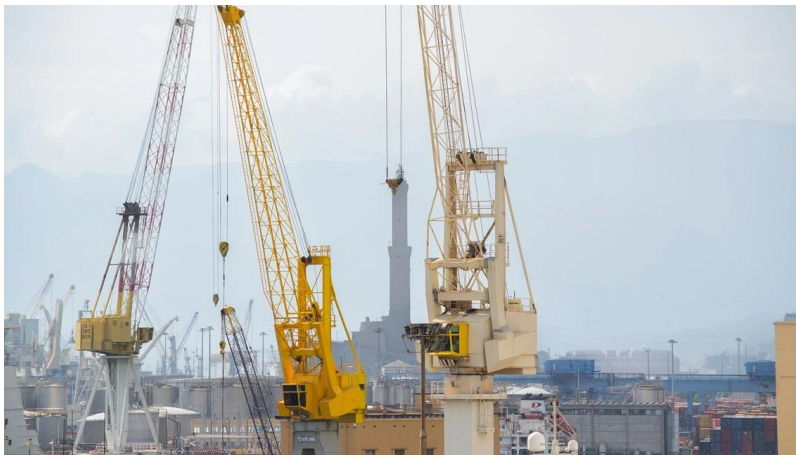


Private 5G Network: Ports of Genoa poised to enter new era of digital transformation

27 March 2026



The Western Ligurian Sea Port Authority has secured over €2.3 million in funding after ranking first in the national call for proposals issued by the Presidency of the Council of Ministers - Department for Digital Transformation. The tender sought projects for the deployment of Distributed Antenna System (DAS) wireless telecommunications infrastructure in areas of public interest.

The successful proposal calls for the implementation of a private standalone 5G network across the Ports of Genoa and Savona-Vado, covering a surface area of approximately two million square metres. Designed to operate independently of public networks, the system will deliver high-bandwidth connectivity, low latency and the capacity to support thousands of connected devices simultaneously.

The infrastructure will consist of 14 sites equipped with active antennas (small cells), interconnected by 12 kilometres of newly installed fibre-optic backbone. Two dedicated core networks—one for each port area—will ensure resilience and operational autonomy.

This private 5G network is expected to play a central role in the ports' digital transformation. It will enable advanced applications including intelligent video surveillance with real-time analytics, mission-critical communications for port safety and security, and real-time tracking of containers and vehicles. It will also facilitate integration with national and European customs and logistics platforms, while laying the groundwork for future developments such as automated remote-controlled logistics, autonomous guided vehicles (AGVs) and Industrial Internet of Things (IIoT) solutions.

The network will be managed entirely by the Port Authority and built on a secure-by-design architecture, incorporating advanced encryption and robust authentication protocols to protect sensitive operations. It will comply with GDPR and NIS2 requirements, as well as standards set by the Italian Agency for Digitalisation and the National Cybersecurity Agency. The Port Authority has committed to maintaining the system's operation for a minimum of ten years.

This achievement underscores the Western Ligurian Sea Port Authority's technical and administrative expertise in delivering complex infrastructure projects. It also reflects a broader, long-term strategy that has already seen investments exceeding €10 million in cybersecurity, the development of the Port Community System, the rollout of automated digital gates, and the expansion of fibre-optic infrastructure across the port network. The new 5G project builds on these foundations, enhancing cost efficiency while ensuring the sustainability of future operations.