Do IoT Fieldlab
Innovation in Internet of Things

SMART MANUFACTURING

SAM XL

SAM XL is a state-of-the-art smart manufacturing environment where you can test sensors, automation and IoT devices in a real industrial setting, next to XL industrial robots and real parts. Our indoor 5G Standalone network is built on OpenRAN, so we can change the network itself, not just measure over it. It is part of the national 6G testbed.

3850 MHz
5G SA, band n77

100 MHz
bandwidth, TDD

OpenRAN
3 Benetel radio units

~1,000 m²
production hall coverage

Network specifications

Parameter	Specification
Environment	Manufacturing plant, 2,000 m² fieldlab with XL industrial robots
Technology	5G TDD Standalone, OpenRAN
Licensed frequency	3800 to 3900 MHz (band n77, centre 3850 MHz)
Radio	3 x Benetel RU in the hall ceiling (4 m), 3 dBW e.i.r.p. output power
Compute	Low latency dark fibre connection to the TU Delft compute clusters
Programme	Beyond-5G network in the national 6G testbed (FNS)

Typical use cases

Asset and tool tracking	In-process monitoring	AGVs and mobile robots
Vision offload and AR	Teleoperation	Reconfigurable robot cells