscriber measure does not capture.
- Vodafone's argument is similar to its UK parent, but at odds with Ofcom's decision to impose overall caps in the UK market. Ofcom imposed spectrum caps "to safeguard competition".

Spark's approach is different, but also aims to constrain 2degrees from addressing the spectrum disparities the Commission has identified as a risk to future competition. Spark aims to distract the Commission by pointing to spectrum utilisation and harm to competition if it loses spectrum, but:

- While we agree spectrum utilisation is a consideration, multiple factors need to be taken into account when allocating spectrum. They include other spectrum holdings, length of spectrum rights, timing of allocations, the efficient use of that spectrum and impact on competition. Current utilisation matters, but the management right holder should have commercial flexibility on how to use that spectrum over time. All operators make trade-offs, for example whether and when the spectrum should be re-farmed and how it is allocated to different cellular uses.
- Spark attempts to have it both ways - arguing that limiting spectrum would impact its ability to compete and require it to build more sites to deliver capacity, at a cost to the community. Yet it suggests 2degrees can compete if it does just that. The question for the Commission is whether it should support incumbents such as Spark having an even greater portion of available spectrum, locking in a lower cost structure and greater flexibility than the company driving improved consumer benefits.
- Contradicting Spark, Vodafone argues that New Zealand has large amounts of spectrum. Its arguments attempt to distract the Commission from the real issue, which is the *relative* holdings of each mobile operator and the impact that has on respective operating costs and ability to compete.

Allocating long term management rights on the basis of current market shares would lock the market into a 'current state' and does not support ongoing retail and wholesale competition.

Their arguments about preserving their structural advantages over a fast-growing competitor are not new. 2degrees has been fighting misleading incumbent arguments over spectrum for more than a decade. Although the arguments vary, the common intent is to ensure 2degrees continues to have significantly less spectrum than its major competitors, so it cannot compete effectively with them in future.

[2] 2.3GHz spectrum is excluding on the basis it is used for FWA. 2.3GHz spectrum is cellular spectrum that can be used for both mobile and FWA. In contrast, other bands that are used for FWA are included in the analysis. We note 2degrees needs to launch a FWA service with no 2.3GHz.

[3] Trunking efficiency refers to improvement in network efficiency with the increase in capacity. For example, if the network capacity is doubled, the network will be able to carry more than double the traffic e.g. 220% instead of 200%.

As substantial holders of multiple spectrum bands, it is clear Vodafone and Spark are concerned about aggregate spectrum caps, and the potential for that to reduce their 3.5GHz spectrum holdings. 2degrees supports spectrum caps over time, including a sub-1GHz cap, a '2GHz' cap, and future 5G cap (when more 5G bands become available). However:

- We recognise the importance of 3.5GHz as the primary 5G band in the short term (although other spectrum will be useful for 5G, including 2GHz over time)
- We agree with Spark that wide bandwidths of 3.5GHz spectrum are optimal for MNOs. This will "support high peak speeds and latency needs for anticipated downstream services that rely on this level of network performance" and thus "support the service performance and economic benefits promised by 5G deployments".
- We would support *all MNOs* getting 100MHz of 3.5GHz spectrum – but *do not* support an unequal allocation of this spectrum where Spark and/or Vodafone can acquire a long term (20 year) management right and extend spectrum disparities to 5G due to capital constraints of the growing third operator (a repeat of the 700MHz allocation).
- The Commission should support 2degrees getting *at least as much 3.5GHz spectrum as Vodafone and Spark in the forthcoming 3.5GHz auction* as a disadvantage in this spectrum holding will have a long-term impact on retail and wholesale competition.

### MBIE doesn't need to choose between three player infrastructure competition and future uses

A number of submissions suggest there will a range of as yet unknown potential 5G uses and that spectrum allocation needs to ensure spectrum is available for them.

2degrees agrees there will be multiple players, with new business models (including individual vertical industries, local government and other regional players). We expect these needs to be served by:

- Competing wholesale network providers. Innovative new uses/operators can utilise networks provided by MNOs or other operators. This highlights the importance of future spectrum allocations for the third MNO to drive future competition; and
- Direct use of 3.5GHz 5G spectrum (and potentially other 5G bands as these become available).

5G 'synchronisation' of the 3.5GHz band supports optimal 100MHz allocations to existing MNOs and more spectrum for other 5G users. This includes the potential for a 5G managed park type scenario, regional allocations, smaller blocks or a combination, or even a 'set-aside'. This is a far more efficient use of spectrum resource because it removes the need for a substantial guard band (unused/under-utilised spectrum) which is currently looking to be 40MHz alone).

2degrees acknowledges concerns regarding existing WISP spectrum, and the WISPANZ 'Don't waste our spectrum campaign' highlighted by InternetNZ and TUANZ. 2degrees does not oppose WISPs acquiring spectrum, but supports more efficient use of existing spectrum. Preserving current arrangements could be considered wasteful, creating substantial interference issues, preventing 5G rollout to large areas of New Zealand (including all WISP areas), and reducing 5G performance for consumers nationally.

If WISPS cannot 5G synchronise we support consolidation and/or compensation of those parties to enable shifting of their services to other spectrum so they can continue to deliver consumer services.

### MVNO spectrum obligations inappropriate and unneccessary

Several submissions (including Vocus, Nova Energy and InternetNZ) recommend attaching MVNO conditions to spectrum allocation. We do not support this.

While 2degrees encourages MVNOs and is interested in the potential for network slicing to enable unique wholesale services, there is no need for regulation when competition is emerging and the market is competitive.

Nor should spectrum conditions be imposed by MBIE/the Crown. Regulatory access issues are already considered by the Commission, as the regulator responsible for telecommunications regulation.

## Coverage obligations of 5G spectrum

Chorus' proposes multiple, extensive coverage obligations. The list extends to national, regional, outdoor and indoor coverage obligations, a set percentage of road and rail infrastructure to be covered by all MNOs and minimum bandwidth obligations. Chorus also suggests regulation to ensure the "low coverage" (presumably the more than 95% 4G population coverage or 98.5% population coverage is 'low') "is not replicated for 5G".

These are interesting comments from a company that needed more than $1 billion in public funding to establish its network. Chorus would know better than most that network deployment in all geographies is uneconomic given low population density and the nature of New Zealand terrain.

While 2degrees is a strong supporter of competition in rural NZ – for years arguing to create a viable model for the Rural Broadband Initiative – attaching coverage obligations to 3.5GHz spectrum awards is not a sensible or efficient solution for New Zealand:

- 3.5GHz 5G spectrum is a high frequency band that is not well suited for broad range rural coverage.
- The initial driver for 5G rollout is primarily meeting consumer data demands. In less densely populated areas 4G technology evolutions are likely to address those demands for some time.
- The RBI2 and Mobile Black Spot Fund (MBSF) is delivering coverage to non-economic areas, including rural areas and transport corridors. Under this programme, 99.8% of the population will receive broadband and mobile coverage[4]. The Rural Connectivity Group (RCG) has been set up as a JV between all three MNOs to deliver RBI2 and MBSF initiatives. Under this, RBI is available as an open access platform available for other providers, delivering 4G today *and* 5G services over time. 2degrees sees this initiative as pro-competitive: ending the 'arms race' of uneconomic network triplication, while companies remain free to build alone or negotiate commercial sharing agreements in commercially viable areas. All operators (and their wholesale customers) can offer national coverage, and increasingly serve non-economic areas. Spectrum obligations would undermine this.

Concerns regarding coverage appear to stem from the Commission ranking New Zealand '4G availability' as 65 out of 88 countries (despite being 6 out of 95 for 4G population coverage), based on an Opensignal report. We appreciate that 4G availability is not the same as geographic coverage, with New Zealand's geography making 100% coverage unrealistic.

Like Spark, we are unclear on the validity of the Opensignal ranking and how it relates to consumer experience. The Opensignal results do not represent actual 4G coverage or quality of consumer experience. New Zealand has over 95% 4G population coverage and the vast majority of our data travels via 4G. While users also use the 3G network, including for voice calls, we expect customers experience much greater '4G availability' than the Opensignal Report implies.

As Spark identified, there are likely to be a number of factors at play, including devices and device settings, and 3G voice **[C-I-C]**. Markets where VoLTE has been more widely deployed could indicate longer periods of 4G availability but that would not represent an improvement to consumer experience.

[4] https://www.beehive.govt.nz/release/broadband-extends-998-population.

# 3 Wholesale market & MVNOs

2degrees supports the Commission's preliminary views that MVNO regulation is not justified at this time. Now that 2degrees has built out its national mobile network it has started to drive competition in this market and is actively seeking MVNO opportunities.

MVNO regulation would undermine, rather than promote, wholesale competition.

In contrast to 2degrees' view, the Commission received a number of submissions seeking direct MVNO regulation or the setting of target metrics for MVNO market share to determine a threshold for further regulatory interventions. These appear to be focussed on the interests of MVNO access seekers, rather than improved consumer outcomes.

In some cases, submissions came from parties that have not yet approached 2degrees for an MVNO service, or have not done so for some time, yet seem consigned to regulation to support their business case.

As Red Dawn and others point out, launching an MVNO requires investment, with scale-economy challenges providing an additional challenge in a small country like New Zealand.[5] Despite this, 2degrees is excited about this market and will work with genuine MVNO access seekers to launch new services via its network.

We agree with Vodafone (and the Commission) that *"to justify any intervention the Commission would have had to demonstrate a real problem affecting consumers, and clearly show that the intervention would have helped to solve that problem."* [6] This is not the case at the moment:

- As Spark and Vodafone have pointed out (consistent with the Commission's findings) New Zealand mobile consumers are generally well served, with prices lower than OECD averages across the board (and performing better than fixed), over 95% 4G population coverage (and growing) and consumers finding it easy to switch and compare.
- Our research aligns with submissions from Spark/NERA and Vodafone that more MVNOs do not correlate with 'better' market performance. Vodafone found international evidence has shown little to no impact on prices: "What research we have today suggests, consistently, that MVNOs have had no statistically significant impact on retail prices...". NERA (for Spark) found numerous examples of countries with more MVNOS and higher prices.[7]
- Submitters demonstrate a lack of appreciation for the need to engage commercially prior to regulation of a market with *all three* potential wholesale providers. Genuine engagement is rare and parties claiming the market is 'one-sided', 'extremely under-developed and/or weighted towards the MNOs' are uninformed. [8]

[5] Vodafone and Spark/NERA submissions (along with Red Dawn) highlight the challenges of scale in New Zealand to determining MVNO services, consistent with our experience. While Trustpower's submission supports 'thick' MVNOs in New Zealand, evidence 2degrees has seen to date (including dealing with potential MVNO providers from NZ and overseas) points to the contrary, with resale and a potential move to light MVNO the most likely outcomes.

[6] We also concur with Spark/NERA comments on the Red Dawn report, that "*What surprised us about the Red Dawn report was the extent to which it sought to explore possible regulatory interventions, without a finding of market failure, a case for intervention, or a meaningful costs-benefit analysis of intervention"* and *"The Red Dawn report has not identified or defined a problem with respect to consumer outcomes that increased MVNO participation in the market would solve."*

[7] NERA analysed the relationship between 4G uptake, mobile data speed and mobile data use and MVNO market share and found no statistically significant relationship between MVNO share and these outcomes.

[88] We do appreciate that some submitters, including Chorus and Nova Energy, are not privy to the commercial negotiations that have occurred with multiple potential MVNO entrants – both domestic and international - nor the commercially sensitive content shared with the Commission outlining the depth and breadth of commercial engagements 2degrees has had with prospective MVNOs. The Commission's views are based on knowledge of actual commercial discussions with MVNO seekers and access providers as well as 2degrees' improved ability to serve MVNOs.

- Vocus' claim that MVNO regulatory intervention is needed because MNO offers include certain provisions "to ensure MVNOs are 'kept in their place'" are at odds with 2degrees' approach to wholesale. We look forward to the opportunity to engage commercially. **[C-I-C]**.
- Comparing the success of Vocus' mobile uptake to Skinny is misleading. Skinny has invested heavily in the development and extensive marketing of no-contract services to the high-churn pre-pay market. By comparison, Vocus mobile products are not highly visible in the market and only available to customers that buy its broadband service. They are different products serving different markets.
- A number of submitters incorrectly suggest MVNO competition is only emerging because of the Mobile Market Review. 2degrees had invested in its MVNE platform and responded to **[C-I-C]** before the announcement of the scope of the Mobile Market Study.[9]

We consider parties should attempt *genuine* commercial negotiations before seeking regulatory intervention to support their business case.

We particularly welcome Vocus' decision to issue an RFP this month. We do not share Vocus' view that "[w]ithout some proactivity and leadership from the Commission" there will not "be any significant change in the MVNO situation", however appreciate Vocus is "happy to be proven wrong", and will participate actively in this RFP.

Our experience in bidding for the Trustpower MVNO is that MNOs incur substantial costs in undertaking MVNO negotiations and enabling MVNOs on their network. It is important potential access seekers are genuinely committed to a competitive process, rather than using challenger access providers as a 'stalking horse'.

## Monitoring and metrics

A number of potential access seekers (along with Chorus, InternetNZ) are seeking greater monitoring of MVNOs, for example the number of MVNOs, MVNO market share and targets for future MVNO market intervention. Some support MVNO 'reference offers', which would include potential MVNO price benchmarks and roadmaps for such areas as exclusivity, access to new technology & variants, retail-minus margins. **[C-I-C]**

2degrees does not oppose monitoring. Like Spark, "[W]e support the Commission's proposed approach to further monitor the development of wholesale arrangements as the market evolves". We do not support targets or reference offers for non-regulated competitive services, where commercial negotiations have yet to occur.

In addition, we note the lack of correlation between MVNO numbers or market share and consumer outcomes.[10] Any regulatory intervention would need to consider consumer-based metrics relating to prices and services available and both benefits and costs of regulatory intervention.

In a competitive market such measures could constrain competition and innovation and consumer choice, not drive it.

[9] 2degrees responded to **[C-I-C]**. The Mobile Market Study scope was released by the Commerce Commission on March 27, 2018.

[10] Despite over 90 fixed RSPs on monopoly fixed networks, New Zealand mobile prices perform better relative to the OECD than fixed services.

# 4 Consumer Engagement

2degrees submitted in support of the Commission monitoring consumer engagement issues – as long as monitoring or action is proportionate to the perceived issues, and does not hinder market innovation or competition. The Commission found low barriers to switching and most consumers could easily access their mobile usage data, compare and switch plans. However, the Commission suggested consumer inertia may be an issue because some consumers don't compare plans often or switch providers.

In our experience, consumers are less likely to compare plans and switch providers when they are happy. Switching numbers alone are not a measure of a competitive market, and customers can often meet their needs by switching between plans rather than mobile providers.

Spark's submission usefully expands on the reasons people don't move networks and is consistent with 2degrees' experience. Spark states:

> *We believe the Commission has structurally underestimated the underlying level of customer consideration activity in our market, and we believe the simplest answer to the Commission's question is the right one – that the year-on-year increases in value, network quality, and ancillary benefits that mobile service providers are delivering to our customers means many customers are content to stay with the same provider of what is a critical service in their day to day lives.*
>
> *We believe that customers are significantly more active, and aware, than the measures considered by the paper suggest.*

Consistent with 2degrees' experience, customers are constantly reassessing and changing plans, including changing either their operator or plan, changing pack add-ons and so on.

We agree with Spark that consumers find it easy to switch if they want to.

Like Spark, 2degrees is working with Commission staff regarding their consumer billing enquiries/data from MNOs that will allow them to consider whether consumers are, in practice, selecting the bundle of services that best meets their actual usage.

Trustpower also acknowledges that not all customers who do not engage represent an issue:

> *Customers who consciously choose not to engage do not necessarily represent an issue as there may be a variety of reasons why they choose to stay with a particular mobile provider including good service or brand affinity. Likewise, they may have made an assessment that the search costs associated with comparing alternative service offers is too high compared to the potential benefits.*

This further supports our call to ensure actions (if any) are proportionate to the perceived issues. Given the ease of consumer plan comparison and the competitive nature of mobile, it is unclear if there is merit on focusing on this perceived issue.

# 5 Other matters

## a. Fibre backhaul

Chorus notes "*While the use cases for investment in 5G by MNOs are still unclear, apart from an obvious case of increasing the available broadband bandwidth per each mobile user,* ***what is clear and unambiguous is its reliance on the fixed fibre access network to sustain the optimum network speed and quality that consumers are likely to demand****".* [emphasis added]

We agree. Given the importance of fibre backhaul services to 5G and other wireless services, we reiterate our concerns that fibre monopoly services provided by Chorus/LFCs must be available at a reasonable rate and subject to regulatory oversight. Over time, the cost of fibre backhaul will have a significant impact on the cost and timeliness of 5G deployments.

In addition, as set out in our previous submission 2degrees has no issue with Chorus' comment that infrastructure sharing proposals that raise competition concerns should go through the Commission's authorisation process.

## b. Fixed wireless

We agree with Chorus that there are differences between current FWA services and UFB. FWA connections are limited by geography, capacity, congestion/speed at peak times and do not currently offer truly unlimited data use. However, submitting that FWA is not a full substitute for UFB ignores the fact that FWA may be a perfect substitute for customers with more limited needs. For example:

- FWA will be appropriate for some consumers, e.g. lower usage.
- Over time FWA will improve.

2degrees anticipates offering FWA services over time, and see these as complementary to our fibre services.

We expect FWA will meet some consumers' needs, while providing some competitive constraint on Chorus. The Commission should support competition from FWA and be wary of the potential for fibre providers to use their monopoly power to impact the cost of backhaul for wireless services.

While Chorus would like the Commission to focus solely on retail competition, preferably using Chorus' network, the Commission is responsible for retail *and* wholesale telecommunications competition for the long-term benefit of all telecommunications end users – involving fixed, fixed wireless and mobile.

While we agree consumers should not be misinformed about services they receive, we do not consider this has been the case. We are keen to provide consumers with the broadband service that meets their needs, not what Chorus predetermines the appropriate access solution to be.