



---

## **Disruptive Analysis**

---

*Don't Assume*

# **Wireless 2030**

Dean Bublely, Disruptive Analysis

**For PTC Lightning Talks, January 2023**

[dean.bublely@disruptive-analysis.com](mailto:dean.bublely@disruptive-analysis.com)

@disruptivedean

Image credits: Pixabay.com / Dean Bublely

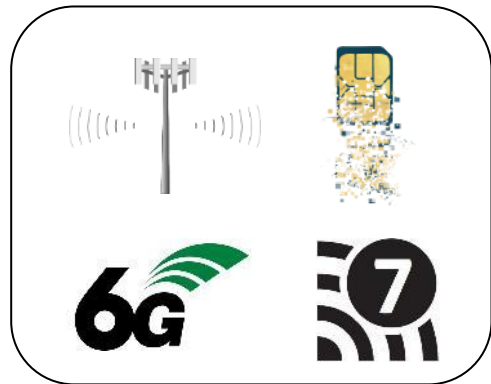


**Disruptive Analysis**

*Don't Assume*

# Dean Bublely & Disruptive Analysis @disruptivedean

- Tech/telecom analyst & strategic consulting since 1991
- Covering Internet, 5G, 6G, Spectrum, FTTX, Wi-Fi, Edge/Cloud...
- Regulatory, economic, societal & geopolitical aspects of telecoms
- Advisor to telcos, large & small vendors, investors, government
- Biases: Against monopolies, lazy incumbency & hype



**Network Tech, Policy  
& Business Models**



**Communications  
Apps & Services**



**Telecom-Futurism**



**Industry Analyst  
Consulting &  
Reports**



# Top level themes for wireless in the 2030s

Less homogeneity of  
“telcos”

More InfraCos & shared  
assets

6G growing but  
evolutionary & patchy

Wi-Fi & satellite has *some*  
5G/6G integration...

... but still not that much

Very broad use of private /  
dedicated 5G networks

More home FWA / satellite  
access, but FTTX rules

Systematic identification &  
mitigation of “lock-ins”

Very little “monetised” QoS  
or network slicing

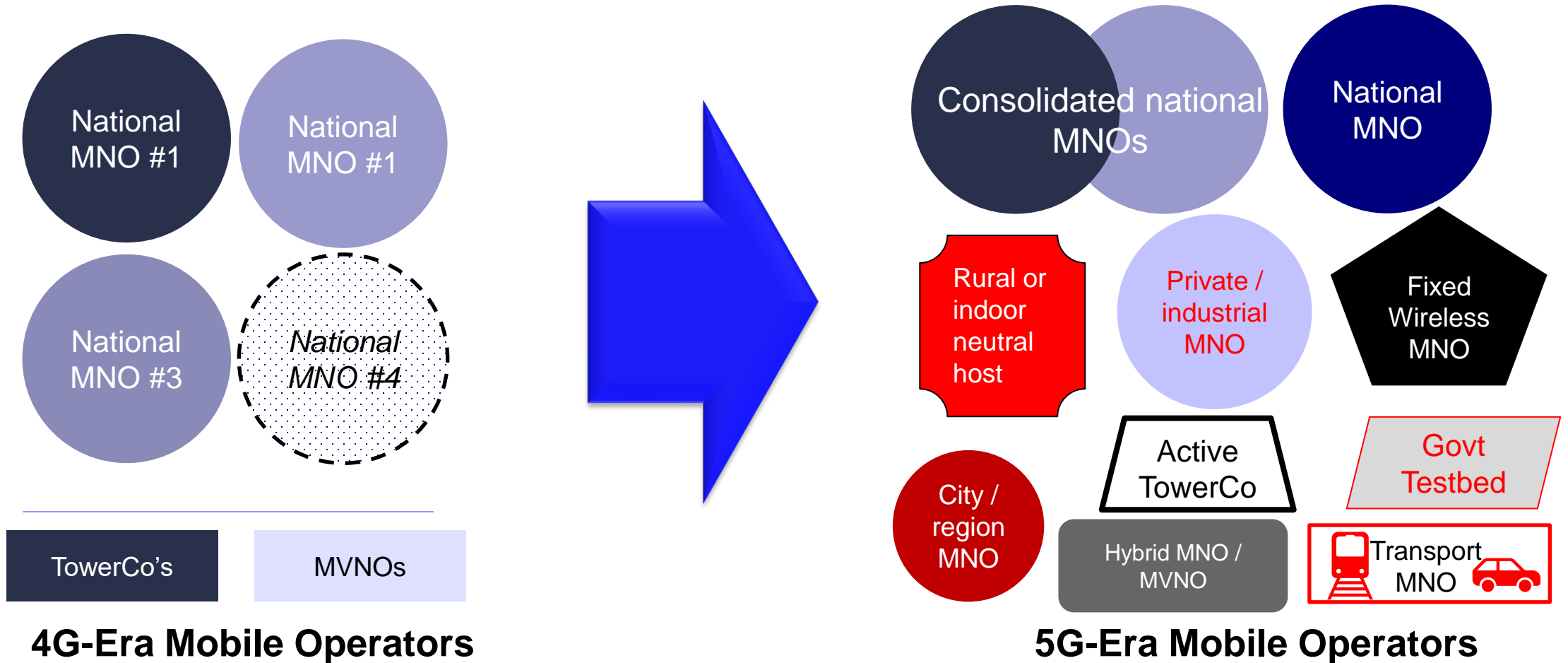
Network disaggregation,  
virtualisation & “AI native”

Nope: DeWi, RCS, 5G  
PCs, metaverse-primary.

Leftfield disruptions from  
cybersecurity, quantum etc



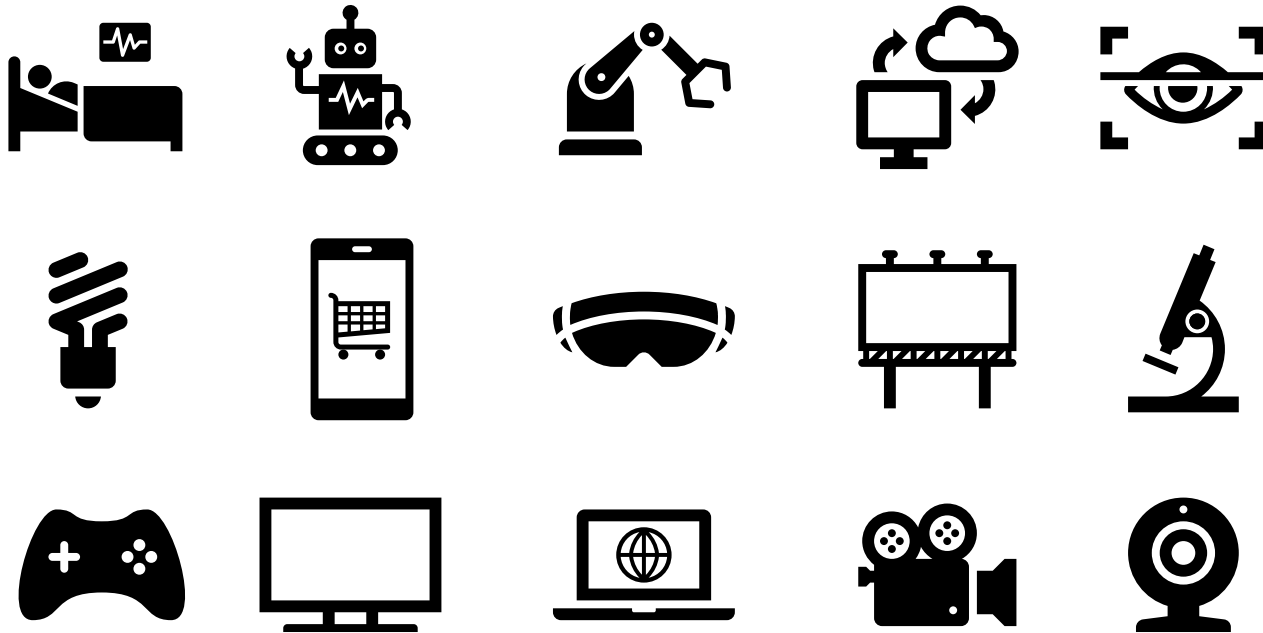
# The first industry transformed by 5G is telecoms itself



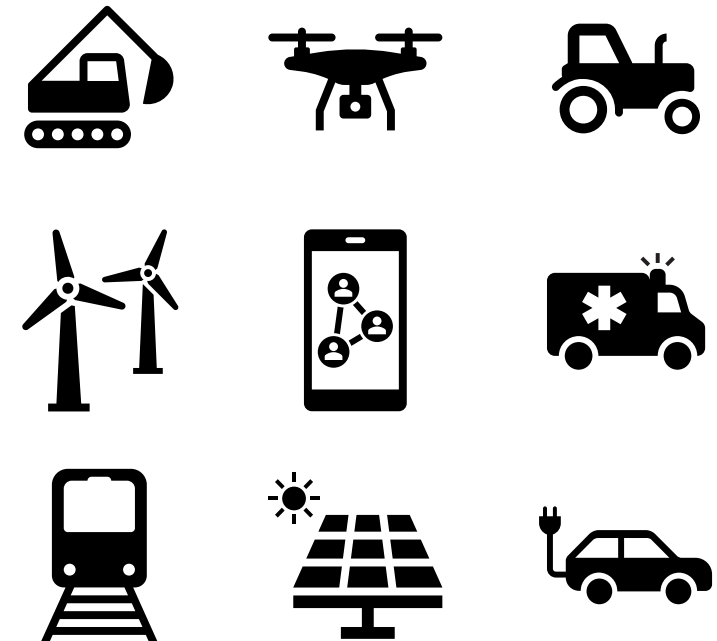


# Many new B2B/B2C use-cases, apps & devices are indoors

## Indoor



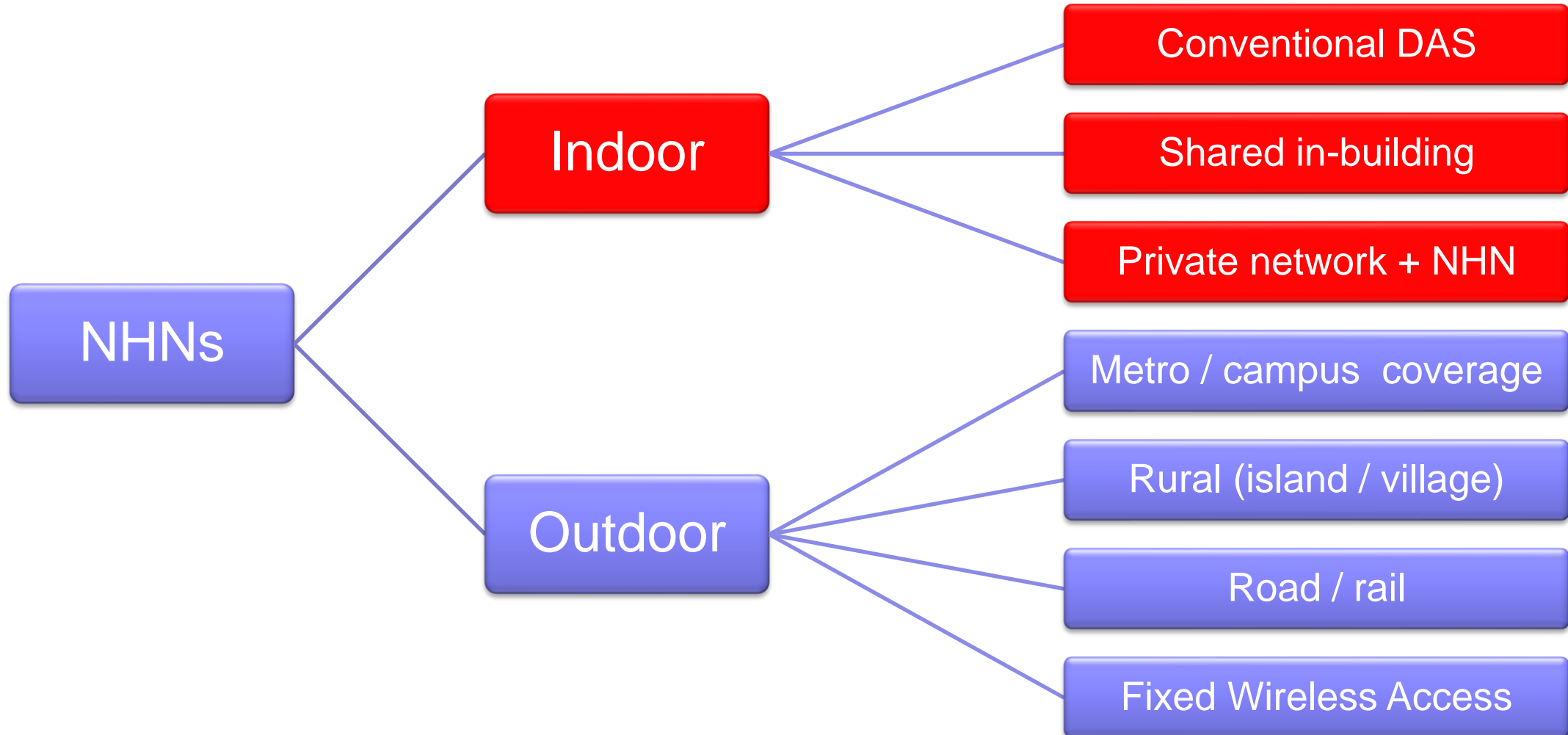
## Outdoor



**Structural impact: how can public services be delivered on private property?**



# Neutral host networks (wholesale infra to tenant MNOs)



# Why are we talking about 6G now? Isn't 5G enough?

10-year R&D + investment cadence built-in to system

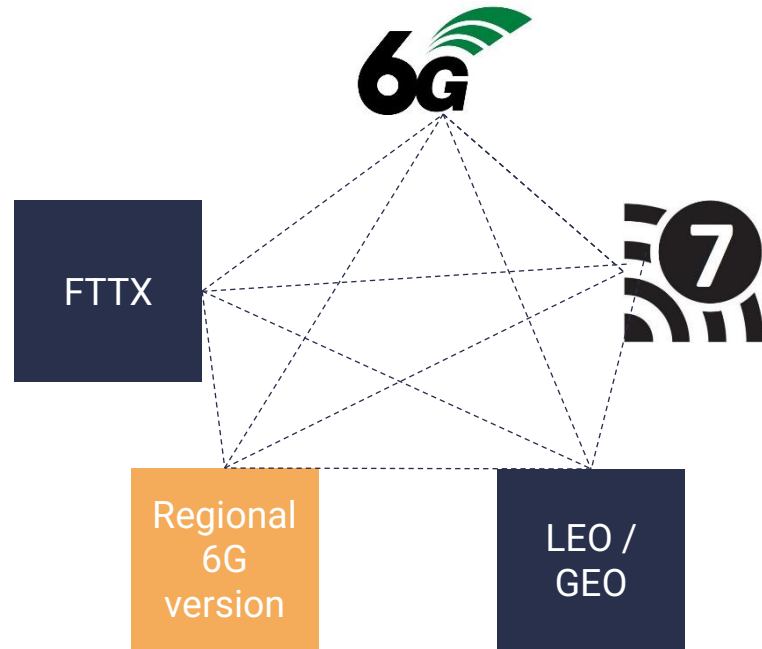
New tech enablers not available in 5G era

Frictions, disappointments & limits of 5G

New patterns of demand, applications & industry structure

Changing external factors beyond the mobile industry

# Design priorities for 6G



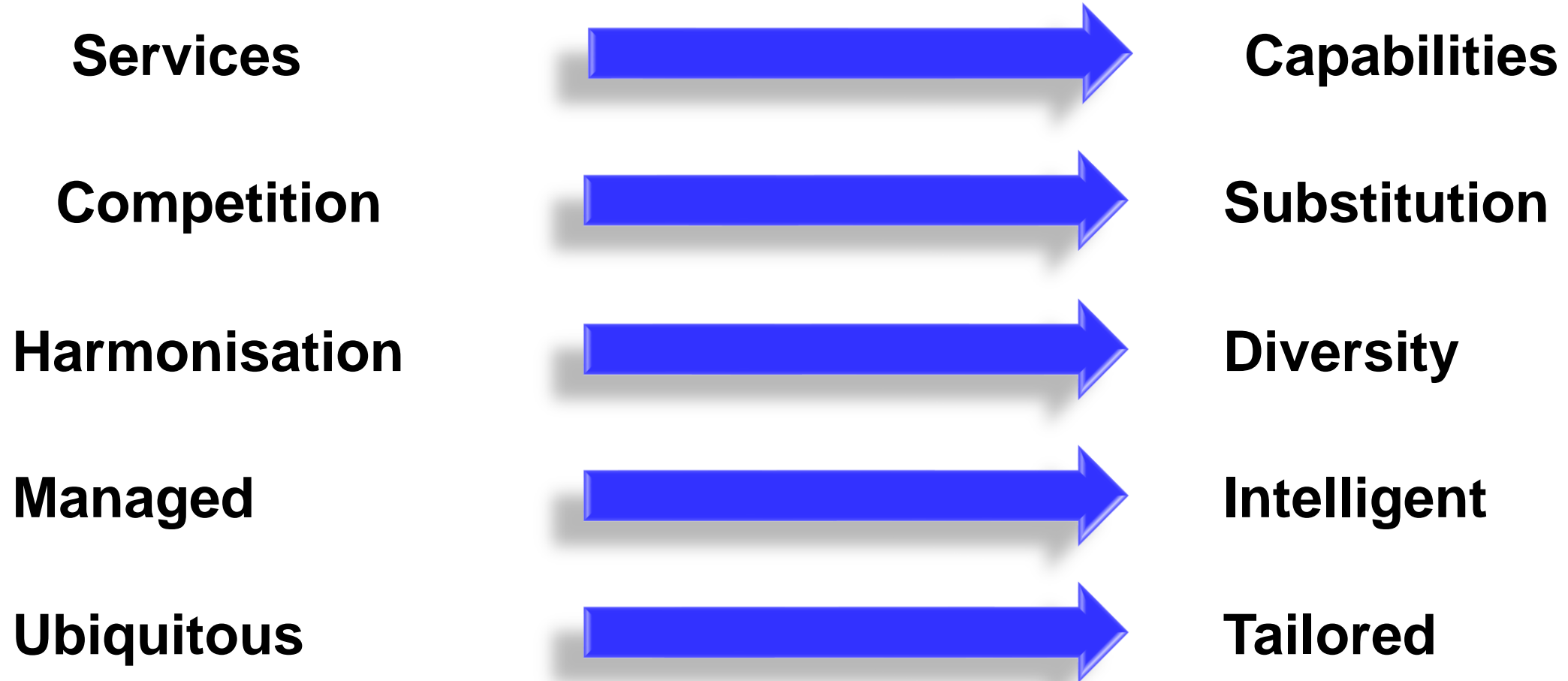
**6G era reality of multiple networks often loosely coupled**

- Improved speed & latency
- Greater capacity density
- Better indoor coverage
- Support for remote coverage
- Improved locational accuracy
- Native sensing functions
- Energy optimization
- Interconnection with Internet / cloud
- In-built support for network sharing
- Support for diverse models and owners





# Changing our assumptions & semantics for 2030





# Key priority for policymakers: **Good** stats, not **Easy** stats

**Easy Statistics**

Overall retail data traffic, PB/mo

Overall telecoms capex

Telco reported profits

Market capitalisation

Consultant top-down "GDP impact"

Consultant "traffic demand forecast"

Vendor reports (Cisco VNI, Ericsson Mobility, Sandvine etc)

Homes passed by FTTX

Not meaningful aggregated

Inherently flawed

**Good Statistics**

Traffic / value split between

- Indoor vs. outdoor use
- Consumer vs. business
- Mobile bband vs. FWA
- Solo vs. shared networks
  - Uplink vs downlink

Impact of tower/infra spin-outs

Requested vs. "sent" data

Impact of outliers

GDP impact vs. baseline/alternatives

Homes connected to FTTX



## Over-hyped

- 5G network slicing
- “Always Best Connected”
- Satellite direct-to-device
- Metaverse (esp. “*The MV*”)
- DeWi / cryptocurrency networks
- 6G “teleportation” & THz
- Telco “cost recovery” from tech-co’s
- CO2 “enablement” savings
- In-network edge computing
- Interoperable messaging / RCS
- Massmarket FWA

## Under-hyped

- Neutral host mobile networks
- Open-access fibre
- Edge interconnect / exchanges
- Dual-broadband homes / bonding
- OpenRoaming for Wi-Fi
- Indoor wireless solutions
- HAPS (maybe)
- Wi-Fi 7 for enterprise
- Potential 6G energy-efficiency
- Non-telephony voice
- Local government 5G/FTTX



**Disruptive Analysis**

*Don't Assume*

@disruptivedean

<https://www.linkedin.com/in/deanbublely/>

<https://soundcloud.com/user-521594836>

[www.deanbublely.com](http://www.deanbublely.com)

[www.disruptive6G.com](http://www.disruptive6G.com)

[information@disruptive-analysis.com](mailto:information@disruptive-analysis.com)