Industry 4.0: Manufacturing Private 5G Networks State of Play

75% of manufacturers say 5G is a key enabler of their digital transformation strategy.*

It will take time for 5G's most disruptive features (high capacity, wireless flexibility, and low-latency performance) to support the evolution to the industrial digital future. Private 5G networks appeal to the largest manufacturers for factories and industrial automation where they can control security and architecture.

*Source: Cap Gemini's global enterprise 5G survey

5G success relies on understanding how enterprises will invest in private 5G, network slicing, or both over time. Get our Analyst Report to read more about it.

Download now!

How do manufacturers plan to cut the wires and deploy 5G?

New Analysys Mason research looks at how manufacturers plan to adopt and manage 5G networks, the key drivers and barriers. 200+ respondents from the U.S.A, Germany, UK and Japan were surveyed in six verticals to gain insight into private 5G adoption.

••• analysys mason

Connectivity in manufacturing



By 2024



Most important 5G attributes



Preferred private 5G deployment model



- Fully private organization-owned on-premises 5G network
- Virtual private network or network slice
- Hybrid mix of dedicated, on-prem and service provider 5G



Key factors influencing





private 5G network deployment model



Network security



Network performance/QoS

49%



Speed/simplicity of deployment

49%



Application performance





Data sovereignty /privacy 43%

What's holding them back?



Hybrid network Management complexity **43%** Privacy **37%** Difficulty **27%** Cost **27%**



Network slice Difficulty of deployment 37% Privacy 33% Management complexity 31%



Dedicated private 5G

Privacy **37%** Cost **35%** Management complexity **31%**

Preferred suppliers



Top 3 performance metrics to be monitored



% of 5G manufacturing use cases for private 5G that require edge computing platform

	% of 5G manufacturing use cases for private 5G that require edge computing platform	
	% of use cases that rely on edge	% of respondents
	1-25%	41%
	25-80%	51%
	80%+	7%

Most manufacturers are putting sensors/cameras in their production lines to identify faulty components. The sensors/ cameras are connected over 5G to edge computing nodes which use AI algorithms to identify faults. This technology is replacing the human eye and has been found to increase efficiency by 80-90%.

- AsiaPac manufacturing company

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