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AUSTRALIAN  
smart communities  
association



City of  
Ipswich

## Architecting your Network like a Smart City

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**President – Australian Smart  
Communities Association**  
**CDO – City of Ipswich**

# What is the Ipswich Smart City Program?

The City of Ipswich has chosen to lead an economic and social transformation agenda by educating citizens, fostering innovation and enabling new ways of working and living.

Ipswich will be Australia's most liveable and prosperous smart city.

[www.ipswichsmartcity.com.au](http://www.ipswichsmartcity.com.au)

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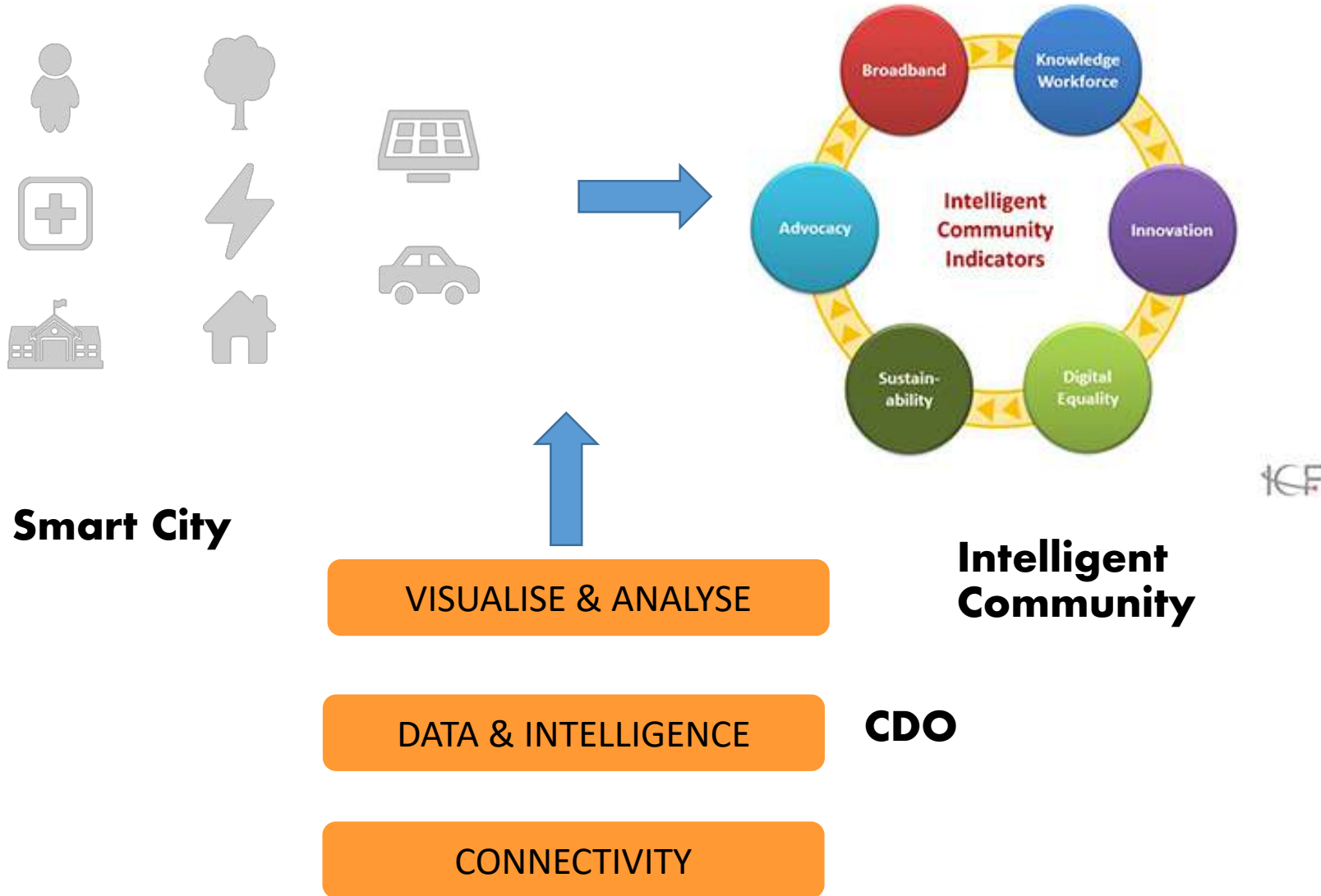
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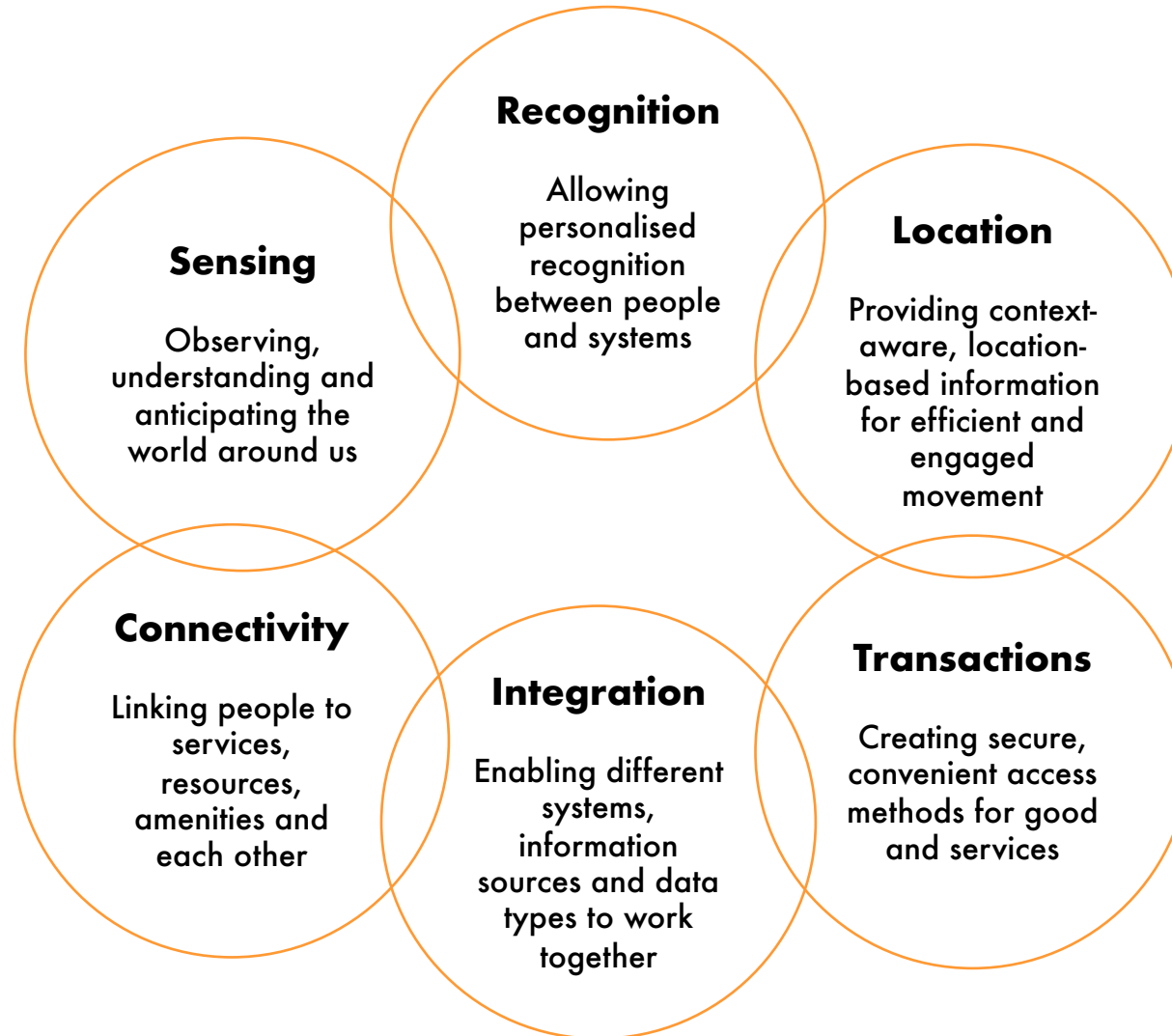
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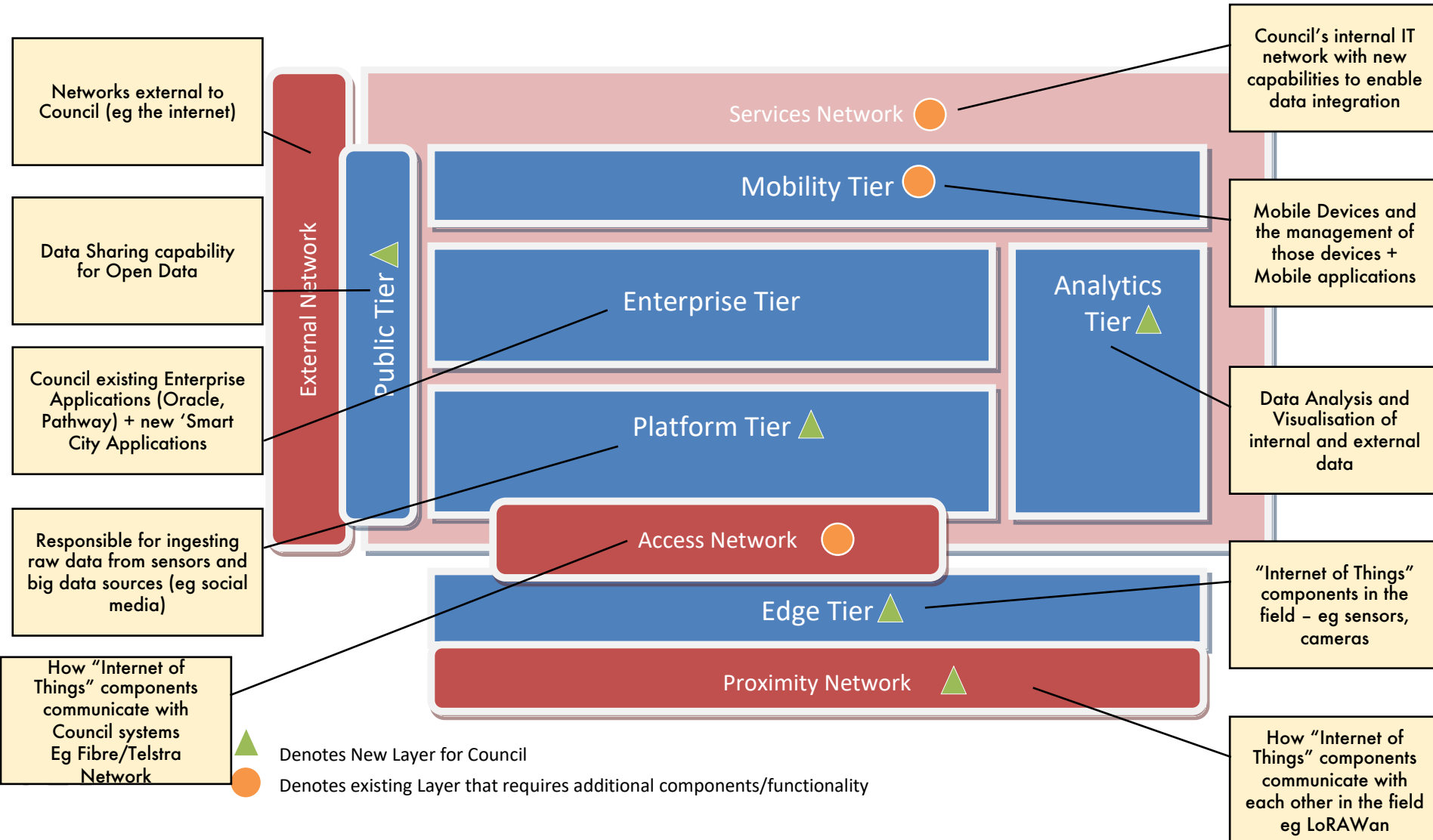
# Overarching Framework



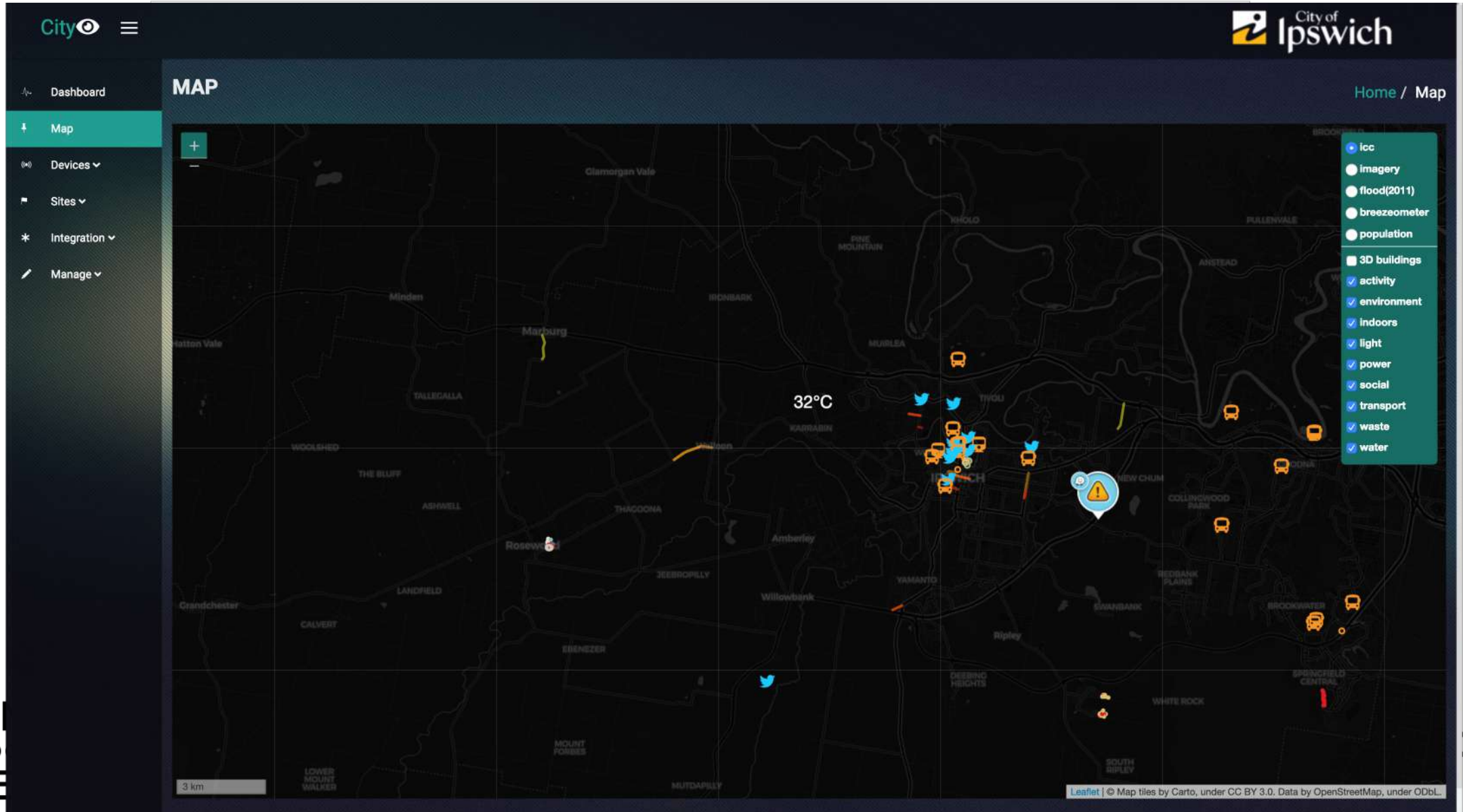
# Smart City Definition Technologies



# Overarching Federated Architecture



# 'CityAI' Platform Design



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# Fit for Purpose Connectivity

City of Ipswich

Smart nbn

WiFi™

LoRaWAN™

sigfox  
Make Things Come Alive

thinXtra  
Empowering Internet of Things

MESHED

OPTUS yes

vodafone

NB-IoT

5G

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150K+ devices

Secure & Reliable

Easy Deployment

Smart Buildings

Smart cities

Smart Metering

Automotive & Transportation

Connected Health

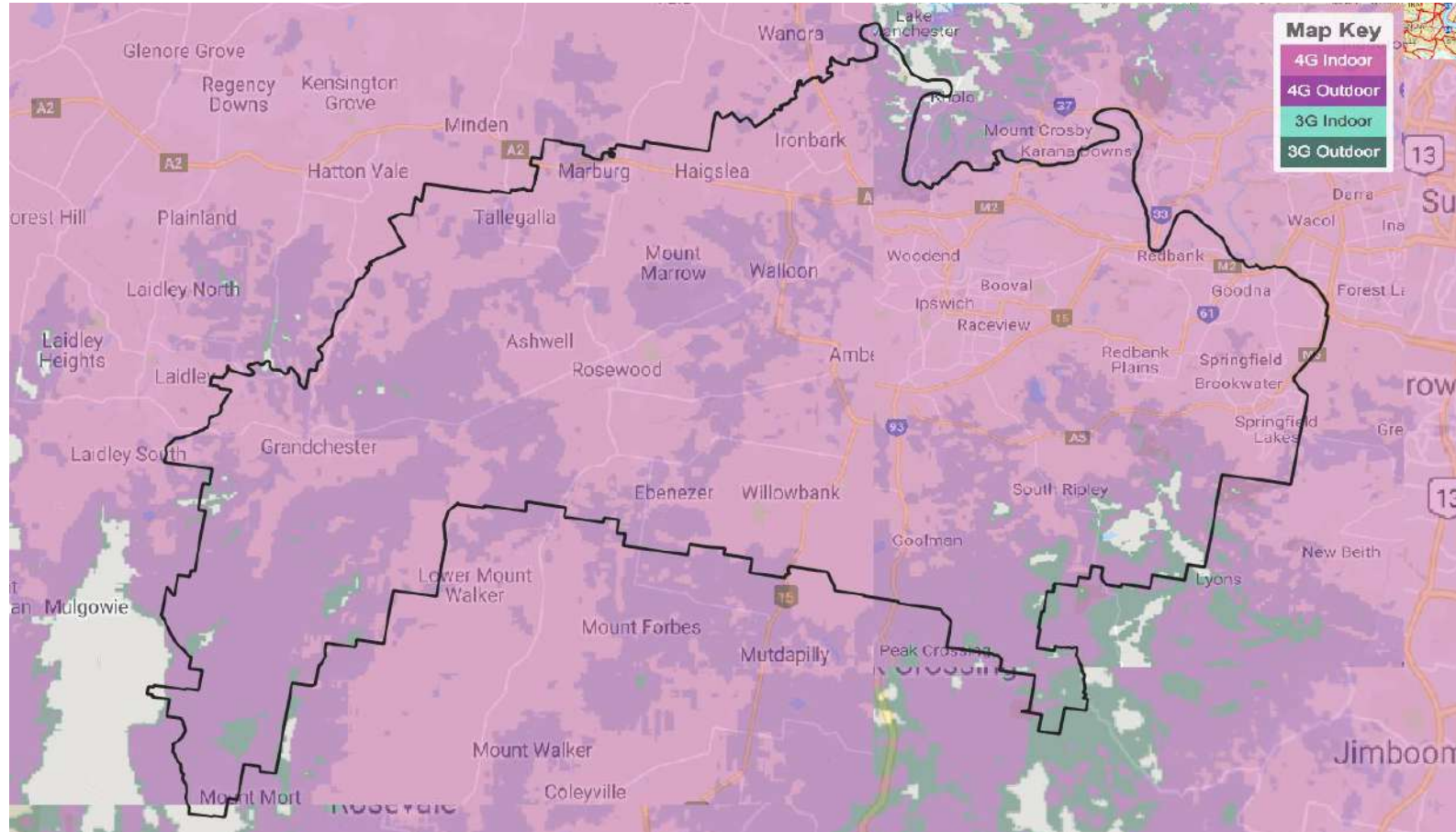
10+ years experience

We have embarked on a plan. A plan that w embracing n living as we prosperous Smart City. A plan that puts people at the centre of a powerful transformation that will connect us — with each other, with the future and with the world.

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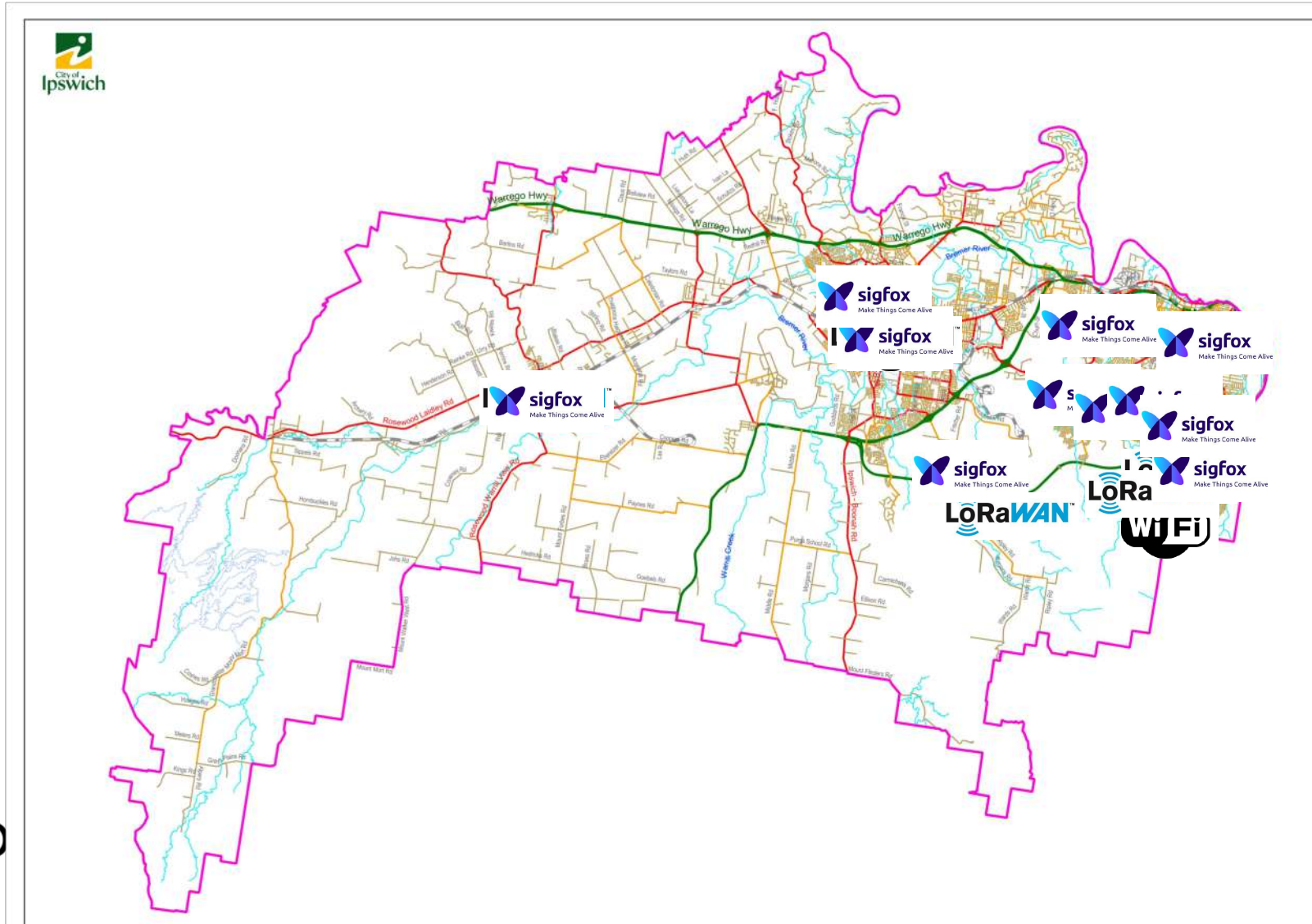
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# 2019 Connectivity





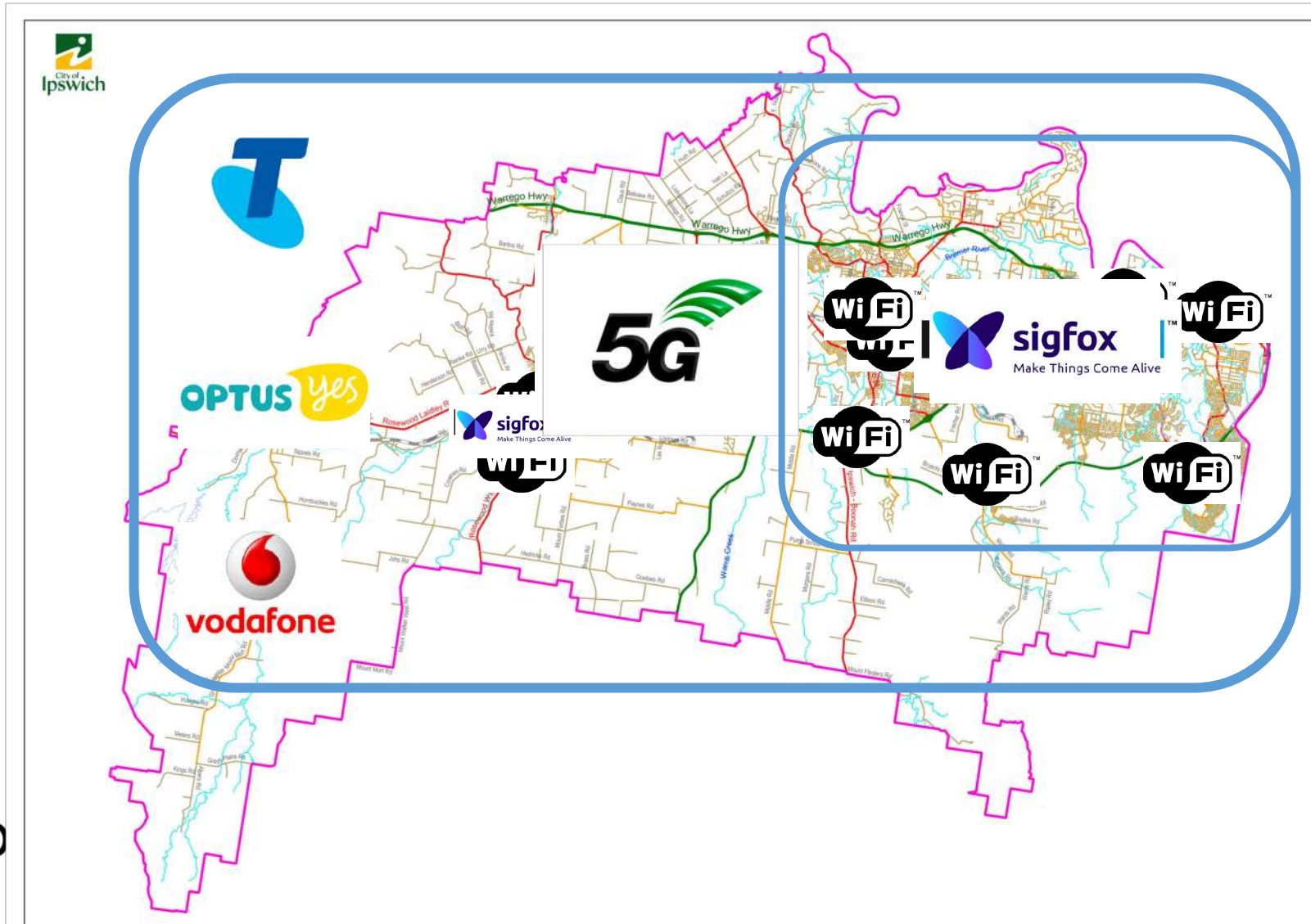
# 2019 Smart City Connectivity



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# 2024 Target Connectivity



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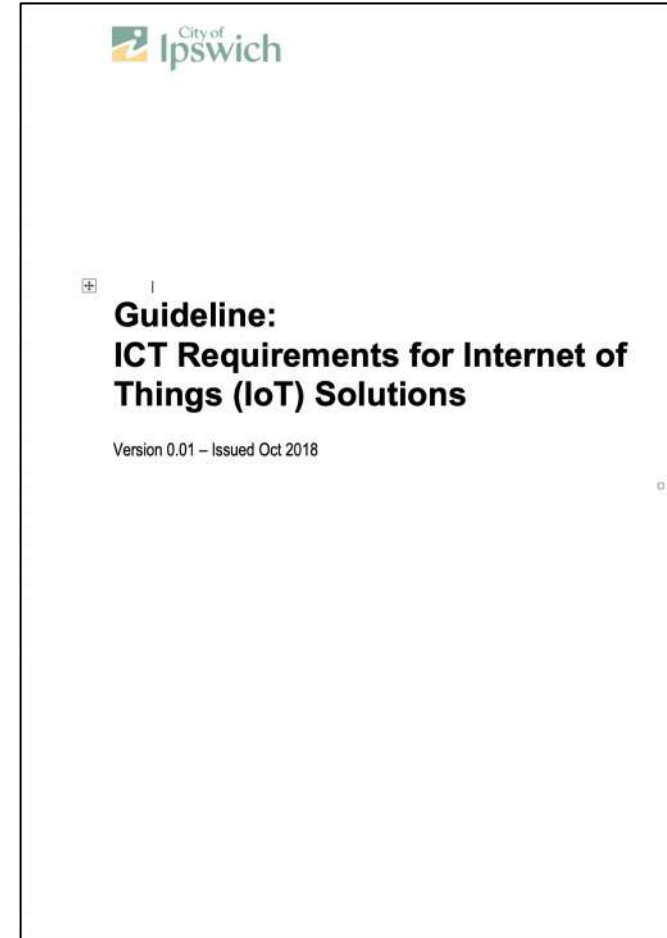
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# Standardised Requirements

Specific open and interoperable Internet of Things (IoT) requirements are required to ensure agnostic integration with a City's Smart City architecture

This should include

- Device Power requirements
- Device Data Connectivity
- Network Topology
- Device Configuration
- Security
- Data Platform interface
- As constructed detail



## Future Considerations

**LoRaWAN & Sigfox vs NB-IOT / Cat-M1** -  
Is there room for all in the future Smart City?

**Small Cell rollout** -  
How many will be required for 5G and will there be a legislated framework to standardise & expedite rollout?

**mmWave Wireless** -  
Will this disrupt Smart City connectivity?

**Edge Computing** - At what scaling point should this be implemented?

**NBN** -  
Will it ever be used at scale for Smart City applications?



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**Thank you**