

## Naval Group and the French Fleet Support Service Select Zetamix Solution for 3D Printing Metal Parts Aboard the Charles de Gaulle Aircraft Carrier

Nanoe announces that its Zetamix metal 3D printing solution — comprising a 3D printer, a sintering furnace and steel 3D printing filaments, enabling the production of metal parts through filament deposition — has been selected by Naval Group and the French Fleet Support Service (Service de Soutien à la Flotte – SSF) for deployment aboard the *Charles de Gaulle* aircraft carrier.

The project will initially consist of an onboard trial aimed at identifying the types of parts that can be manufactured using this technology, with a view to producing spare parts on demand.

**Guillaume de Calan, CEO of Nanoe:**
“We are very pleased that our solution has been selected for this trial. We believe that our Zetamix metal 3D printing solution is particularly well suited to onboard maintenance, as it is relatively easy to transport and requires limited infrastructure. Moreover, Zetamix is the only French solution in this field. It is obviously a tremendous source of pride for the entire team to see our solution now deployed aboard the *Charles de Gaulle*.”

Following several months of trials at Naval Group’s Additive Manufacturing Center in Toulon, Naval Group’s teams identified the potential of the technology and proposed moving to an at-sea trial with the SSF. If successful, the technology is expected to remain aboard the aircraft carrier, which is already equipped with several other 3D printers.

The system has been deployed aboard the ship since the beginning of 2026, for a trial campaign lasting several months.

### Media inquiries, samples or interview requests

**Guillaume de Calan – CEO**
g.decalan@nanoe.com

For more information about Zetamix products, please visit our website:
www.zetamix.com

## About Zetamix

Zetamix, a Nanoe business unit and brand, has been committed to removing the barriers to ceramic and metal 3D printing since 2018. With a strong focus on innovation and accessibility, Zetamix is recognized for developing metal and ceramic filaments compatible with FFF 3D printers, enabling the production of technical parts using affordable and easy-to-use 3D printers.

Zetamix also offers a range of furnaces specifically designed to simplify the post-processing of printed parts.

## About Nanoe

Nanoe is an innovative company specializing in the development and production of high-performance materials, particularly for the technical ceramics industry.

## About Naval Group

As an international player in the naval defense sector, Naval Group is a partner to states in safeguarding their maritime sovereignty. Naval Group develops innovative solutions to meet its customers' needs.

Present throughout the entire lifecycle of naval vessels, the Group designs, builds, equips, integrates, maintains and modernizes submarines and surface ships, as well as their systems and equipment, through to decommissioning and dismantling.

Its unique expertise in autonomous systems, underwater weapons and drones positions Naval Group at the forefront of the European industry in these fields.

As a high-technology industrial company, Naval Group relies on exceptional expertise, unique design and production capabilities, and its ability to establish strategic partnerships, particularly through technology transfers.

The Group also provides services to naval shipyards and bases.

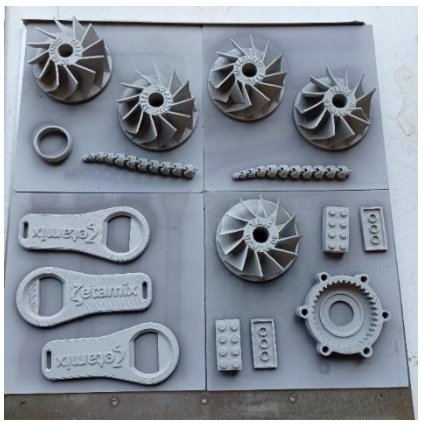
Committed to corporate social responsibility (CSR), Naval Group is a signatory of the United Nations Global Compact.

With operations across five continents, the Group generated revenue of €4.355 billion and employed 16,722 people on an average full-time equivalent basis as of December 31, 2024.








Pictures :

Aircraft carrier Charles de Gaulle

Zetasinter Furnace

Metallic parts made with Zetamix solution