

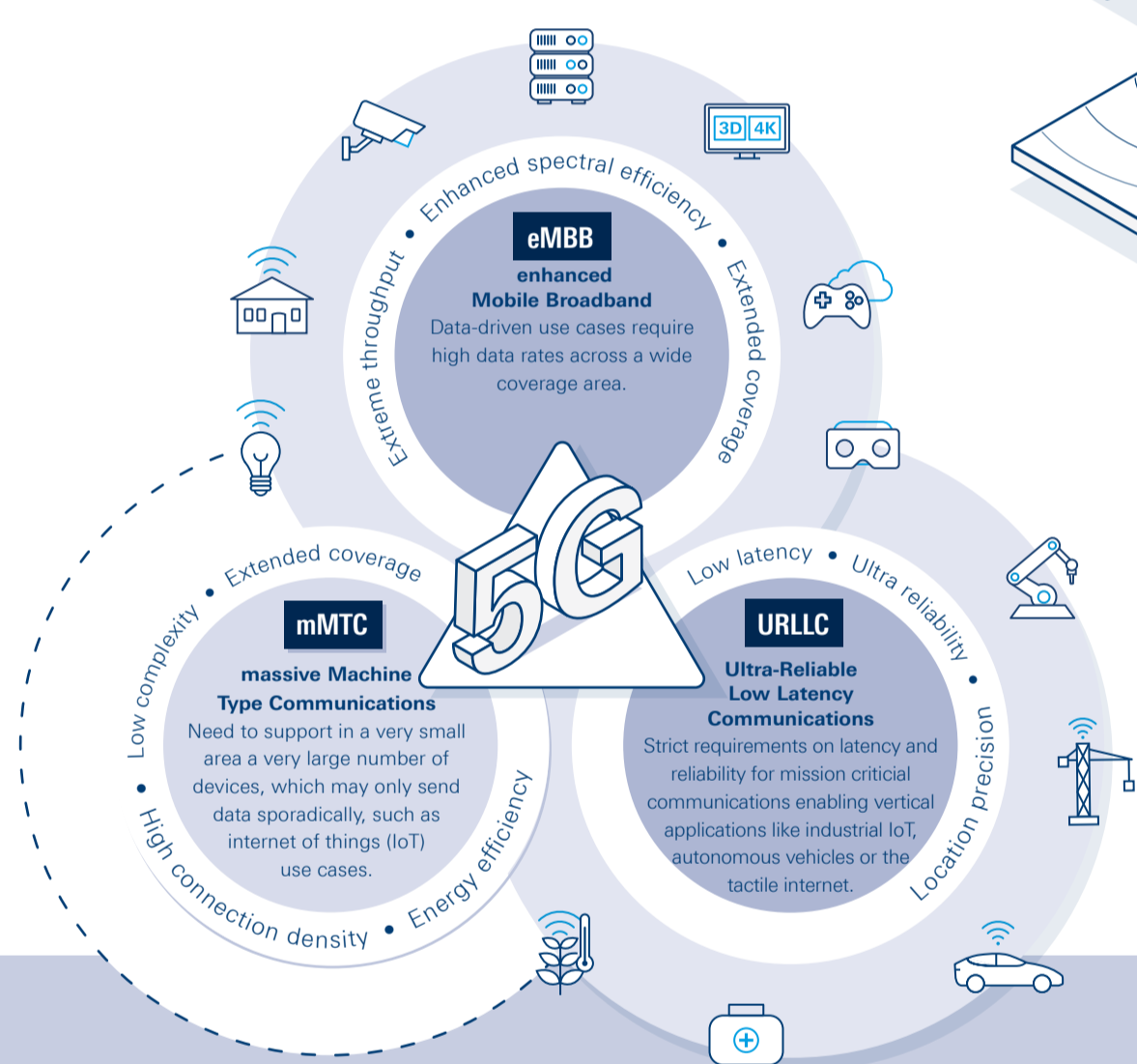
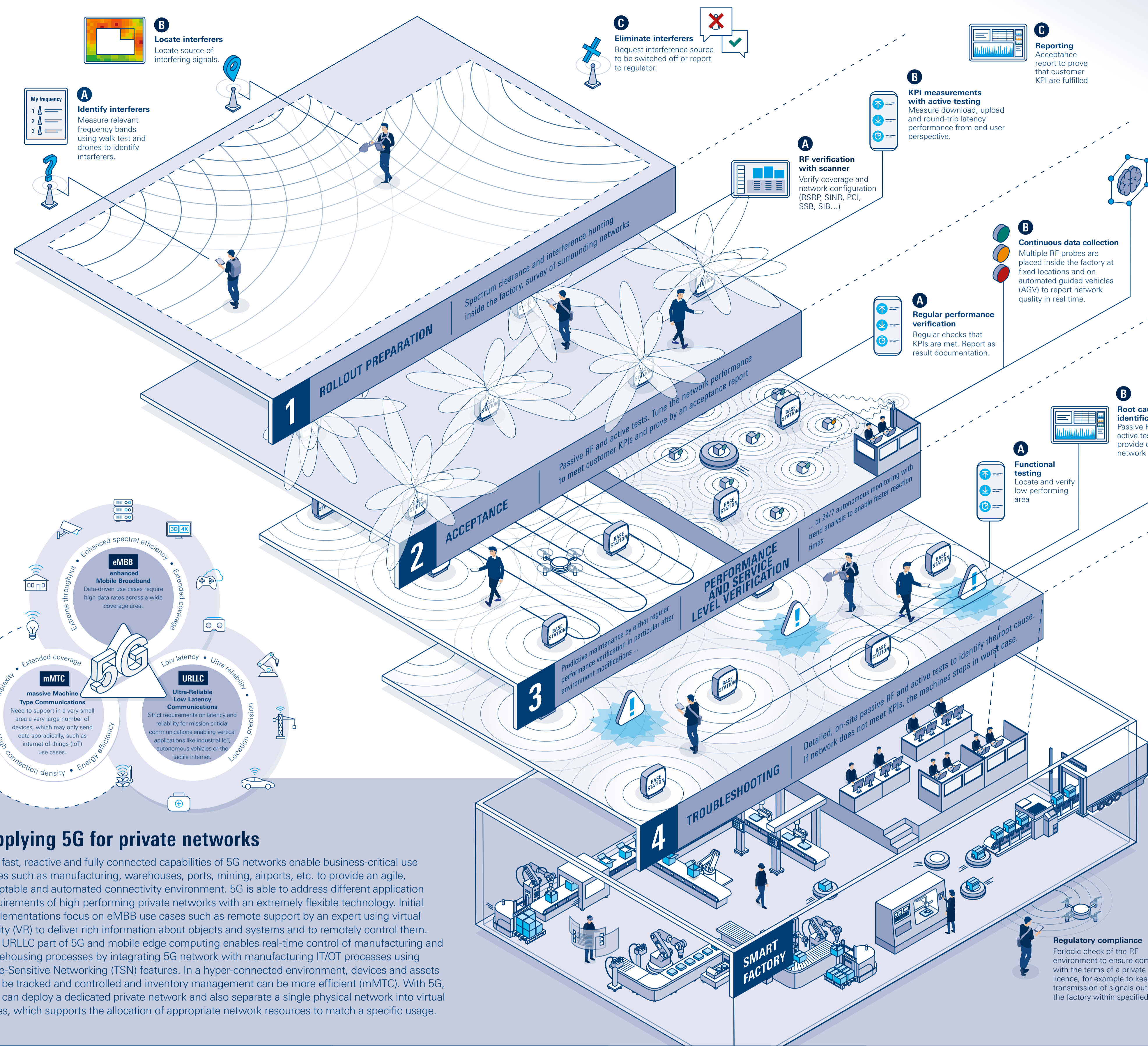
3D data collection
Some setups such as multi-level warehouses need to collect data in three dimensions. Data collection using drones (embedded in or mounted to a drone) enables measurement at various heights.

5G brings PRIVATE NETWORKS to a new level

Learn more about our services and solutions and how to enable a high performing and reliable private network
www.rohde-schwarz.com/mnt/private-networks

How testing makes manufacturing smart

5G brings the possibility of faster and safer operation as well as new capabilities and efficiencies in industrial processes, but it also comes with increased complexity and performance demands for the network. Accurate and insightful testing at every phase of the mobile network to prepare, deploy and operate private networks enables faster rollout, efficient use of network resources and awareness of issues before they become critical.



Applying 5G for private networks

The fast, reactive and fully connected capabilities of 5G networks enable business-critical use cases such as manufacturing, warehouses, ports, mining, airports, etc. to provide an agile, adaptable and automated connectivity environment. 5G is able to address different application requirements of high performing private networks with an extremely flexible technology. Initial implementations focus on eMBB use cases such as remote support by an expert using virtual reality (VR) to deliver rich information about objects and systems and to remotely control them. The URLLC part of 5G and mobile edge computing enables real-time control of manufacturing and warehousing processes by integrating 5G network with manufacturing IT/OT processes using Time-Sensitive Networking (TSN) features. In a hyper-connected environment, devices and assets can be tracked and controlled and inventory management can be more efficient (mMTC). With 5G, you can deploy a dedicated private network and also separate a single physical network into virtual slices, which supports the allocation of appropriate network resources to match a specific usage.

	1	2	3	4
	ROLLOUT PREPARATION	ACCEPTANCE	PERFORMANCE AND SERVICE LEVEL VERIFICATION	TROUBLESHOOTING
Activity				
Products	<ul style="list-style-type: none"> R&S®FPH spectrum analyzer R&S®5G STS site testing solution R&S®5G STS site testing solution R&S®PR200 handheld receiver 	<ul style="list-style-type: none"> R&S®5G STS site testing solution QualiPoc Android smartphone SmartAnalytics software (optional) 	<ul style="list-style-type: none"> QualiPoc Android probe smartphone QualiPoc Android smartphone SmartMonitor network monitoring software SmartAnalytics software (optional) 	<ul style="list-style-type: none"> R&S®PR200 handheld receiver R&S®5G STS site testing solution QualiPoc Android smartphone SmartAnalytics software (optional)
Owner	Planner and builder of the network (infra, integrator, MNO (B2B))	Planner and builder of the network (infra, integrator, MNO (B2B))	User of the network (IT/OT department)	Network operator responsible for SLA (IT, integrator, service company, infra)

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