

**5G/6G - CONVERGENCE OF  
CELLULAR AND SATELLITE  
IOT CONNECTIVITY.**



## VIVEK RAO

I AM BASED IN SYDNEY, NEW SOUTH WALES, AUSTRALIA.

CONSULTANT , ADVISING CLIENTS IN THEIR JOURNEY TO DEVELOP E2E IOT SOLUTION PROPOSITIONS , FROM DEVICE TO CLOUD, FOR CLIENTS ACROSS APJ.

PREVIOUSLY WORKED WITH NOKIA , ERICSSON WHERE I LED THE EVOLUTION OF VARIOUS IOT SOLUTIONS AND PLATFORMS THROUGH 3G/4G/5G PROGRESSION AND MORE RECENTLY THE INTERPLAY BETWEEN CELLULAR AND SATELLITE CONNECTIVITY.

# NEWS ( NOISE ) AROUND SATELLITE CONNECTIVITY

**IoT Reaching New Heights: The Sky's the Limit!**

Satellite technologies have the potential to contribute to the creation of a resilient logistics system

**Tackling Cybersecurity Risks in Satellite IoT**

achieves full coverage of NB-NTN devices, enabling

Hits Record Revenue in Q3, Pitches

Global Nature of NTN Direct

ETSI Conference on "Non-Terrestrial Networks, a Native Component of 6G"

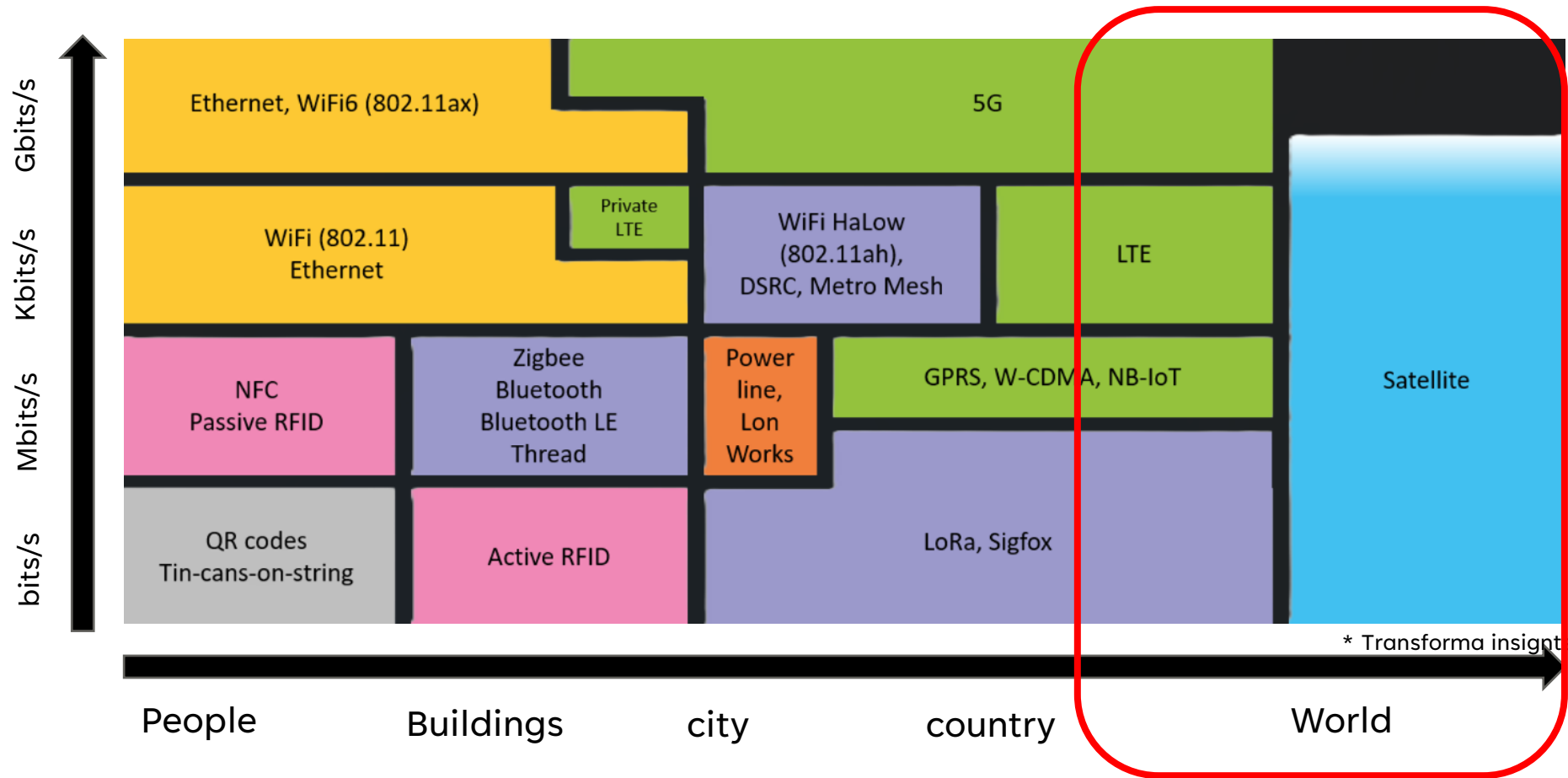
Satellite tech company secures £12m contract

with satellite telecommunications for securing application of RFID readers in combination and motorcycles against theft.

Mobile Satellite Services Association Announces Strategic Collaboration with to Enhance Global Mobile Connectivity

FCC approves new rules for satellite-direct-to-phone communications

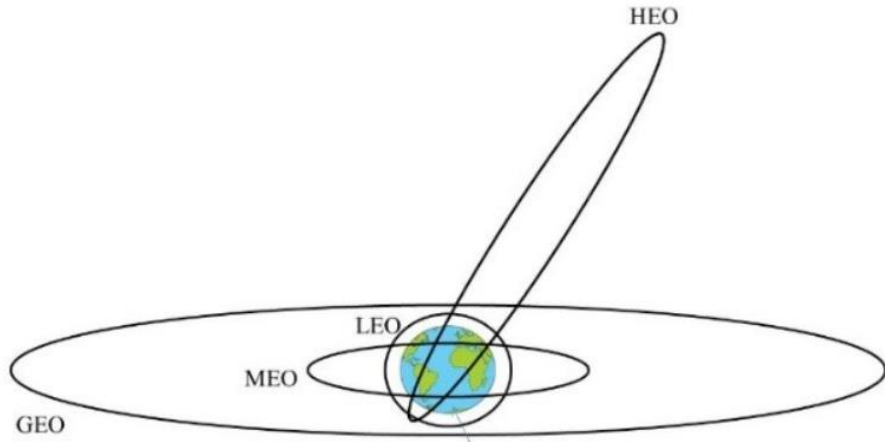
# SATELLITE IOT CONNECTIVITY : COMING OF AGE



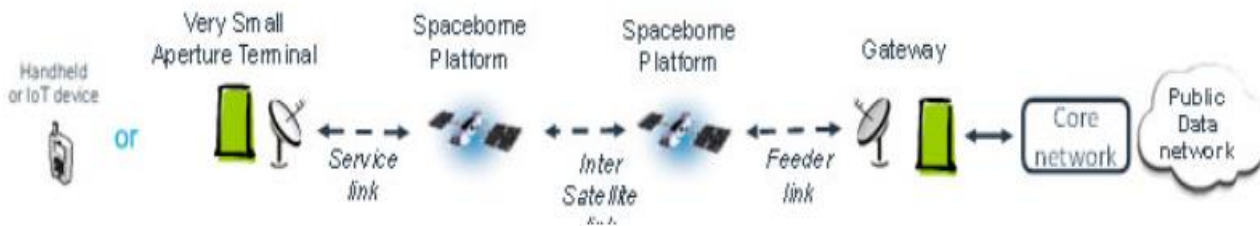
## Drivers

- IoT use case maturing.
- Need for uniform global coverage.
- Investments/scale in Satellite industry maturing.
- Affordability of Satellite connectivity

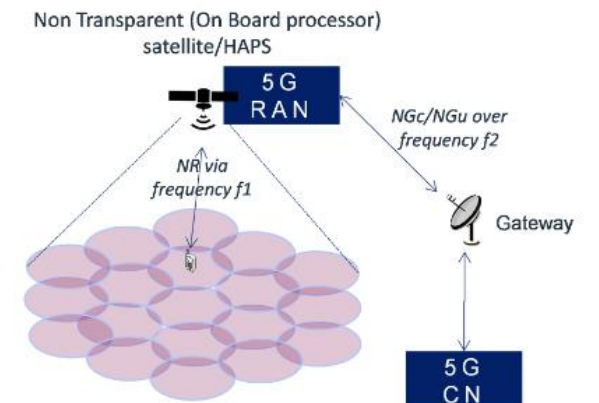
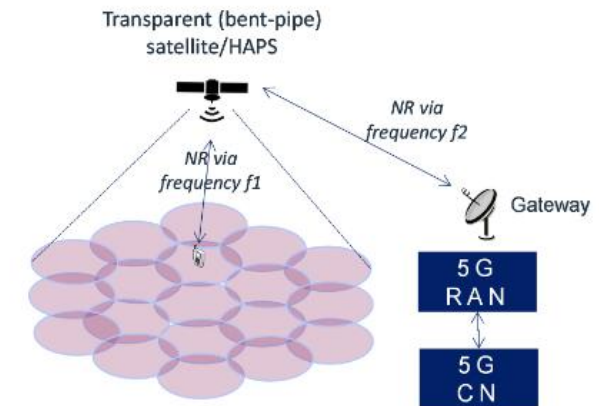
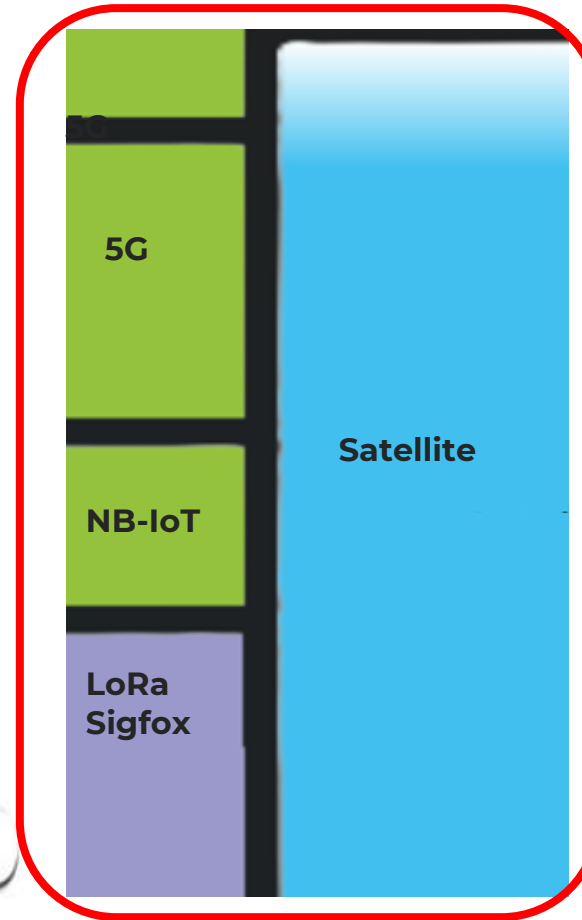
# SATELLITE IOT CONNECTIVITY : AREA OF INTEREST



source: TR 22.822

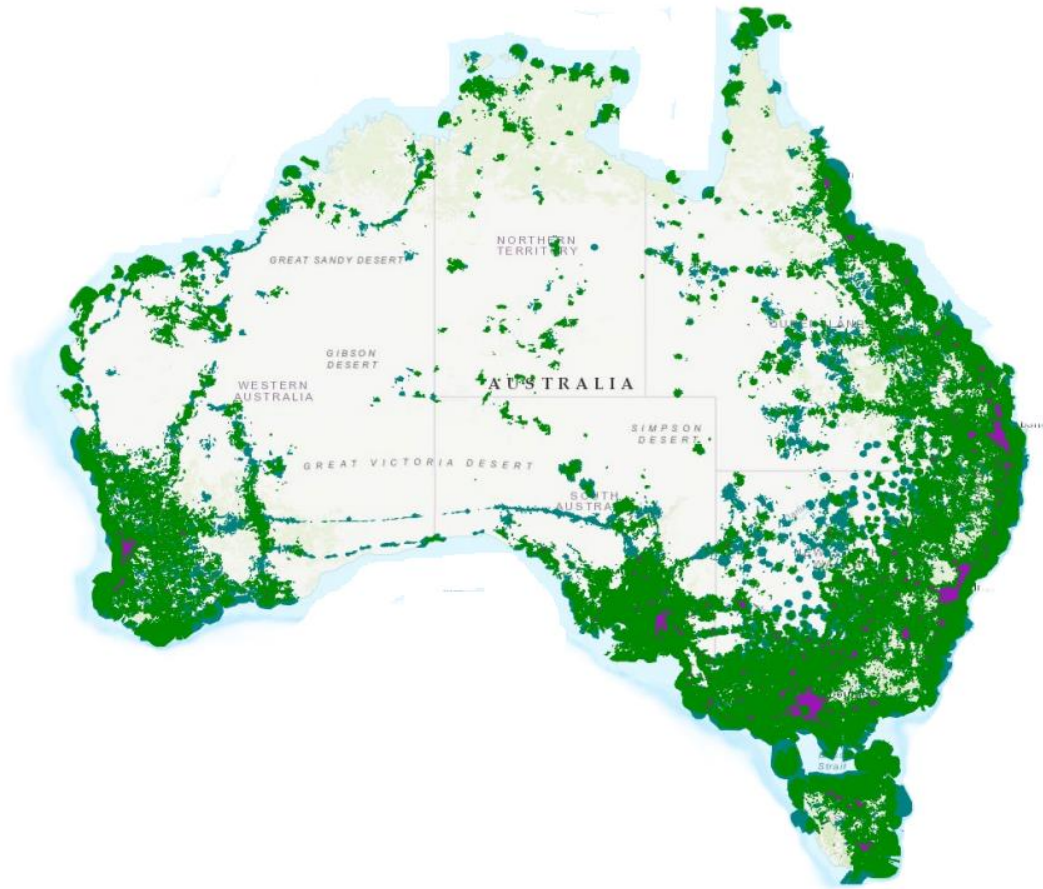


source: TR 38.811

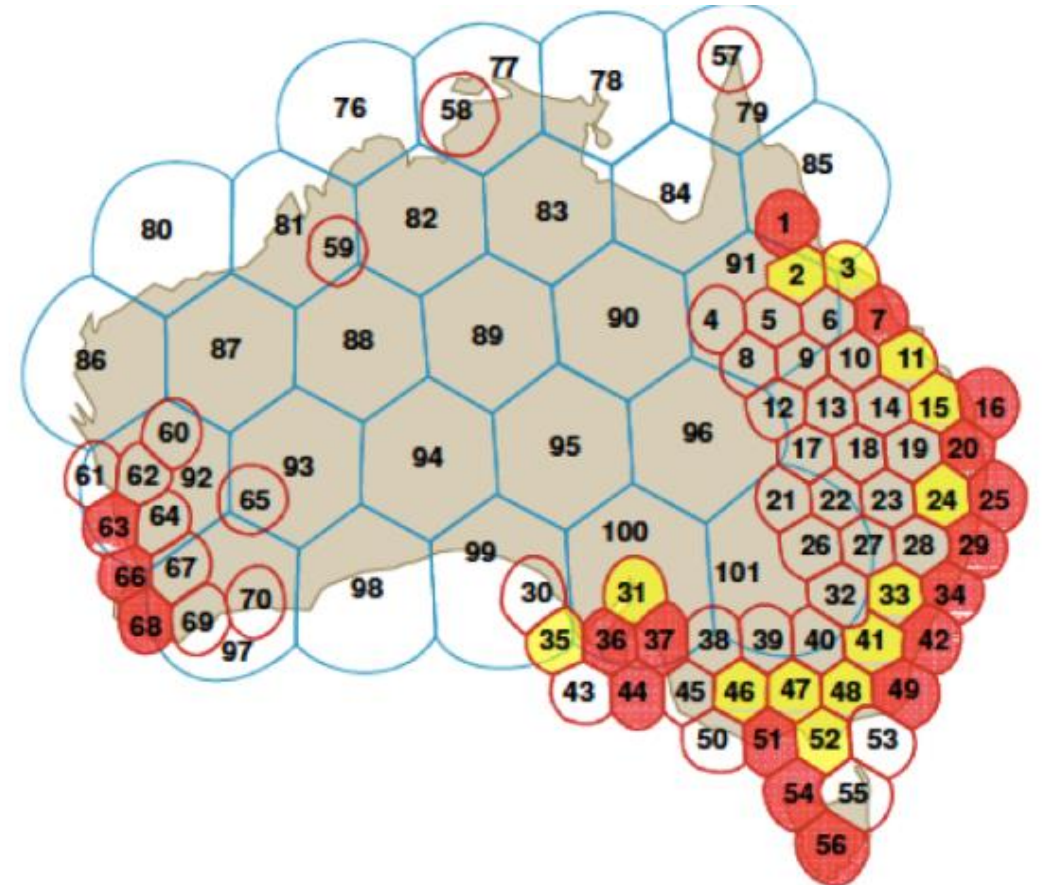


# USECASES THAT COULDN'T BE DELIVERED ON CELLULAR

Cellular Coverage



Satellite Coverage



# SATELLITE CONNECTIVITY : NEW ADDRESSABLE AREAS

Cellular Coverage  
is not viable

- Remote agriculture / Plantations
- Environment monitoring

Objects move across Cellular  
networks and underserved areas

- Logistics
- Heavy machinery / asset tracking

Backup to cellular  
( de-risk connectivity)

- Critical infrastructure
- Emergency services / First responders

# SATELLITE CONNECTIVITY : USECASES



Snowy 2.0 will link two dams – Tantangara and Talbingo – through a series of tunnels, underground power stations and pumping capability.

The water is essentially recycled between the upper and lower reservoirs enabling the same water to produce on-demand energy again and again.

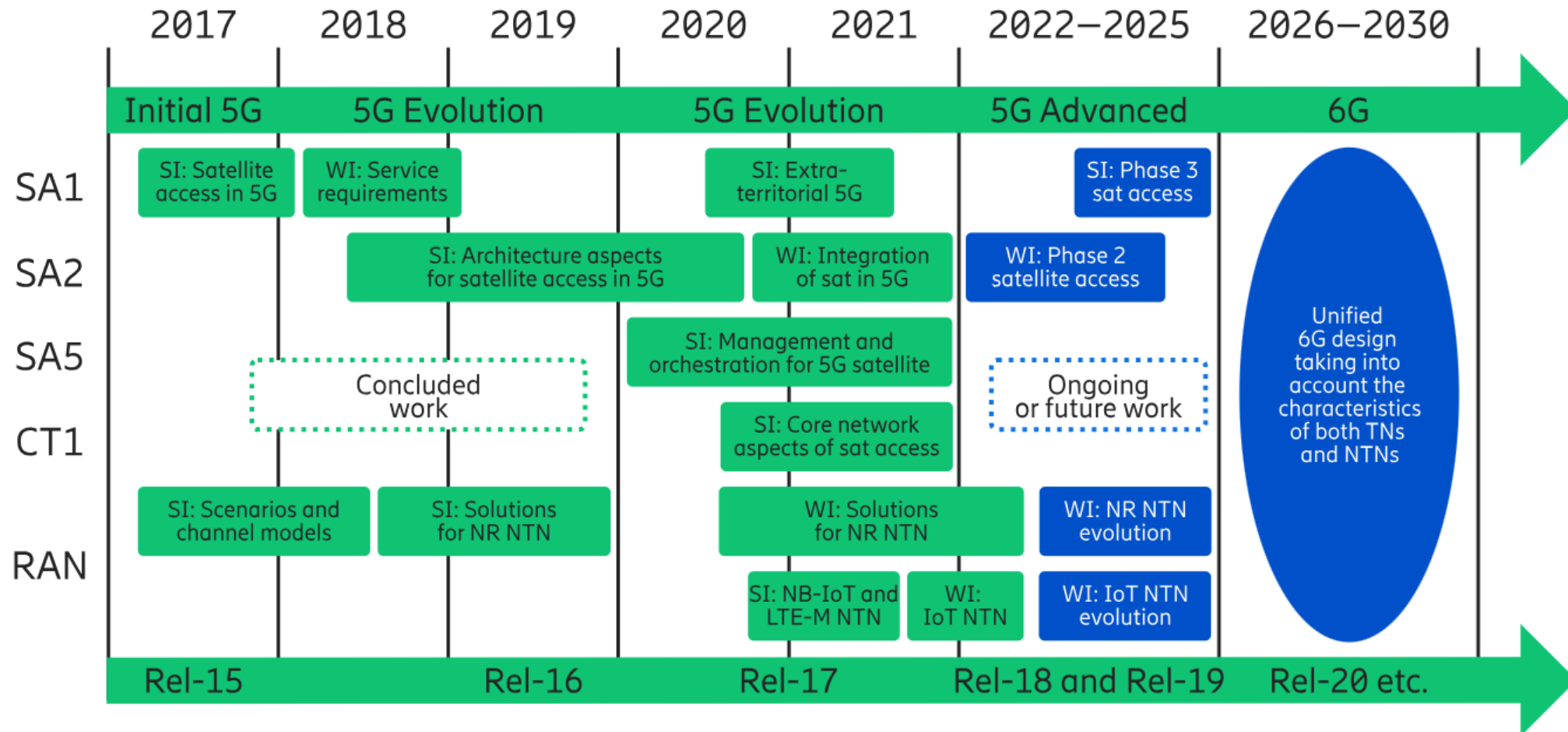


Satellite technology enables regional police cars around Western Australia to stay in constant communication .

Police are also able to easily send livestream body-worn camera and car dashboard footage to the State Operations Command Centre.



# SATELLITE CONNECTIVITY : IT GETS BETTER





# THANK YOU

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