

TAKING A FIX





«The concept of maritime power evolves over time. It's no longer enough to be efficient; you have to be relevant. Being relevant means being present, ready, and connected. A modern Navy must be digitally integrated, interoperable with Allies, and fully integrated into the national system»

Giuseppe Berutti Bergotto
Chief of Staff of the Italian Navy

CONTENTS



1

THE SCENARIO

Page 2



2

OPERATIONAL GEOGRAPHY

Page 8



3

LOGISTICS AND PERSONNEL

Page 22



4

INNOVATION

Page 26

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1 THE SCENARIO



protection of submarine cables and critical infrastructure, and the stability of coastal regions all converge in the maritime domain, which is increasingly emerging as a space where global vulnerabilities and interdependencies are immediately apparent. Tensions within the 'Wider Mediterranean', the instability spreading from the Middle East through the Red Sea to the Persian Gulf, and the growing presence of state actors in the area confirm that the sea is not just an operational environment, but a crucial strategic domain where even limited actions can have global effects on logistics, energy, and trade chains.

For Italy, with over 8,000 kilometres of coastline and a central geographical position in the Mediterranean, the maritime domain is not just an operating environment: it is a vital space. Energy, trade, data, and global connections all pass through the sea, where critical infrastructure and strategic interests are concentrated. In this regard, national security and prosperity are increasingly interdependent and closely linked to the ability to oversee, protect, and enhance the maritime domain..

«The wars of the 21st century are no longer fought only on the ground, but also in space, cyberspace, and the cognitive dimension»

Defence Minister Guido Crosetto – 4 November 2025

The sea, a vital space

The international landscape we will face in the coming years will not be marked by isolated crises, but by ongoing, widespread, and structural competition. Geopolitical dynamics are evolving rapidly: instability has become an almost permanent state, and uncertainty is now a constant feature of the global landscape.

In this context, the dividing line between peace and conflict is also becoming increasingly blurred: confrontation between States is not only manifested through traditional military means, but also unfolds along a hybrid spectrum that includes economic pressure, information operations, cyberattacks, sabotage, and indirect actions against critical infrastructure. As pointed out by Defence Minister Guido Crosetto on 4 November, "the wars of the 21st century are no longer fought solely on the ground, but

also in space, cyberspace, and the cognitive dimension, where an increasing part of national security is at play". In this context, the sea has once again become the focal point of competition between powers, but under profoundly changed conditions. Whereas in the past, the security of maritime routes and strategic transit points was guaranteed by established balances and the ability of certain powers to ensure a global maritime order, today this assumption seems less certain. Freedom of navigation can also be challenged by actors who are not necessarily dominant, using relatively accessible and low-cost tools – such as mines, drones, or hybrid threats – which, rather than physically blocking maritime spaces, can make them unstable, risky, and therefore less navigable. The security of energy and trade routes, the



Italy as a maritime nation: a crucial responsibility

Italy is a maritime nation by virtue of its history, geographical location, and economic structure. Its prosperity largely depends on the safety of maritime traffic and the stability of the areas through which it passes.

In recent years, another dimension has become increasingly apparent: the underwater one. Energy, digital, and communication infrastructure is increasingly being developed on the seabed. Gas pipelines, oil pipelines, and data cables: invisible elements that are nonetheless essential for the country to function. Their vulnerability makes the underwater dimension an area of direct strategic interest, no longer just a technical or specialist concern.

In this context, the Italian Navy is the means by which our nation fulfils its responsibilities at sea. It's not just about maintaining a presence, but about ensuring freedom of navigation, protecting critical infrastructure, contributing to regional stability, and strengthening Italy's international credibility.

Our country's maritime vocation is not a fact to be acknowledged, but a responsibility to be exercised. The sea demands continuity and strategic vision, which must be ensured through a constant presence, widespread knowledge, and a robust capacity for protection and projection..



BY SEA

- Chora Media -
Spotify

The Italian Navy's posture: readiness, adaptability and cooperation

In an environment marked by constant competition and multi-domain confrontation, **the Italian Navy focuses its efforts on three key areas: operational readiness, adaptability, and structured cooperation.**

Readiness is the cornerstone of credibility. Training is guided by the principle of 'train as you fight', ensuring alignment between preparation and real-world deployment. This means maintaining a consistent level of readiness, checking the efficiency of equipment, testing chains of command, and operating in complex, realistic environments. In a world where the line between peace and conflict is increasingly blurred, readiness is not just an option – it's a must.

Adaptability is the second enabling factor. The rapid evolution of threats and technologies demands an organisation capable of learning, simplifying processes, and bridging the gap

between strategic direction and operational implementation. Consistency between what is planned and what is achieved strengthens internal cohesion and consolidates external credibility.

Finally, **cooperation** acts as a multiplier of effectiveness. No nation can tackle today's challenges on its own. Within the framework of NATO and the European Union, interoperability and progressive interchangeability strengthen collective deterrence. Therefore, working together with the Allies is not only a necessity, but a structural component of the national posture. At the heart of this structure remains the personnel. Skills, motivation, a sense of belonging, and passion are the primary and most important strengths of the maritime force.

THE ROLE OF THE ITALIAN NAVY

- Maritime security to ensure the continuity of flows
- Projecting capabilities where and when needed
- Versatility to provide decision-makers with more options
- Strategic deterrence
- Catalyst for the national maritime cluster

«Our country's maritime vocation is not a fact to be noted, but a responsibility to be exercised»

Relevance and credibility: a tool at the service of the nation

The Navy's relevance is measured by its ability to deliver tangible results in the maritime domain, directly contributing to national security, protection of vital interests, and regional stability. The maritime capability is designed in line with the National Military Defence Plan, aiming for a sustainable balance between platforms, personnel, and infrastructure. This balance is essential to ensure operational continuity over time and credibility on the international stage. The Italian Navy operates as a key component of Defence, fully integrated into the joint force system and the Euro-Atlantic framework. It contributes to the structure of NATO and European Union forces, to nationally and multinational-led operations, and to security from the Wider Mediterranean to wherever national interests need to be protected. **The ability to be present, ready, and interoperable where and when needed is the tangible measure of the Italian Navy's strategic importance.** However, credibility isn't just about the assets. It is built on the professionalism of its personnel, on cohesion, and on a sense of individual and collective responsibility, all fuelled by dedication, passion, and discipline. Serving the nation from the sea and in related domains is not just an operational function, but an ethical and institutional commitment.



Vespucci

- Il viaggio più lungo -
(The longest journey)

RaiPlay

Naval diplomacy: building trust through the sea

Operational deterrence is naturally complemented by naval diplomacy. **The sea is a space for dialogue and cooperation rather than competition**, enabling the building of relationships, the strengthening of trust, and the promotion of common interests.

In this context, the **round-the-world voyage of the Amerigo Vespucci (2023-2025)** was a tangible symbol of the Italian Navy's ability to project itself globally, including from an institutional and cultural perspective. The Vespucci has served, and continues to serve with the 2026 campaign in North America, as a training platform, a symbol of identity, and a tool for international dialogue, helping to strengthen Italy's presence and credibility across five continents.

The **Trans-Regional Seapower Symposium 2026** - which brings together the heads of numerous navies, international organisations, industry, and research centres in Venice to address the issues of maritime security, interoperability, and emerging technologies - fits into the same perspective. **The Symposium, built around the concept of interdependence, will provide a platform for discussion on the connections between the Mediterranean, the Indo-Pacific, and the Arctic, helping to consolidate a shared vision of maritime security.**



From Regional Waters to Global Influence:

generating effects across
the midland seas of the world



Operational presence and cooperation as deterrence tools

If the sea is one of the key domains of strategic competition today, a credible presence is the primary factor for stability. Over the years, the Italian Navy has solidified a posture based on operational presence in areas of strategic national interest, confirming that deterrence is not only achieved through potential

capabilities, but also through a tangible, visible, and structured presence. **A consistent and reliable naval presence helps prevent crises, discourages destabilising behaviour, and strengthens the trust of Allies and partners.** In this context, naval deployment campaigns

are a cornerstone of national defence and security policy. They enable the country to extend its influence, protect its strategic interests, strengthen Italy's position in multilateral contexts, and support the national economy and industry. **A continuous presence at sea, spread across**

multiple geographical areas and integrated within the framework of NATO and the European Union, thus acts as a preventive stabilising factor.

CHOKES POINTS

Strategic points for maritime traffic

- ① Panama Canal
- ② Strait of Gibraltar
- ③ Cape of Good Hope
- ④ Bosphorus Strait
- ⑤ Suez Canal
- ⑥ Bab el-Mandeb Strait
- ⑦ Strait of Hormuz
- ⑧ Strait of Hormuz

● Primary choke points

● Secondary choke points

— Primary routes

--- Secondary routes





North South East West

OPERATIONAL SCENARIO

ARCTIC

WIDER MEDITERRANEAN

INDO-PACIFIC

OVERLAPPING AREA

OVERLAPPING AREA



HIGH NORTH
ARCTIC OCEAN
NRV ALLIANCE



EUNAVFOR ATALANTA
RED SEA, GULF OF ADEN, INDIAN OCEAN
FFG LUIGI RIZZO



NOBLE SHIELD
MEDITERRANEAN AND BLACK SEA
OPV PAOLO THAON DI REVEL, OPV FOSCARI, MHCS CROTONE, RIMINI, NUMANA AND ALGHERO



SEA GUARDIAN
MEDITERRANEAN SEA
OPV PAOLO THAON DI REVEL
SSK GIANFRANCO GAZZANA



STANDING NAVAL FORCES
MEDITERRANEAN SEA
OPV PAOLO THAON DI REVEL
FFG CARLO BERGAMINI



EUNAVFOR MED IRINI
CENTRAL AND EASTERN MEDITERRANEAN
OPV PAOLO THAON DI REVEL, FFG GRECALE,
OPV COMANDANTE BORSINI, MPCS FRANCESCO MOROSINI,
MPCS GIOVANNI DELLE BANDE NERE



FONDALI SICURI
(SAFE SEABED)
MEDITERRANEAN SEA
WHOLE NAVAL FLEET



VIGILANZA PESCA
(FISHERIES MONITORING,
CONTROL AND SURVEILLANCE)
STRAIT OF SICILY
WHOLE NAVAL FLEET



GABINIA
GULF OF GUINEA
OPV COMANDANTE BETTICA



VIGILANZA MARITTIMA
(MARITIME SURVEILLANCE)
MEDITERRANEAN SEA
WHOLE NAVAL FLEET

MEDITERRANEO SICURO
(SAFE MEDITERRANEAN)
CENTRAL AND EASTERN MEDITERRANEAN-
FG CARABINIERE, FFG VIRGINIO FASAN

C2X CERTIFICATION AS ESCORT VESSEL
WITHIN A CSG
NORTH AMERICA
FFG ALPINO

MIBIL
LEBANON
SAN MARCO MARINE BRIGADE

EUNAVFOR SOMALIA
HORN OF AFRICA, INDIAN OCEAN
FFG FEDERICO MARTINENGO

ASPIDES
GULF OF ADEN
DDG CAIO DUILIO, FFG FEDERICO MARTINENGO,
DDG ANDREA DORIA, FFG ANTONIO MARCEGLIA

LITTORAL EXPEDITIONARY GROUP
ATLANTIC OCEAN AND MEDITERRANEAN SEA
LPD SAN GIUSTO

INDO-PACIFIC CAMPAIGN
INDIAN OCEAN
FFG ANTONIO MARCEGLIA

TRAINING CAMPAIGNS
MEDITERRANEAN SEA
TRAINING SHIPS AMERIGO VESPUCCI, PALINURO,
LHD TRIESTE, LPD SAN GIUSTO, ITS MIMBELLI,
MINOR SAILING VESSELS

HYDROGRAPHIC CAMPAIGNS
CENTRAL MEDITERRANEAN
ITS AMMIRAGLIO MAGNAGHI,
ITS ARETUSA, ITS GALATEA

WORLD TOUR 23-25
TRAINING SHIP AMERIGO VESPUCCI



NATIONAL COMMITMENT



EUROPEAN COMMITMENT



NATO COMMITMENT



INTERNATIONAL COMMITMENT

ITALIAN NAVY TACTICAL COMMAND

Indo-Pacific: Global Presence and Protection of National Interests

The growing importance of the Indo-Pacific in the global geopolitical balance requires reflection on maritime presence.

Operating along the entire geographical arc that connects the chain of choke points means protecting the most important logistical and commercial routes for our country. In 2025, our national presence was structured through the activity of FFG Marcegaglia, culminating in participation in EXPO 2025 in Osaka. This initiative has produced tangible effects in terms of military cooperation, strengthening of bilateral ties and promotion of the national defence industry. **The naval projection campaigns in the Indo-Pacific**, which began in 2023 with MPCs Morosini, are not conceived as isolated events, but as **integrated instruments of national defence, industrial policy and maritime diplomacy**. In this perspective, the planning of the deployment of a Multi-Purpose Combat Ship (MPCS) in the

area, with participation in high-profile exercises such as RIMPAC and Pacific Dragon, as is happening with MPCs Giovanni dalle Bande Nere, which departed from Taranto on 3 May, confirms the desire to consolidate a structured and continuous presence.

In particular, the Pacific Dragon exercise represents an advanced opportunity for multinational cooperation in the domain of Integrated Air and Missile Defence (IAMD), enabling increased interoperability, operational readiness and integration capabilities with allied and partner navies.

The deployment in the Indo-Pacific is therefore a coherent part of a broader strategy that integrates the protection of routes, the strengthening of alliances and the enhancement of the national system.

From the Wider Mediterranean to the Global Mediterranean

The Wider Mediterranean, encompassing the Horn of Africa and the Persian Gulf, is now a region where systemic tensions are most evident. The freedom of navigation and the security of merchant shipping are exposed to a complex set of threats: non-state actors, hybrid dynamics, autonomous systems, and emerging technologies that coexist and overlap with more traditional ones.

In 2025 and early 2026, Italy assumed tactical command of EU operations: IRINI (in the Me-

diterranean), ATALANTA (in the Indian Ocean) and ASPIDES (in the Red Sea), operating in a complex environment to protect merchant shipping, which has required continuous operational and decision-making adaptation.

Protecting energy and trade routes isn't just about fulfilling a military role: **it's about preserving Europe's economic stability**, ensuring the continuity of global supply chains, and protecting a direct national interest.



Anime di coraggio
(Fearless Souls)



The Arctic: a strategic region

The North Atlantic is a crucial strategic hub for Euro-Atlantic security. In particular, the so-called **GIUK Gap** – the area between Greenland, Iceland, and the United Kingdom – **represents a key passage for protecting maritime communication routes between North America and Europe.**

In this context, the sub-Arctic region is becoming increasingly important for the collective security of NATO and the European Union. The strategic continuity between the Wider Mediterranean and the North Atlantic is based on an integrated vision of the maritime domain, where interoperability, common standards, and

cooperation are essential to ensure freedom of movement and secure routes. Italy's contribution fits into this broader architecture, reinforcing coherence among the various operational areas and consolidating our country's position within the Euro-Atlantic security system. The Arctic, once seen as remote, is now an area where economic, energy, and military interests tend to overlap, particularly as maritime routes become increasingly accessible. In this context, the Italian Navy has been running the **High North** programme in the Arctic Ocean since 2017. It combines scientific research, seabed mapping, oceanographic modelling, and tech-

nological experimentation. The synergy with the COSMO-SkyMed system and the cooperation with the NATO Centre for Maritime Research and Experimentation, which uses NRV Alliance as a research platform, strengthen Italy's contribution to scientific knowledge and maritime security. The opening of the Northern Sea Route expands economic opportunities, but it also introduces new vulnerabilities, including hybrid threats to critical infrastructure and dynamics of increasing strategic competition. Looking ahead, the commissioning of the new **Major Hydro-Oceanographic Ship Quirinale** - set to replace ITS Ammiraglio Magnaghi - will further

strengthen our national capacity for presence, research, and knowledge of the maritime domain in the Arctic and Sub-Arctic regions. Indeed, the vessel is also designed to operate in non-extreme Arctic weather conditions, representing a strategic investment in the renewal of the national hydro-oceanographic component. **The High North programme is a highly innovative, multidisciplinary initiative where Defence, industry, and research collaborate to ensure sustainable and secure access to a region that is becoming increasingly important for energy, climate, and digital security.**



«The Arctic has become a security issue for Italy. Its stability is a direct factor in national security, requiring strategic attention and a long-term vision»

Structured cooperation and the Carrier Strike Group: interoperability as a strategic necessity

In a scenario marked by increasing complexity and integration between operational domains, cooperation is not merely an optional extra, it is essential to ensure effectiveness and credibility. Since 2022, the Italian Navy ships have been continuously integrated into the US Navy Carrier Strike Groups operating in the Mediterranean and the Red Sea. The participation of the frigates Alpino, Martinengo, and Schergat, and

OPV Thaon di Revel in allied operations was not merely a technical and operational exercise, but a tangible sign of cohesion and reliability within the Euro-Atlantic framework. **Operating within complex, alliance-led structures actually enhances interoperability, interchangeability, and the collective response capability.** At the same time, the Navy Carrier Air Squadron has contributed to the development of the

national Carrier Strike Group, enhancing integration with key partners, particularly through exercises with the United Kingdom and participation in NATO Neptune Strike activities. This process also includes the gradual operational validation of the F-35B and its integration into the Carrier Air Wing, which enhance the Navy's expeditionary capabilities. The adaptation of LHD Trieste to operate the fifth-generation air-

craft ensures continuity in the Carrier Air Squadron and helps strengthen the overall credibility of the national force. **Its integration into the Carrier Strike Group is therefore not just a technical achievement, but a strategic choice: it strengthens deterrence, consolidates credibility, and contributes to the cohesion of the Euro-Atlantic security system.**



Oltre gli orizzonti
(Beyond the horizon)

Projection in an amphibious environment: operational continuity (from sea to land)

The ability to operate in complex environments extends to amphibious and coastal operations, where dynamic contexts and harsh environmental conditions demand flexibility, robustness, and full interoperability.

Within this framework, amphibious forces play a crucial role, serving as an essential tool to ensure projection from the sea to land, rapid response capabilities, and a credible presence along strategically important coastal area. The San Marco Marine Brigade is currently

undergoing a reorganisation process aimed at enhancing its agility, readiness, and integration with unmanned standards. The addition of the multi-role amphibious vessel LHD Trieste represents a significant asset for our nation's ability to project power from the sea. The ship is designed with a multi-role approach, integrating amphibious, air/sea, logistics and medical capabilities into a single platform. In keeping with the Multi-Capability Carrier concept, the unit features suitable spaces that can be recon-

figured according to the mission at hand. From an organisational and operational standpoint, LHD Trieste is set to serve as the flagship unit of the Amphibious Task Group, providing advanced command and control capabilities in a joint and multinational context, in line with the principles of integration and cooperation with the Allies. The introduction of the new Amphibious Armoured Vehicles (VBA), scheduled for 2026, represents a significant step forward in enhancing the national amphibious capability.

Participation in the Littoral Expeditionary Group and training activities in Northern Europe, including Cold Weather Operations, also helps to strengthen the ability to operate in harsh climatic conditions and highly complex scenarios.

Three-dimensional maritime surveillance

The 'Teseo Tesei' Naval Divers and Special Warfare Unit Command (COMSUBIN) is a centre of excellence for underwater operations and training. Two complementary and distinct units operate here: the Naval Special Warfare Group (GOI), the Special Forces unit primarily capable of offensive operations, and the Operational Divers Group (GOS), whose divers carry out rescue operations and explosive ordnance disposal. The Italian Navy is undertaking a project to renew its underwater capabilities, both defensive and offensive, by acquiring new U212 NFS (Near Future Submarine) class submarines, which will complement the Todaro-class units already in service, as well as ITS Olterra, an SDO-SuRS, Special and Diving Operations – Submarine Rescue Ship, currently under construction. It is a multi-role unit capable of supporting special operations, deep-water diving, and rescuing submarines in distress. In this specific case, deployable modules – modular systems that can be rapidly redeployed – were developed in parallel with the ship. Finally, on land, at the La Spezia shipyard, an advanced deep-sea simulator will be built. This hyperbaric facility replicates the one integrated into ITS Olterra, and will serve as the 'dry' saturation training system for

GOS teams. Finally, **we cannot overlook the growing vulnerability of critical underwater infrastructure and the associated military operations conducted there, known as Seabed Warfare, which includes data cables, energy backbones, and logistics hubs.** This reality calls for the development of dedicated capabilities to protect them. To this end, the Italian Navy has surveillance systems, autonomous assets, and advanced analysis tools that ensure the detection, monitoring, and timely response to threats. This work is part of a broader framework of international cooperation: synergies with the European Defence Agency's CSIP (Critical Seabed Infrastructure Protection) project and NATO and European Union partners enable the development of common standards that improve interoperability and strengthen collective resilience in the underwater domain. **Therefore, protecting underwater infrastructure is not just a military requirement but a strategic necessity for our country's energy, digital, and information security.**

National Underwater Dimension Hub (Polo Nazionale della Dimensione Subacquea, PNS), the new geographical hub for the underwater domain

The National Underwater Dimension Hub (PNS) is Italy's leading centre for technological and scientific innovation in the underwater sector, strategic for defence, security, and the protection of critical infrastructure.

Currently, it brings together an ecosystem of over 260 national entities, including large companies, SMEs, universities, and research centres.

In 2025, the process of institutional consolidation reached a decisive milestone with the establishment of the PNS Foundation, which aims to strengthen the governance and coordination of research, development, and experimentation activities. That same year, the first call for proposals focused on the legal field was also launched, with the aim of exploring in depth the legislative and regulatory aspects related to the development of the national underwater

dimension. Currently, 20 PNS research projects are active and underway, covering a technological scope that ranges from precision navigation to smart cables, and from manipulators for Unmanned Underwater Vehicles (UUVs) to innovative batteries for deep-sea environments. By 2026, the Hub aims to complete projects related to the first batches and to implement the Test Area in the Gulf of La Spezia. This infrastructure is intended for operational testing and sea validation of the technologies developed within the Hub. From 2027, it will host the technological demonstrators created as part of the research and development programmes. The national Underwater Dimension is also being further strengthened through new strategic infrastructure, the development of the U212 NFS programme, and the NATO and EU accreditation process of the Underwater Centre of Excellence.



Sustainability of the naval capability: people and infrastructure

Over the past fifteen years, the Italian Navy has undertaken a significant modernisation of its fleet, introducing increasingly sophisticated platforms. However, this progress has not been matched with the same intensity by strengthening infrastructure and personnel, creating an imbalance that now affects the overall sustainability of the instrument in terms of current and future operational commitments.

For this reason, **the development of the maritime capability is now seen as an integrated process, aimed at maintaining a balance between platforms, human resources, and**

the logistics and infrastructure system. The aim is not to mechanically fulfil the requirements arising from the NATO Capability Targets or the National Military Defence Plan, **but to build a sustainable capability over time that combines operational needs, industrial capacity, and maintenance readiness.**

From this perspective, operational credibility is not just measured by the quality of the assets, but also by the ability to keep them efficient, provide logistical support, and have the necessary skills to deploy them.

The human factor: personnel, well-being, and quality of life

Within this balance, personnel are the key enabler of the maritime capability.

The number of Italian Navy personnel actually available stands at just over 27,000. The Italian Navy is implementing every useful initiative to reach a personnel strength of 30,050 as soon as possible, following the enactment of Law 119/2022

and the subsequent Legislative Decree 185/2023. The staff shortage has tangible effects: a large part of resources is absorbed by managing current commitments, limiting the ability to engage in joint and international contexts where strategic orientations and future capability and operational developments are defined. Since

2024, organisational measures have been implemented to improve overall efficiency and align the structure with operational needs. During the same period, the trade union agreement for non-managerial personnel covering the three-year period 2022–2024 was implemented, introducing financial improvements and new allowances.

At the same time, **staff well-being has been recognised as a strategic lever for operational readiness.**

The measures taken addressed, in an integrated manner, the quality of working life, mobility, the accommodation system, lodging facilities, healthcare support, and professional development pathways. Strengthening internal communication has also helped improve dialogue between the

organisation's central and peripheral levels. The arrival of new civilian personnel also made a significant contribution, helping to alleviate some critical issues within the Navy's departments and bolstering administrative and technical capabilities. Training has been further enhanced as a driver of professional growth, with updated courses focused on the skills needed in new operational domains, including the underwater, cyber, space, and artificial intelligence sectors.

Supporting staff means nurturing skills, motivation, and a sense of belonging every day. This is the essential condition for maintaining a force capable of adapting quickly to a constantly evolving strategic landscape.



The ship as a human body



Infrastructure and logistics

Alongside the human factor, the infrastructure and logistics system is an essential pillar in ensuring the sustainability and operational continuity of the maritime capability. In the short term, **efforts have focused on improving living standards, expanding the housing supply and upgrading the main naval bases.** The latest Housing Plans have initiated a programme to upgrade and enhance existing facilities, which will be followed by a further round of interventions scheduled for 2026, covering several locations. At the same time, the process of modernising berthing infrastructure and technical-logistics systems is continuing, with the aim of adapting naval bases to the needs of an increasingly advanced and interconnected fleet. The 'Shipyard Project', launched in La Spezia in collaboration with national industry, fits into this framework. The initia-

tive aims to strengthen the efficiency and integration of the technical-industrial chain by intervening in the cycle that links the construction, outfitting and maintenance of naval units. **It has a direct impact on the ability to ensure operational readiness and resilience over time.**

The 'Shipyard Project' also has a significance that goes beyond the purely infrastructural dimension, acting as a unifying force between the Italian Navy, industry, the workforce, and the local area, thereby strengthening the connection with the economic and social fabric. The 'Basi Blu' (Blue Bases) programme envisages a further transformation of the infrastructure system, with a development phase planned between 2027 and 2035. The aim is to bring the logistical and operational facilities into line with the most advanced international safety standards and requirements. This is accompanied by a strengthening of logistics resilience, which involves upgrading fuel and ammunition depots, aligning storage capacities with European and NATO standards, and progressively digitising warehouse management systems. In this context, the introduction of advanced technologies – such as RFID (Radio-Frequency Identification) systems and integrated information platforms – improves traceability, efficiency, and timeliness in materials management. **In the medium to long term, the goal is to transform the Italian Navy's entire infrastructure system into a modern, digital, and sustainable network that combines operational robustness, energy efficiency, and quality of life for personnel.**

4 THE SCENARIO

Strategic programmes, capability continuity, and operational resilience

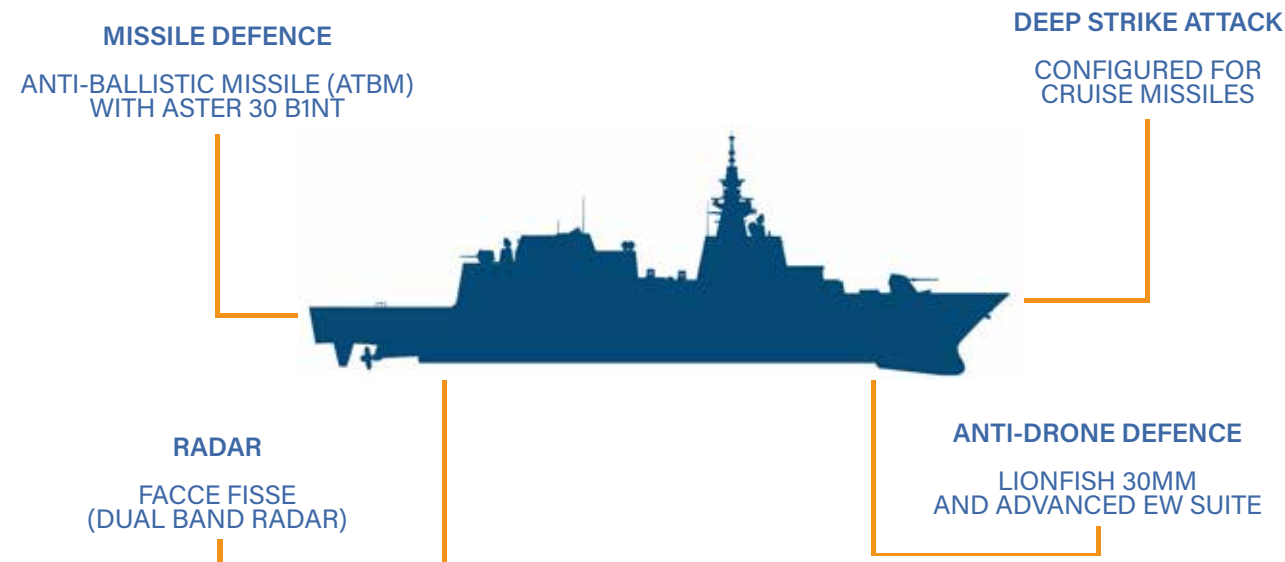
To maintain a credible and sustainable force in the medium term, it is essential to ensure continuity in the Navy's main strategic capability programmes, avoiding interruptions that could affect operational readiness and the overall balance of the naval force. The development strategy is structured around several priority areas. On the one hand, strengthening the offshore component by completing the DDX programme and acquiring additional FREMM EVO units, which will help prevent potential capability gaps. On the other hand, enhancing operational reach and flexibility through the development of new LXD amphibious units, and the consolidation of the logistics component with the third LSS unit. Alongside these, there is the evolution of capabilities in emerging do-

mains: from developing sea-based Deep Strike capability to countering unmanned systems, and protecting critical infrastructure in the underwater domain, which is increasingly relevant in the current strategic context. With this in mind, the sustainable inventory we aim for represents a balance between national operational needs and our commitments to NATO and the EU, seeking to combine high-tech capabilities with more widespread and redundant assets. Ensuring financial continuity and policy coherence is therefore essential **to avoid industrial discontinuity, preserve national technological sovereignty, and maintain the operational credibility of the maritime capability over time.**



RESILIENCE IS THE DYNAMIC ACTION FOR CHANGE MANAGEMENT. IT INTEGRATES STRATEGIC PREPARATION (PROACTIVITY) AND CONTINUOUS ADAPTATION (REACTIVITY) TO WITHSTAND SHOCKS AND EVOLVE THANKS TO THEM

FREMM EVOLUTION



Reducing innovation time and adapting the naval capability

The sustainability of the naval force depends not only on the amount of available capabilities, but also on how quickly these can be introduced, upgraded, and made operational. **Reducing the time between identifying an operational requirement and having the capability actually available has become a top priority.** This means simplifying procedures, speeding up decision-making, and strengthening the integration of technological development, procurement, and infrastructure modernisation. With this in mind, more flexible procurement methods are also being explored, such as direct market access or leasing and charter arrangements for specific types of capacity, with the aim of increasing the capability's responsiveness and adaptability. At the same time, significant focus is placed on enhancing Maritime Domain Awareness by modernising the coa-

stal radar network, integrating satellite capabilities, and developing advanced data fusion and analysis systems. The introduction of predictive analytics tools, powered by artificial intelligence algorithms, enables a shift towards increasingly proactive management of the maritime domain. The ability to collect, integrate, and share information in a timely and secure manner is now one of the key drivers of operational effectiveness. **Ultimately, a naval capability that can adapt quickly, supported by robust infrastructure and efficient decision-making processes, is essential to ensure resilience, credibility, and readiness over time.**

The maritime capability

The combined effect of NATO Capability Target requirements and the National Military Defence Plan has led to the creation of a maritime inventory: a carefully considered summary of needs, presented in a rational and sustainable manner. **The analysis highlights the need to generate critical mass, including to address hybrid threats.** Defence relies on the combined use of military capabilities and assets, alongside uncrewed/autonomous systems and dual platforms, to enhance pre-positioning, surveillance, and the ability to take the initiative. **The integration of modular sensors, space-based data, and AI is central, with extensive**

use of uncrewed systems for continuous presence. This concept of modularity not only enables versatility in use, but also allows for the growth of overall operational capabilities over time. This 'modular' nature, coupled with advances in robotic technology, enables greater flexibility in deployment and capabilities of naval units, aircraft, or submarines, expanding their firepower, range, and adaptability to a wide variety of scenarios. Furthermore, it ensures a system that can deliver cutting-edge payloads over time, without the need to upgrade the entire parent platform.

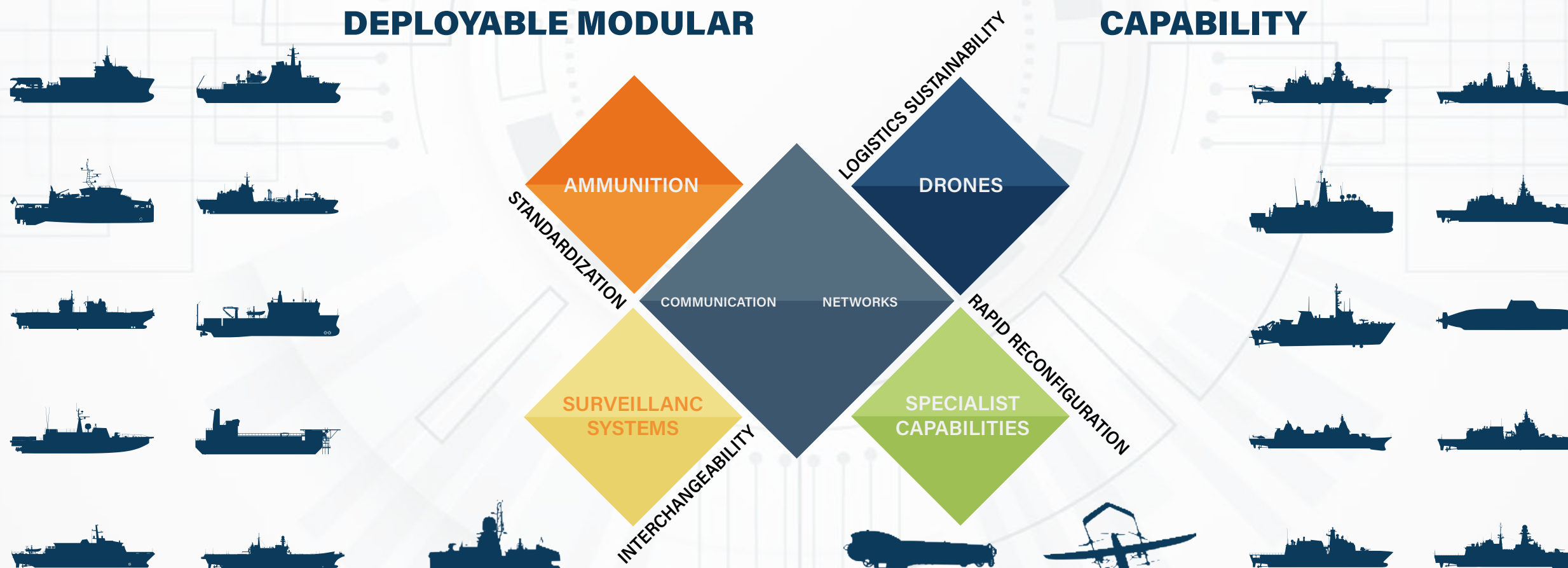
Critical mass and new operational architectures

In a scenario marked by hybrid conflict and persistent threats to critical infrastructure, the ability to **generate critical mass** is an essential component of operational posture. It's not necessarily about increasing the number of platforms, but about **effectively integrating different types of capabilities: conventional assets, dual-use tools, and autonomous systems.** The aim is to be persistent by expanding our presence in the maritime domain, making it more continuous and widespread, while simultaneously improving situational awareness and response speed. The most likely threats – particularly those targeting underwater infrastructure, ports, and maritime communication

lines – call for an integrated approach, where **traditional platforms and autonomous systems work in tandem to ensure continuous surveillance and a persistent presence.** With this in mind, the Italian Navy is developing an uncrewed capability across the surface, underwater, air, and coastal domains. These systems, designed to operate in a modular manner and integrate with traditional platforms, **significantly enhance effectiveness, contributing to increased resilience, flexibility, and long-term sustainability of the force.**

DEPLOYABLE MODULAR

CAPABILITY



OPEX: Pragmatic innovation and operational adaptation

Since 2025, the Italian Navy has been consolidating an innovation model based on Operational Experimentation (OPEX), with the aim of bridging the gap between technological development and real-world deployment. From this perspective, innovation is assessed not only for its theoretical potential, but also for its ability to demonstrate effectiveness in real-world scenarios.

The activities carried out have allowed solutions to be tested in realistic contexts, addressing a wide range of threats: from mine warfare to defence against aerial drones and autonomous boats, through to the protection of critical underwater infrastructure. **The value of this approach lies in the ability to gather immediate feedback from operators and swiftly translate**

it into updates to procedures, requirements, and capability solutions, thereby shortening the cycle between experimentation, validation, and deployment.

This process has also extended to the air and naval domain, with the launch of initiatives focused on unmanned systems. Among these, the release test of Loitering Munition (in a training version) from a mini Remotely Piloted Aircraft (RPA) mounted on a naval unit is a concrete example of new technologies integrated with existing platforms. At the same time, the use of ScanEagle systems on board FREMM frigates has shown how it is possible to extend persistence and surveillance capabilities even in real operational missions, such as Operation ATALANTA.



Brochure Opex

Within this framework, operational experimentation emerges as a genuine method for the continuous adaptation of the maritime capability. This not only allows for the introduction of new capabilities, but also a rethink of their use in an integrated manner, particularly through the concept of Manned-Unmanned Teaming, which expands the range, resilience, and operational flexibility of frontline units. In line with this evolutionary approach, certain capabilities may also be acquired as a service, using more flexible models. This will allow for increased operational coverage without placing a proportionate burden on human resources. From June to July 2026, the Italian Navy will continue its Operational Experimentation activities

(known as OPEX 1-26) in the sea area between Brindisi and Otranto. In this context, the Italian Navy's approach is focused on integrating drones – aerial, surface, and underwater – more systematically with Command and Control systems. The aim is to develop a comprehensive anti-drone chain that combines advanced sensors, data fusion capabilities, and soft- and hard-kill effectors, for use in complex, multi-domain operational scenarios. This approach, built on close public-private collaboration and the use of flexible platforms like Multi-Capability Carriers, accelerates the adoption of innovative solutions and directly supports procurement and doctrinal processes.

Multi-Capability Carrier: modularity and an evolving fleet

Innovation is also reflected in how the fleet evolves. Naval platforms are no longer designed as closed systems, but as modular, scalable, and upgradeable architectures that can integrate new capabilities throughout their entire lifecycle.

The concept of Multi-Capability Carrier fits into this framework, representing an evolutionary model of the naval asset: not a single unit, but a design approach that integrates combat capabilities, logistical sustainability, connectivity, and modularity, enabling platforms to progressively adapt

to technological and operational advancements.

In 2025, the delivery of FFG Spartaco Schergat and FFG Emilio Bianchi in the ASW Enhanced version has bolstered the anti-submarine warfare component, introducing multi-domain capabilities on highly interoperable platforms. At the same time, the arrival of LSS Atlante strengthened the logistics support line – a crucial element for sustaining prolonged operations and ensuring a continuous presence. The fleet's evolution continues along a path con-

sistent with this model, as demonstrated by the upgrade of the Multi-Purpose Combat Ships (MPCS) to Full configurations and the development of the FREMM EVO programme aimed at integrating the latest technologies without disrupting operational continuity.

The air and naval component is also evolving along these lines, strengthening the nation's ability to operate in expeditionary contexts and increasing the level of interoperability with Allies.

A particularly significant step involves inte-

grating manned and autonomous systems, especially in the underwater domain. **The development of modular, resident, and resilient UUVs with increasing decision-making autonomy expands the ability to operate in the so-called 'Sixth Continent', reducing personnel risk exposure and increasing operational persistence.** Overall, this evolution paints a picture of a fleet that is not only more modern, but also more adaptable: capable of evolving over time while maintaining continuity, effectiveness, and consistency in a constantly changing landscape.

«Overall, this evolution outlines a fleet that is not only more modern but also more adaptive: capable of transforming over time while maintaining continuity, effectiveness, and coherence in a constantly changing landscape»

THE ABILITY TO EXTEND
THE EFFECTS OF
EXISTING CAPABILITIES
OVER TIME AND ACROSS
SPACE

OPERATIONAL RESILIENCE

Our route

In light of the dynamics analysed, it is clear that to remain relevant, we must continue along certain priority directions:

- control of the sea, an essential condition for security and prosperity
- adaptability
- a differentiated and scalable architecture of the naval capability, where critical mass is also generated through expendable and renewable means
- support for personnel, the quality of work, and the attractiveness of the profession are closely linked
- enabling connections for security, such as industry, the cluster and international cooperation

Acting now in this direction means ensuring the Italian Navy's operational continuity, so that it remains a credible, modern force fully aligned with the nation's security needs.

«The challenge in the coming years will be to turn these guidelines into a tangible operational advantage by reducing decision-making times, increasing the resilience of the naval capability, and enhancing its ability to anticipate threats»

«In this process, the human factor remains central: skills, dedication, and adaptability are the real drivers of effectiveness»

«The sailors make the ship. The crew makes the venture a success»



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