

## **Fincantieri NexTech: Omega360 radar successfully completes a trial campaign on-board ITS Nave San Marco**

Fincantieri NexTech S.p.a., part of the Fincantieri Group, has successfully completed a trial campaign of its new Omega360 4D\_VS (Volume Surveillance) Radar on board the ITS San Marco with the support of IT Navy.

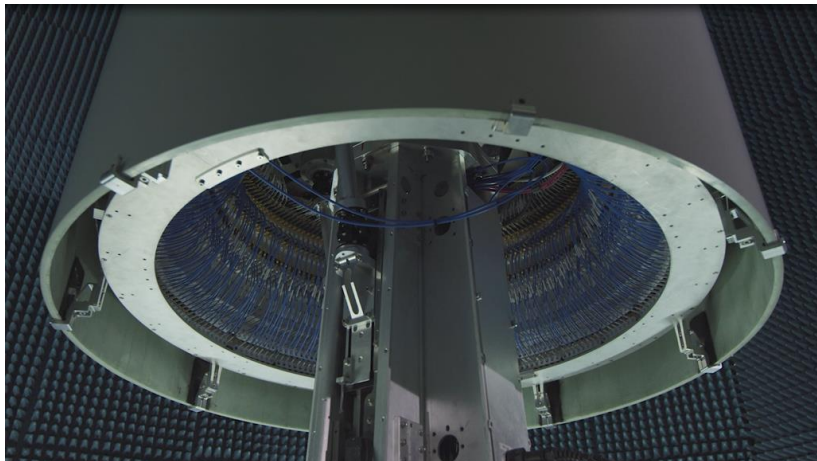
The aim of the recent session of trials was to verify detection, tracking and classification performance of surface and aerial targets (including UAVs) in a complex maritime environment characterized by electromagnetic fields caused by the simultaneous functioning of all radar and communication



subsystems installed on board with the added effect of multi-path and sea-clutter.

Omega360 4D\_VS (Volume Surveillance), designed and developed at the Fincantieri NexTech Laboratory in Rome, is an easily deployable 4D multimode software-defined surveillance radar that can comply with different operative scenarios through its dedicated classification algorithms.

Operating in X-Band, with an instrumental coverage range of 50km, the radar can face the most demanding aerial and surface threats in all symmetric and asymmetric warfare and security



scenarios. It features an innovative and unique ubiquitous architecture, with 4 independent transmission antennas and 192 receiving antennas to guarantee a simultaneous and continuous coverage of 360 degrees in azimuth and more than 60 degrees in elevation with no moving mechanical components.

Being a software-defined radar, Omega360 4D\_VS is a versatile

and scalable sensor, offering an intrinsic capability of additional features that can be implemented as and when current and future progressive End User's requirements evolve, providing the possibility to create new operational modes and to increase functionalities with additional software applications.

Parallelism and modularity, together with the extensive use of Commercial Off The Shelf (COTS) components, make Omega360 4D\_VS a very robust and reliable apparatus with a high operational

availability (low Life Cycle Cost) that renders it suitable for ground-based, mobile and naval applications.

Fincantieri NexTech SpA, as part of the Fincantieri Group, is a company of excellence that offers cutting-edge technological solutions in various fields: Maritime & Defence, Smart Infrastructures, Specialized Engineering, CyberSecurity & Digital Solutions. Fincantieri NexTech also provides specialized engineering services in the naval world and in the field of electromagnetic compatibility, leveraging the skills matured through Research & Development, and in the specialist applications that are transversal across many application fields. The engineering skills matured through developing high tech technological and system integration solutions make Fincantieri NexTech a reference player in the market where the Group operates, able to offer a portfolio of innovative, smart, safe, scalable and sustainable products and services. With about 800 professionals and experts working in Italy and abroad, Fincantieri NexTech provides highly specialized solutions to hundreds of clients on five continents.

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