

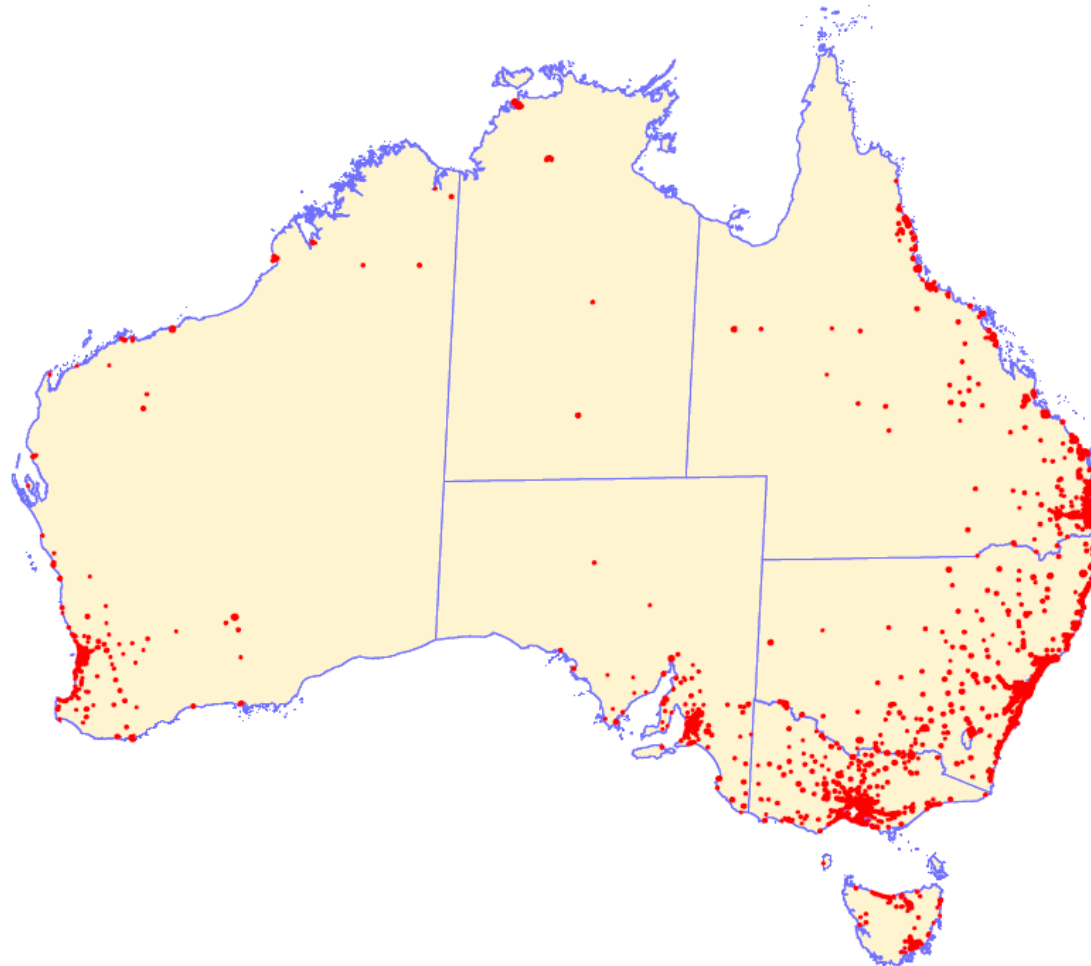
# Infrastructure Partnerships Australia

Mike Quigley  
CEO NBN Co

28<sup>th</sup> April 2010

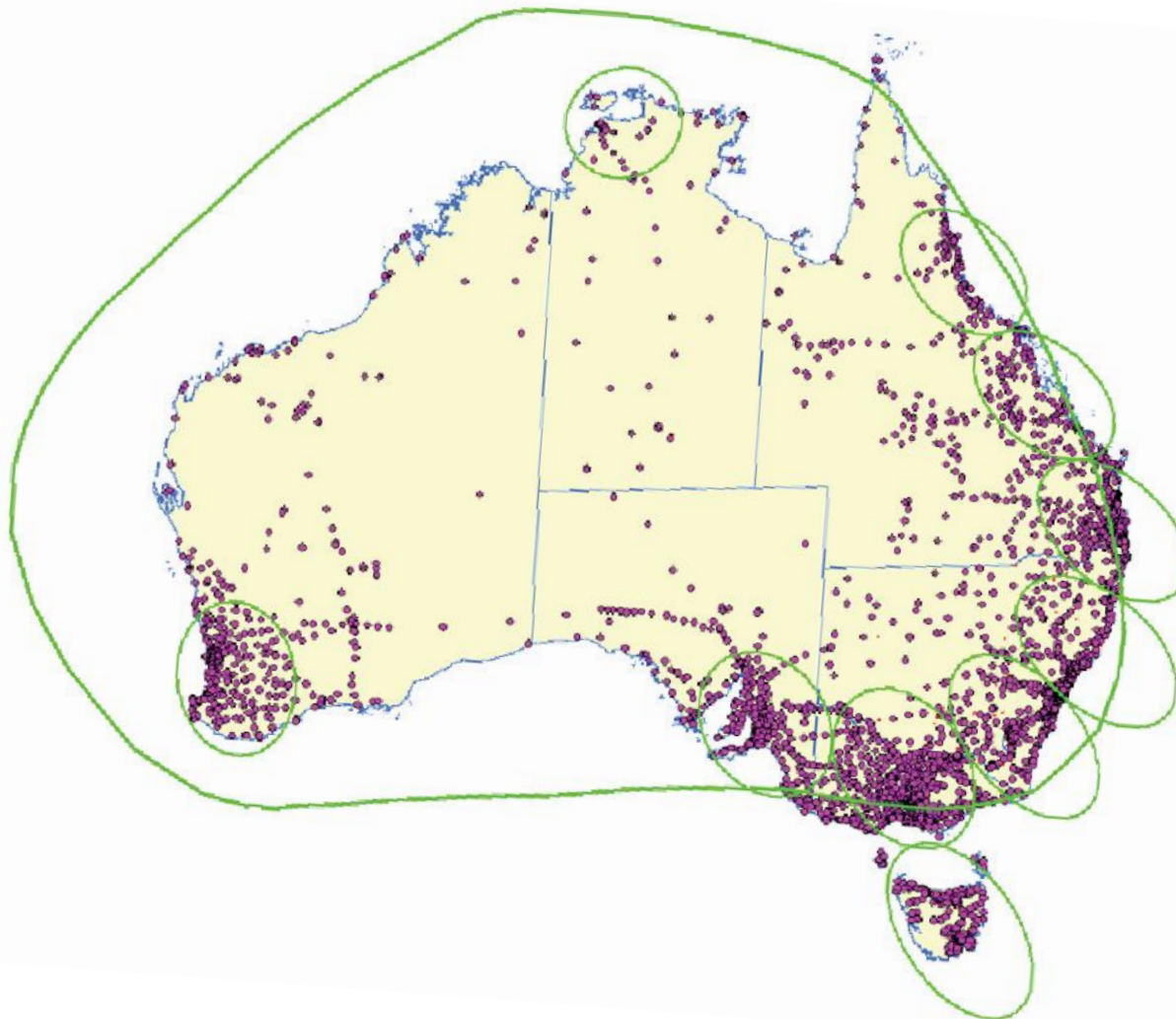
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## Australia – At least 90% Fibre Coverage



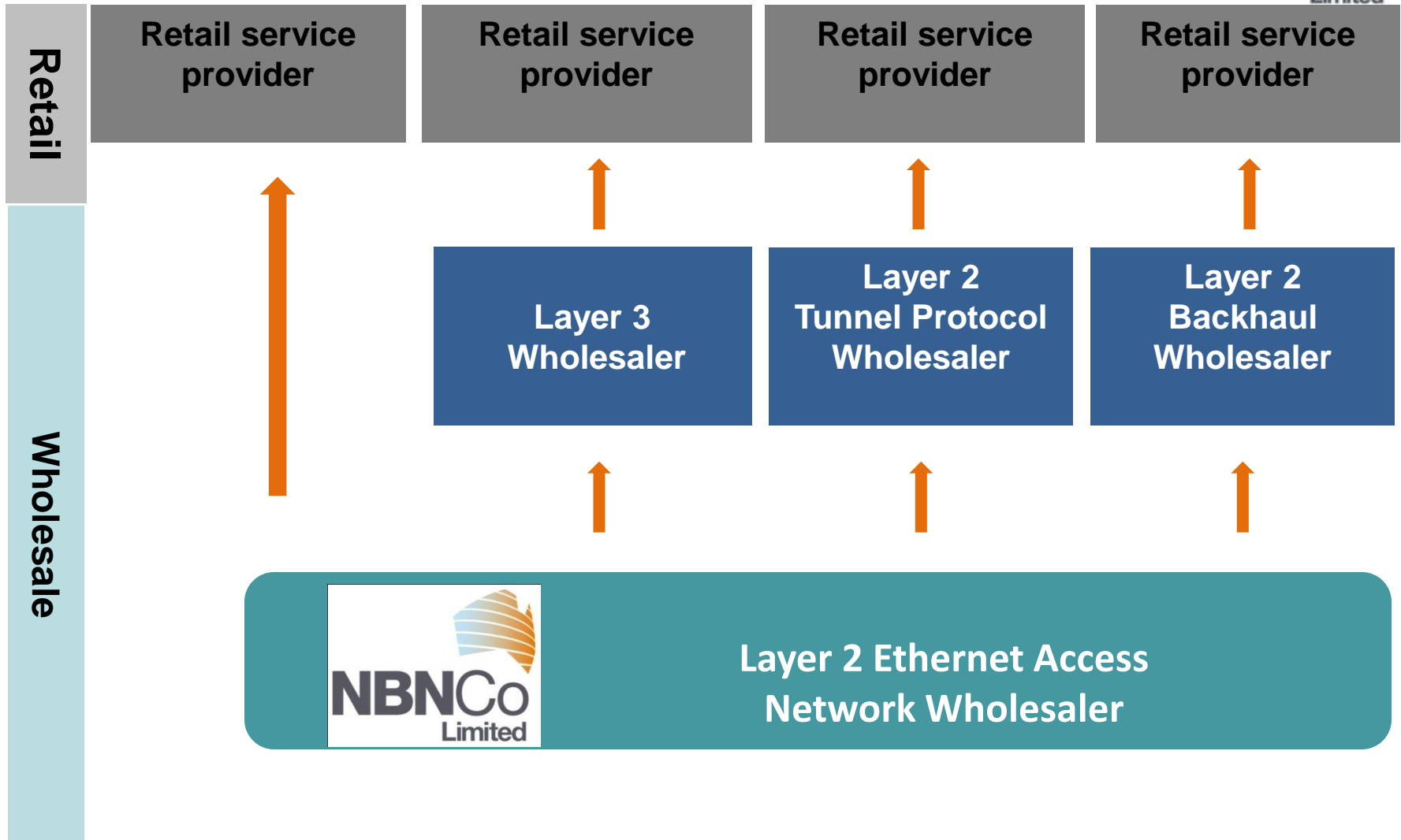
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## Australia – 10% Radio & Satellite Coverage



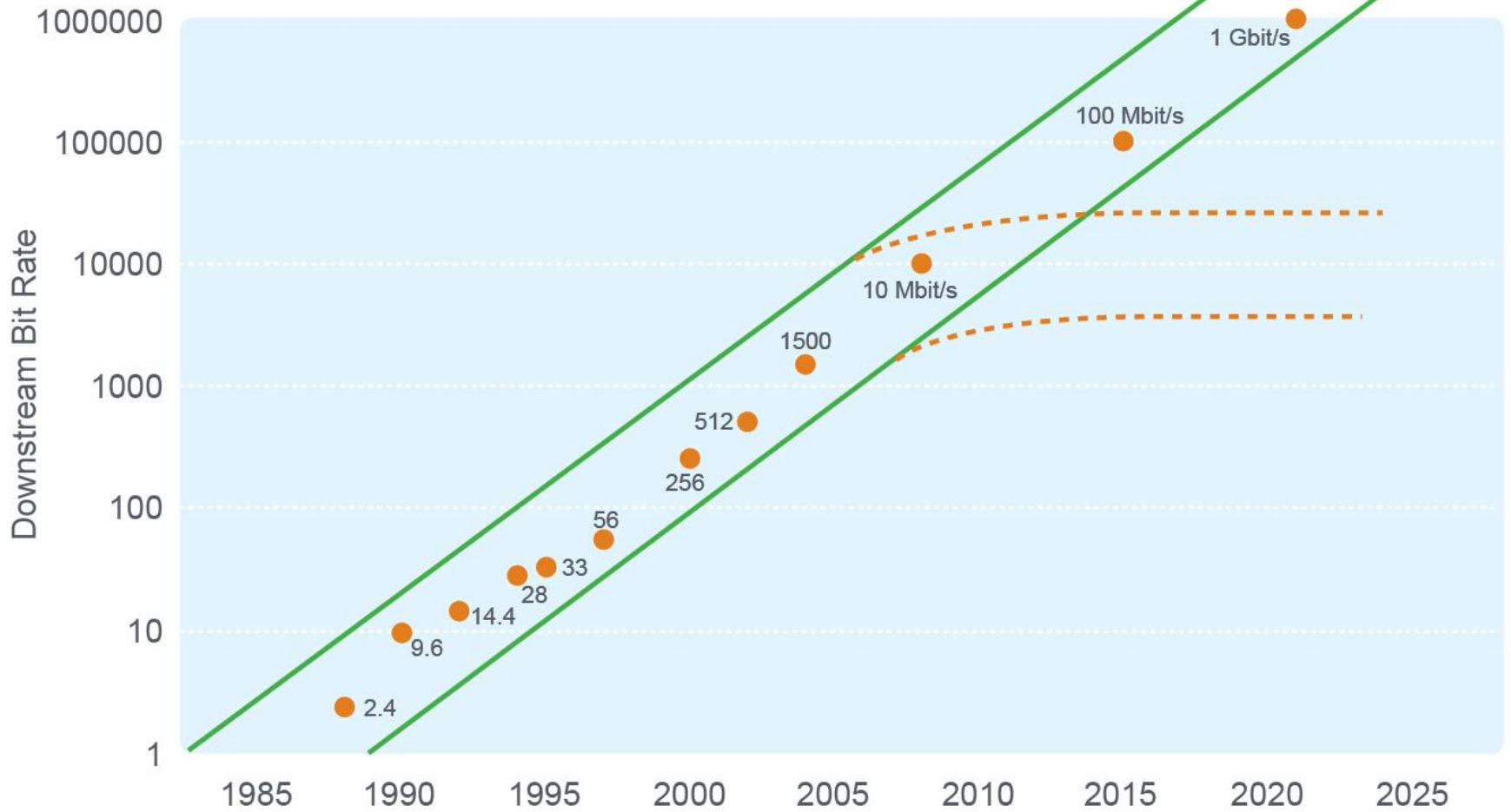
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## A Diversity of Wholesale and Retail Business Models



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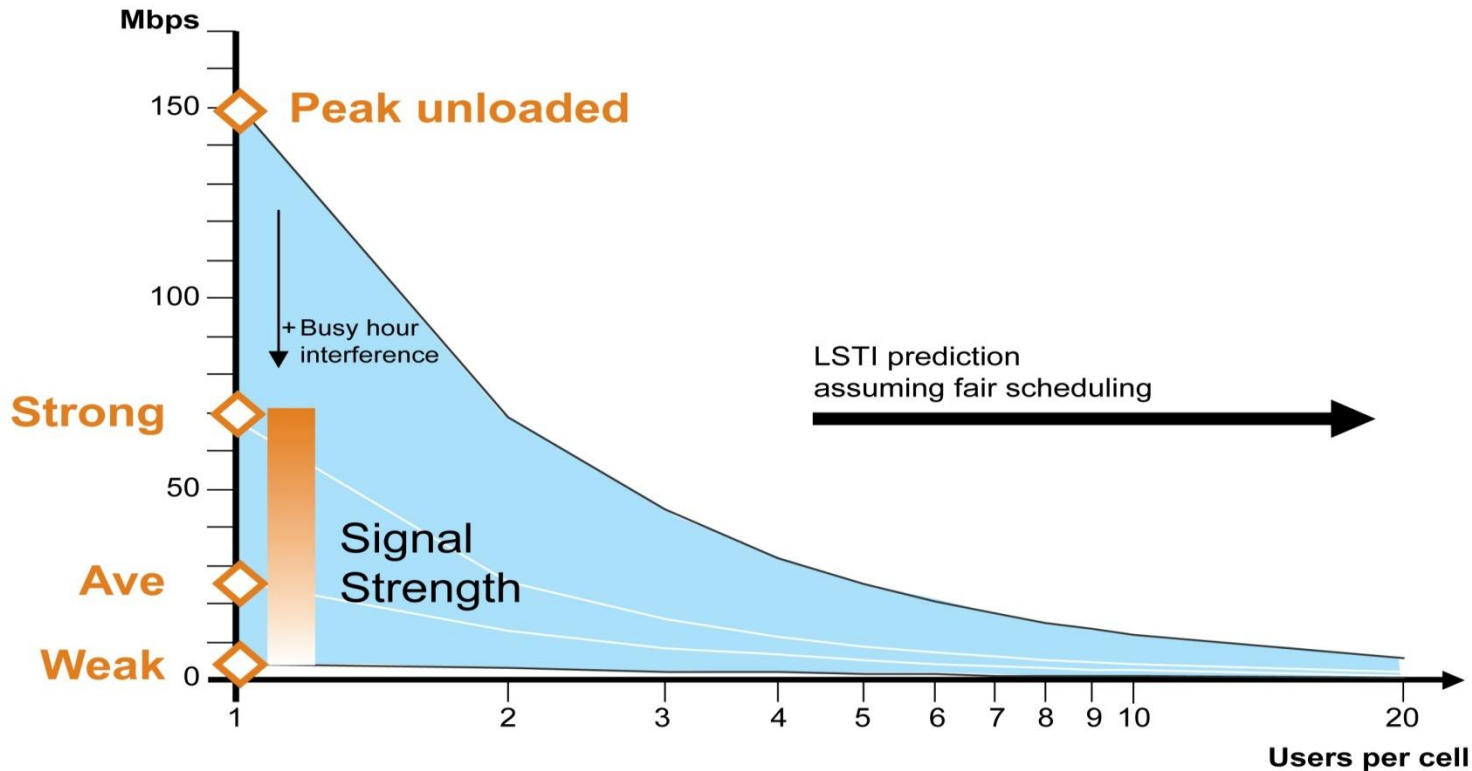
# Fixed Bandwidth Demand



# Latest LTE/SAE trials show significant differences between peak rates and end-user throughput



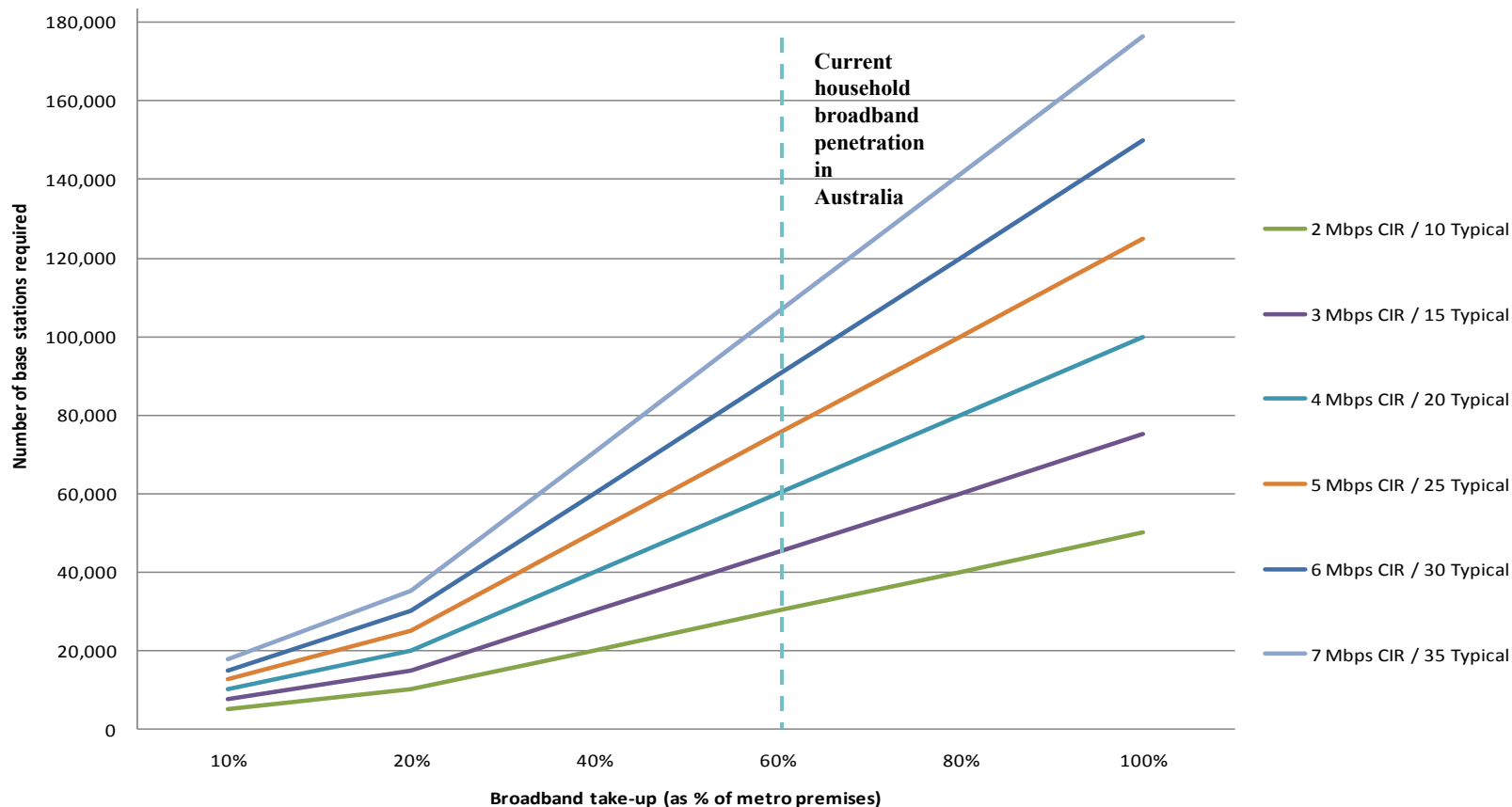
LTE proof of concept peak rates



Notes: 2x20MHz, 2x2 MIMO  
Source: LTE/SAE Trial Initiative (Oct 2009)

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# Base station requirements to deliver a "best-efforts" wireless broadband service to metro Australia



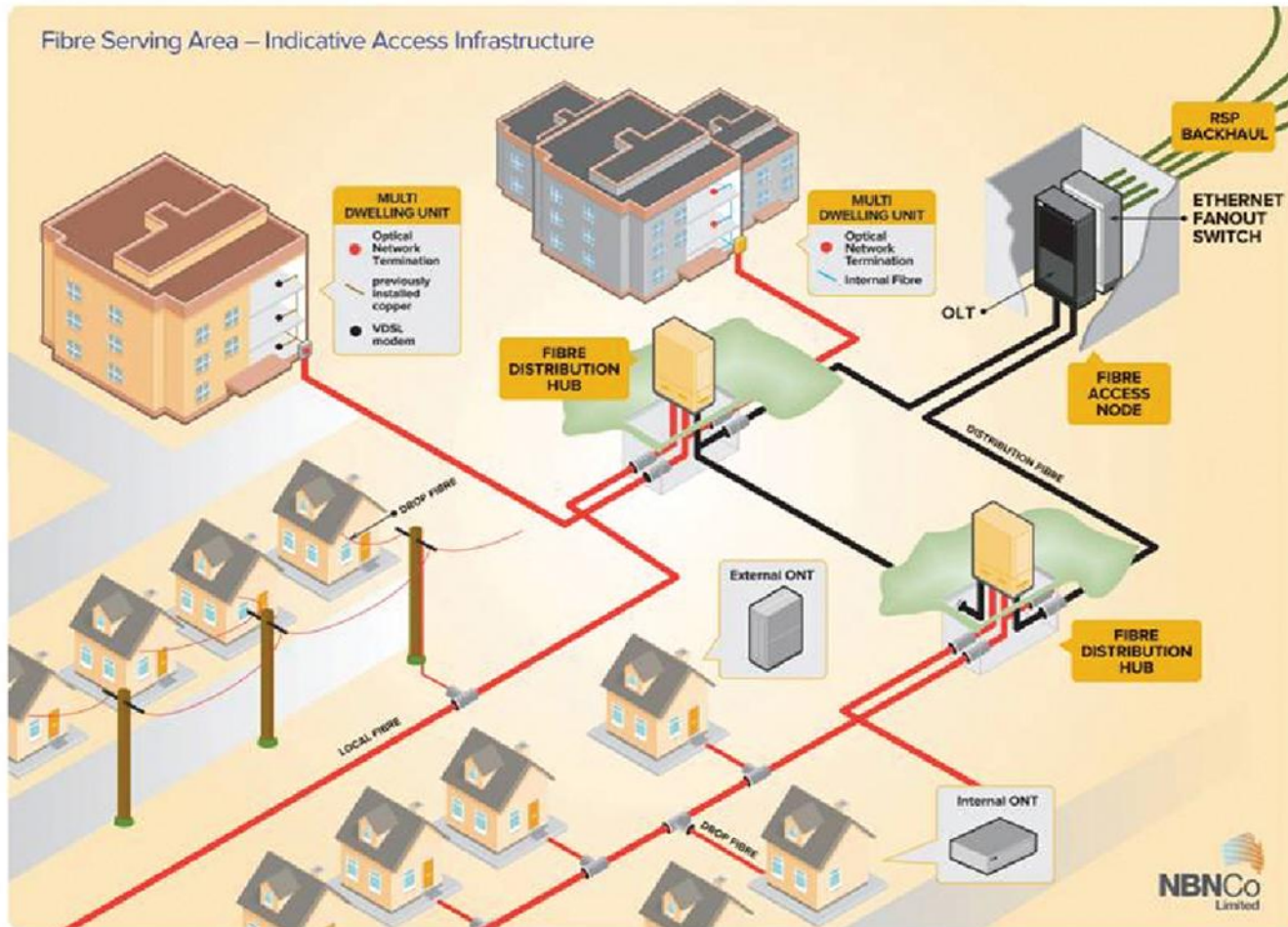
Notes:

1. Assumed radio capacity is 360Mbps per site, based on LTE (3 sectors) operating at 700MHz with 120 MHz of spectrum and benefits of 1.6x spectral efficiency uplift from IMT Advanced.
2. Provisioning of capacity assumes a contention ratio of 1:5 (e.g.: 1 in 5 subscribers active at any one time).



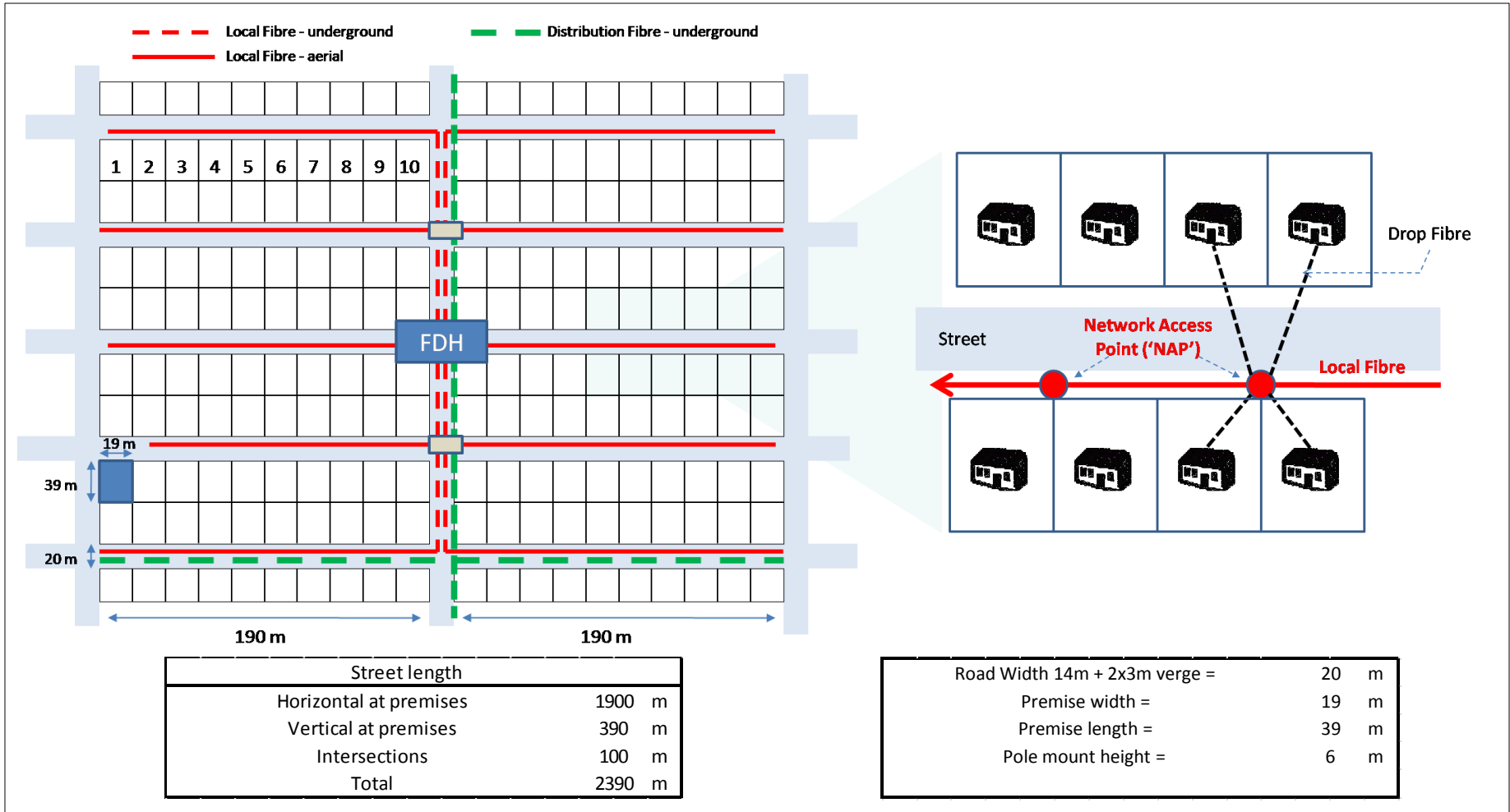
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# Physical Infrastructure Representation





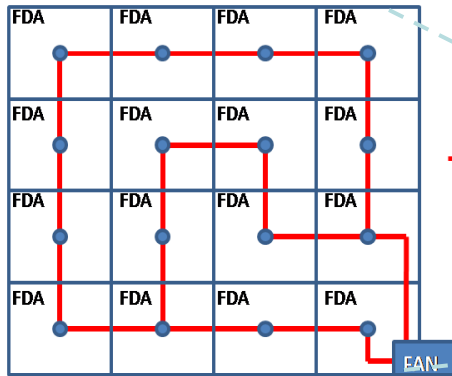
# Fibre distribution hub (FDH) and NAP



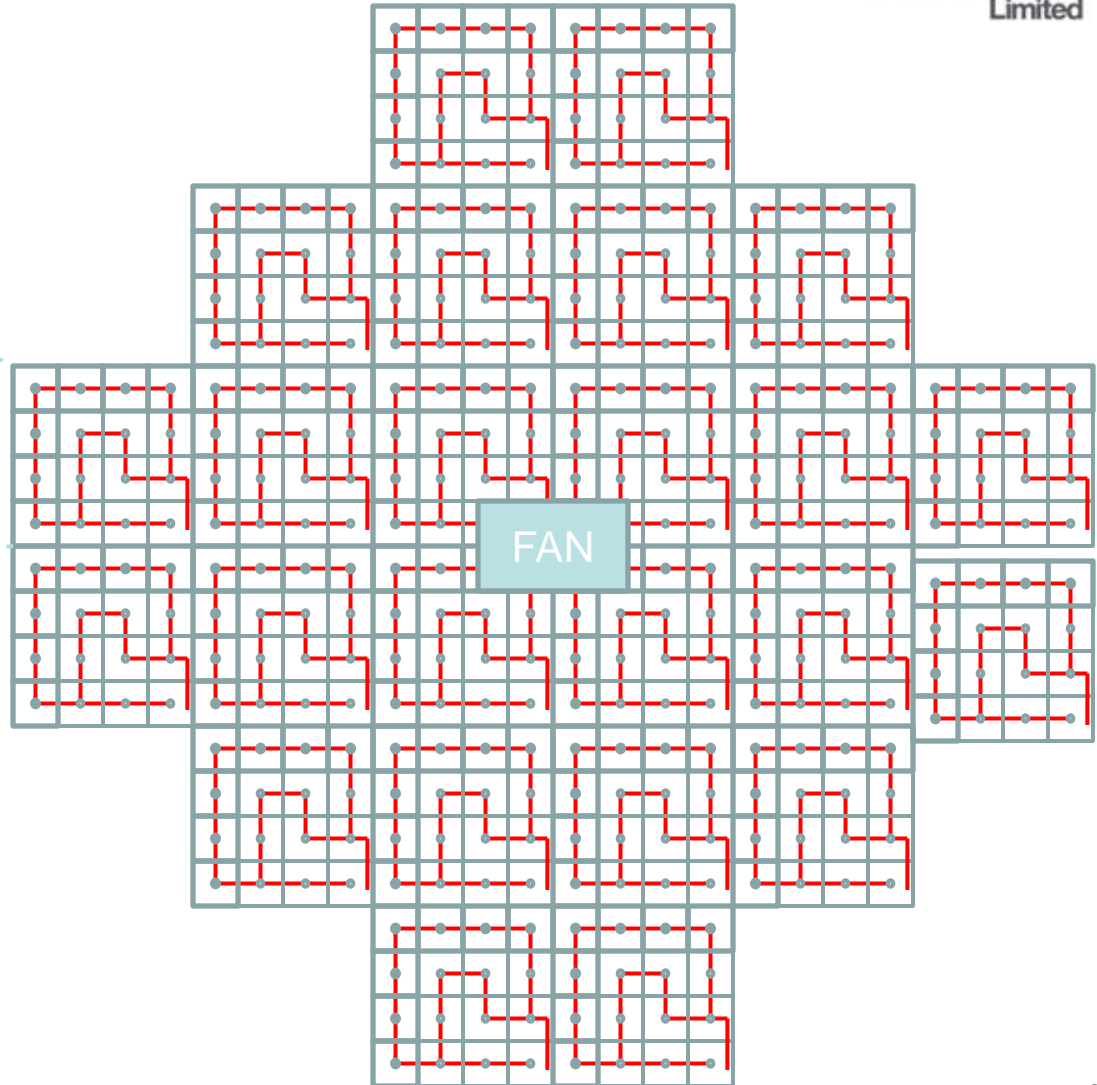
# Replicating modules

## Fibre Serving Area (FSA)

### Access Serving Area Module (ASAM)



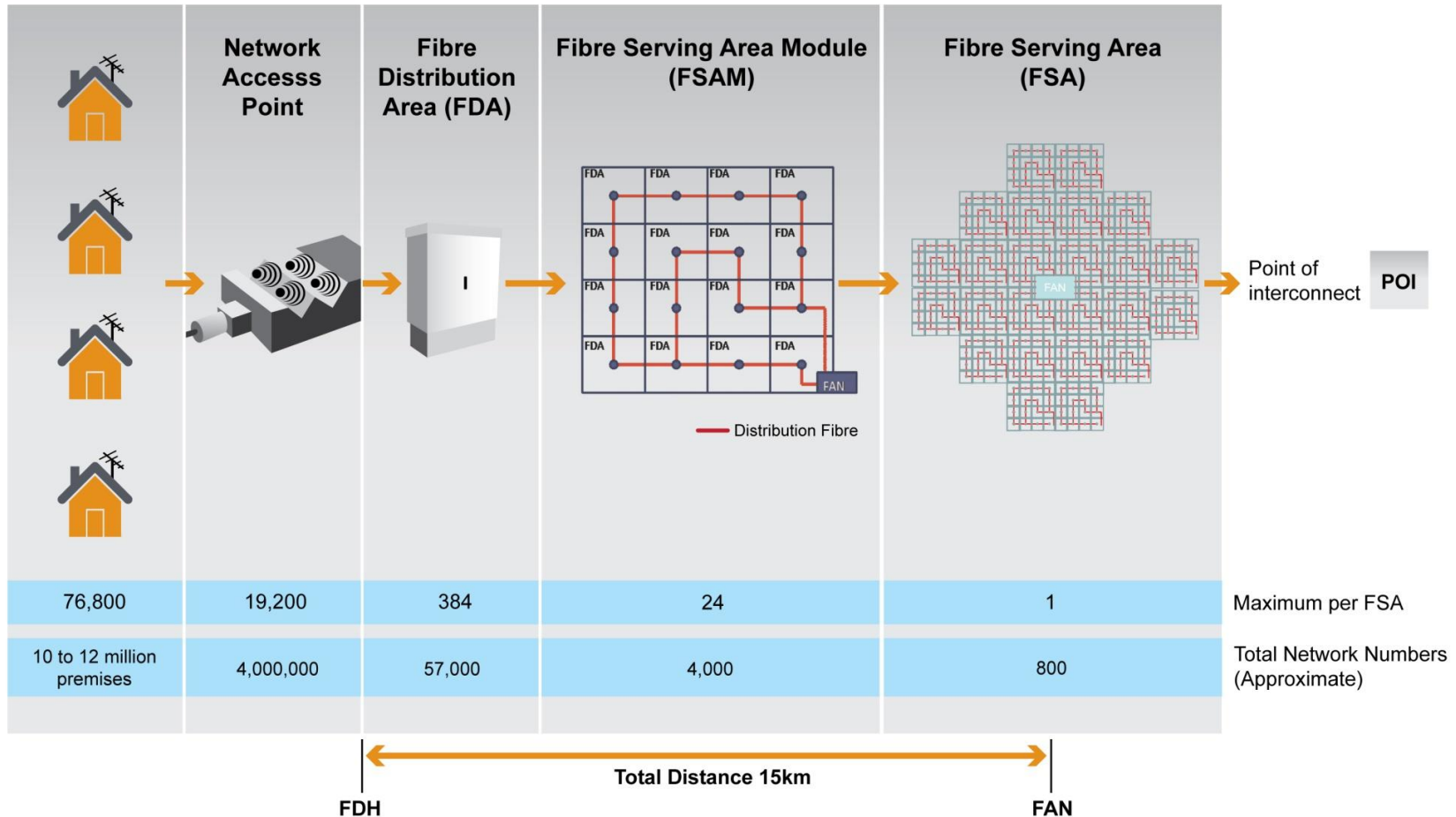
— Distribution Fibre



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# Network dimensions – replicating modules



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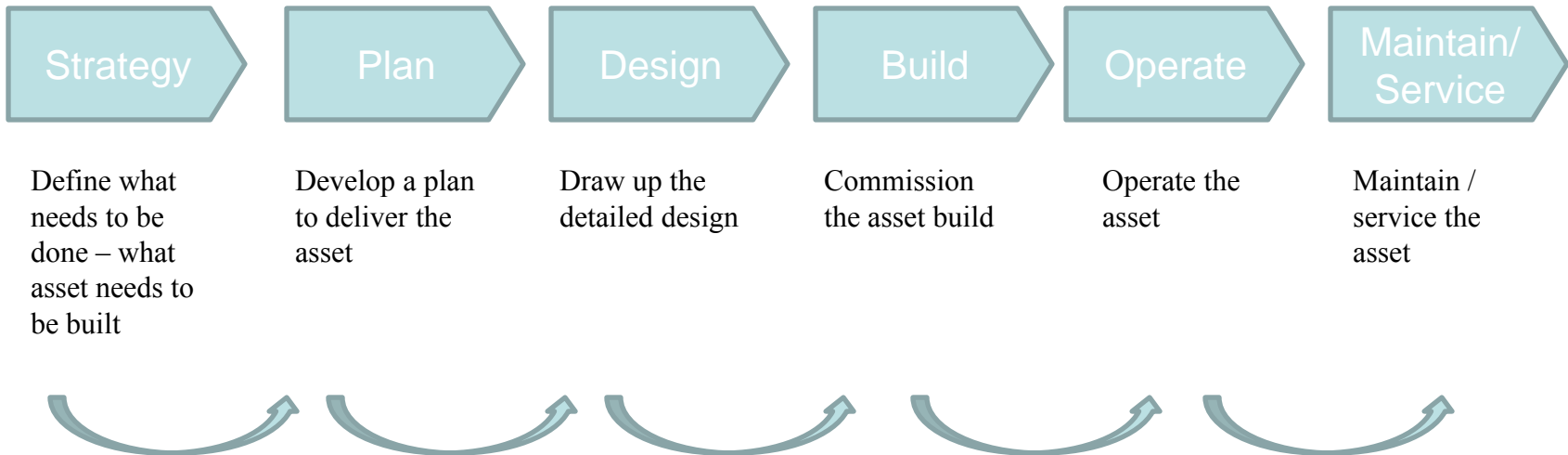
## 'Real' Fibre Serving Areas - Sydney



structured, static model that implicitly assumes discrete deliverables with defined start and end dates



## Traditional Construction Approach

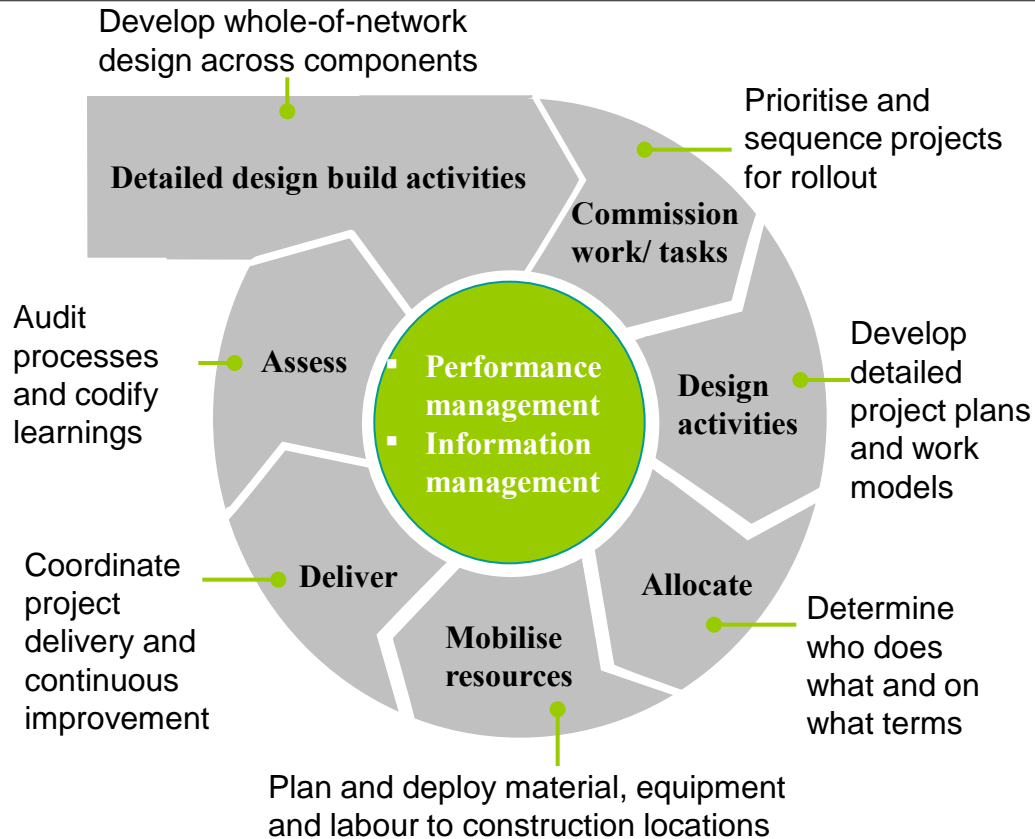


### NBN Co is different

- The NBN Co roll-out will involve multiple projects of a like nature over a substantial period of time
- There is significant scope to leverage learnings and drive improvements as we go
- We have a unique opportunity to evolve / define construction delivery characteristics

# The nature of the project provides a unique opportunity for an innovative construction approach

## NBN Co Continuous Improvement Construction Approach



**Continuous improvement will allow us to realise quality, cost and operational efficiencies within a safe workplace environment**



## Consumer and Business Wholesale Products

### Consumer Products

Asymmetric speeds

Consumer grade

Mass roll out

### Business-grade Products

SOHO & SME  
(single site)

Top-end SME  
(multi site)

Enterprise  
(Large/branch n/w)

Guaranteed reliable bandwidth

Symmetric, higher speeds

Available across entire NBN footprint

High availability

Business-grade Ethernet features

Better response and restoration timeframes

Both GPON and point-to-point fibre will be used to deliver Business-grade products