

Small Cells World Summit May 2022



# Private networks: mapping enterprise needs and service provider offers

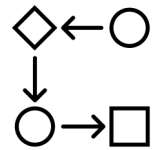


**Michele Mackenzie**  
Principal Analyst | Research





Key trends in private network adoption

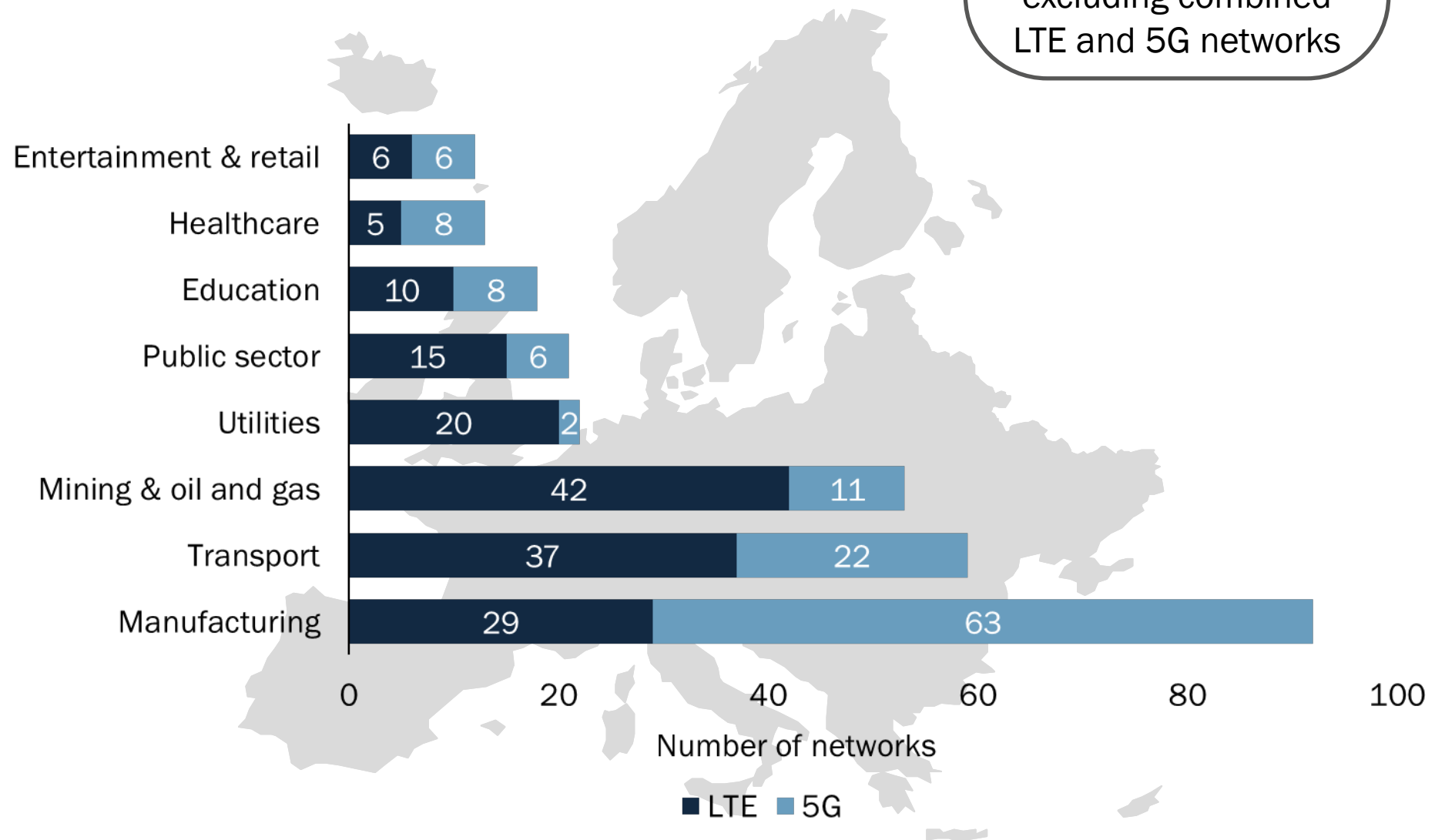


Different network models may emerge



Enterprises' technical and commercial requirements

The  
manufacturing  
sector  
is an  
early adopter of  
5G technology



Analysys Mason's Private networks tracker 2Q 2022

Adoption of 5G is growing steadily

301 networks

17%

1Q 2020

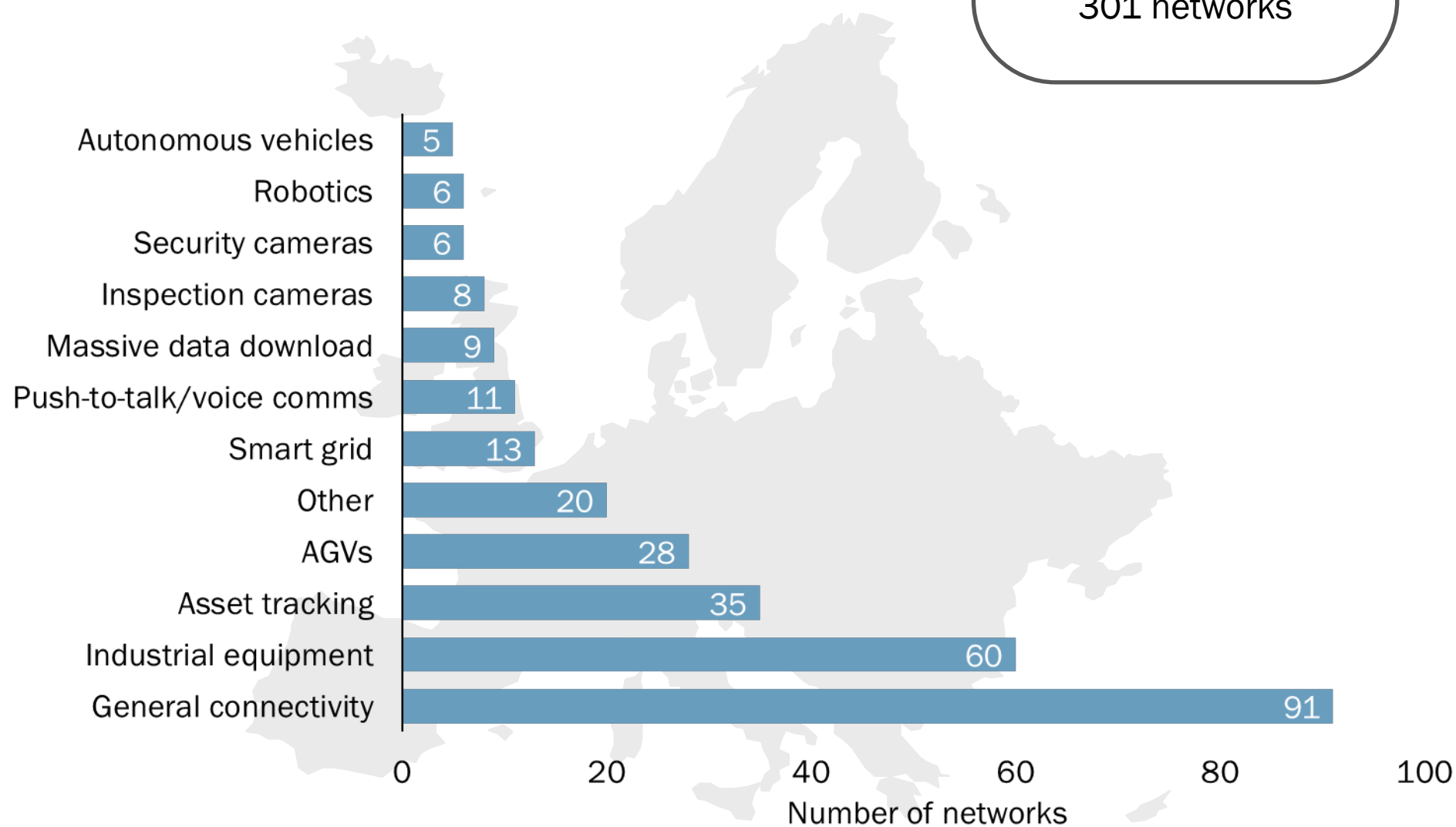
37%

1Q 2021

44%

1Q 2022

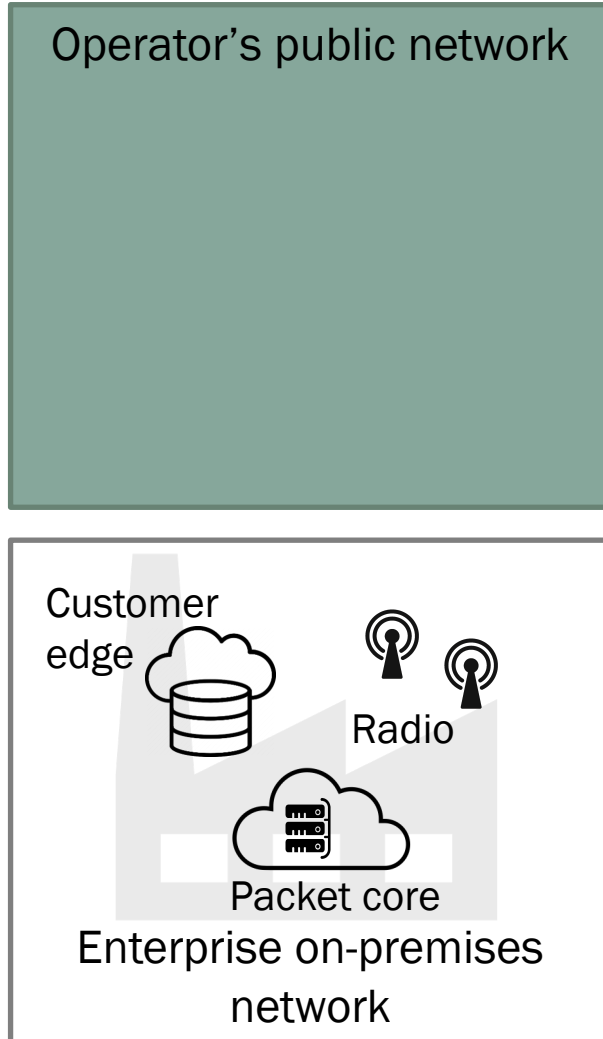
No single use  
case is driving  
adoption



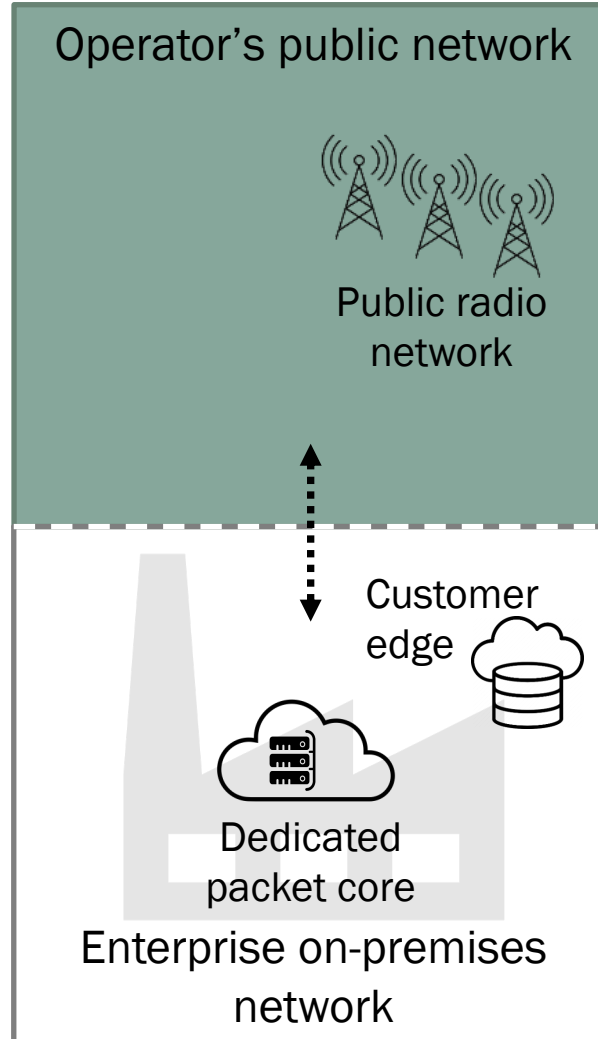
Analysys Mason's Private networks tracker 2Q 2022



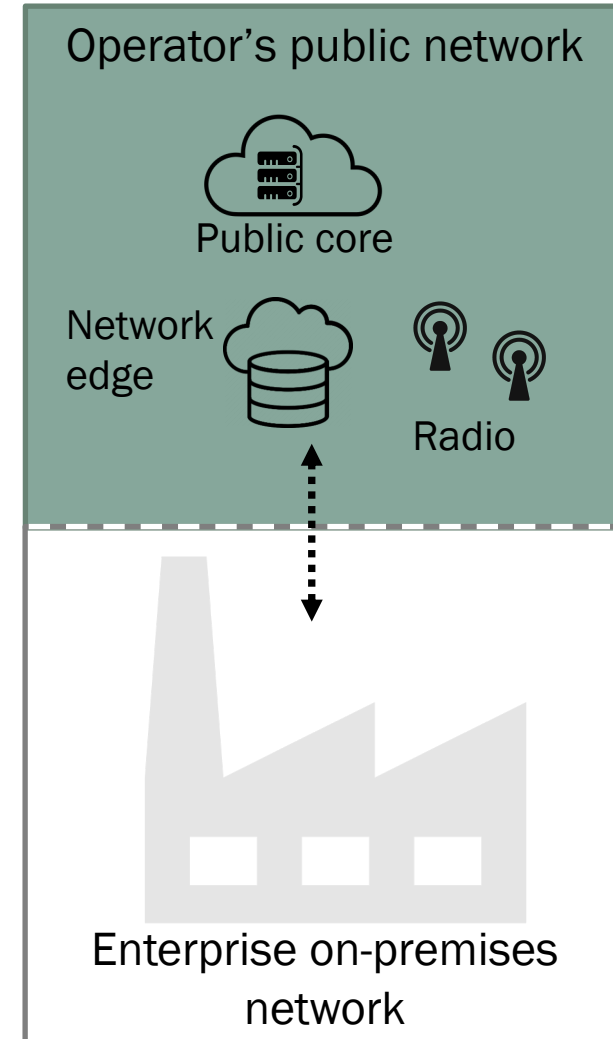
## Dedicated/on-premises model



## Hybrid model

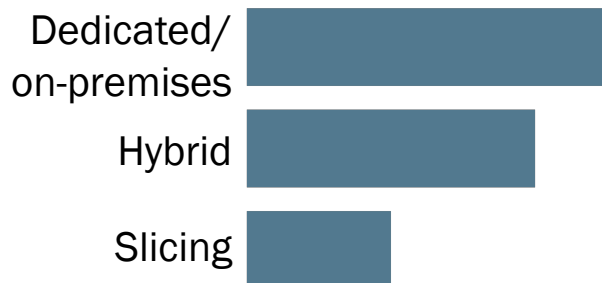


## Slicing model

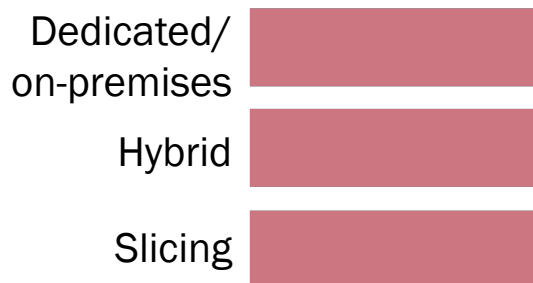


# The preferred private 5G network deployment model varies by sector

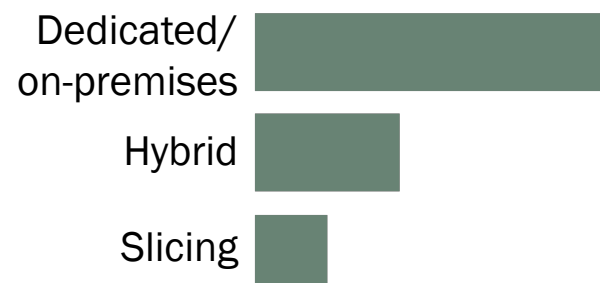
## Manufacturing



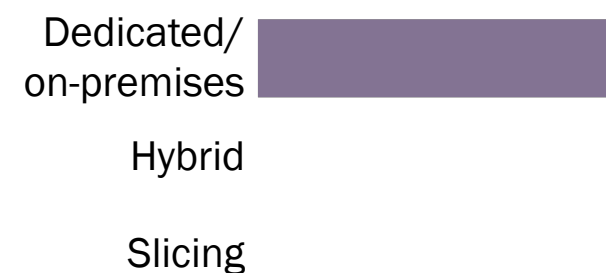
## Transport



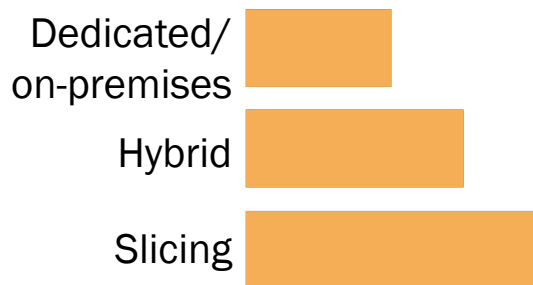
## Mining, oil and gas



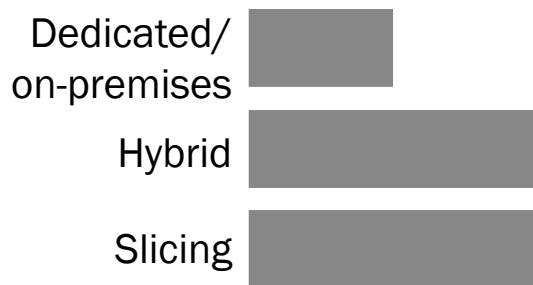
## Utilities



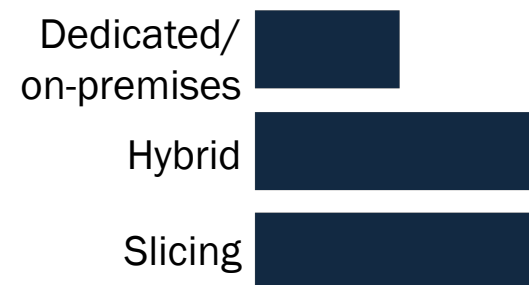
## Education



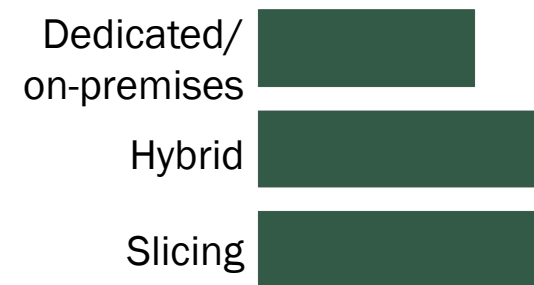
## Entertainment and retail







## Healthcare



## Public sector



# The demand for private LTE/5G network is being driven by...

Use cases	Manufacturing, Transport	Implement new use cases as part of a digital transformation strategy
Spectrum availability 	Manufacturing, utilities	Deploy dedicated network over which the company has full control
Network efficiency 	Manufacturing	Replace/consolidate multiple point-to-point networks Automate processes Reduce outages
Government funding/stimulus 	Transport, public sector (smart cities)	Implement smart infrastructure Use connected services
Regulation 	Mining, oil and gas, manufacturing	Comply with health and safety regulations



## Barriers to private network adoption will persist in Europe

“

Wi-Fi accounts for at least 50% of connectivity in our factories and is fine for supporting mission critical processes because redundancy is built in through the meshed network. We will evolve to Wi-Fi 6 because our main issue is latency in transporting pulses of data from machinery to the Manufacturing Execution System, not bandwidth.

Head of Global IT Infrastructure,  
German manufacturer

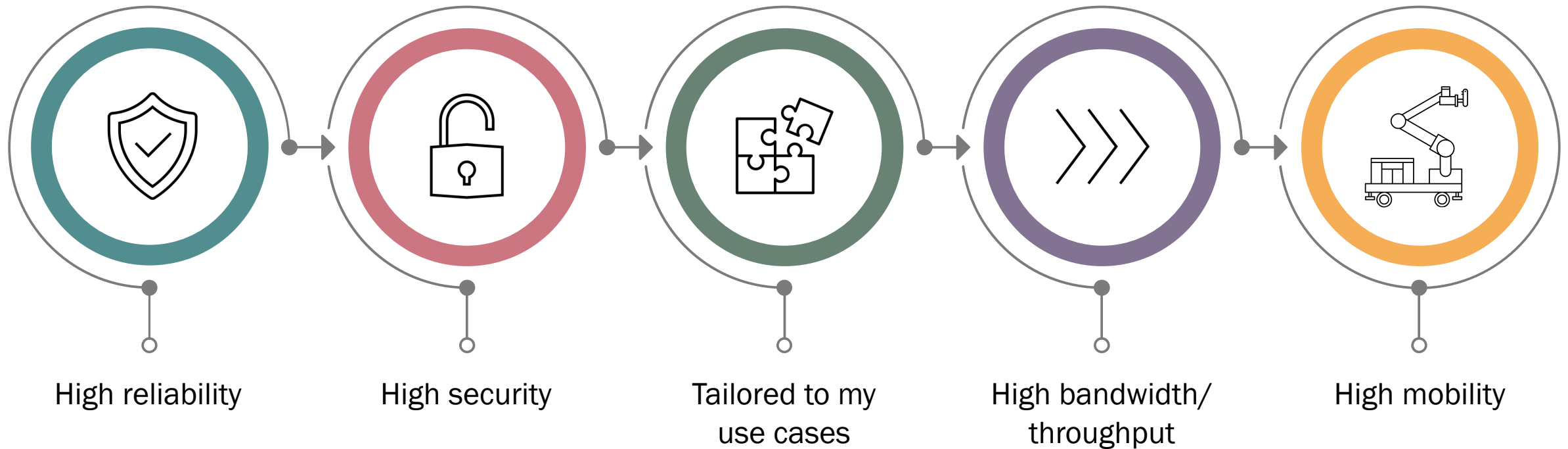
”

Private networks are expensive; they don't scale well across our large number of sites and we cannot afford to develop a private network: costs scale with network scale and there are extensive fixed costs.

Head of Engineering,  
British energy company

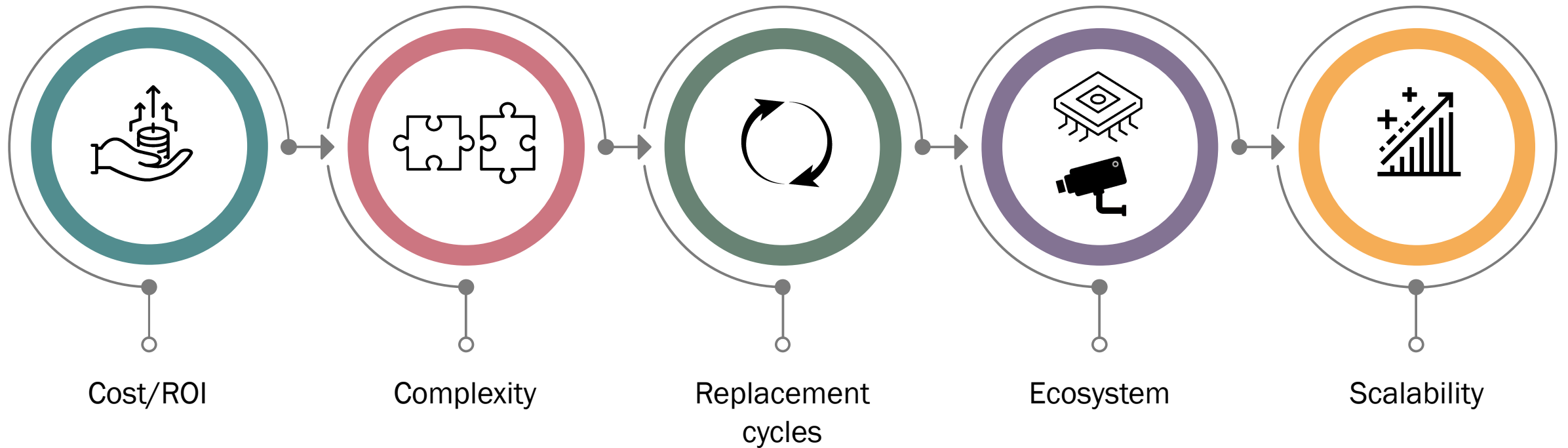
# 5G can mostly address the enterprise's technical requirements

## Importance of different aspects of private 5G connectivity to an organisation



# But meeting commercial requirements is more difficult

Importance of different aspects of private 5G connectivity to an organisation



# Hub One's private LTE/5G network deployments at three Parisian airports

## Business drivers

- Homogeneous networks
- Obsolescence of current networks
- Automation via IoT

## Spectrum

Hub One was awarded 40MHz of spectrum in the 2.6GHz TDD band. All of this spectrum was used to cover the 55km<sup>2</sup> area of the Parisian airports. It will apply for a licence for 26GHz spectrum when possible.

## Suppliers

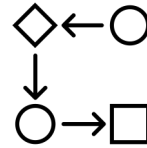
- Ericsson: radio network (including small cells)
- Athonet: core network
- Streamwide: mission critical communications
- Italtel: VoLTE
- Samsung, Sonim, RugGear, Apple, Zebra: devices

Airport comms	Replace traditional push-to-talk with mission-critical push-to-talk to enable group communication (this is especially important for activities such as re-fuelling, where all employees need to be alerted)
Baggage handling	<ul style="list-style-type: none"><li>• Accelerate reconciliation of baggage loaded with passengers on board the aircraft</li><li>• Facilitate and streamline workloads for transferring passenger baggage to connecting flights</li></ul>
Remote maintenance	<ul style="list-style-type: none"><li>• Facilitate maintenance remotely via a video link (for example, if the aircraft is taxiing to the runway and an alert sounds)</li><li>• Better use resources to provide maintenance services that can be delivered remotely</li></ul>

# Key take-aways



Demand is growing



Deployment models are  
not well-understood



Commercial challenges  
remain

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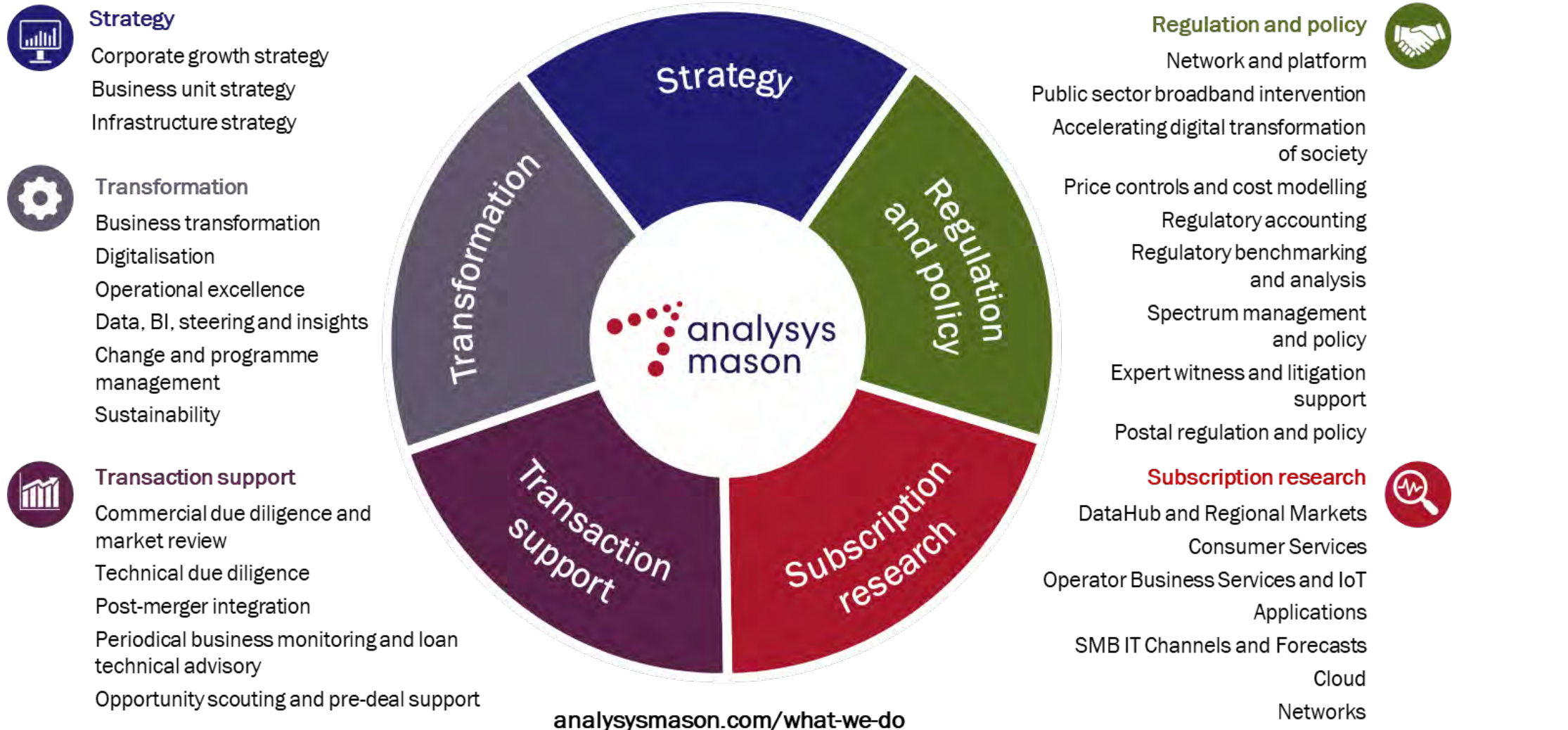
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# Our research programmes



# Our research programmes



## Consumer Services programmes

- Fixed Broadband Services
- Mobile Services
- Fixed-Mobile Convergence
- Smart Devices
- Future Comms
- Video, Gaming and Entertainment
- Digital Services



## Networks programmes

- Next-Generation Wireless Networks
- Wireless Infrastructure Strategies
- Fibre Infrastructure Strategies
- Operator Investment Strategies



## Applications programmes

- Network Automation and Orchestration
- Customer Engagement
- Monetisation Platforms
- Digital Experience
- Automated Assurance
- Service Design and Orchestration



## Cloud programmes

- Cloud Infrastructure Strategies
- Data, AI and Development Platforms
- Edge and Media Platforms



## Operator Business Services and IoT programmes

- Large Enterprise Strategies
- SME Strategies
- IoT and M2M Services
- Private Networks



## SMB IT Channels and Forecasts programmes

- Cyber Security



## Regional Markets programmes

- Global Telecoms Data
- Americas
- Asia-Pacific
- Middle East and Africa
- European Core Forecasts
- European Telecoms Market Matrix
- European Country Reports



## DataHub

- ~2800 forecast and 280+ historical metrics
- Regional results and worldwide totals
- Operator historical data



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# Our areas of expertise



## Strategy

- Corporate growth strategy
- Business unit strategy
- Infrastructure strategy



## Regulation and policy

- Network and platform
- Public sector broadband intervention
- Accelerating digital transformation of society
- Price controls and cost modelling
- Regulatory accounting
- Regulatory benchmarking and analysis
- Spectrum management and policy
- Expert witness and litigation support
- Postal regulation and policy



## Transaction support

- Commercial due diligence and market review
- Technical due diligence
- Post-merger integration
- Periodical business monitoring and loan technical advisory
- Opportunity scouting and pre-deal support



## Transformation

- Business transformation
- Digitalisation
- Operational excellence
- Data, BI, steering and insights
- Change and programme management
- Sustainability



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