

Small Cells World Summit May 2022



Private networks: mapping enterprise needs and service provider offers

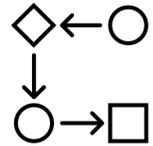


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Principal Analyst | Research





Key trends in private network adoption

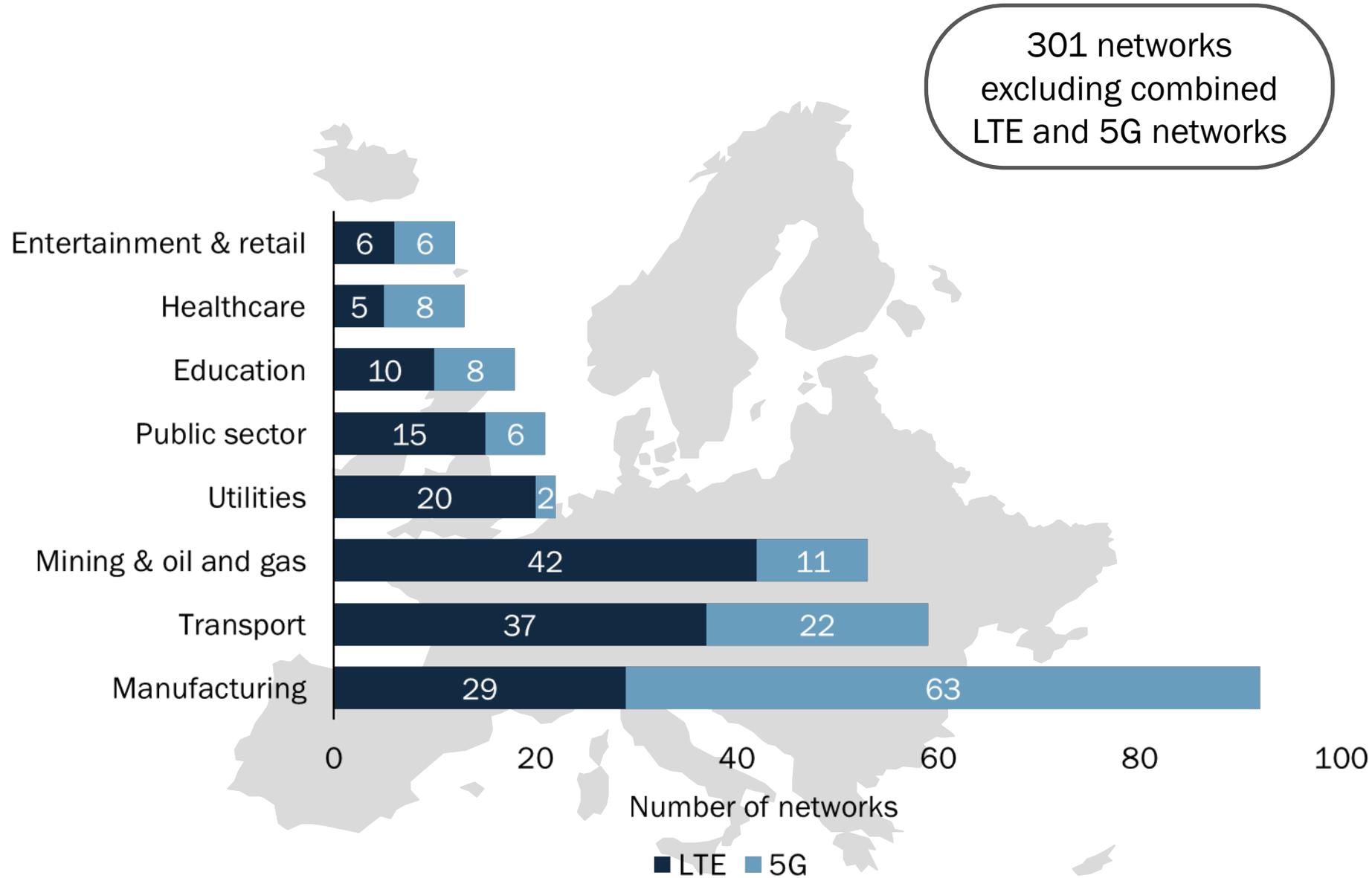


Different network models may emerge



Enterprises' technical and commercial requirements

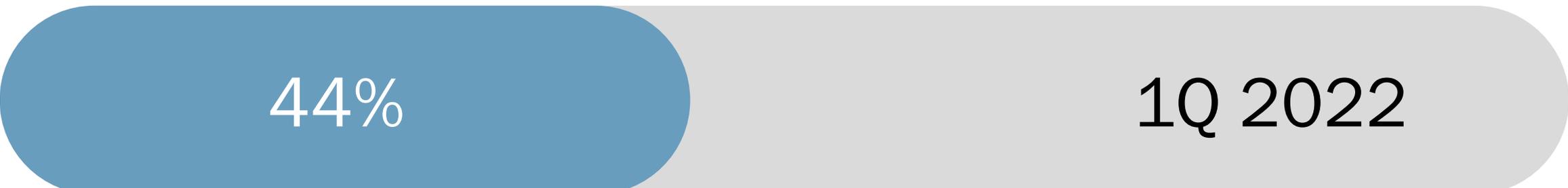
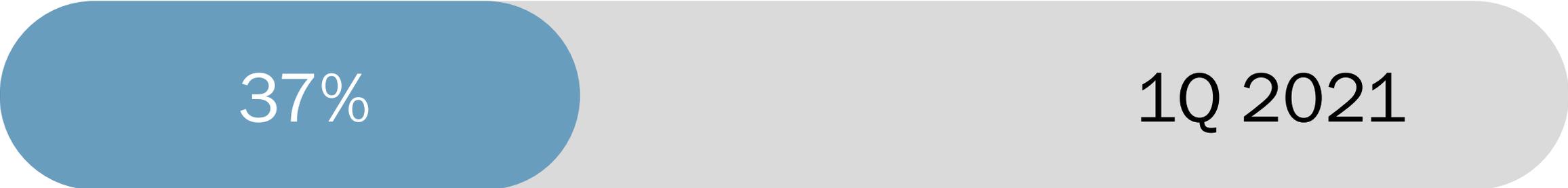
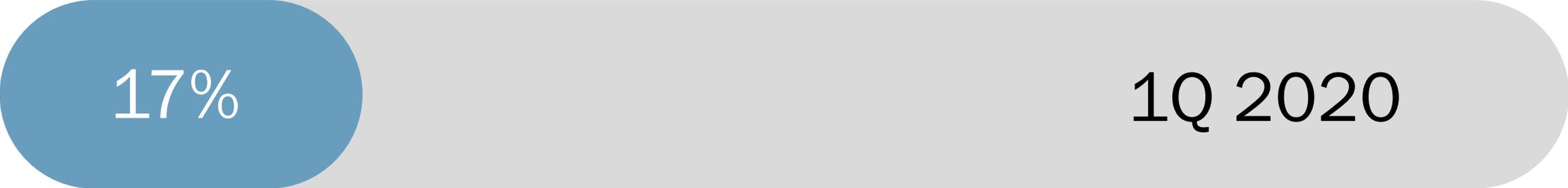
The manufacturing sector is an early adopter of 5G technology



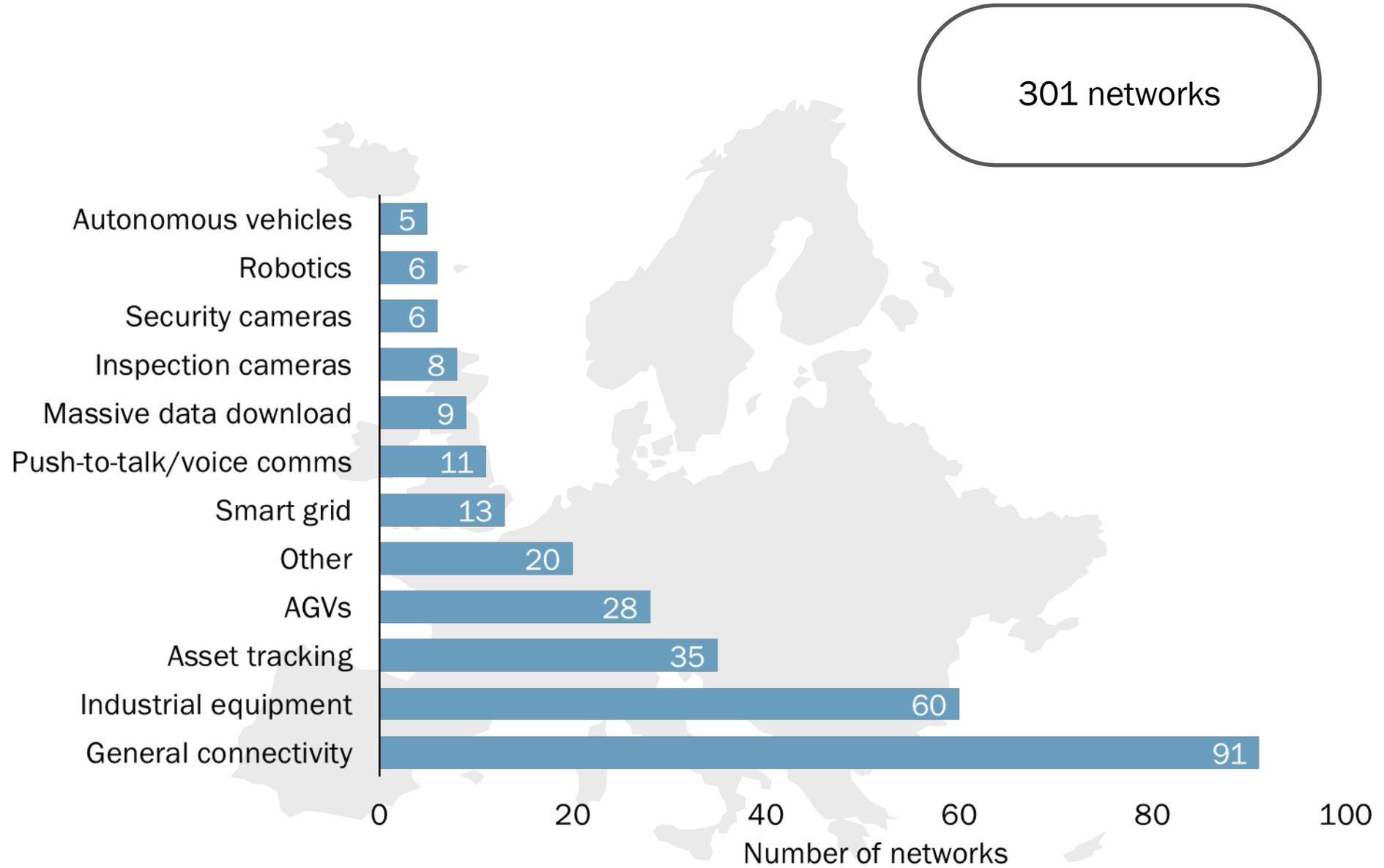
Analysys Mason's Private networks tracker 2Q 2022

Adoption of 5G is growing steadily

301 networks

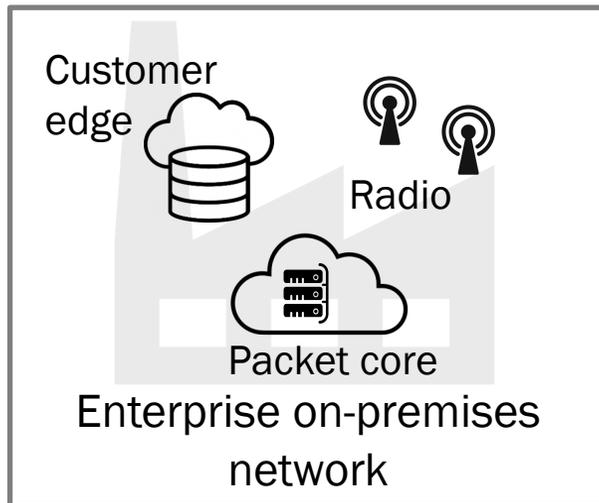
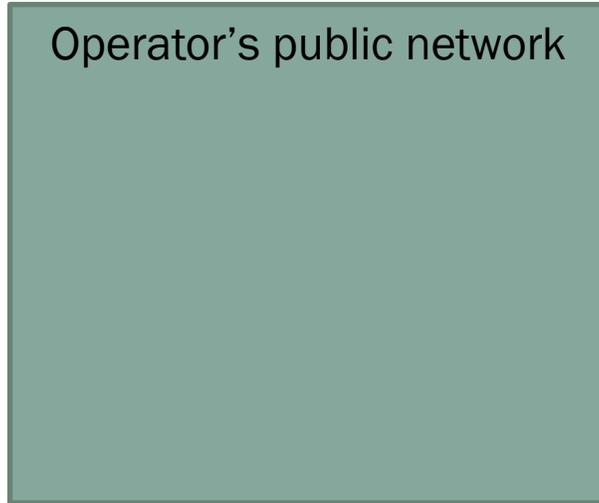


No single use case is driving adoption

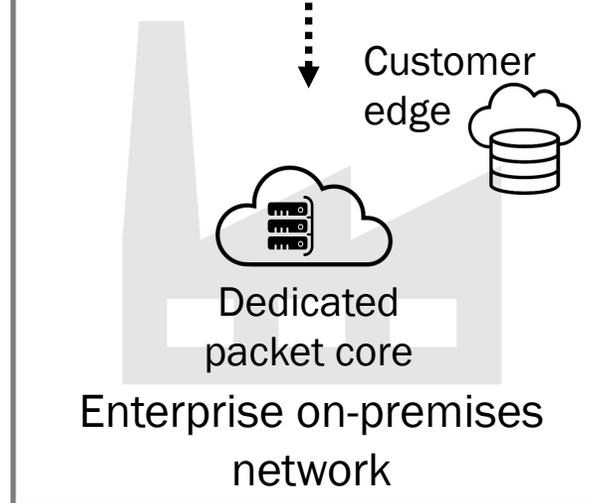
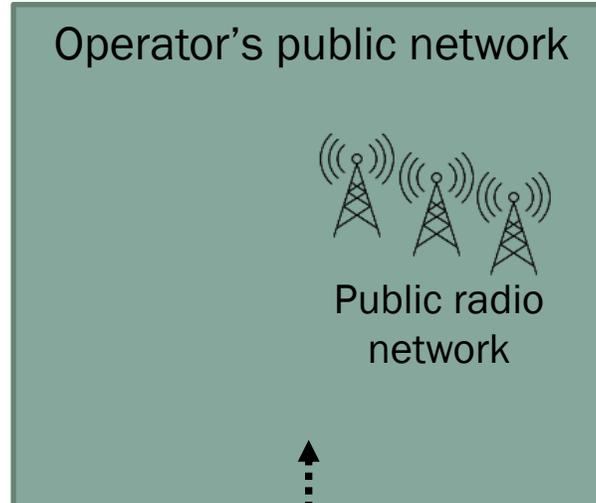


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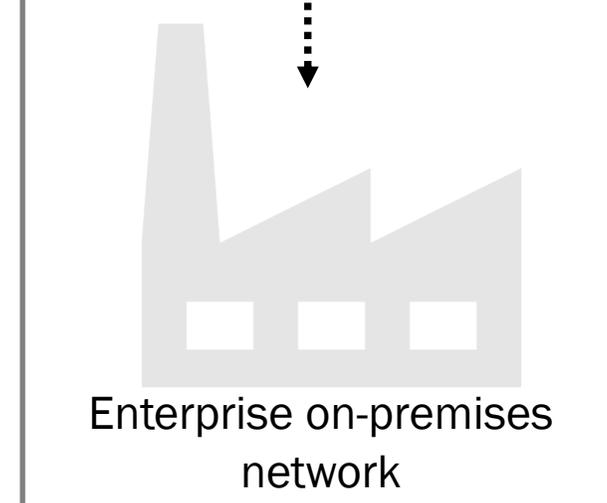
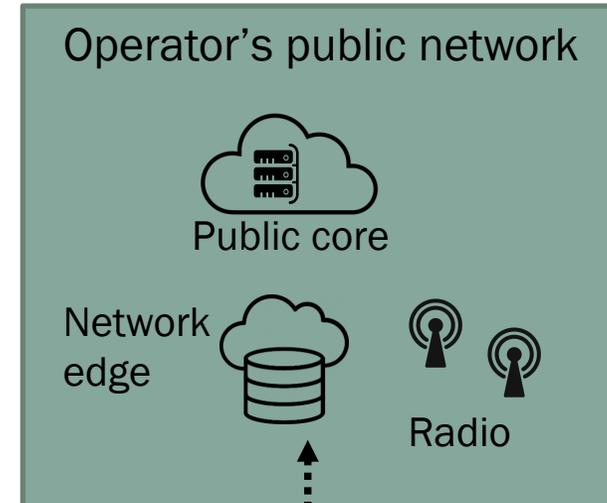
Dedicated/on-premises model



Hybrid model

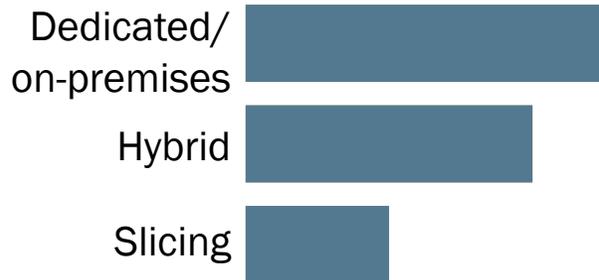


Slicing model



The preferred private 5G network deployment model varies by sector

Manufacturing



Transport



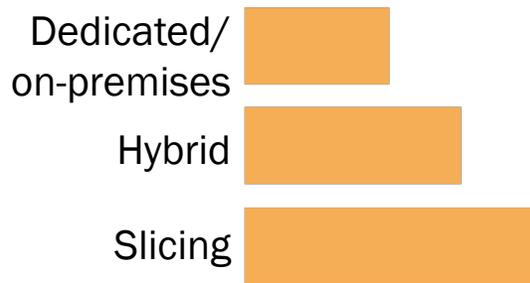
Mining, oil and gas



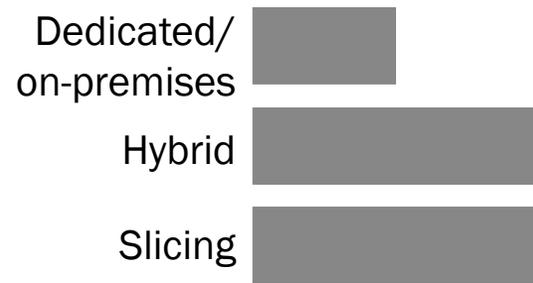
Utilities



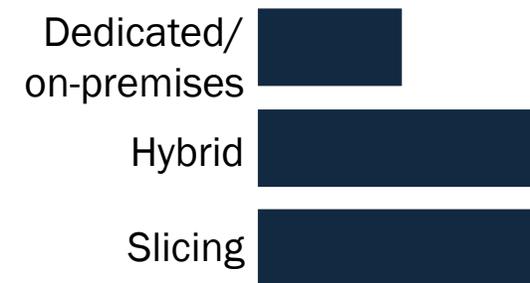
Education



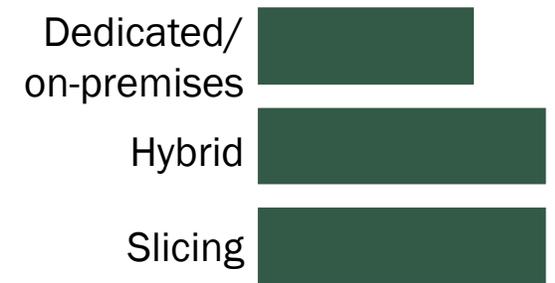
Entertainment and retail



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

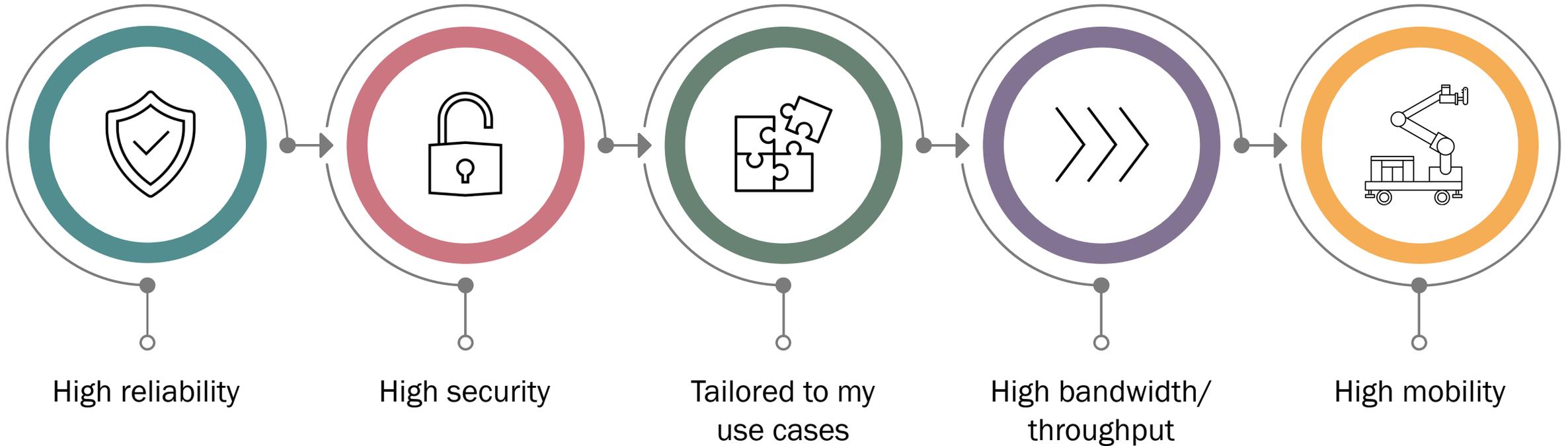
”

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

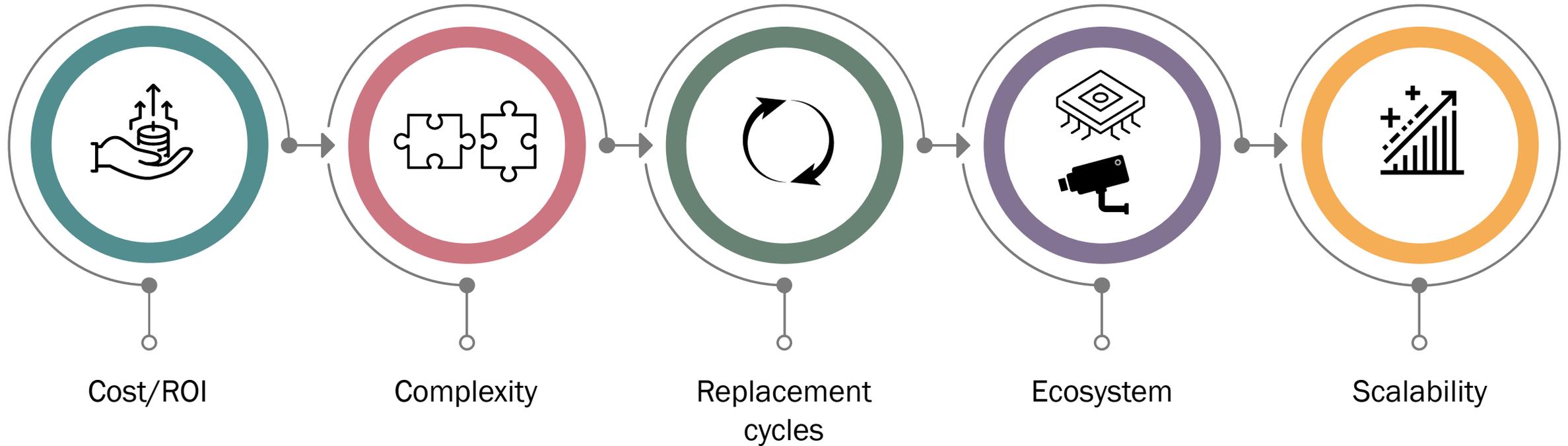
5G can mostly address the enterprise's technical requirements

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 55km² area of the Parisian airports. It will apply for a licence for 26GHz spectrum when possible.

Suppliers

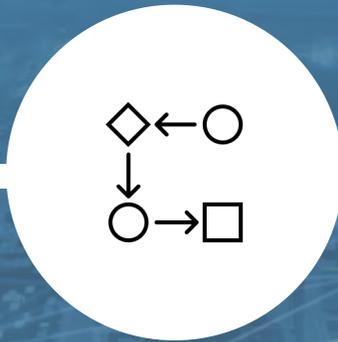
- Ericsson: radio network (including small cells)
- Athonet: core network
- Streamwide: mission critical communications
- Italtel: VoLTE
- Samsung, Sonim, RugGear, Apple, Zebra: devices

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">• Accelerate reconciliation of baggage loaded with passengers on board the aircraft• Facilitate and streamline workloads for transferring passenger baggage to connecting flights
Remote maintenance	<ul style="list-style-type: none">• Facilitate maintenance remotely via a video link (for example, if the aircraft is taxiing to the runway and an alert sounds)• Better use resources to provide maintenance services that can be delivered remotely

Key take-aways



Demand is growing



Deployment models are not well-understood



Commercial challenges remain

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Our research programmes



Strategy

- Corporate growth strategy
- Business unit strategy
- Infrastructure strategy



Transformation

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



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



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

Subscription research



- DataHub and Regional Markets
- Consumer Services
- Operator Business Services and IoT Applications
- SMB IT Channels and Forecasts
- Cloud Networks

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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



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