



15 October 2019

### **Infratil 2019 Sydney Investor Day**

Infratil Limited ("Infratil") has released the presentation materials for its Investor Day held today in Sydney, Australia.

Infratil's objective is to keep its stakeholders well informed about how its businesses are performing and how their delivery on strategic objectives is progressing. Today's Investor Day in Sydney addresses Infratil's investments in CDC Data Centres and Vodafone NZ.

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# CDC Data Centres

## Investor Presentation

October 2019



DATA CENTRES

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# 1

## CDC overview

# CDC overview

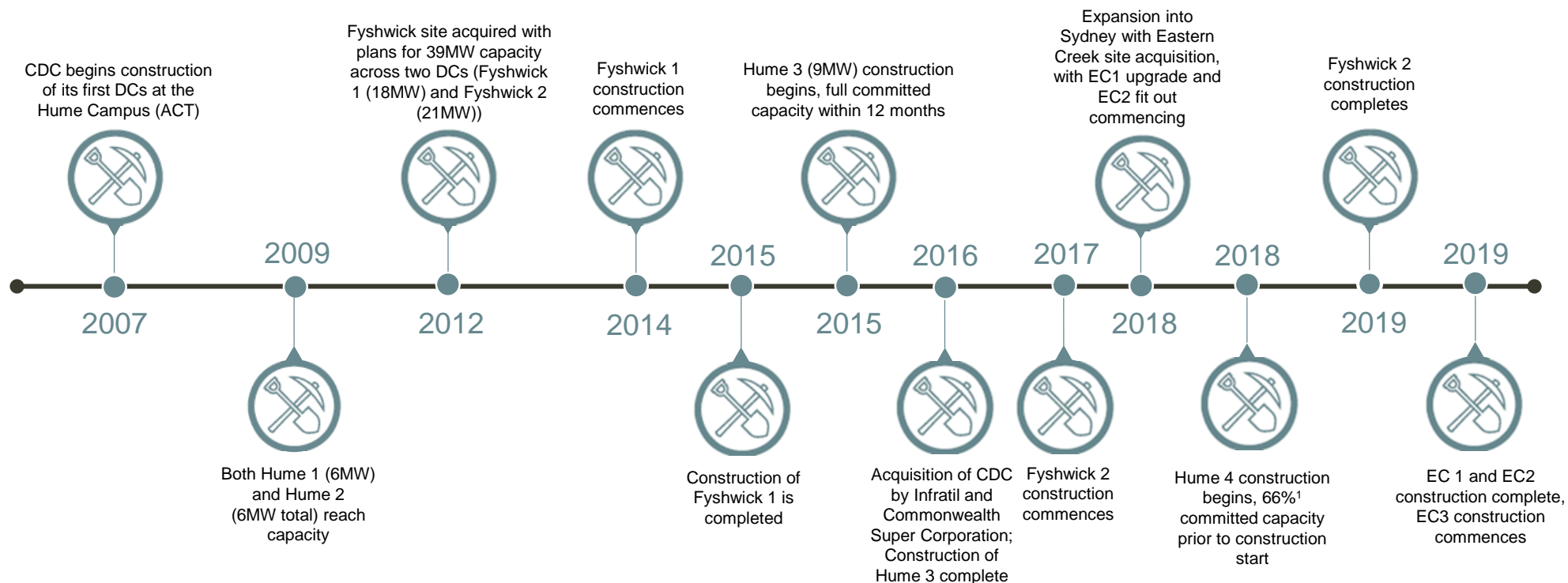
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CDC is a leading Australian operator of secure world-class Data Centre (DC) facilities, guaranteeing the availability of mission-critical systems

- CDC builds, owns and operates world-class facilities across a growing footprint at three campuses in Fyshwick (ACT), Hume (ACT) and Eastern Creek (NSW)
- Established in 2007, CDC has operated in Australia for over 12 years with the purpose of being the country's most secure and resilient provider of DC facilities to Government, Defence, Hyperscale and National Critical Infrastructure (NCI) / Commercial customers
- Today, CDC's diversified operations allow clients to securely store their core IT infrastructure within resilient centres whilst accessing global Hyperscale cloud providers, forming a growing and large-scale ecosystem
- CDC's innovative business model enables CDC to remain ahead of the growth curve, and provide clients with bespoke and scalable data hall fit-outs according to their specified needs

# CDC History

CDC has a strong track record of delivering incremental facilities on time and on budget



# Leading management team

High quality management team with deep industry expertise in digital infrastructure, and a track record of operational and sales excellence

- Led by Greg Boorer, CEO, since 2007
- Supported by a capable senior management team across sales, finance, operations, IT, engineering and development with a combined sector experience of 100+ years, and an unrivalled track record of strategy execution in the Australian market
- Greg and many of the team are shareholders. All have long term incentives tied to the continued success of the business contingent on future success



**Greg Boorer**  
Chief Executive Officer

- Founded CDC in 2007
- Chair of Federal Council of Australian Information Industry Association for 9 years
- EY Entrepreneur of the Year for ACT and Eastern region (NSW) in 2015



**James Selkirk**  
Chief Financial Officer

- Joined CDC in 2015
- Was previously CFO of Hutchison Ports Australia
- Previous finance roles at Stockland, Charter Hall and Macquarie



**Matt Holden**  
COO



**Angus Vickery**  
CTO



**Kathie Harris**  
GM Government



**Simon Black**  
GM Sales



**Max Bristow**  
GM Engineering



**Andrew Kirker**  
GM Enterprise & Hyperscale



# Existing footprint

CDC now services its customers across 3 key site locations in Canberra and Sydney

## Hume

Canberra, established 2007  
Installed capacity: 21MW  
Potential capacity: 71MW

1



Hume 3 DC



Hume Site Overview

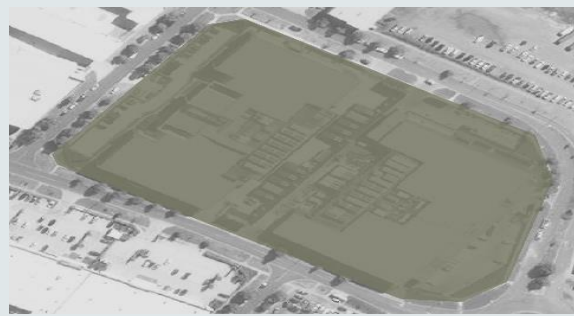
## Fyshwick

Canberra, established 2014  
Installed capacity: 39MW  
Potential capacity: 39MW

2



Fyshwick 1 DC



Fyshwick Site Overview

## Eastern Creek

Sydney, purchased 2018  
Installed capacity: 20MW  
Potential capacity: 120MW

3



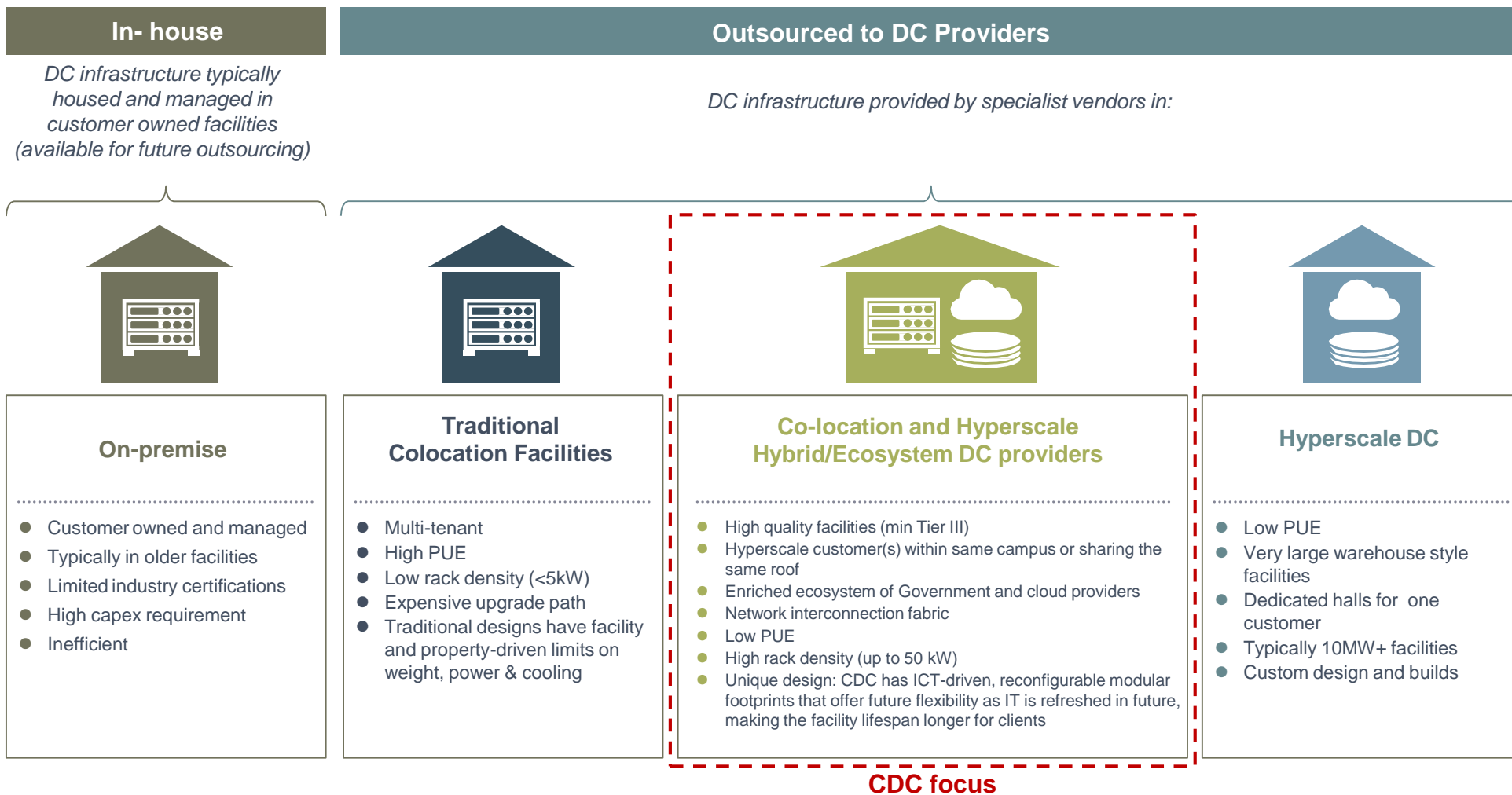
Eastern Creek Campus



Eastern Creek Site Overview

# CDC operating model

CDC has differentiated itself by designing and building data centres that seamlessly accommodate traditional enterprise, Government and Hyperscale clients all co-located within the same buildings



# Key differentiators

CDC's unique advantages enable a high level of differentiation and are highly defensible

## 1 Hybrid Cloud Co-location Ecosystem

- Whilst close competitors mostly provide either public cloud or colocation DC services, CDC has private and public cloud as well as Government and enterprise all co-located under a shared roof
- CDC enables Government and enterprise to connect to cloud providers, or one another, without their data having to leave the data centre. This improves security and performance and removes costly telecommunication overheads

## 2 Data sovereignty and highest level of security classification

- High security standards are non-negotiable elements in the Government and NCI customer purchasing criteria. Many NCI customers have regulatory obligations around data sovereignty (e.g. utility customers)
- CDC is the only provider of significant scale in Canberra and Sydney that is 'built for Top Secret' and accredited for 'Secret' whilst also offering ICON connectivity in Canberra

## 3 Trusted Relationships with Government & Cloud Providers

- CDC have demonstrated strong Government relationships and increasing credibility with public cloud providers.
- Few competitors can match this across Government and public cloud provider customers



\* Very high differentiation

## 4 Dual Sites: Back up & disaster recovery

- CDC is treating Canberra and Sydney as a logical extension of one another, enabling seamless workload distribution between the two cities without charging extravagant interconnect/transfer fees to customers
- This is unique amongst competitors and very attractive to Federal Government agencies and NCI clients

## 5 Future Proof Technology: modular DC and availability

- CDC DCs are designed with granular modularity to the rack level across the entire DC architecture providing future proof flexibility
- CDC can increase power supply to customer's existing footprint at minimal cost to CDC, and with no disruptions to the customer, unlike competitors who only offer row or hall upgrades which come at a significant cost to the customer
- "Pay as you go, Pay as you grow" structure
- Only DC provider to offer 100% availability guarantee

# Customers and Market Segments

Revenue is underpinned by long-term contracts with high quality counterparties. Weighted-Average Lease Expiry (with options) of ~17 years, or ~9 years without options. CDC has a strong pipeline and a modular design capable of supporting all customer segments

	Government	Hyperscale	National Critical Infrastructure (NCI) / Commercial
	40% Revenue <sup>1</sup>	45% Revenue <sup>1</sup>	15% Revenue <sup>1</sup>
Customers	<ul style="list-style-type: none"> <li>Australian Federal, State and local Governments</li> <li>Majority of revenue from Government counterparties with AAA or AA ratings</li> <li>Service providers to Government</li> </ul>	<ul style="list-style-type: none"> <li>Local cloud and international Hyperscale providers</li> <li>Private, protected and public-cloud</li> <li>Key partnership with AAA rated Global Hyperscale Provider</li> </ul>	<ul style="list-style-type: none"> <li>Operators of NCI, including: banks, insurers, ports, airports, utilities, healthcare etc</li> </ul>
Demand & Strategy	<ul style="list-style-type: none"> <li>Estimated 12-15% CAGR segment growth outlook<sup>2</sup></li> <li>CDC is well placed to deliver on the Australian Whole of Government Hosting Strategy (announced March 2019)</li> <li>Government DC consolidation is stimulating demand among third party, flexible, multi-tenant DCs that can offer hybrid computing outcomes, with CDC the best placed operator in Canberra</li> <li>CDC's sales strategy is customer-centric, with senior sales staff meeting with clients on a regular basis to understand upcoming requirements</li> <li>The strategy provides a framework to strengthen data sovereignty, supply chain and data ownership provisions</li> <li>CDC's membership of a whole-of-Government panel enables the company to submit tenders to individual Government departments in accordance with panel set pricing</li> </ul>	<ul style="list-style-type: none"> <li>Estimated 20-28% CAGR segment growth outlook<sup>2</sup></li> <li>Driven by the growth of cloud migration, artificial intelligence and machine learning, High Performance Computing research, biometric security, etc all of which necessitate secure, 24/7 availability and rapid delivery of data</li> <li>The ecosystem effect of CDC's DC campus networks brings intangible benefits to global Hyperscale customers by optimising data transit, security and performance between their hosted clients</li> <li>Sophisticated clients who understand their needs and infrastructure requirements now and in future, making an ideal partner to collaborate on growth and expansion</li> <li>Negotiated on a contract-by-contract basis according to client's design and MW capacity needs over the short, medium and long term</li> </ul>	<ul style="list-style-type: none"> <li>Estimated 12-15% CAGR segment growth outlook<sup>2</sup></li> <li>Providers of NCI are increasingly questioning the viability of retaining their own DCs and in-house DC costs, and instead looking to outsource the storage and security of their data to third parties particularly as regulatory obligations around data sovereignty and security have increased</li> <li>NCI organisations have an obligation to share sensitive data with Government agencies, which is facilitated with lower latency and cost for NCI's within CDC's 'ecosystem' model</li> <li>CDC's unique approach to designing and building facilitates bespoke fit-outs that can accommodate the co-location of an NCI's existing legacy systems, new cloud storage servers, and security benefits</li> <li>Negotiated on a contract-by-contract basis according to client's design and MW capacity needs over the short, medium and long term</li> </ul>
Position	<ul style="list-style-type: none"> <li>Combination of small, private and large-scale bespoke data halls and co-location model, depending on size and security-level of the client</li> </ul>	<ul style="list-style-type: none"> <li>Construction of large-scale bespoke data halls for use by a single Hyperscale provider</li> <li>Fit-out of data halls is fully-underwritten, with work only beginning after contract signing</li> </ul>	<ul style="list-style-type: none"> <li>Co-location model, with customers typically purchasing pods within data halls</li> </ul>

# Financial performance

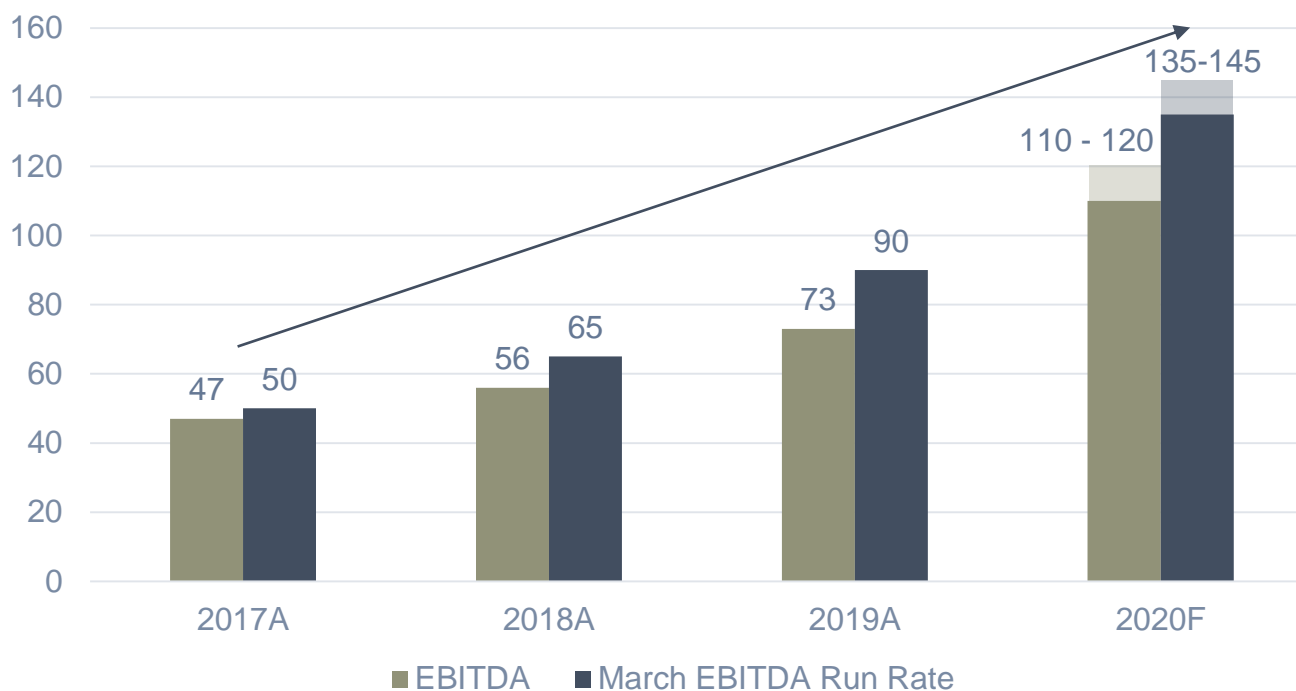
CDC has delivered a sustained period of both run rate and EBITDA growth

## CDC has built a loyal customer base, comprising Government, Hyperscale and NCI/Commercial clients

- Long-term contracts with indexed pricing and pass-through on key costs (Weighted Average Lease Expiry of 16.7 years with options)
- Majority of revenue from Government counterparties and leading global companies with AAA or AA ratings
- Strong track record of renewals and extensions
- History of strong contract renewal
- CDC has a very positive Net Promoter Score



- Strong track record of growth and attractive metrics
- EBITDA growth forecast on the back of secured, long term contracts
- Controlled expenses with power costs directly passed through to customers
- Expected to deliver on budget for FY2020

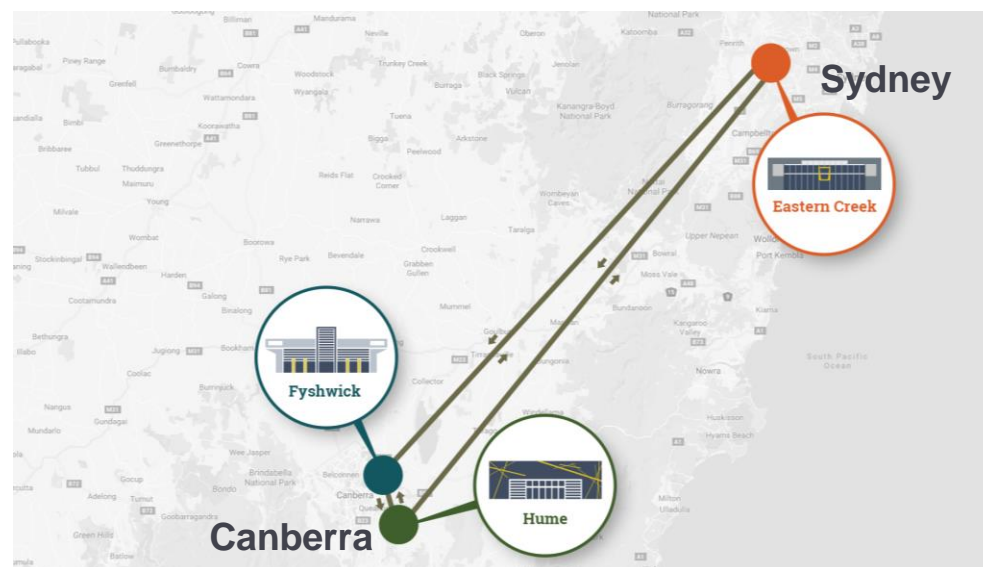


# Portfolio overview and growth outlook

CDC has a clear runway for growth within Canberra and Sydney

- Three established DC campuses at Fyshwick (ACT), Hume (ACT) and Eastern Creek (NSW)
- Existing operating capacity of 80MW, with 50MW under construction and 100MW+ capacity for future development
- Attractive scale and scope, with nine DCs across three locations forecast to be operational by 2021

	Hume	Fyshwick	Eastern Creek	Total
<b>Current</b>				
Facilities	3	2	2	7
MW capacity	21MW	39MW	20MW	80MW
<b>In construction</b>				
Facilities	1	-	1	2
MW capacity	25MW	-	25MW	50MW
<b>Potential</b>				
Facilities	2	-	3	5
MW capacity	25MW	-	75MW	100MW
<b>Total</b>	<b>6</b>	<b>2</b>	<b>6</b>	<b>14</b>
	<b>71MW</b>	<b>39MW</b>	<b>120MW</b>	<b>230MW</b>



# 2

## Growth strategy



# Market Growth Drivers

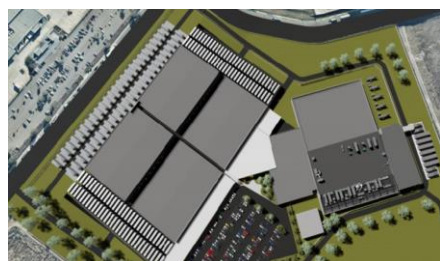
Several long-term drivers underpin growth in the data centre market. The hyperscale DC segment is expected to grow at twice the pace of traditional DCs

	Traditional Data Centres	Hyperscale Data Centres
Shared growth drivers	<ul style="list-style-type: none"> <li>Continuing, robust data growth, on average, 25% p.a., with certain industries growing at a faster rate</li> <li>Continued digitisation of business operations</li> <li>Increasing degree of “mission criticality” (i.e. 24-7 organisations wanting highly available data centres)</li> <li>“Always on” consumers driving growth in digital content, including streaming</li> <li>Commencement of the 5G rollout, underpinned by virtualisation of telco infrastructure</li> <li>Data sovereignty requirements driving onshore development of DCs in Australia</li> <li>Geo-politically, Australia is an attractive location to invest (e.g. strong rule of law, political / social predictability)</li> <li>Canberra is set to become the first city outside Europe to source 100 per cent of its electricity needs from renewables, potentially a preferred destination for backup and disaster recovery</li> </ul>	
Unique growth drivers	<ul style="list-style-type: none"> <li>Higher propensity to outsource DC services</li> <li>Adoption of hyperconverged infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Increasing cloud adoption</li> <li>Increase in cloud based workloads from AI, machine learning and IoT</li> <li>Australia is an attractive location for the broader regional DR strategy of public cloud providers</li> <li>Increase in number of global cloud provider availability regions / zones</li> </ul>



# Growth by site

CDC has successfully grown its portfolio of assets and has a range of ongoing, diversified growth options which now include the expansion of the Eastern Creek campus



Facility	Capacity (MW)	Capacity filled <sup>1</sup>	Phase 1: Build	Phase 2: Fit-out phase
Hume 1	6MW	>95%	Completed	Completed
Hume 2	6MW	100%	Completed	Completed
Hume 3	9MW	>95%	Completed	Completed
Hume 4	25MW	66% <sup>1</sup>	In progress	In progress
Hume 5 & 6	25MW	-	Future build	Future build
Fyshwick 1	18MW	>95%	Completed	Completed
Fyshwick 2	21MW	80%	Completed	In progress
Eastern Creek 1	7MW	~85%	Completed*	Completed*
Eastern Creek 2	13MW	100%	Completed*	In progress
Eastern Creek 3	25MW	~50% <sup>2</sup>	In progress	FY21
Eastern Creek 4, 5, 6	75MW	-	Future build	Future build

- 7 completed data centres
  - Built, income generating
  - Mostly let
- 2 data centres under construction
  - Strong pre lets

Note 1. From a Hyperscale provider, contracted based on FROR prior to construction commencing; Capacity filled is on a footprint POD basis and not MW basis; 2. 60% completed and 40% in the process of being commissioned  
\* In place at acquisition

# Eastern Creek focus

Eastern Creek is well-positioned to capitalise on the prolific growth of data held by Hyperscale cloud providers and operators of NCI who require increasingly secure and resilient storage solutions

## Highlights

- Acquired 145,000 sqm Eastern Creek campus in December 2018, 36km west of Sydney's CBD
- Close proximity to Sydney, a major hub for operators of NCI, and Western Sydney Airport (attractive to existing Government Agency clients)
- Substations and transformers in place for connectivity to 132KV transmission grade power with zero downtime
- Two existing 6,000 sqm data halls: EC1 is a 6MW capacity data hall occupied by enterprise and Government clients, EC2 (13MW capacity) is largely handed over, with final delivery date of December 2019
- Enables CDC to deliver 'outside Canberra' geographic diversity and expand its ecosystem, highly attractive to existing clients
  - Sydney becomes an on-ramp for Canberra capacity and vice-versa from a multi-geographic resilience perspective
- Transmission grade power with zero downtime

Facility	Capacity (MW)	Capacity filled	Phase 1: Build	Phase 2: Fit-out phase
Eastern Creek 1	7MW	~85%	Completed	Completed
Eastern Creek 2	13MW	100%	Completed	In progress
Eastern Creek 3	25MW	~50% <sup>1</sup>	In progress	FY21
Eastern Creek 4, 5, 6	75MW	-	Future build	Future build



Note: 1. 60% completed and 40% in the process of being commissioned

# Development philosophy

CDC has developed a strong track record of delivery and a world class build strategy

## Highlights

- Design and construct timeframe is circa 12 months for new data centre builds
- Once the surrounding campus infrastructure is completed, the fit-out of the individual DC facilities (Phase 2) is much faster
- This enables CDC to develop new sites within a sufficient timeframe to meet different customers' growth expectations
- CDC leverages close relationships with its clients to pre-empt demand and ensure the relevant capex is deployed at the right time
- Given the changing nature of Hyperscale and Government contracts, the separation of Phase 2 (fit-out) enables CDC to submit bespoke tender responses that meet clients' specific operational and financial requirements; avoiding a retro-fit of pre-built and designed facilities to client tenders

### Phase 1: Land Acquisition & Build ('Build')

- CDC acquires land at strategic locations based on proximity to power supply and critical infrastructure
- Significant site assessment and risk management diligence
- Following a build-ahead strategy, the building structure, initial infrastructure and communications connectivity are installed

### Phase 2: Fit-out

- Only once a customer has signed the SLA, fit-out of the data hall begins
- Consequentially, the capex to fund this expansion phase of growth is fully-underwritten by customers
- CDC's modular design enables data halls to be scaled incrementally
- Lower commercial risk: secured by client contracts
- Lower technical risk: smaller fit-out, repeatable builds on which CDC obtains fixed-pricing

# Next 6 months

FY20 is progressing well; delivering developments, securing new customers and providing the foundation for future growth

**Execute and deliver both short and mid-term**

**Establish a sustainable runway for continued mid term growth**

- Bring 24MW+ capacity to income producing – On track
- Final handover of Eastern Creek 2 in December – On track, 10MW to be handed over within 12 months of purchasing site
- Go live of Hume 4 in FY2020 – On track
- Construction of Eastern Creek 3 – commenced
- Grow EBITDA run rate by over 50% year on year – On track
- Extend debt facilities headroom and look to improve terms – well progressed
- Grow National Critical Infrastructure client base – well progressed
- Identify and pursue additional strategic opportunities – well progressed



# A

## APPENDIX Key terms

# Acronym Library

Acronym	Definition
AI	Artificial Intelligence
CAGR	Compound Annual Growth Rate
CDC	Canberra Data Centres
CPI	Consumer Price Index
CSC	Commonwealth Superannuation Corporation
DC	Data Centre
FROR	First Right of Refusal
HV	High Voltage
ICON	Intra-Government Communications Network
IFT	Infratil
IP Traffic	Internet Protocol Traffic
KV	Kilovolt
kW	Kilowatt
LPI	Limited Price Indexation
MW	Mega Watts
NCI	National Critical Infrastructure
POD	Complete, stand-alone and multi-workload systems management module connected into power distribution and cooling
PUE	Power Usage Effectiveness

# B

## APPENDIX

### Key risks and mitigants

# Risks and mitigants

CDC thoroughly understands the risks involved with the business and industry, and has worked to effectively mitigate these

Risk	Description	Mitigants
<b>Termination rights</b> <b>1</b>	Existing contracts with a termination for convenience clause	<ul style="list-style-type: none"> <li>✓ High switching costs and risks (time, IT risk), timing given embedded infrastructure and lack of secure alternatives</li> <li>✓ Long history of customer renewal and extension</li> <li>✓ Termination for convenience typical of Government contracts</li> </ul>
<b>Data information and security</b> <b>2</b>	Risk of physical security breach and impact on customer relationships	<ul style="list-style-type: none"> <li>✓ Responsibility for cybersecurity and application-layer protection of data rests with the client</li> <li>✓ CDC's responsibility for physical perimeter security is bolstered by strong record and ASIO-T4 certification</li> <li>✓ 24/7 security</li> </ul>
<b>Management</b> <b>3</b>	Existing management have strong relationships with customers and experience in execution	<ul style="list-style-type: none"> <li>✓ Management team has been expanded in recent years, with investment in all key areas</li> <li>✓ Existing management strongly committed to the business and appropriately incentivised</li> </ul>
<b>Development and execution</b> <b>4</b>	CDC could experience delays in completing its builds	<ul style="list-style-type: none"> <li>✓ Strong governance framework in place</li> <li>✓ Track record of executing on time and on budget</li> <li>✓ Large % of capex is underwritten by existing customer contracts</li> <li>✓ Significant demand expected to more than outweigh supply</li> </ul>
<b>Competition</b> <b>5</b>	Key competitors continue to invest in new facilities	<ul style="list-style-type: none"> <li>✓ CDC well-positioned in Sydney &amp; Canberra to win new business</li> <li>✓ Premium provider with privileged and ongoing trusted-advisor relationship with Government and a global Hyperscale provider</li> </ul>
<b>Contract renewal and repricing</b> <b>6</b>	Potential for re-pricing risk at contract renewal	<ul style="list-style-type: none"> <li>✓ CDC has a differentiated, premium offering and works with clients to customised pricing</li> <li>✓ No current sign of price pressure within CDC customer base</li> <li>✓ Government pricing secured for 5 years</li> <li>✓ Track record of re-tendering at / or above existing prices</li> </ul>



# C

## APPENDIX

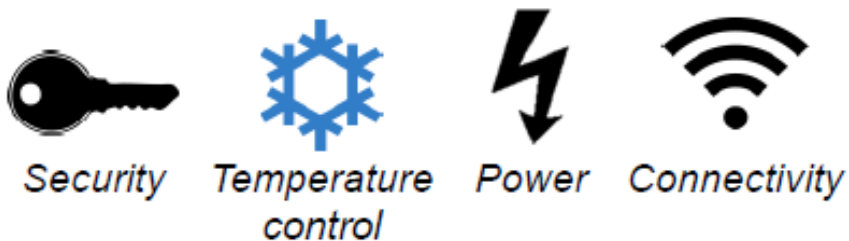
### Introduction to data centres

# Data Centre 101

A data centre is a facility used to house computer systems and associated components, it can be insourced or outsourced

A data centre's main purpose is holding and running IT systems that handle the core business and operational data of an organisation (e.g. its data, mail services, applications).

## Key Infrastructure



## Insourced vs. outsourced

### Insourced:

- an organisation builds, operates and manages its own data centre
- advantages include full control over data and applications
- disadvantages include increased operating and personnel costs and lower system reliability

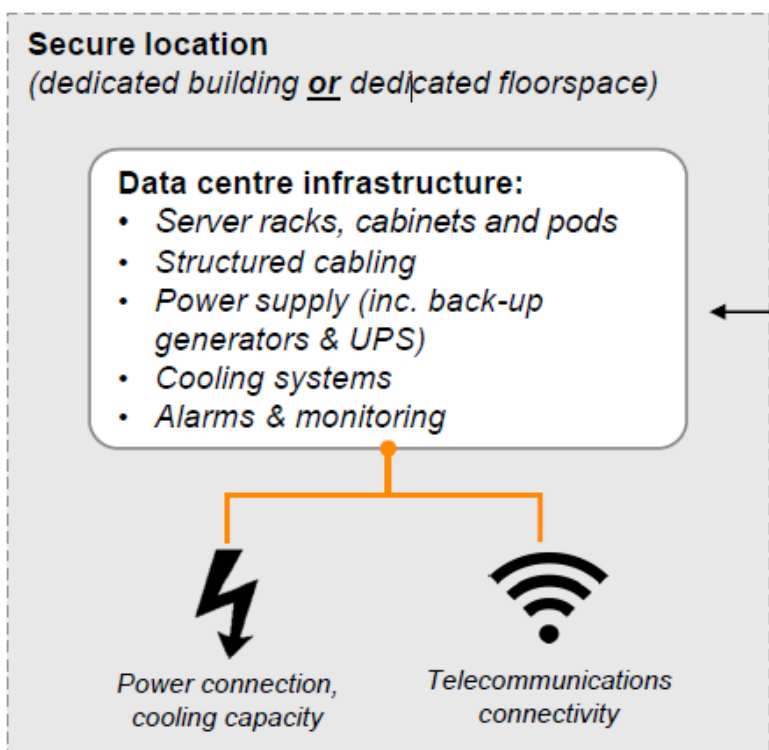
### Outsourced:

- an organisation leases space and/or hosting services from an external data centre provider
- advantages include lower operating cost, reduction in required in-house expertise and higher system reliability
- electricity costs are passed on to the customer (c.\$1k / month / rack\*)
- organisations may incur significantly lower electricity costs through outsourcing as the power usage effectiveness (PUE) ratios of colocation specialists tend to be far lower than those of insourced DCs
- disadvantages include reduced perceived control over system

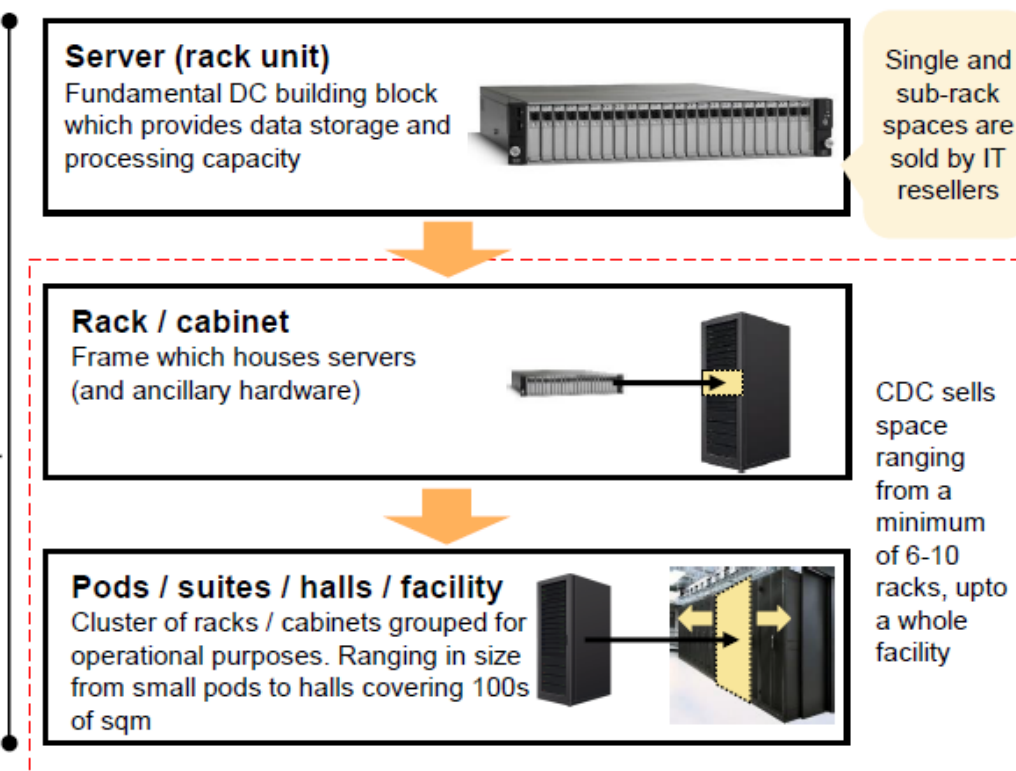
# Data Centre 101

DCs are dedicated, secure locations that house IT hardware (servers) and provide the power, cooling and connectivity needed to operate them

## DC location and core infrastructure:

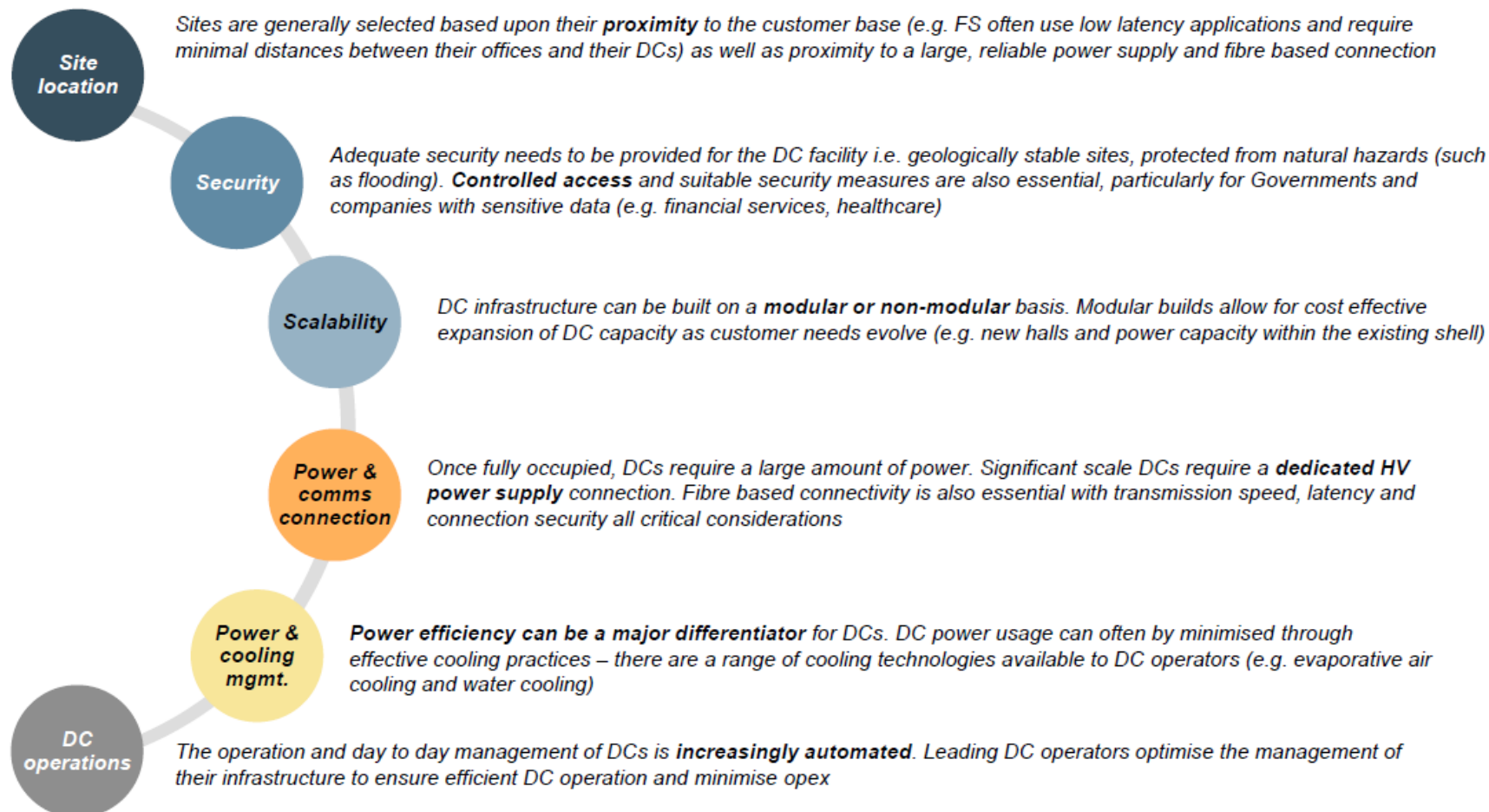


## DC equipment / housing:



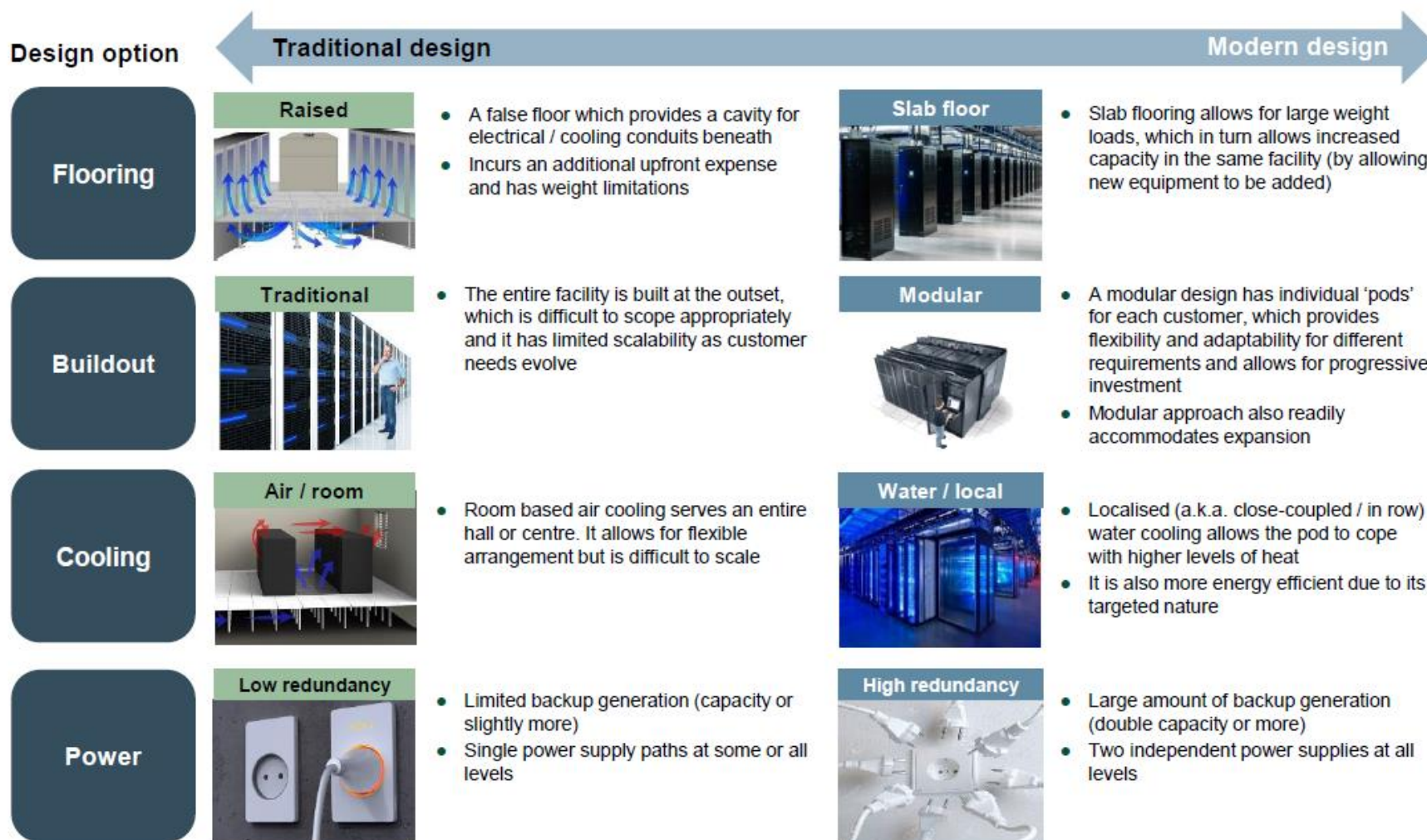
# Data Centre 101

## DCs can differ in their infrastructure approach and the technologies they employ



# Data Centre 101

Data centre design options are evolving with client needs and new technologies







# Investor Day – Vodafone NZ



# Vodafone Investor Day Agenda



Introduction

Marko Bogoevski

Vodafone Strategy

Jason Paris

**Q&A**

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Financial Update

Kate Jorgensen

Business Improvement Programme

Matt Crockett

**Q&A**

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Regulatory Environment

Juliet Jones

Business and Cloud

Lindsay Zwart

A 5G future

Tony Baird

Summary

Jason Paris

**Q&A**



A man in a grey polo shirt and a dark cap is seen from the side, holding a drone controller. In the background, three children are playing in a grassy field; two are running towards the camera while holding a ball, and one is further back. A small drone is visible in the sky above the children. The scene is set in a rolling green landscape under a bright, hazy sky. A large, stylized red outline of the number '6' is superimposed over the center of the image.

# Strategy Update – Jason Paris





# We have best-in-class assets to compete

Providing strong potential upsides



Strong NZ customer base  
across categories;  
including #1 mobile, #2 BB

Well balanced across business  
and consumer segments

Significant network and  
infrastructure assets;  
Fixed, Mobile, IoT

Diversified product set;  
Fixed, Mobile, Cloud, IoT

Extensive channels to market;  
app. Web, retail, MMR, care

Strong partnerships including  
Vodafone Group, Nokia, AWS

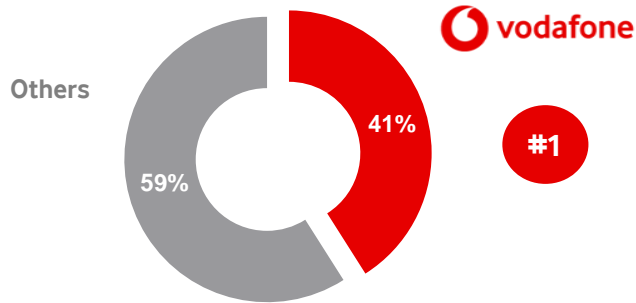


# Strong New Zealand customer base across all categories

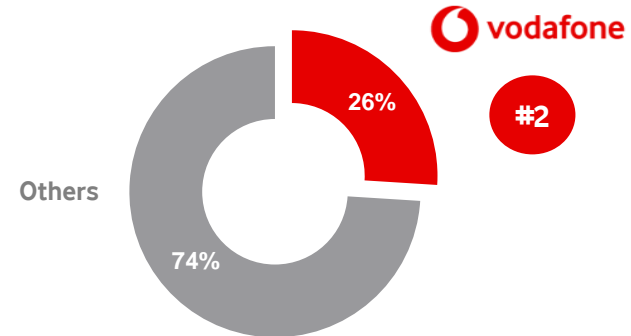
#1 in mobile, #2 in broadband



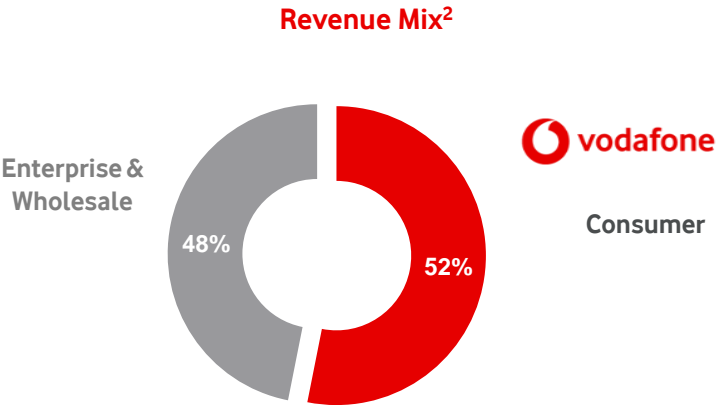
Mobile subscriber share<sup>1</sup>



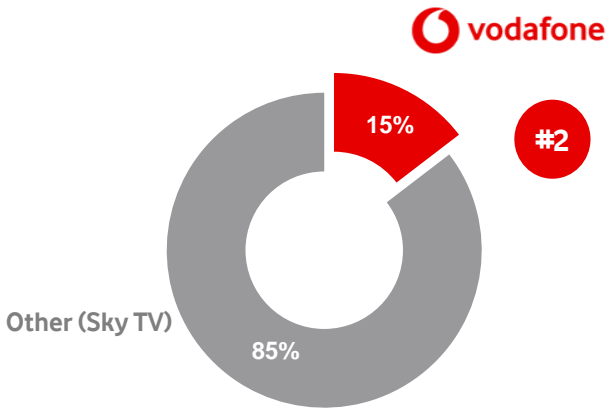
Fixed broadband connection share<sup>1</sup>



Balanced portfolio mix



Traditional Pay TV connection share



Notes:  
1. New Zealand Commerce Commission Annual Telecommunications Monitoring Report – December 2018  
2. Based on 30 September 2019 unaudited results



# Significant network and infrastructure assets

Across Fixed, Mobile, IoT



## Extensive network and spectrum position including 5G leadership

- 5G launching December in Auckland, Wellington, Christchurch, Queenstown
- Over 1,500 mobile cell sites delivering a mix of 2G, 3G and 4G
- 98% population coverage, with over 95% 4G coverage
- 80% broadband coverage of rural New Zealand
- Extensive spectrum holdings available for mass market use
- Roaming network in 200+ destinations (4G in 100+ destinations)

## Nationwide fixed network infrastructure

- Over 10,000km of cabling connecting consumer and enterprise customers
- National backhaul network and access to the Tasman Global Access cable
- Local fibre in Wellington, Kapiti and Christchurch
- Hybrid Fibre Coaxial (HFC) gigabit network in Wellington and Christchurch
- Capability to deliver services over all technologies – Fibre, Cable, VDSL and ADSL

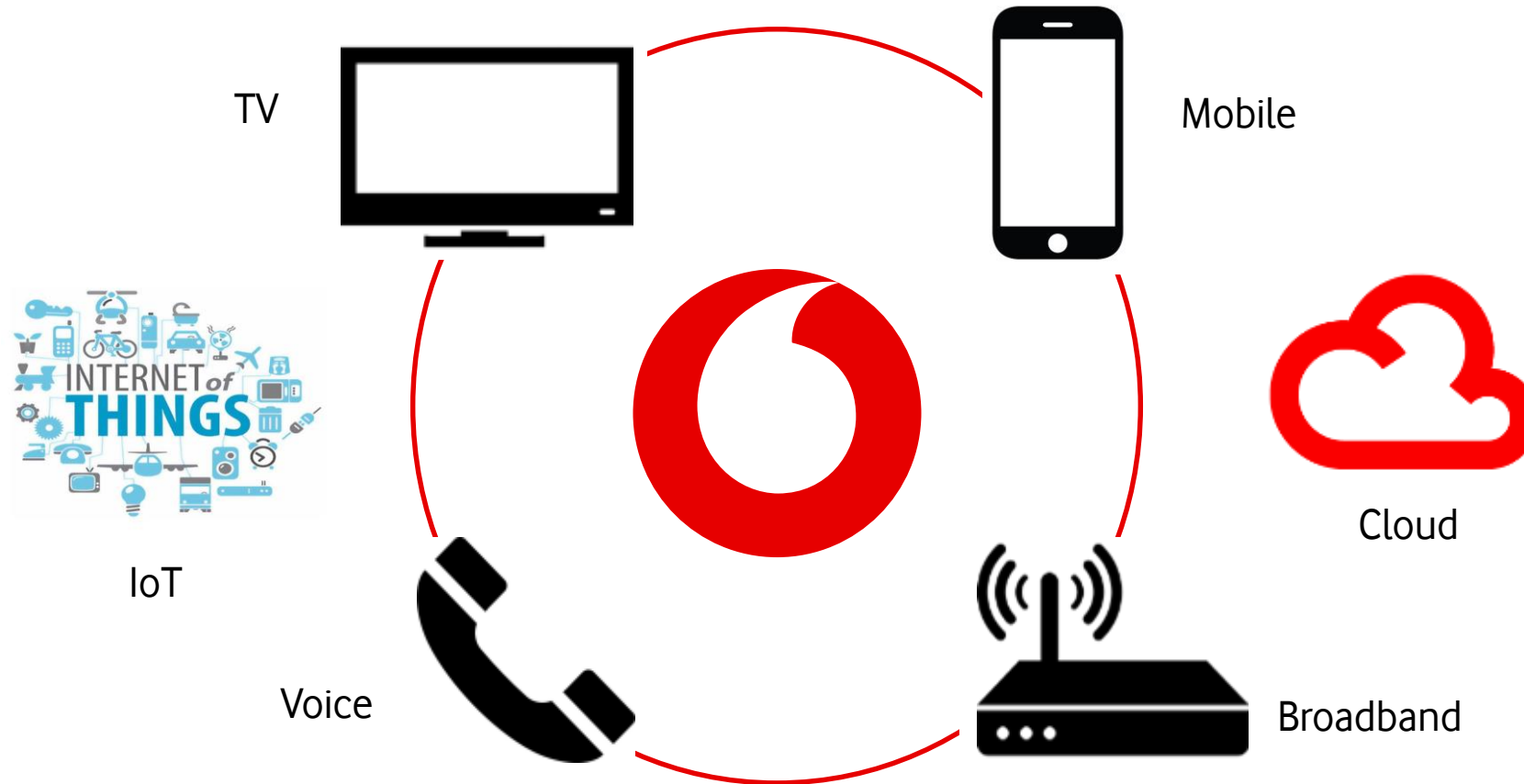
## Nationwide Internet of Things ("IoT") networks

- #1 in IoT in New Zealand
- Two nationwide IoT networks (NB-IoT and LTE-M) supporting over 1.6m cellular IoT connections



# Diversified and differentiated product set

Across Fixed, Mobile, Cloud and IoT

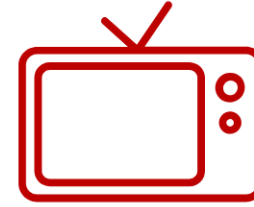


# Vodafone Group's biggest partner market

Gives NZ access to best of both worlds and significant flexibility



- Global roaming
- VodafoneTV
- IoT Platform
- Security products
- Data Analytics
- Vodafone Brand
- Artificial Intelligence
- Vodafone Procurement



# Industry dynamics can create new opportunities

Players looking at ways to grow returns in capital intensive industry



- Improving the utilisation of existing networks
- Looking to enhance wholesale and mobile virtual network operator offering and product development
- Vodafone already has wholesale arrangements with other players, including 2Degrees
- Aiming to show industry leadership around sensible network sharing, where the economics make sense
- Arrival of 5G provides opportunity to review network strategies across the industry





# Competitive but rational market

Underpinned by strong economic fundamentals



- Industry structure provides strongest correlation to equity returns
- Stable 3-player mobile market with multiple retailers and wholesale customers
- Relatively stable regulatory environment
- Industry dynamics are creating new value opportunities (Infrastructure and Retail)
- Competitive but not irrational behaviour
- Multiproduct or converged offers becoming more prominent
- Vodafone NZ continuing to fund or bundle VAS is not sustainable in the long-term



# The Vodafone transformation is underway

Decisive action taken on many fronts, with some big 'work-ons'



- Ownership certainty achieved ✓
- 100% NZ-centric strategy in place ✓
- Group strategic constraints removed ✓
- 5G leadership attained ✓
- Cost reduction delivering ability to reinvest ✓
- Agile way of working introduced ✓
- Step-change in capability & culture underway ✓
- Lagging in digitisation and simplification X
- Complex legacy IT systems to be migrated X
- Poor customer experience holding us back X
- Top-line growth still hard (industry-wide issue) X





# Positive early signs

Solid early indicators and successes



- New operating model in place and capability step-change underway
- On track to deliver \$91m of gross cost savings
- 10% year-on-year call volume reduction and 70% of queries solved first time
- New channel expansion with Noel Leeming to significantly improve mobile performance and in home technology experience
- New prepaid brand to target price segment (Kogan) launched
- Retail JV with Digital Mobile launched to lift retail performance
- Healthy deal pipeline for Business/Enterprise
- Best-in-class partnerships in Cloud with AWS and Azure
- 5G leadership underpinning brand reconsideration
- Fixed Wireless Access being scaled

# Transforming from old Vodafone to new Vodafone

Turning legacy into opportunity, long-term strategy review underway



From manual, complex,  
expensive to...

Digital, simple  
and low cost

From lagging on  
Customer Experience to...

Leading on Customer  
Experience

From missing numbers to...

Making numbers



# Digital, modern, simple and low-cost

An opportunity to be a leading modern Telco



Complex product,  
IT architecture and  
technical debt to...

- Limited velocity, high cost to serve and cost to run
- Cumbersome multi-step migration with issues
- Significant cost saving opportunity

An ambitious but  
necessary target  
state...

- Move towards a greenfield stack, with simplified products
- Explore cloud/ SaaS native solutions across the full OSS and BSS
- Ensure target state architecture is aligned with strategic choices

...while stabilising  
current state and  
de-risking

- Decouple front and back-end through agility layer
- Focus in-house development efforts on front-end differentiating layers
- Validate pros and cons of different migration scenarios



# Leading on Customer Experience (CX)

Creating a competitive advantage



- Call volumes continuing to decline year on year
- ~70% of calls resolved first time
- Calls getting more complex
- New partners getting up to speed
- Investment in new Case Management team



# Long term value creation

From missing our numbers



- Stabilising commercial performance
- Holding churn across all products
- Cost reduction to create headroom
- Investing in Cloud, Security, VTV, IoT and Procurement
- Taking opportunities – e.g. FWA, Multi-brand, 5G, winning key market segments
- Owners mind-set developing
- Optimise balance between revenue/share and margin
- Stronger execution focus
- Shift to long-term investment horizon – targeting uplift in EBITDA margins over time



# Risks to manage or mitigate

External and internal factors



- Market dynamics
  - Ongoing commoditisation and price downs
  - Regulatory changes or investment uncertainty
  - Funding of free VAS and OTT services
  - Monetising investment in 5G in core telco and adjacencies
- Organisational dynamics
  - Pace/quality of execution
  - Cost management
  - Culture and capability requirements
  - Trading momentum
- Technology/IT dynamics
  - Migration to future IT state
  - Ongoing simplification, digitisation and automation
  - Timely retirement of legacy
  - Customer Experience impacts





Our purpose

We connect for a better future



Our belief

We believe every New Zealander will thrive with access to the world's best digital services. No one gets left behind.

Our strategy

Deeper customer engagement

New Zealand Consumers

New Zealand Businesses

Digital First

Radically Simple

Always Competitive

Existing Customers First

Scaled platforms & partner of choice

IoT

Vodafone TV

Best Networks

Data + AI

Cloud & Security

with the **people**, **culture** and **brand** to succeed

Always ahead  
of our numbers

eNPS

NPS

EBITDA

Operating  
Free  
Cashflow

Churn

Service  
Revenue

Share of  
total Telco

Cost  
Mgmt

# Strong team now in place to deliver on clear plan

Focus on execution and cadence



**Jason Paris**

- Chief Executive Officer
- Joined Vodafone NZ November 2018
- Former Chief Executive of Home, Mobile and Business at Spark



**Kate Jorgensen**

- Finance Director
- Joined Vodafone NZ in April 2019
- Former CFO of KiwiRail



**Matt Crockett**

- Transformation Director
- Joined Vodafone August 2019
- Experienced executive in telecommunications, and across multiple transformation programmes



**Juliet Jones**

- Legal, Regulatory & Sustainability Director
- 12 years at Vodafone NZ including as GM Strategy



**Lindsay Zwart**

- Business Director
- Joined Vodafone NZ in September 2019
- Has held senior positions in Microsoft, most recently as US General Manager Cloud and Enterprise Business



**Tony Baird**

- Technology Director
- 9 years at Vodafone NZ, 5 years in current technology leadership role
- Former CEO of Farmside







Q & A



A woman in a black and white striped shirt is drawing on a glass wall with a white marker. She is holding the marker in her right hand. In the background, another person is visible, looking towards the camera. The glass wall has various blue and black markings, including a large blue circle and some scribbles. A red curved line is drawn over the woman's face and the text.

# Investor Day – Kate Jorgensen



# Financial performance overview

Long-term EBITDA growth achievable, dependent on execution



- Commercial performance has stabilised, largely through tight operating disciplines and cost reduction
- Long-term growth requires execution on business improvement programme, and successful investments, e.g. in 5G and FWA
- Digitisation and simplification will enable a greater range of strategic choices
- Current year performance can be characterised as; our cost management has been excellent but our trading momentum and customer experience needs improvement



# Financial Outlook

## Vodafone on track to achieve guidance metrics

### Summary of Financials (\$ Millions)

31 March	2016	2017	2018	2019	2020 F
Mobile Revenue	951	953	973	945	
Fixed Revenue	841	854	824	793	
Other Revenue	171	220	242	248	
<b>Total Revenue</b>	<b>1,963</b>	<b>2,027</b>	<b>2,039</b>	<b>1,986</b>	<b>2,000-2,100</b>
<b>Underlying EBITDA<sup>1</sup></b>	<b>422</b>	<b>469</b>	<b>466</b>	<b>463</b>	<b>460-490</b>
Underlying EBITDA %	22%	23%	23%	23%	23%
<b>Capex</b>	<b>229</b>	<b>223</b>	<b>244</b>	<b>253</b>	<b>275-325</b>
Capital intensity <sup>2</sup>	12%	11%	12%	13%	14%-15%
<b>Free Cash Flow</b>	<b>193</b>	<b>246</b>	<b>222</b>	<b>210</b>	<b>110-190</b>

<sup>1</sup> Underlying EBITDA excludes acquisition costs and separation costs. <sup>2</sup> Capital intensity is shown as Capex as a percentage of Total Revenue

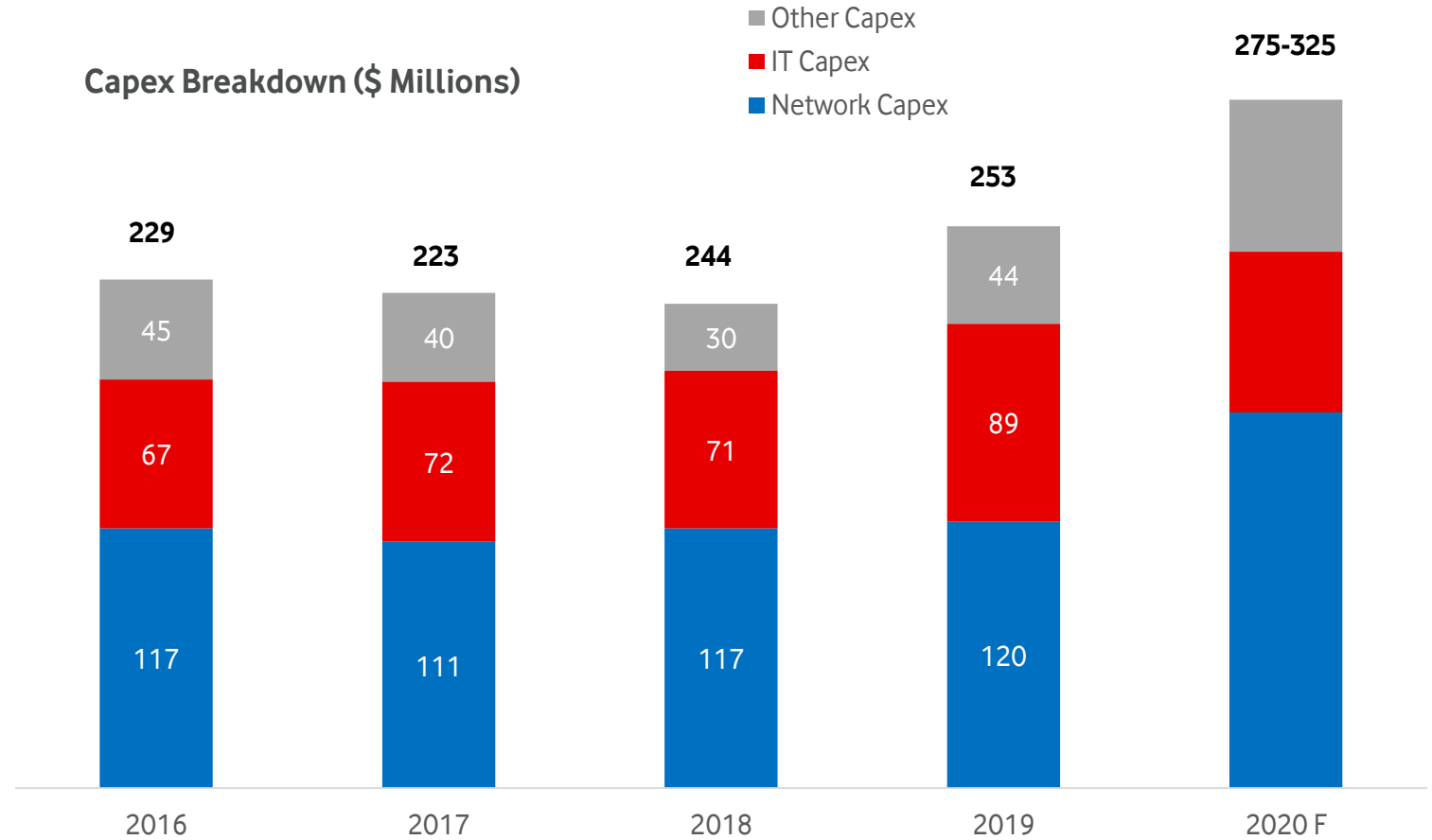


# Capital Expenditure

Vodafone fuelled for growth under new ownership



Capex Breakdown (\$ Millions)

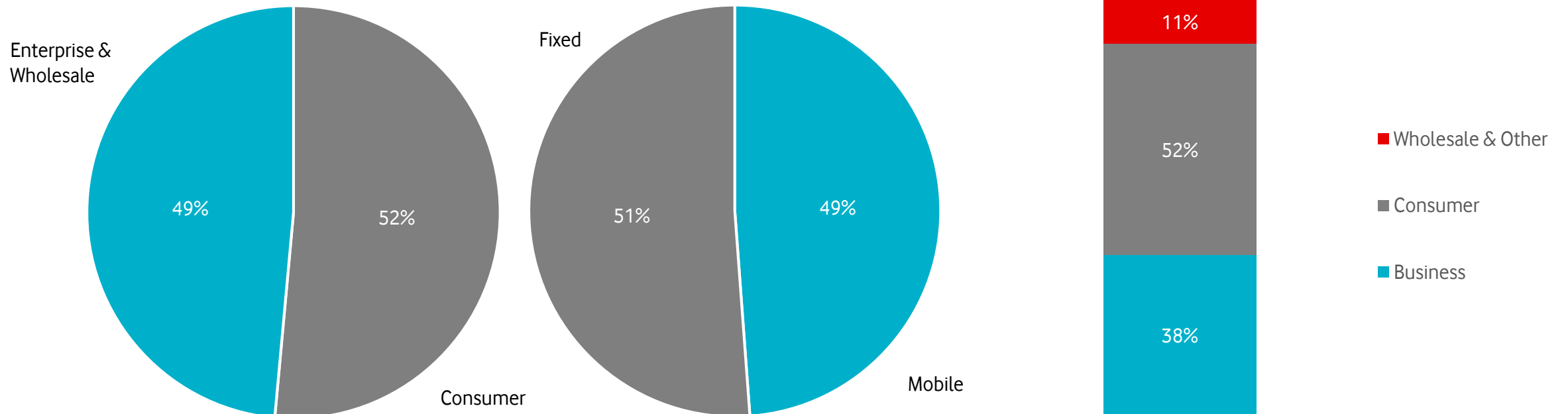




# Operational Overview

Balanced portfolio of Vodafone well positioned to deliver

## Balanced Portfolio (Revenue Mix)<sup>1</sup>



<sup>1</sup> Based on 30 September 2019 unaudited results



# Revenue

Strong customer base with the highest mobile ARPUs in the industry



	Subscribers	ARPU
Prepay	1.4 million	\$14
Post-pay	1.1 million	\$47
Broadband	0.4 million	\$104

<sup>1</sup> Based on 30 September 2019 unaudited results

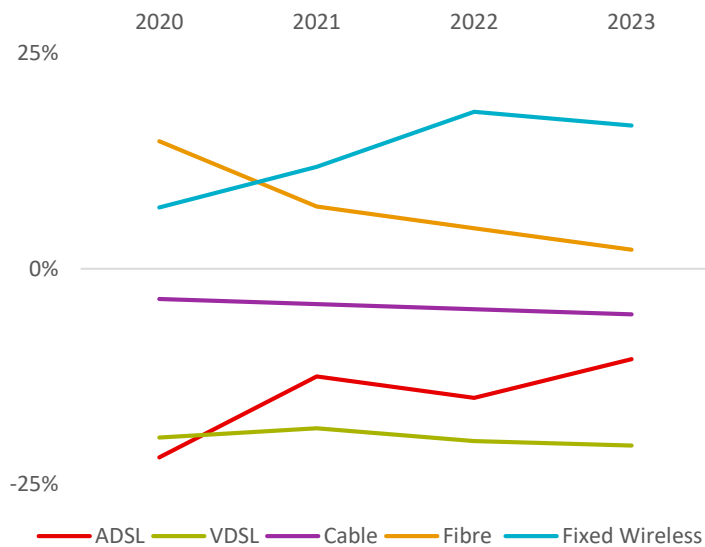




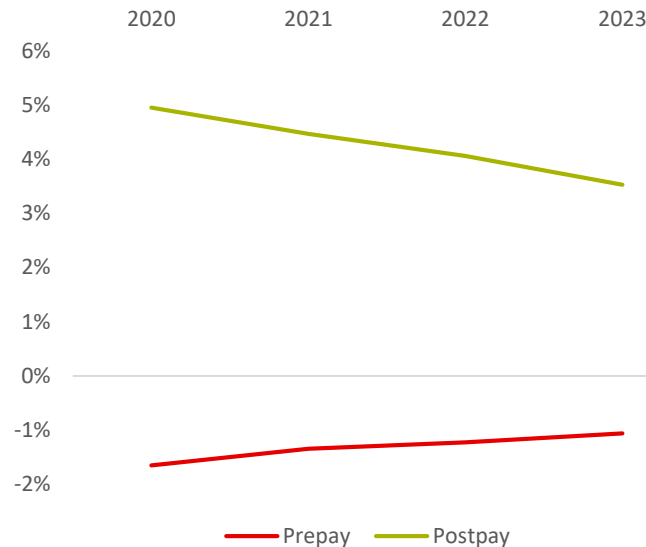
# Future Market Growth Trajectory<sup>1</sup>

Vodafone in line with external growth projections for next generation access technologies and mobile post-pay

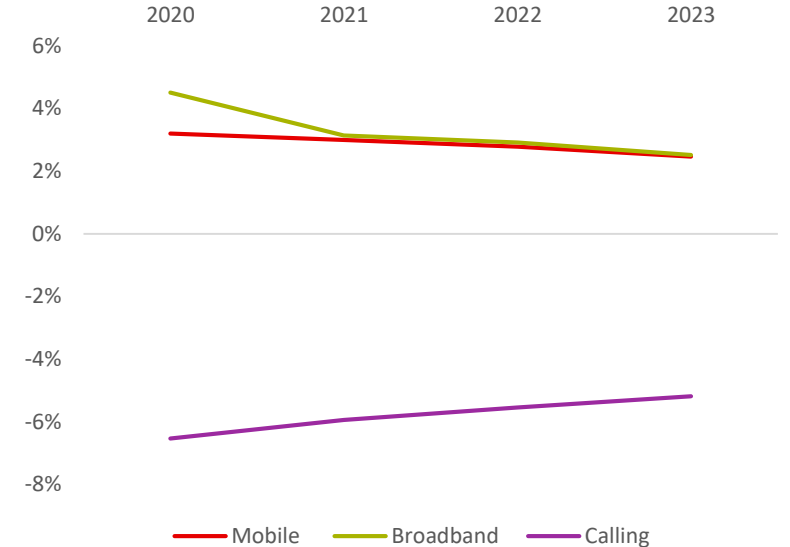
## Broadband Connections



## Mobile Connections



## Market Spend



<sup>1</sup> Based on IDC third party market analysis.



# Looking ahead – the important markers

What we view as the key medium-term financial performance levers/measures



- Sustainable industry dynamics/structure
- Business Improvement Programme execution
- Investment incentives and certainty
- Competitive trading performance
- Growth in Fixed Wireless Access and access bypass
- CX as a competitive advantage and churn reduction
- Digitisation and platform rationalisation
- Focus on existing and profitable customers
- Capital intensity
- EBITDA margins



A photograph of three people in a laboratory setting. On the left, a man with glasses and a beard is looking towards the center. In the middle, a woman with long dark hair is smiling and looking towards the right. On the right, a man with a beard and short hair is leaning over a complex robotic arm, smiling. The robotic arm is metallic and has several joints and cables. The background is a laboratory with various equipment and a window with vertical blinds. The entire image has a greenish tint. A red circle is drawn around the man on the right. The text "Investor Day – Matt Crockett" is overlaid in white on the left side of the image.

# Investor Day – Matt Crockett





# Key beliefs about transformation

## Characteristics of successful transformations



1. You can achieve substantial, 20%+ cost reduction through a holistic transformation approach.
2. However, you can't cost-cut your way to greatness.
3. Execution is critical.
4. "Business-as-usual" people and processes won't deliver significant change.
5. Mindsets and behaviours matter.
6. Leadership is critical.



# We are building on solid foundations

Focused cost program launched 12 months ago

## 1 Employment costs



## 2 Migration off legacy inputs



## 3 Spend rationalisation and outsourcing



## 4 Procurement and Property



\$35m savings were delivered in FY19.

The program is on track to deliver \$56m of incremental gross savings YoY (FY19 to FY20)



# We recently enhanced the programme

With a focus on all business improvement levers



## The what:

all cash improvement  
levers



## The how:

clearer line ownership,  
more regular  
governance, more  
dedicated resources





# A full potential improvement diagnostic

Highlights substantial opportunities



## Example: tactical opportunities

Build / improve data and analytics capabilities to reduce churn, uplift cross- and up-sell



## Example: transformational opportunities

Review full product portfolio and radically simplify product range while improving customer and financial outcomes



# In FY20 we will launch a full transformation programme

Addressing four key requirements for success



---

**Performance  
Infrastructure**



**Mindset &  
Behavior Change**



**Capability  
Building**



**Expertise**






Q & A





A surgeon in blue scrubs and a surgical mask is wearing a VR headset. A red circular graphic is overlaid on the image, with a line connecting the text to the headset. The background is a blurred surgical room with bright lights.

# Investor Day – Juliet Jones



# A stable and predictable operating environment

Relatively stable regulatory settings



- Market regulation has been predictable and in line with international experiences
- National roaming and mobile co-location regulated on a non-price basis
- Cost-based mobile termination rates
- The Commerce Commission annual report highlighted healthy competition and investment in the mobile market
- Mobile market review undertaken by regulator found no need to regulate wholesale access.



# Mature legislative framework

Amendments to laws passed in 2018



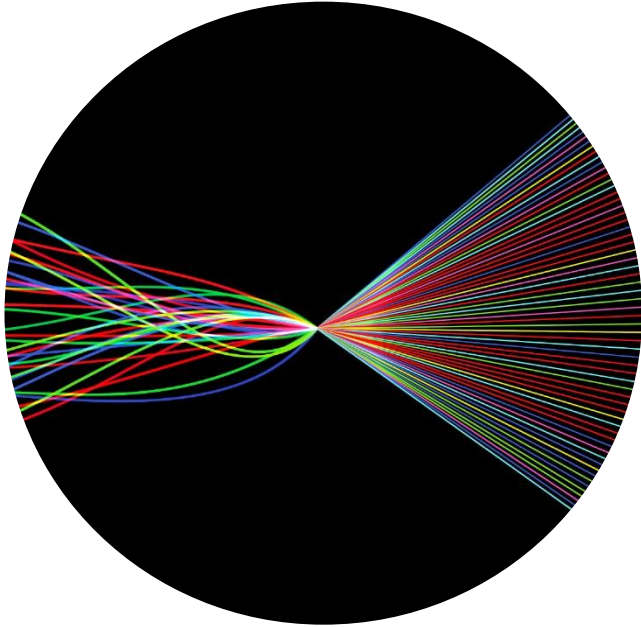
- Amendments to the Telecommunications Act 2001 were passed in November 2018, covering:
  - Defined process to set regulated fibre pricing for “last mile” fixed access infrastructure post 2022
  - Additional consumer safeguards
  - Regulatory oversight of the quality of retail services
  - Rapid responses to any competition issues
- Chorus continues to have requirement to unbundle its UFB network with LFCs expected to follow





# Spectrum matters

## History of stable renewal processes for spectrum



- Renewal process for rights in 1800/2100MHz which expire in 2021
  - 2x20 MHz 1800MHz for renewal, cut back by 2x5 MHz
  - Vodafone to be offered full 2x25 MHz 2100MHz renewal
  - Government will consider requests to swap 2100 MHz instead of 1800 MHz
- Auction of 3.5GHz spectrum faces continued delays
  - Cabinet paper suggests 80MHz sufficient for each mobile network operator
  - Subject to separate decisions around Maori rights under Treaty of Waitangi
  - Auction late 2020 or early 2021 with 20 year rights from November 2022
  - Consultation on design, rollout requirements and cap will occur later in 2019
  - MBIE is exploring early commercial access due to auction delay and has issued an Expression of Interest to acquire temporary rights












# Investor Day – Lindsay Zwart



# Become NZ's Leading Trusted Digital Partner for Business

Helping NZ businesses navigate digital transformations



Understanding the Gigabit world	Customer Experience	New technology investment	Cutting costs	Shareholder value
<b>DIGITAL CUSTOMER</b>  <b>Customer engagement</b>	 <b>Contact Centre solutions</b>		 <b>Mobility</b>	
<b>DIGITAL WORKPLACE</b>  <b>Connected employees</b>	 <b>Unified Communications</b>		 <b>Cloud, hosting and managed mobility services</b>	
<b>DIGITAL BUSINESS</b>  <b>Operational agility</b>	 <b>Managed Network Services</b>		 <b>IoT &amp; connectivity solutions</b>	

A skilled & passionate team who are recognised by our customers as the trusted advisers for their digital journey



# Vodafone Cloud and Partnering Vision

To be NZ's most trusted digital provider through market leading Cloud Services and Strategic Partnerships

## Strategic customer Relationships



Strategic partner with customers in Digital Transformation  
Delivering the most engaging digital customer experience

## Cloud Network



Network attached to public cloud first strategy  
95% Organisations using Private Cloud

## Partnership



Strategic Partnering for expertise, market scale, significant investments and thought leadership

## International Innovation



Leveraging Vodafone's international innovation and extending through channel partners for IoT, AI and cloud analytics

## Procurement



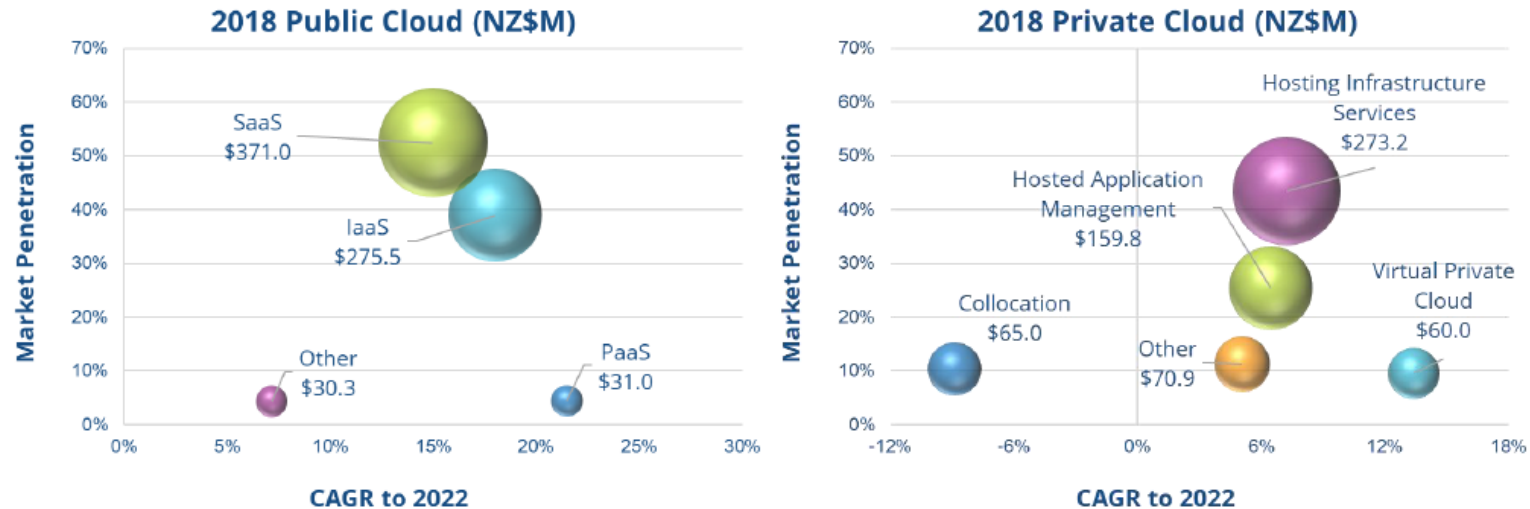
Value added procurement services attached to all deals



# The market opportunity in Cloud is significant

IDC: The New Zealand SaaS market is valued \$371m with CAGR over 15%

## Market Forecast, 2018 Snapshot: Public Cloud vs Private Cloud



- Public cloud revenue growth is accelerating at a CAGR of 16.2% to 2022. Although PaaS is expected to see the highest growth, it is SaaS that will continue to capture the largest revenue share.
- Private cloud shows a CAGR of 5.9% to 2022, driven by the virtual private cloud, hosted infrastructure services, and hosted application markets.



# Vodafone is well placed for the Cloud opportunity

Excellent partnerships in place



Exclusive Cloud reseller agreements with market leading products and services partners

Xone's development of 5G ecosystem. Building innovations ready for the future.

Access to reselling high-growth tech companies solutions [via Telstra-Ventures]

Proven ability to move with speed, with no legacy cloud infrastructure environments

Solid pipeline of new cloud products and services to be released in market in the near term

Strong uptake of early offerings in market, with strategic customers





A photograph of virtual reality equipment, including two VR headsets and two controllers, resting on a red carpet. A red circle is drawn around the equipment. In the background, a screen displays a bright, abstract image. The text "Investor Day – Tony Baird" is overlaid in white.

# Investor Day – Tony Baird



# Market leadership in 5G

Bringing the best of the world to NZ



- We are well placed to leverage 5G with our spectrum, fibre and network assets
- Switching on a large commercial 5G network in December, starting in parts of Auckland, Wellington, Christchurch & Queenstown
- Launching with 100 x 5G-enabled cell-sites and 400 x upgraded 4.5G sites and grow from there – will significantly increase network performance
- Range of devices/handsets will be available at launch, attracting high-value customers and early adopters
- Offers significant potential to scale up our Fixed Wireless Access ambitions
- Adds to our proud heritage of being first to deliver the best technology to Kiwis – including 2G, 3G, and 4G – giving our brand and culture uplift





# 5G is the next generation network technology

Greater capacity, speed and low latency



## 2G: The TXT Era

- 1990s
- SMS
- 0.1 MB/second



## 3G: The Internet Era

- 2000s
- SMS
- Internet
- 0.1-8 MB/second



## 4G: The Smartphone Era

- 2010s
- SMS
- Internet
- Video
- 15 MB/second



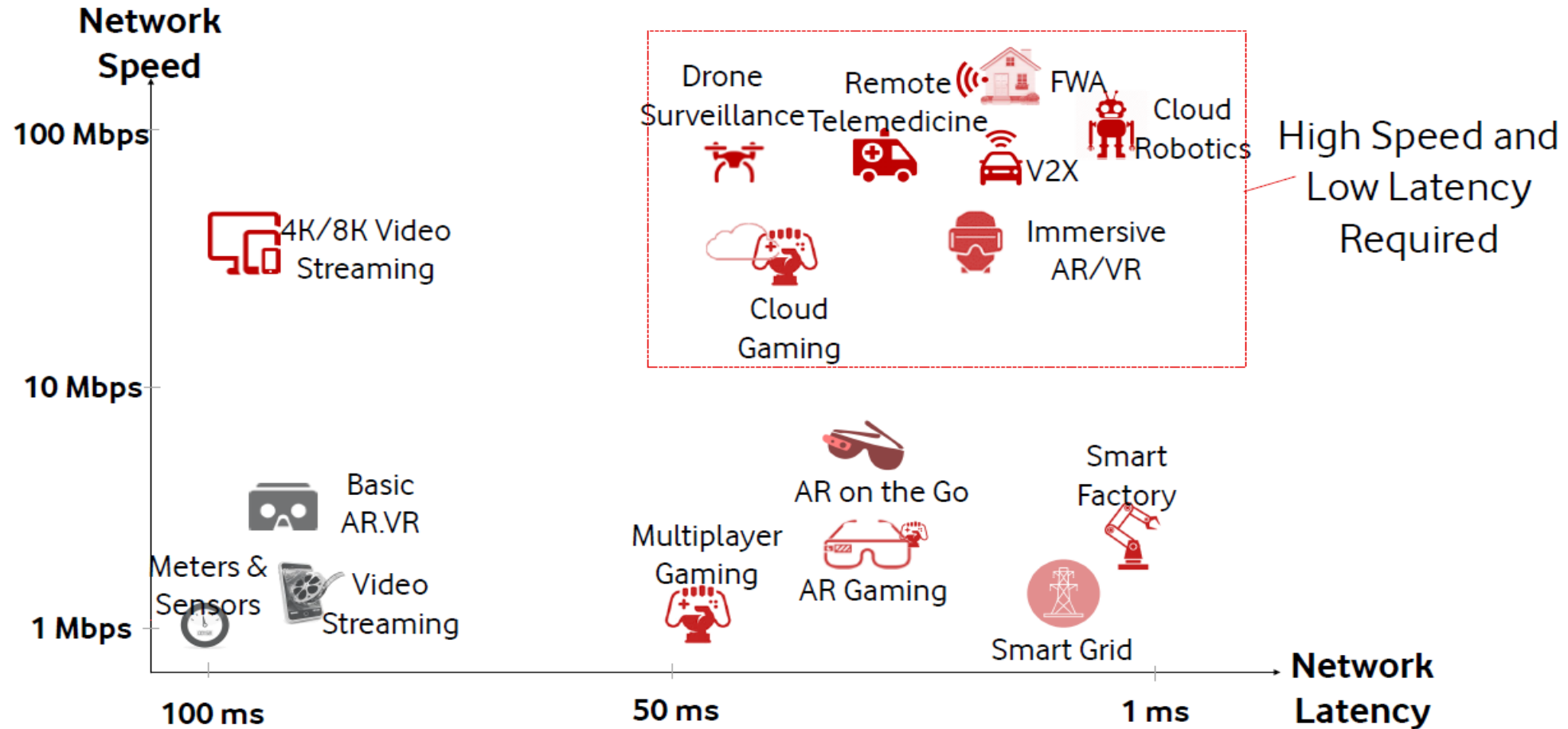
## 5G: The Internet of Things (IoT) Era

- 2020 and beyond
- SMS
- Internet
- HD, 3D & ultra video
- 1-10 GB/second














































# 5G unleashes potential of the Internet of Things (IoT)

Vodafone #1 in IoT network connections, with platform advantages



# 5G builds on the foundation of 4G

Expanding use cases from 4G to 5G







		Capacity	Latency	Slicing	4G	5G
	Smart Networks					
	Health					
	Industry 4.0					
	Logistics					
	Auton. driving / Platooning					
	Smart City					
	Augmented Reality					
Legend		 Low relevance	 High Relevance			





# Already real 5G use cases have emerged

Leveraging Vodafone Germany, Spain, Italy & UK as partners

Automotive	Buildings & Integrated Transport	Manufacturing	Health	Utilities	Education & Entertainment
<ul style="list-style-type: none"> <li>• 5G V2X A9 Highway (DE)</li> <li>• AR &amp; assisted reality</li> <li>• Remote steering of vehicles</li> <li>• Adaptive cruise control</li> <li>• Platooning</li> </ul>	<ul style="list-style-type: none"> <li>• Centralised building controls</li> <li>• Traffic assist using street sensors</li> <li>• Drones for aerial security</li> <li>• Drone delivery</li> <li>• Smart parking, smart waste</li> </ul>	<ul style="list-style-type: none"> <li>• 5G connected robots to improve flexibility of production lines</li> <li>• Warehouse automation</li> <li>• Last mile logistics robots, also used in hospitals</li> <li>• Precision agriculture</li> </ul>	<ul style="list-style-type: none"> <li>• Connected Ambulance</li> <li>• Remote surgery</li> <li>• Remote patient monitoring</li> <li>• Remote training (AI)</li> </ul>	<ul style="list-style-type: none"> <li>• Smart grid</li> <li>• Smart meters</li> <li>• Managing energy crises</li> </ul>	<ul style="list-style-type: none"> <li>• Immersive learning – biomedical and mechanical engineering (AR/VR)</li> <li>• Remote events (VR)</li> <li>• Media: drone/shoulder camera images</li> <li>• AR/VR assisted tour-guides</li> </ul>
					



# 5G delivers efficient network economics

Offers exciting potential for lower cost delivery



- Will upgrade/improve existing 4G
- Enables decommissioning of legacy (e.g. 3G)
- Accommodates ongoing explosion in data consumption
- Offers additional wholesale opportunities
- Low cost option (capex intensity neutral)
- Smart reuse of existing 'street' infrastructure
- Network sharing opportunities
- Best-in-class network cost management





# Summary – Jason Paris





Q & A



