



LITTLE CAN BE HUGE

5G

A LITTLE NUMBER

A HUGE IMPACT

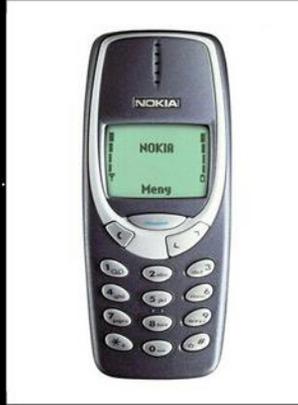
5G IS THE NEXT EVOLUTION IN MOBILE CAPABILITY



1G

Talk

1987



2G

Send messages

1990's



3G

Email & internet

2001



4G

4.5G

Faster email & internet + video

2013

2016

BUT IT'S MORE **REVOLUTION**
THAN EVOLUTION

**5G changes everything.
It opens up a whole
new world of possibility.**

CONNECTIVITY

Low cost, low energy, deep coverage.
Small data volumes. Massive numbers



CONNECTED
DRONES



CONNECTED
ENERGY



SMART CITY



SMART UTILITIES



TRACK
& TRACE



SMART
AGRICULTURE

LATENCY

Ultra reliable. Very low latency.
Very high availability



CONNECTED
AUTOMOTIVE



WIRELESS
EHEALTH



SMART
MANUFACTURING



INDUSTRIAL
SENSORS



VIRTUAL
TRAINING



INDUSTRIAL
APPLICATION & CONTROL

SPEED

Very high throughput uniform experiences



WIRELESS HOME
ENTERTAINMENT



WEARABLE



HOLOGRAM



CLOUD
VR & AR



BROADBAND HOME,
VENUE & ENTERPRISE



4K/8K UHD



LIVE BROADCASTING



SURVEILLANCE



LIVE HD
SOCIAL NETWORKS



PERSONAL
AI ASSISTANT

**TO HELP ALL OF NEW ZEALAND
WIN BIG IN A DIGITAL WORLD**



**Āwhinatia ngā tangata katoa o Aotearoa
kia matomato te tipu i te ao matihiko**



5G

A WHOLE NEW WORLD

OF UNIMAGINED

POSSIBILITIES

**“We believe that most of the
amazing things you can do with
5G are yet to be invented”**

Jolie Hodson, CEO, Spark

And that’s hugely exciting.





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

The Government is working on making spectrum
available for 5G

But, we're not waiting. In fact we're up and running.

THE 5G LAB IS A PLACE OF EXPERIMENTS



VR Render

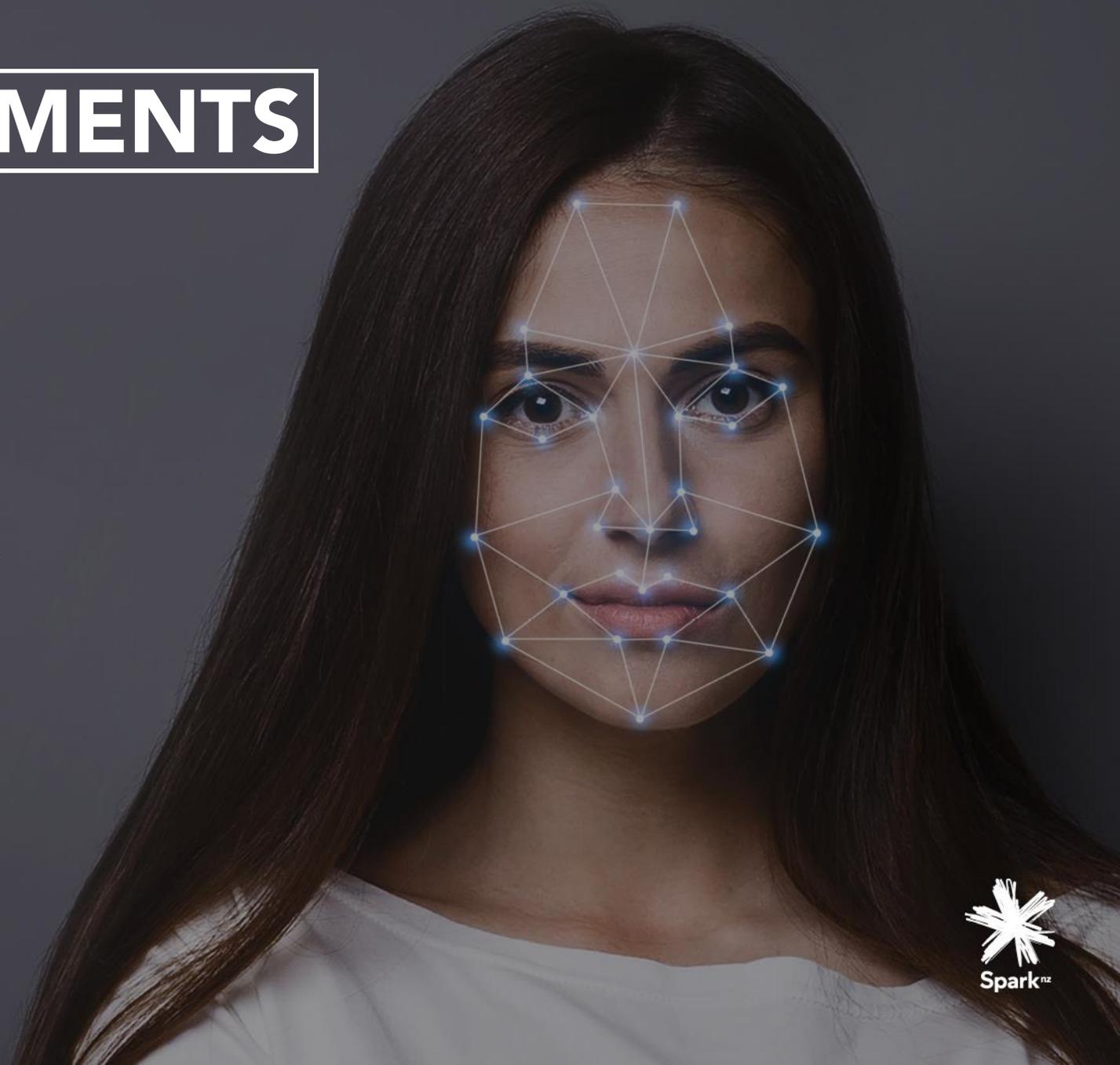
To explore these possibilities we created

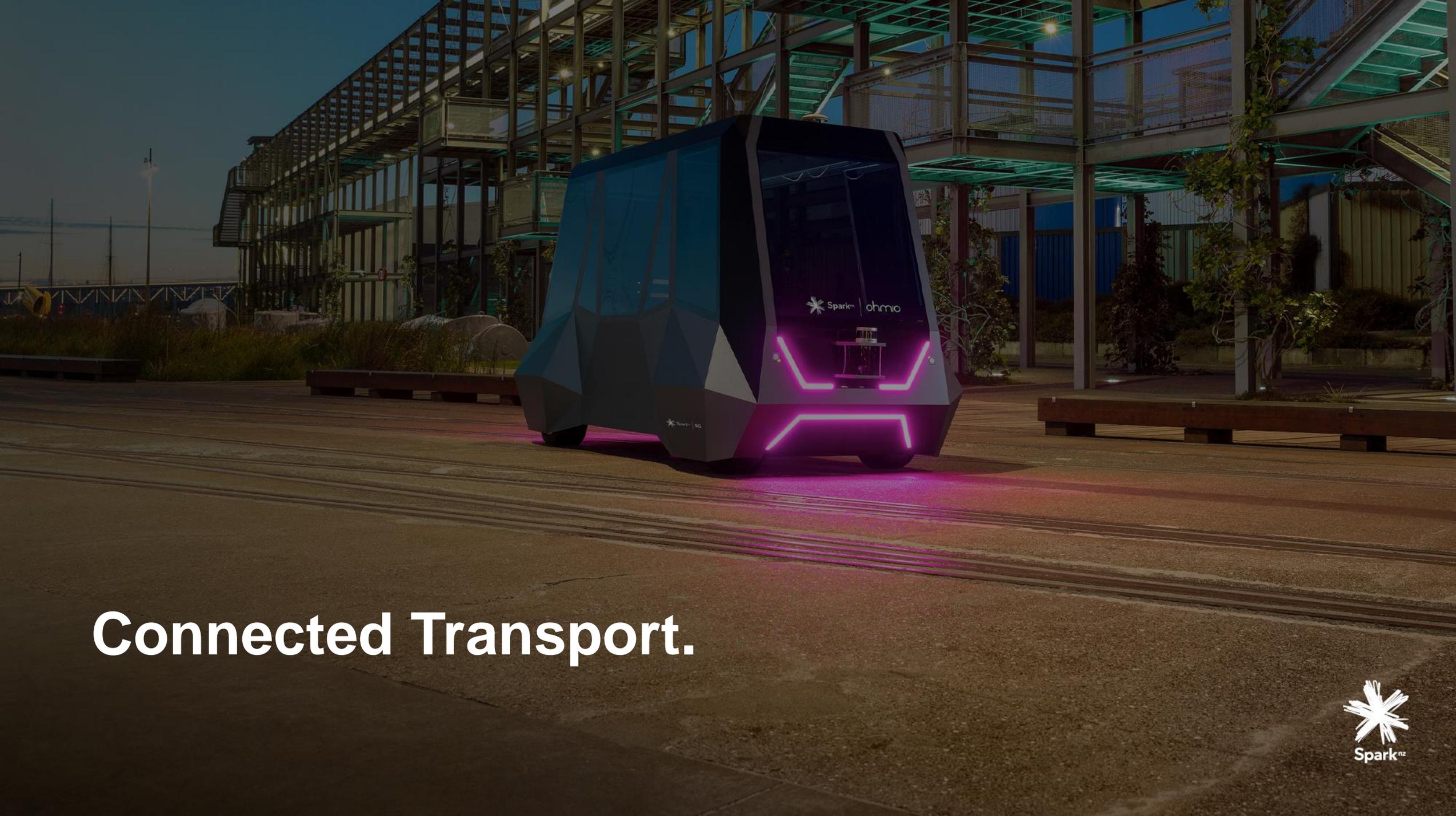
THE
5G **CO-LAB SPACE**

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



BANKING & PAYMENTS





Connected Transport.







HEALTH CARE

HAPTIC GLOVE

Remote video diagnosis and health monitoring using wearables.

WORKPLACE

AUGMENTED REALITY/VIRTUAL REALITY

 **MAINTENANCE
NEEDED**

 **VERIFICATION
IN PROGRESS**

 **MAINTENANCE
NEEDED**

 **VERIFICATION
IN PROGRESS**

SMART MANUFACTURING

Replacing WiFi with 5G will speed up the robots.

AGRICULTURE

The possibility of hands free farming.



ENTERTAINMENT

AUGMENTED REALITY/VIRTUAL REALITY



AND EVEN SPORT

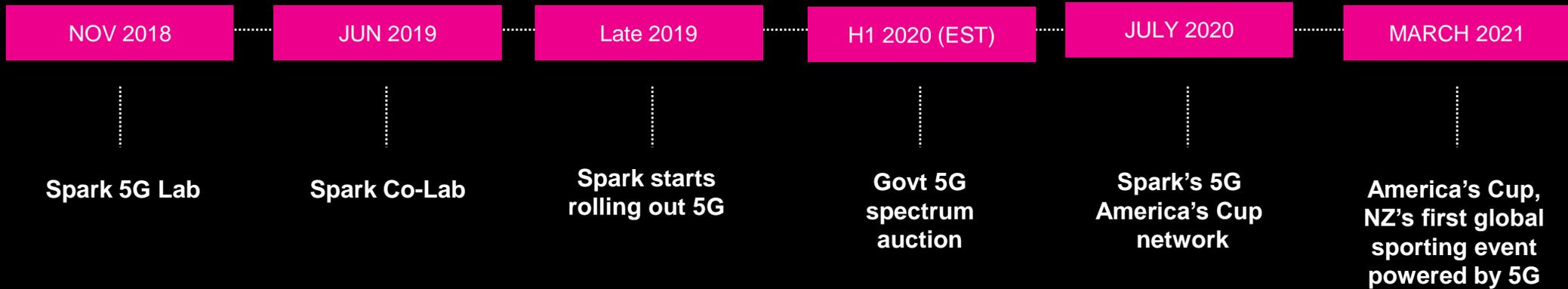
Spark have partnered with ETNZ to provide the technology to retain the America's Cup.



Spark^{nz}



TIMELINE





Spark 5G

WHAT'S YOUR
DRIVERLESS CAR?