



# 5G

## The evolution towards a revolution

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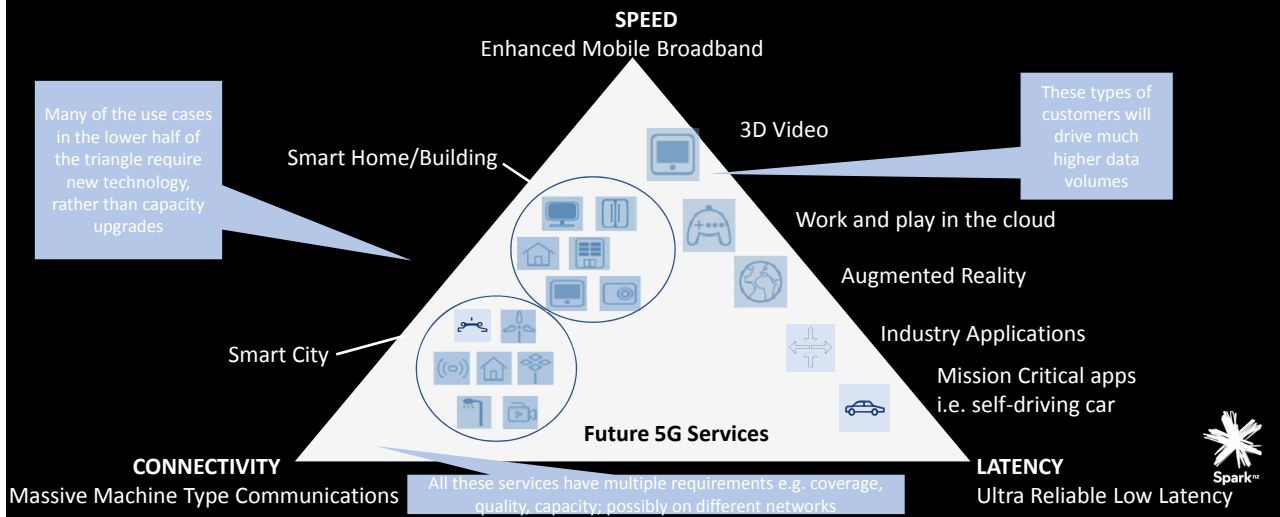
### 5G IS THE NEXT EVOLUTION IN MOBILE CAPABILITY

			
<b>1G</b> Talk	<b>2G</b> Send messages	<b>3G</b> Email & internet	<b>4G</b> <b>4.5G</b> Faster email & internet + video
1987	1990's	2001	2013 2016 →



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## In a 5G world, customers will consume a much greater range of services than they do today



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## WE'RE MAKING A **BIG** INVESTMENT IN 5G BECAUSE

- 5G allows us to manage the exponential growth in demand for mobile data. Research predicts that it'll grow more than 8 times between now and 2023.
- The mobile data growth on Spark's network was over 50% this year and that's without adding 5G capabilities
- We want our network investments to be future-proofed as a means of keeping ahead of expected data growth
- 5G will enable us to become much more of a digital services provider than a telco and deliver wider economic benefits to NZ
- 5G enables us to provide additional capacity at a lower incremental cost than 4G which means we can further invest in growing the network



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**WE ARE LEADING THE WAY ON 5G TO ENSURE  
NEW ZEALAND IS NOT LEFT BEHIND**

Subject to Government making spectrum available  
we plan to launch Spark's 5G network by July 2020.  
*But, we're not waiting. In fact we're up and running.*



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**THE 5G LAB IS A  
PLACE OF EXPERIMENTS**

[www.spark.co.nz/5g/home/visitlab](http://www.spark.co.nz/5g/home/visitlab)



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To explore these possibilities we created

# THE 5G CO-LAB SPACE

A place for New Zealand businesses to experiment with the potential of 5G.



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Let's look at some examples of  
how 5G might affect our daily lives.



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## ENERGY

- To eliminate safety risks associated with all climbing activity drones can be used for surveillance of towers and wind farms
- Remote monitoring of energy sites i.e. windfarms and solar farms
- Using 5G for real time management of a smart grid

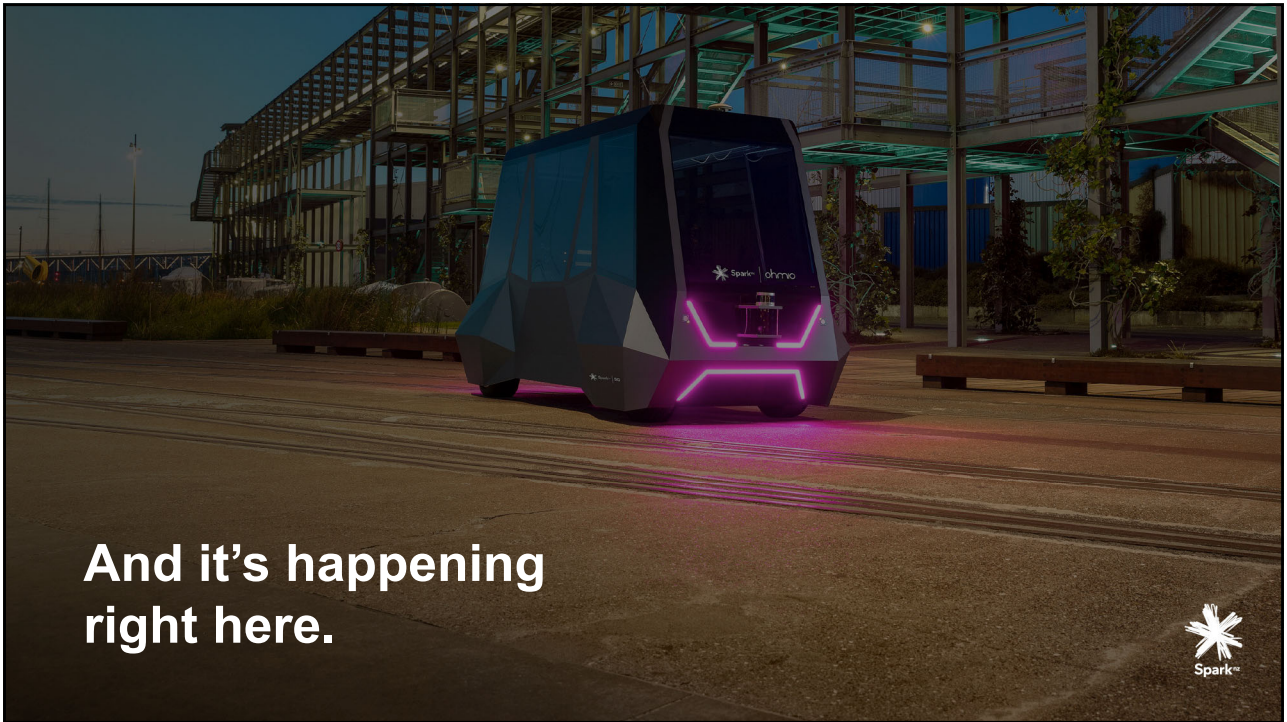
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## TRANSPORT

- A network of self-driving and connected cars, communicating near instantly with each other, traffic lights, road sensors, even aerial drones
- Crashes could be a thing of the past
- Traffic jams a thing of the past
- Vehicle monitors and books its own maintenance needs in real time



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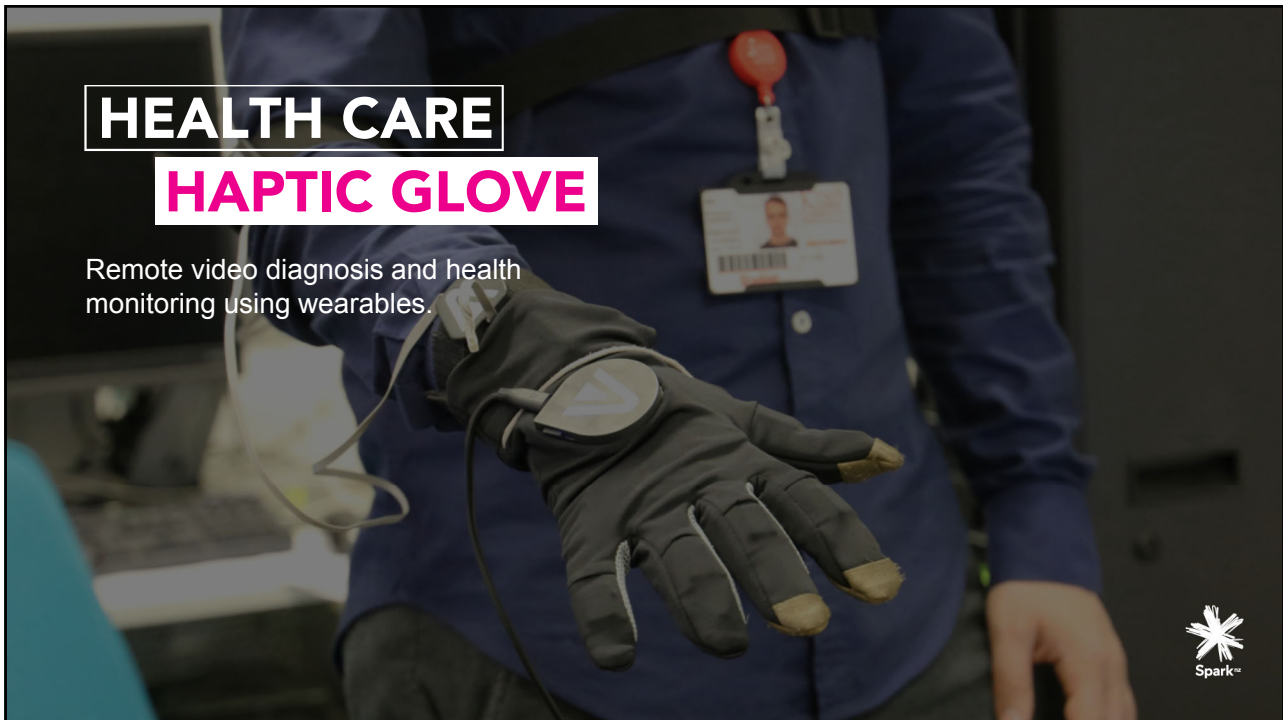
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# AND EVEN SPORT

Spark have partnered with ETNZ to provide the technology to retain the America's Cup.



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