

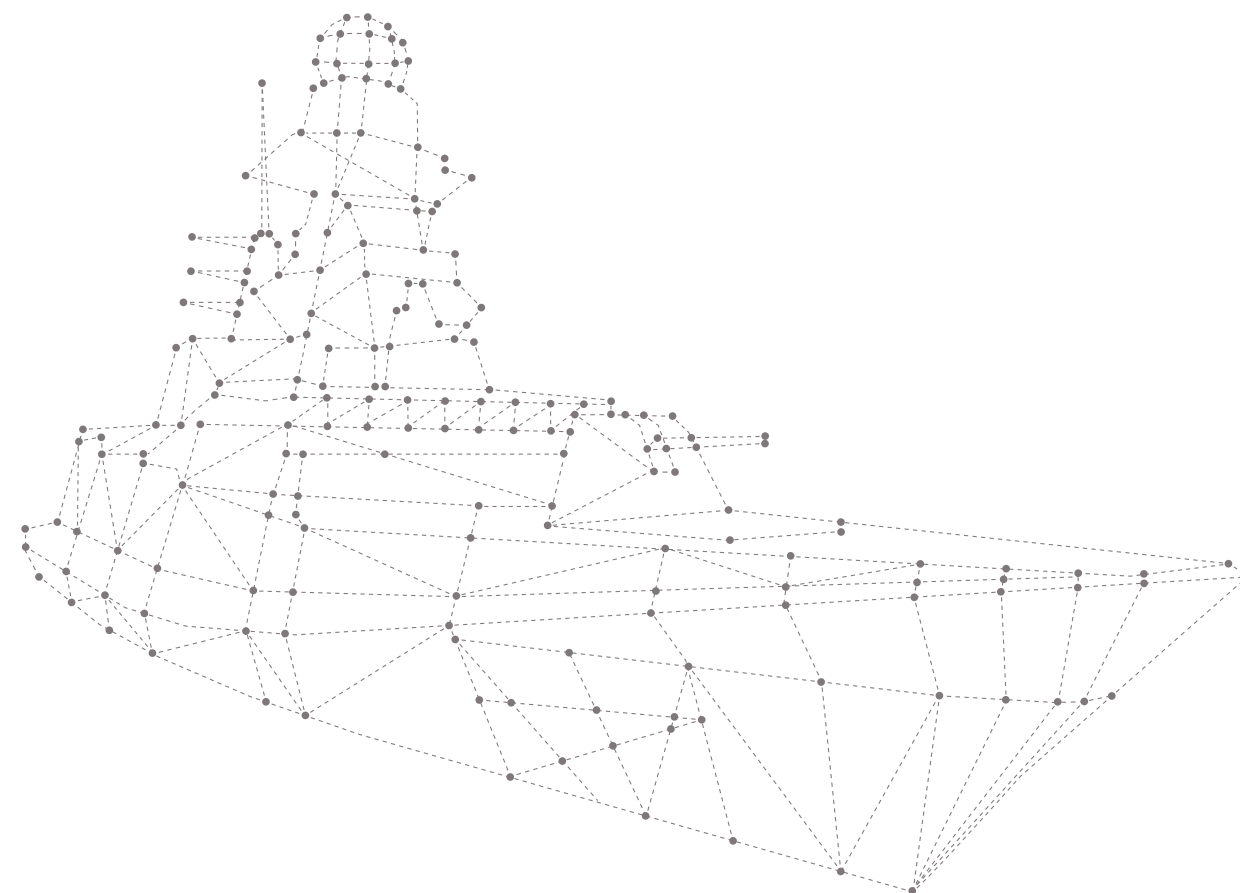
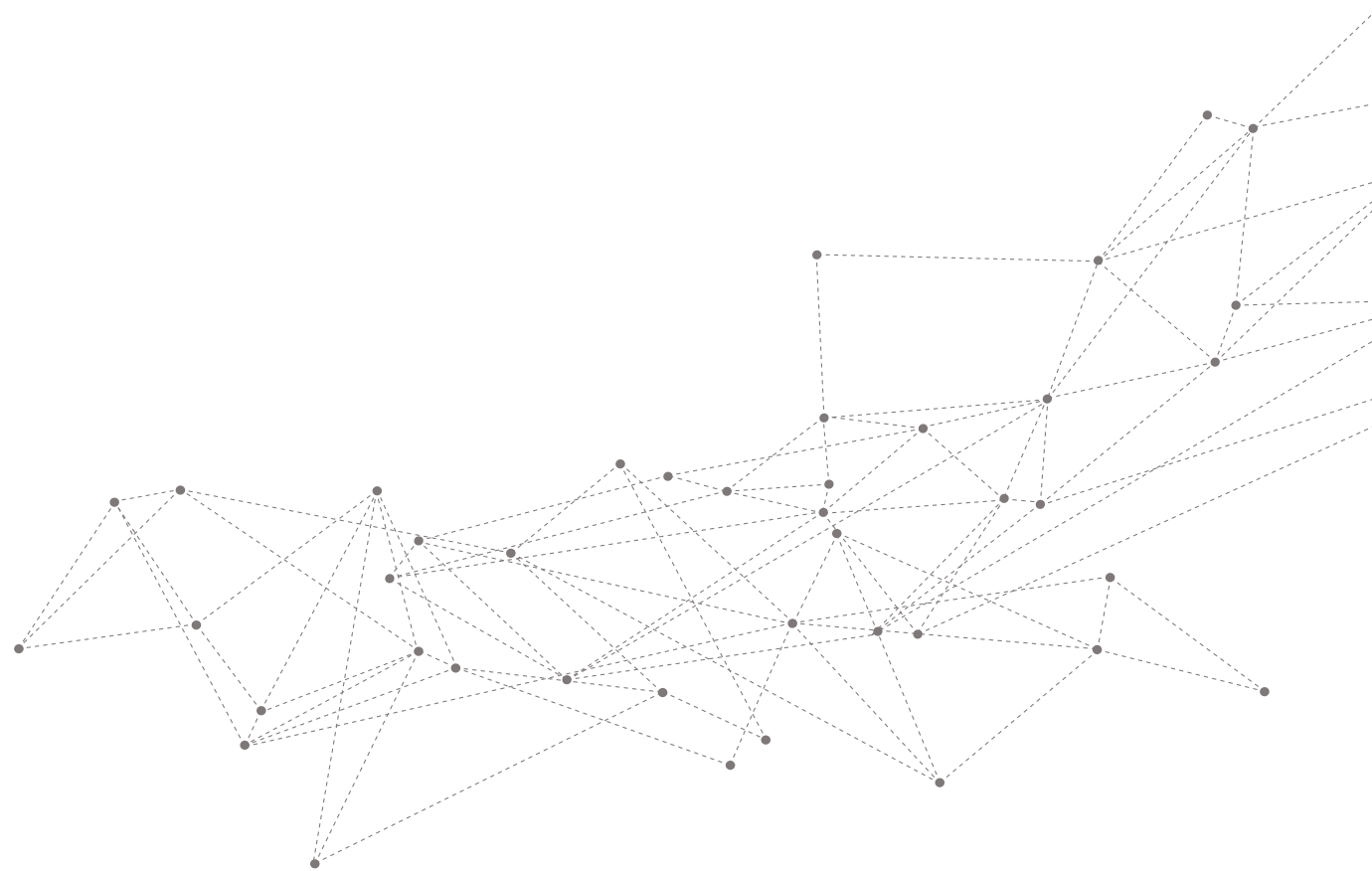
_the defenders



FINCANTIERI
The sea ahead



_ naval vessels
the defenders



seven seas, one company

Like a grand design in the stars, there is a global network of interconnected knowledge and expertise, on sea and on land, where day by day a group is growing and adding fresh value all along the chain, creating a whole that is so much greater than the sum of its parts. This is Fincantieri.

A global Group that is a cutting-edge military shipbuilder and an active player in all the highest added-value market segments, across the water and around the world.

Come il riflesso di un grande disegno tracciato tra le stelle, c'è una rete globale di connessioni del fare e del sapere, sul mare e sulla terra, lungo la quale nasce e cresce un gruppo che aumenta, giorno dopo giorno, il valore di ogni singolo elemento, in una somma che è straordinariamente più grande delle sue parti. Questa è Fincantieri.

Un Gruppo globale, da sempre all'avanguardia tra i costruttori di navi militari, protagonista in tutti i segmenti a più alto valore aggiunto, sul mare e nel mondo.

FINCANTIERI
The sea ahead



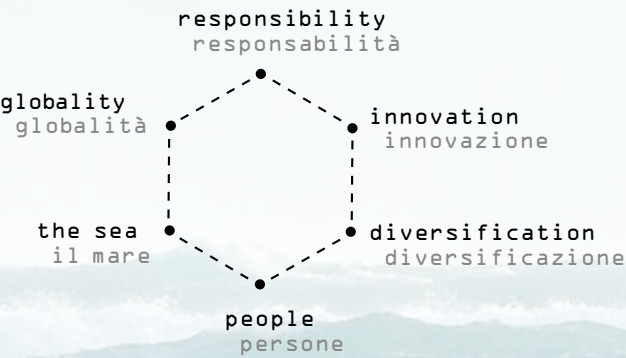
fincantieri group

the world in one design

il mondo in un disegno

— Twenty shipyards across Europe, Americas and Asia. A workforce of twenty thousand people, 60% outside Italy. Revenues of four billion euros. These figures underscore our supreme competitiveness in the market. We are a global multinational. And we are unique. We are the only company in the world that can build all types of vessel, whatever their complexity. From cruise ships to mega-yachts, from naval to high-tech offshore vessels, from shiprepairs and conversions to the production of systems and components and after-sales services. We are Fincantieri. Rooted in **Italy**, sowing our seeds all over the world. We are an ecosystem that welcomes the shipowners and assists them at every stage, from construction and on through their unit’s entire life cycle. We have a design in mind; every day, a new piece falls into place, as we grow and continually improve. Our mission is to be **world leaders** in all segments that demand the very best in marine solutions, building on our Italian style and culture and our distinctive assets of **diversification**, integration and pioneering spirit. With valuable people, recognizing their value. This is our vision of the future. Ever-improving performance and technology, through unstinting **innovation**. **Responsible, transparent** and **sustainable**, for the people and the environment. This is our **sea** ahead.

— Venti cantieri tra Europa, Americhe e Asia. Ventimila persone al lavoro, il 60% delle quali fuori dall’Italia. Quattro miliardi di euro di ricavi. Sono i numeri che oggi ci rendono competitivi al massimo livello sui mercati. Siamo una multinazionale globale. E siamo unici. Siamo i soli al mondo capaci di costruire tutte le tipologie di mezzi navali a elevata complessità. Dalle navi da crociera ai mega-yacht, dalle navi militari ai mezzi offshore high-tech, dalle riparazioni e trasformazioni navali alla produzione di sistemi e componenti sino ai servizi post-vendita. Siamo Fincantieri. Radici in **Italia**, frutti in tutto il mondo. Un ecosistema che accoglie l’armatore e lo affianca ad ogni passo, dalla costruzione all’intero ciclo vita della sua unità. Abbiamo un progetto in mente, del quale tracciamo ogni giorno un nuovo pezzo nella realtà, attraverso la crescita e il miglioramento continuo. Vogliamo diventare **leader mondiali** in tutti i comparti che richiedono le migliori soluzioni marine, mantenendo al centro la nostra cultura e il nostro italian style e distinguendoci ancora di più per **diversificazione**, integrazione e pionierismo. Con **persone** che valgono e di cui riconosciamo il valore. È la nostra idea di futuro. Sempre più tecnologico e performante, grazie all’**innovazione** continua. **Responsabile, trasparente e sostenibile**, per le persone e per l’ambiente. È il **mare** che abbiamo davanti.



our values

i nostri valori

- _ The sea, our vital element
 - _ The people, our most exclusive asset
 - _ Diversification, leader in high value added market segments
 - _ Innovation, a quest for the most advanced technology for maximum customization
 - _ Responsibility, a credible, reliable, sustainable commitment to people and the environment
 - _ Globality, with management teams and infrastructure facilities at the heart of every important market
-
- _ Il mare, il nostro elemento vitale
 - _ Le persone, il nostro patrimonio più esclusivo
 - _ Diversificazione, leader nei segmenti di mercato a maggior valore aggiunto
 - _ Innovazione, come ricerca della tecnologia più avanzata per la massima customizzazione
 - _ Responsabilità, che ci fa credibili, affidabili e sostenibili per le persone e l'ambiente
 - _ Globalità, con management e infrastrutture nel cuore di ogni mercato che conta

the fincantieri planet

SHIPYARDS AND DOCKS

— europe

-  **ITALY**
- TRIESTE
 - MONFALCONE
 - MARGHERA
 - SESTRI PONENTE
 - GENOA
 - RIVA TRIGOSO-MUGGIANO
 - ANCONA
 - CASTELLAMMARE DI STABIA
 - PALERMO

 NORWAY

- AUKRA
- BRATTVAAG
- BREVIK
- LANGSTEN
- SØVIKNES

 ROMANIA

- BRAILA
- TULCEA

— asia

 VIETNAM

- VUNG TAU

— americas

 USA

- GREEN BAY
- MARINETTE
- STURGEON BAY

 BRAZIL

- SUAPE

SUBSIDIARIES

— europe

-  **ITALY**
- FINCANTIERI S.p.A. (Headquarter)
 - Orizzonte Sistemi Navali
 - Cetena
 - Delfi
 - Seastema
 - Isotta Fraschini Motori
 - Fincantieri Oil&Gas
 - Seaf
 - Marine Interiors
 - Fincantieri SI

 NORWAY

- Vard Group (Headquarter)
- Vard Design
- Vard Piping
- Vard Electro
- Vard Accommodation
- Vard Trading
- Vard Offshore Brevik
- Vard Engineering Brevik
- Seanics

 PRINCIPALITY OF MONACO

- Camper&Nicholsons International

 SWEDEN

- Fincantieri Sweden

 POLAND

- Seanics Polska

— asia

 CHINA

- Fincantieri (Shanghai) Trading

 INDIA

- Fincantieri India
- Vard Electrical Installation and Engineering (India)

 BAHRAIN

- FMSNA

 UAE

- Etihad Ship Building

 SINGAPORE

- Vard Holdings
- Vard Shipholding Singapore

 JAPAN

- FMSNA YK

— americas

 USA

- Fincantieri Marine Group
- Fincantieri Marine Systems North America
- Fincantieri USA
- Vard Marine US

 CANADA

- Vard Marine

 BRAZIL

- Fincantieri do Brasil Participações

— oceania

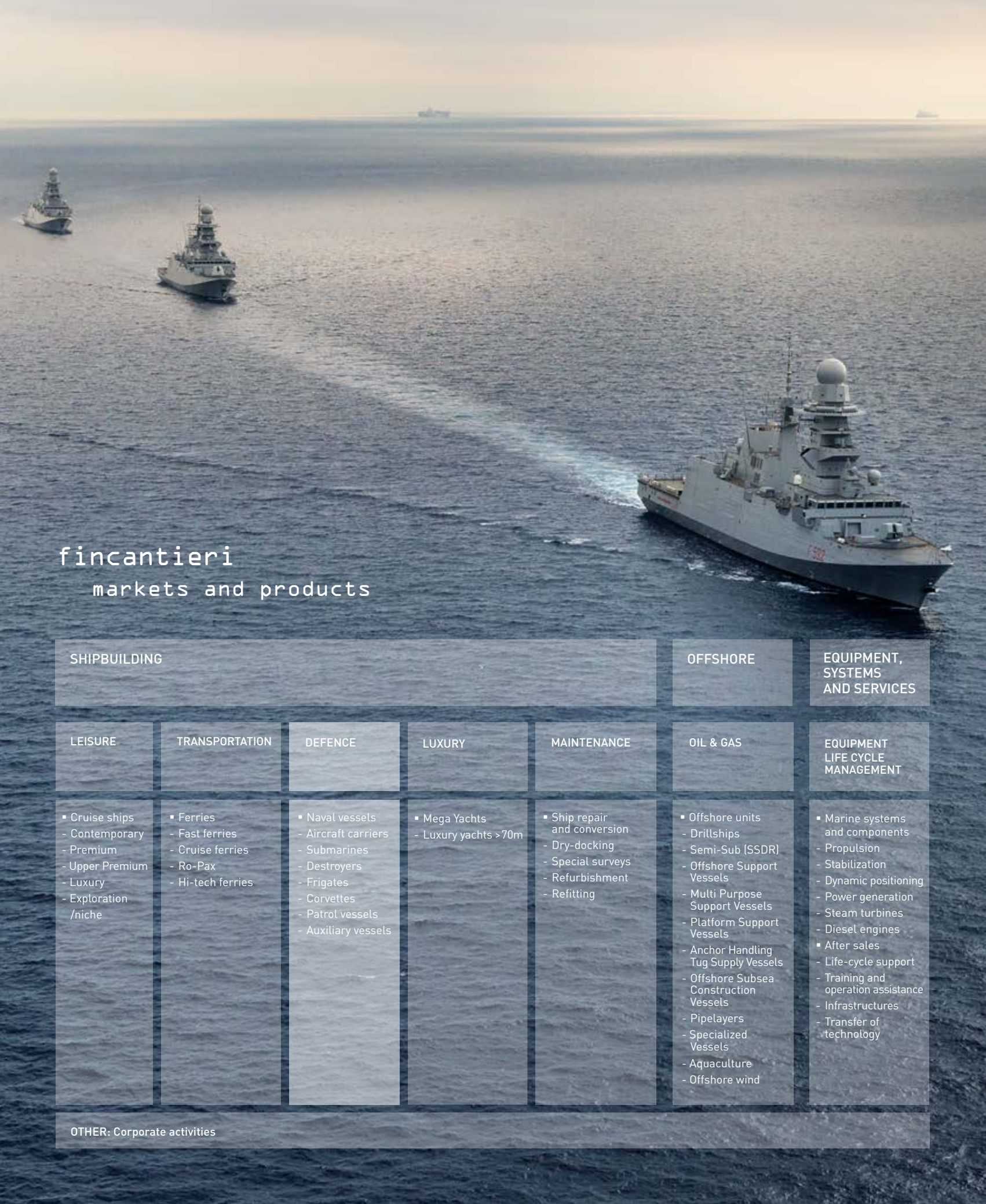
 AUSTRALIA

- Fincantieri Australia

almost
19,000
employees

20
shipyards

4
continents



fincantieri
markets and products

SHIPBUILDING					OFFSHORE	EQUIPMENT, SYSTEMS AND SERVICES
LEISURE	TRANSPORTATION	DEFENCE	LUXURY	MAINTENANCE	OIL & GAS	EQUIPMENT LIFE CYCLE MANAGEMENT
▪ Cruise ships - Contemporary - Premium - Upper Premium - Luxury - Exploration /niche	▪ Ferries - Fast ferries - Cruise ferries - Ro-Pax - Hi-tech ferries	▪ Naval vessels - Aircraft carriers - Submarines - Destroyers - Frigates - Corvettes - Patrol vessels - Auxiliary vessels	▪ Mega Yachts - Luxury yachts >70m	▪ Ship repair and conversion - Dry-docking - Special surveys - Refurbishment - Refitting	▪ Offshore units - Drillships - Semi-Sub (SSDR) - Offshore Support Vessels - Multi Purpose Support Vessels - Platform Support Vessels - Anchor Handling Tug Supply Vessels - Offshore Subsea Construction Vessels - Pipelayers - Specialized Vessels - Aquaculture - Offshore wind	▪ Marine systems and components - Propulsion - Stabilization - Dynamic positioning - Power generation - Steam turbines - Diesel engines ▪ After sales - Life-cycle support - Training and operation assistance - Infrastructures - Transfer of technology
OTHER: Corporate activities						



naval vessels

the defenders
protagonisti della difesa



— Building naval vessels, to increasingly demanding performance standards for increasingly elaborate scenarios, is now tougher than ever before. In such a complex scenario, Fincantieri has a proud history in the naval field spanning 230 years and 2,000 vessels built. We design and build a wide and complete range of surface combatant ships, aircraft carriers, destroyers, frigates, corvettes, patrol vessels, as well as auxiliary and special vessels and submarines. We have among our clients the Italian and the U.S. Navy, in addition to several foreign navies, and we are partners in important multinational programmes, such as the European FREMM frigates, the Horizon Class destroyers and the U212A submarines. Fincantieri proved itself as the reference player in the naval shipbuilding industry, winning the ships construction in the Italian Navy’s fleet renewal plan. The purpose of this multi-year program is the construction of new classes of ships such as PPA (multipurpose offshore patrol vessels), LSS (Logistic Support Ship) e LHD (Landing Helicopter Dock), all highly innovative and characterized by a high efficiency and operational flexibility. Fincantieri will provide, in addition to the ships construction at its yards, life cycle support in the first ten years, divided into logistics services and In Service Support as well as the supply of naval components and machinery.

— Costruire unità militari, con performance sempre più sfidanti, in scenari sempre più articolati, è oggi più impegnativo che mai. In un quadro così complesso, Fincantieri può vantare una storia nel campo delle navi militari fatta di 2.000 unità costruite in 230 anni. Progettiamo e costruiamo un’ampia gamma di navi combattenti di superfice, portaerei, fregate, corvette, pattugliatori, nonché navi ausiliarie e speciali e sommergibili. Annoveriamo tra i nostri clienti la Marina Militare e la U.S. Navy, oltre a numerose marine estere, e siamo partner nell’ambito di importanti programmi sovranazionali quali i programmi europei per le fregate FREMM, i cacciatorpedinieri classe Orizzonte e i sommergibili U212A. Fincantieri si è riconfermata operatore di riferimento nella navalmeccanica militare, aggiudicandosi la costruzione delle unità previste dal piano di rinnovamento della flotta per la Marina Militare. Tale programma pluriennale prevede la realizzazione di nuove classi di navi, quali PPA (Pattugliatori Polivalenti d’Altura), LSS (Logistic Support Ship) e LHD (Landing Helicopter Dock). Tutte le unità saranno altamente innovative e caratterizzate da una elevata efficienza e flessibilità operativa. Fincantieri fornirà, oltre alla costruzione delle unità presso i propri cantieri, il supporto al ciclo vita nei primi dieci anni, articolato in attività di logistica e In Service Support, nonché la fornitura di componenti e macchinari navali.

left_
The FREMM frigate Virginio Fasan
(Riva Trigoso-Muggiano, 2012)

sinistra_
La fregata FREMM Virginio Fasan
(Riva Trigoso-Muggiano, 2012)

history _ la storia

In the wake of the great ships from the past, leading the way today

Eredi di grandi navi del passato, protagonisti oggi

1861

The Kingdom of Italy is established and, with it, the Italian Royal Navy.

Con la proclamazione del Regno d'Italia, nasce la Regia Marina.



1882



Credits: Italian Navy
Fonte: Archivio MMI

The battleship Enrico Dandolo, sister ship of the Caio Duilio, is completed (1880). The experts of the day consider them the most potent warships of their time.

Ultimata la corazzata Enrico Dandolo, gemella della Caio Duilio (1880). Sono considerate dalle marine del tempo le unità navali da guerra più potenti dell'epoca.

1902

Vittorio Cuniberti develops the concept of the “all-big-gun battleship” for the Italian Royal Navy; the British Royal Navy uses it for its own Dreadnought.

Vittorio Cuniberti sviluppa per la Regia Marina Italiana il concetto di “corazzata monocalibro”, applicato poi dalla Royal Navy britannica alla sua Dreadnought.

1903



Cesare Laurenti designs the Glauco-class submarine, the next generation on from the Delfino.

Cesare Laurenti imposta il sottomarino Glauco, evoluzione del Delfino.



above_
The aircraft carrier Cavour,
the flagship of the Italian Navy
(Riva Trigoso-Muggiano, 2008)
below_
The launch of the patrol vessel Ubaldo
Diciotti for the Italian Coast Guard
(Castellammare di Stabia, 2013)

sopra_
La portaerei Cavour,
ammiraglia della Marina Militare
(Riva Trigoso-Muggiano, 2008)
sotto_
Il varo del pattugliatore Ubaldo Diciotti
per la Guardia Costiera Italiana
(Castellammare di Stabia, 2013)

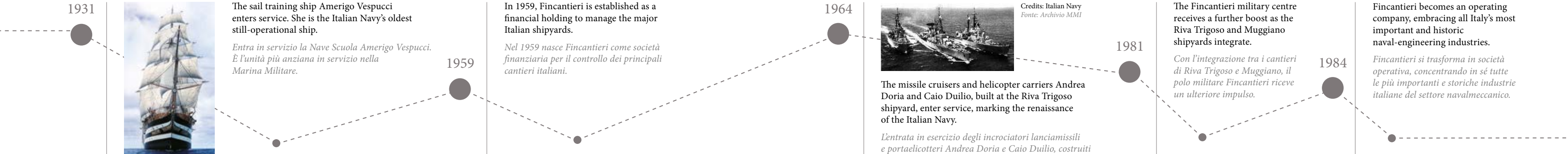


The Company's wide ranging engineering expertise and capacity to build prototypes enable us to develop tailor-made solutions to customer requirements. Thanks to the cross-fertilization among the Group's various business units, our naval vessels use design and construction solutions that have been widely proven in the merchant field. An added value that permits us to build reliable products guaranteeing the highest operational standards, optimizing costs, and offering support for the vessels during the entire lifecycle with a wide range of after-sales services. With our proven experience we act as Prime Contractor, managing a full ship life-cycle support, from design to construction, to logistic support and after sales assistance. Fincantieri brings a flexible business model. We have worked in partnership with domestic industry in many parts of the world, acting

above_
Stealth Attack Craft
Falaj 2 Class

sopra_
Stealth Attack Craft
Classe Falaj 2

L'esperienza ingegneristica ad ampio spettro e la capacità di realizzare prototipi ci permette di sviluppare soluzioni tailor-made in base ai requisiti del committente. Attraverso la cross-fertilization tra le diverse business unit del Gruppo, le nostre navi militari adottano soluzioni progettuali e costruttive già largamente sperimentate in campo mercantile. Un valore aggiunto che ci permette di realizzare prodotti di consolidata affidabilità, garantendo elevati standard operativi e l'ottimizzazione dei costi offrendo un supporto al committente nel corso dell'intero ciclo di vita con un'ampia gamma di servizi post vendita. Grazie alla nostra comprovata esperienza, gestiamo in qualità di Prime Contractor tutte le fasi del ciclo di vita della nave, dalla progettazione alla costruzione, al supporto logistico, all'assistenza post-vendita. Fincantieri è in grado di adottare un modello di business

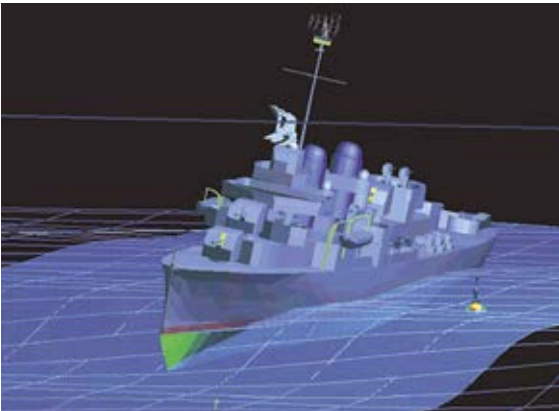


right_
The FREMM frigate Carlo Margottini
(Riva Trigoso-Muggiano, 2013)

destra_
La fregata FREMM Carlo Margottini
(Riva Trigoso-Muggiano, 2013)

in some cases as Warship Design Authority, in others as a tier-one partner with responsibility as Prime Contractor. We can also carry out design activities and provide technical assistance to the design and production of naval vessels at third parties shipyards, in the frame of agreements that often include also training and transfer of technology. In the last years Fincantieri has undertaken a set of initiatives for the development and further diversification of its product portfolio, through key acquisitions and international partnerships agreements. At the end of 2008 the Group entered the US market by acquiring Fincantieri Marine Group: a leading manufacturer of medium-sized units for the US Navy and the US Coast Guard, active in the construction and repair of offshore and merchant vessels. With Etihad Ship Building, LLC, a joint venture created in 2010 in the UAE, we are players in the increasingly important Middle Eastern market.

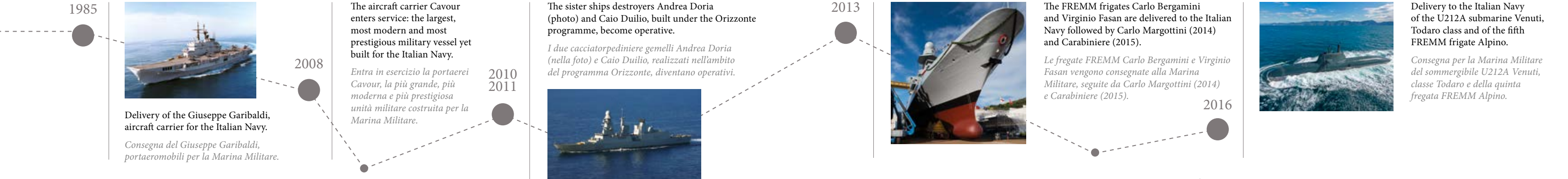
flessibile. Abbiamo lavorato in collaborazione con l'industria locale in molte parti del mondo agendo, in alcuni casi, come Warship Design Authority, in altri casi lavorando come partner di primo livello con responsabilità a livello di Prime Contractorship. Siamo inoltre in grado di fornire presso cantieri terzi assistenza tecnica progettuale e costruttiva nel quadro di accordi che sovente includono anche training e trasferimento di tecnologia. Negli ultimi anni Fincantieri ha avviato una serie di iniziative mirate allo sviluppo e alla ulteriore diversificazione del proprio portafoglio prodotti attraverso tramite importanti acquisizioni e accordi di partnership internazionali. A fine 2008 siamo entrati nel mercato statunitense attraverso l'acquisizione di Fincantieri Marine Group: costruttore di primo livello di unità di medie dimensioni per la Marina Militare e la Guardia Costiera statunitensi, nonché attivo nella costruzione e riparazione di unità offshore e mercantili. Con Etihad Ship Building, joint venture creata nel 2010 negli Emirati Arabi Uniti, siamo invece protagonisti su un mercato sempre più importante come quello mediorientale.

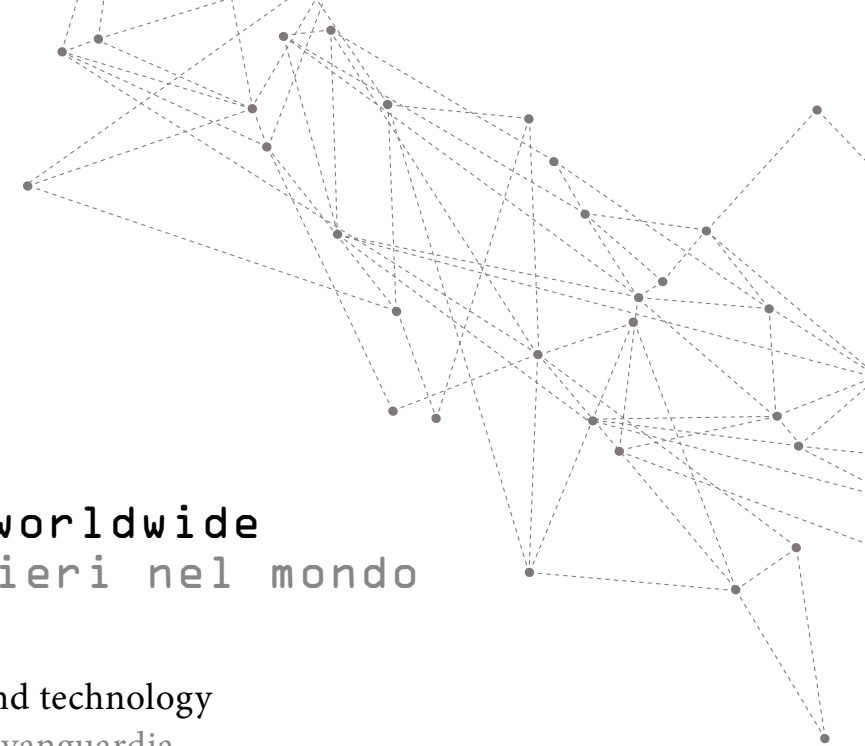


designing defence
progettare la difesa

With a 500-strong technical staff equipped with 400 CAD stations, Fincantieri's naval-sector design and management centre is one of the largest facilities in Europe, designing a wide range of highly complex naval vessels and special ships. The business unit works closely with Orizzonte Sistemi Navali and Cetena - the Italian Centre for Naval Technical Studies - which supplies consultancy and technical services to the Defence industry.

Con uno staff tecnico di circa 500 persone che si avvalgono del supporto di 400 stazioni CAD, il centro di progettazione e management del comparto militare Fincantieri rappresenta una delle più grandi realtà europee coinvolte nel design di navi militari e speciali di elevata complessità. La business unit opera in stretta sinergia con Orizzonte Sistemi Navali e con il Cetena - Centro Italiano per gli Studi di Tecnica Navale, che fornisce consulenza e servizi tecnici per il settore della Difesa.





our shipyards worldwide
i nostri cantieri nel mondo

State of the art facilities and technology
Strutture e tecnologia all'avanguardia

— In Italy the Naval Vessels business unit performs its design activities in Genoa, while the construction takes place at the two shipyards of Muggiano and Riva Trigoso, operating as an integrated shipyard, developing synergies and sharing best practices. The Riva Trigoso yard is focused on the construction of medium – large sized surface vessels, while Muggiano is dedicated to the construction of small sized specialized vessels, to the outfitting of surface vessels and to the construction of submarines and to after-sales services. Spanning about 320,000 sqm, 120,000 of which covered, the Integrated Shipyard offers a consolidated package of expertise, technology, dry docks, machinery and production processes. This is where all the Fincantieri's most important products for the defense market are made, notably the aircraft carrier Cavour and the FREMM frigates, European Multipurpose Frigate, for the Italian Navy.

— In Italia la business unit Navi Militari svolge le attività di progettazione a Genova, mentre la costruzione delle unità viene portata avanti presso i due siti produttivi di Muggiano e Riva Trigoso che operano come un vero e proprio cantiere integrato, sviluppando sinergie e condividendo best practices. Il cantiere di Riva Trigoso è focalizzato nella costruzione di naviglio di superficie di medio-grande dimensione, mentre Muggiano è dedicato alla costruzione di navi specializzate di piccola taglia, nell'allestimento delle navi di superficie, nella costruzione dei sommergibili e nei servizi post-vendita. Il Cantiere Integrato occupa un'area complessiva di 320.000 mq, di cui 120.000 mq coperti, e mette a sistema competenze, tecnologia, bacini, macchinari e processi produttivi. Qui nascono tutti i più grandi prodotti firmati Fincantieri per il mercato della Difesa, quali la portaerei italiana Cavour e le FREMM, Frigate Europee Multi Missione, per la Marina Militare.



left_
The Riva Trigoso shipyard

sinistra_
Lo stabilimento di Riva Trigoso

below_
The LCS - Littoral Combat Ship
for the US Coast Guard
(Fincantieri Marinette Marine, USA)
right_
The Muggiano shipyard
p. 17_
The Etihad Ship Building yard in Abu Dhabi

sotto_
La LCS - Littoral Combat Ship
per la Guardia Costiera degli Stati Uniti
(Fincantieri Marinette Marine, USA)
destra_
Lo stabilimento di Muggiano
pag. 17_
Lo stabilimento di Etihad Ship Building
ad Abu Dhabi



In the United States our subsidiary Fincantieri Marine Group operates through three shipyards located in the Great Lakes area:

- Fincantieri Marinette Marine, builder of the Freedom Class Littoral Combat Ship for the U.S. Navy. The shipyard has recently completed a modernization program for its facilities and logistics, with the aim of increasing its production capacity.
- Fincantieri Bay Shipbuilding (Sturgeon Bay, Wisconsin) focused on the construction, repair and conversion of merchant vessels and offshore support vessels.

Negli Stati Uniti la controllata Fincantieri Marine Group opera attraverso tre cantieri situati nella regione dei Grandi Laghi:

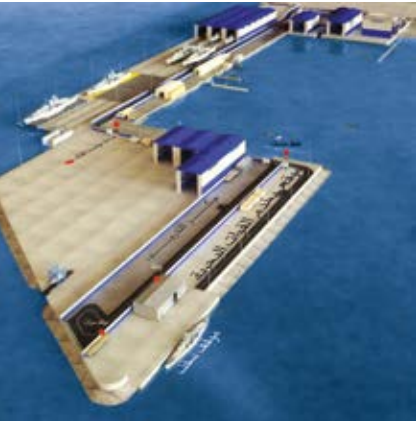
- Fincantieri Marinette Marine (Marinette, Wisconsin), è il cantiere costruttore delle navi Littoral Combat Ship classe Freedom per la U.S. Navy. Il cantiere ha recentemente terminato un programma di ammodernamento impiantistico e logistico volto a incrementare la sua capacità produttiva.
- Fincantieri Bay Shipbuilding (Sturgeon Bay, Wisconsin) è focalizzato nella costruzione, riparazione e conversione di navi mercantili e di navi da supporto offshore.

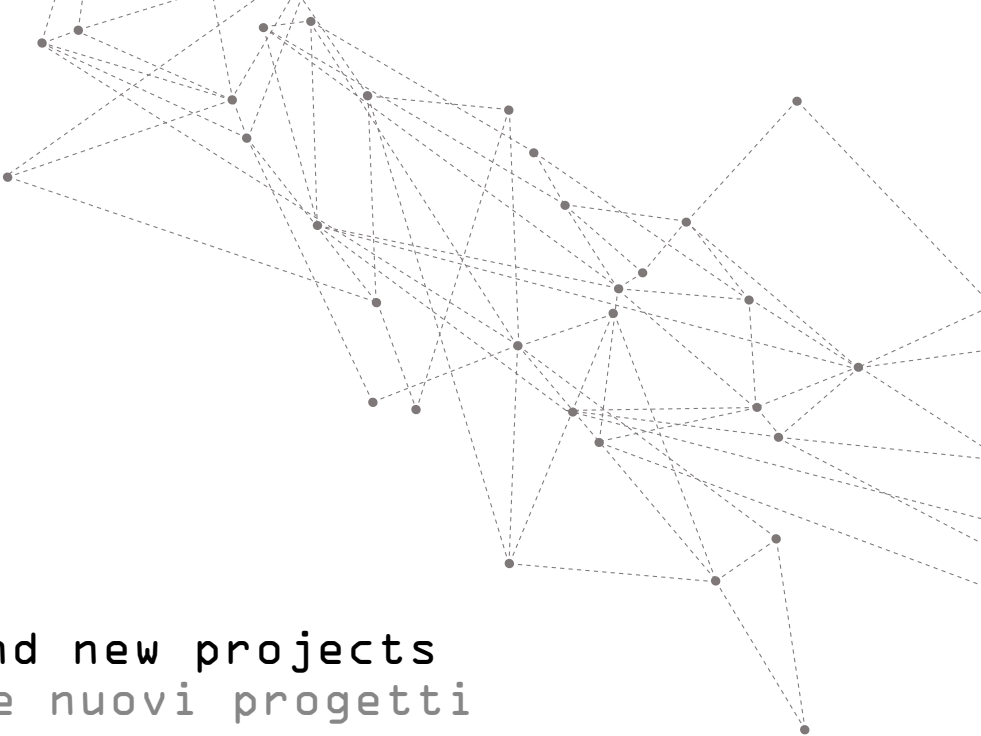
- Fincantieri ACE Marine (Green Bay , Wisconsin), specialized in the construction of small and medium-sized aluminum boats for the US Coast Guard and builder of the Response Boat-Medium.

In the EAU the Etihad Ship Building joint venture acts mostly as a prime contractor or sub-contractor for the refitting and maintenance of naval vessels operating in the Persian Gulf. In addition to this, it is capable of carrying out activities of construction, logistic support, training and technology transfer.

- Fincantieri ACE Marine (Green Bay , Wisconsin), specializzato nella costruzione di imbarcazioni in alluminio di piccole e medie dimensioni per la Guardia Costiera statunitense e costruttore dei Response Boat-Medium.

Negli Emirati Arabi Uniti la JV Etihad Ship Building opera prevalentemente come prime o sub-contractor nel refitting e nella manutenzione delle unità militari operanti nel Golfo Persico. E' inoltre in grado di svolgere attività di costruzione, supporto logistico, formazione e trasferimento tecnologico.





products and new projects
prodotti e nuovi progetti



— Aircraft Carrier Cavour

Length overall.....	244.00 m
Length between perpendiculars.....	215.60 m
Moulded breadth.....	39.00 m
Full load displacement.....	28 100 t
Flight deck.....	232.60 x 34.50 m
Hangar.....	134.20 x 21 m
NBC Protection	
Aviation facilities for AV-8B / JSF and EH101 / AB212 / NH 90 / SH3D	
AVIO/GE LM2500 Gas Turbines (COGAG)	
Max Continuous Power.....	4 x 22 MW
Fincantieri Feathering CP propellers.....	2
Max sustained speed (85 % MCR).....	> 29 kn
Range at 16 kn.....	7 000 nm
Crew.....	1 202 + 90 people

AUXILIARY SYSTEMS

6 Generating sets 2200 kW each	Bow and stern thrusters
2 Shaft generators 2200 kW each	Stern and side ramp
2 Rudders	2 Aircraft lifts (forward and stb. aft)
2 Couples active-fin stabilizers	4 Landing crafts (LCVP)



— AAW Destroyers Andrea Doria Class

Length overall.....	152.87 m
Length between perpendiculars.....	141.70 m
Beam.....	20.30 m
Depth.....	11.80 m
Full load displacement.....	7 050 t
Max speed.....	29 kn
Range at 18 kn (Diesel mode).....	7 000 nm
Crew.....	230 people

ENERGY AND PROPULSION SYSTEMS

CODOG type propulsion system with 2 x 20.5 MW GT, 2 x 4.32 MW DDEE and 4 x 1.6 MW DDGG	
Feathering C.P. Propellers	
Stabilizer.....	4 active fins



_ FREMM Frigates Bergamini Class

Length overall..... 144.00 m
Length between perpendiculars..... 132.50 m
Max breadth 19.70 m
Full load displacement..... abt. 6 500 t
Max continuous speed (GT mode)..... ≥27 kn
Max continuous speed (Electric mode) 16 kn
Range at 15 kn..... 6 000 nm
Endurance..... 45 days
Crew (total) 145 (200) people

ENERGY AND PROPULSION SYSTEM
Propulsion System CODLAG with 1 x 32 MW GT and 2 x 2.2 MW EPM
Electrical Generating System 4 x 2.1 MWe DD/GG
Propellers 2 FCPP

HELO CAPABILITIES
Flight deck and 2 hangars for EH101/NH90



_ Corvette C.te Cigala Fulgosi Class

Length overall.....88.40 m
Length between perpendiculars.....80.00 m
Max breadth12.20 m
Full load displacement.....1 520 t
Max sustained speed.....> 25 kn
Range at 14 kn.....3 500 nm
Crew70 people

ENERGY AND PROPULSION SYSTEM
• 2 MMEE W18 V 26XN and 3 DDGG IF 1712 T2 ME - 900 kW each
• 2 Rudders, 2 Active-fin stabilizers

HELO CAPABILITIES
Stability and buoyancy according to Italian Navy Std.
Flight deck and retractable hangar for AB 212/NH 90
Control and reduction of RCS and IR signatures



_ LCS Littoral Combat Ship

Sprint speed..... >40 kn
Length overall..... 115.30 m
Max breadth 17.50 m
Draft 4.10 m
Displacement..... abt. 3 200 t
Range sprint >1 000 nm
Range cruise..... >3 500 nm
Crew50 people

PROPULSION PLANT
Twin CODAG arrangement (2 RR MT30 36MW Gas Turbines + 2 Diesel Engines)

ELECTRICAL POWER PLANT
4 IF V1708C2ME Diesel Generators

PROPULSORS
4 RR Water Jets (2 Steerable/Reversing + 2 Fixed Boost)



_ Multirole Corvette

Length overall.....107.00 m
Length between perpendiculars.....99.80 m
Beam.....14.40 m
Depth.....8.60 m
Design displacement..... 2 800 - 3 000 t
Speed (max/range)28 / 15 kn
Range3 500 nm
Endurance..... 21 days
Crew 95-110 people

ENERGY AND PROPULSION SYSTEM
Propulsion system.....CODAD (4 x DE / 2x FCPP)
Generating sets4

HELO CAPABILITIES
Flight deck for NH90 type helicopters



_ Multipurpose Offshore Patrol Vessel

Length overall..... abt. 143.00 m
Length between perpendiculars.....133.00 m
Beam.....16.50 m
Depth.....10.50 m
Speed (max/range)32/15 kn
Range5 000 nm
Endurance..... 30 days
Crew 171 people

ENERGY AND PROPULSION SYSTEM
Propulsion.....CODAG CC (2 x DE + 1 TAG/ 2 x FCPP)
Generating sets 4 + 2 Shaft generators/Electric Motors

HELO CAPABILITIES
Flight deck for SH90 or EH101
Hangar for 2 SH90 or 1 EH101



_ Corvette Abu Dhabi Class

Length overall.....88.40 m
Length between perpendiculars.....80.00 m
Moulded breadth12.20 m
Moulded depth.....8.20 m
Design displacement.....1 620 t
Max speed at 100% MCR..... ≥25 kn
Cruising speed.....14 kn
Range at 14 kn.....3 000 nm
Endurance..... 20 days
Crew70 people

ENERGY AND PROPULSION SYSTEM
Main diesel engines..... 2 x 7 000 kW

HELO CAPABILITIES
Flight deck and retractable hangar for Panther and Super Puma



— Offshore Patrol Vessel Dattilo Class

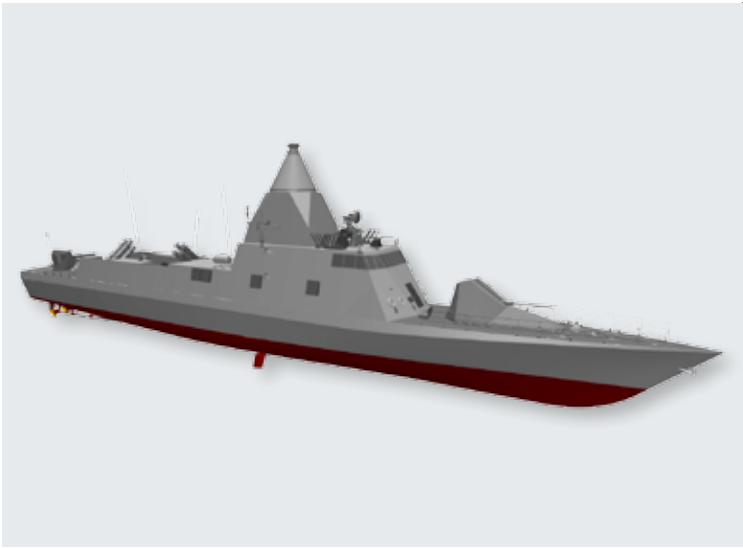
Length overall.....	94.50 m
Length between perpendiculars.....	80.00 m
Moulded breadth	16.60 m
Max breadth	20.50 m
Design depth.....	8.50 m
Full load displacement.....	abt. 3 600 t
Cruising speed.....	abt. 13 kn
Max continuous speed.....	17 kn
Range at 13 kn.....	abt. 3 000 nm
Complement/technicians	20 + 30 people
Rescued	60 people

ENERGY AND PROPULSION SYSTEM

Propulsion system.....	CODLOD
Main engines	2 x GE 12V228 2 289 kW

HELO CAPABILITIES

Flight deck for AB412 or AW139



— Fast Attack Craft 67m

Length overall.....	67.00 m
Length between perpendiculars.....	62.40 m
Beam.....	9.40 m
Depth.....	5.50 m
Design displacement.....	710 - 760 t
Speed (max/range)	27 / 14 kn
Range	1 500 nm
Endurance.....	14 days
Crew	25 - 30 people

ENERGY AND PROPULSION SYSTEMS

Propulsion system.....	4 x DE / 4 x FCPP
Generating sets	3 + 1 Emerg.

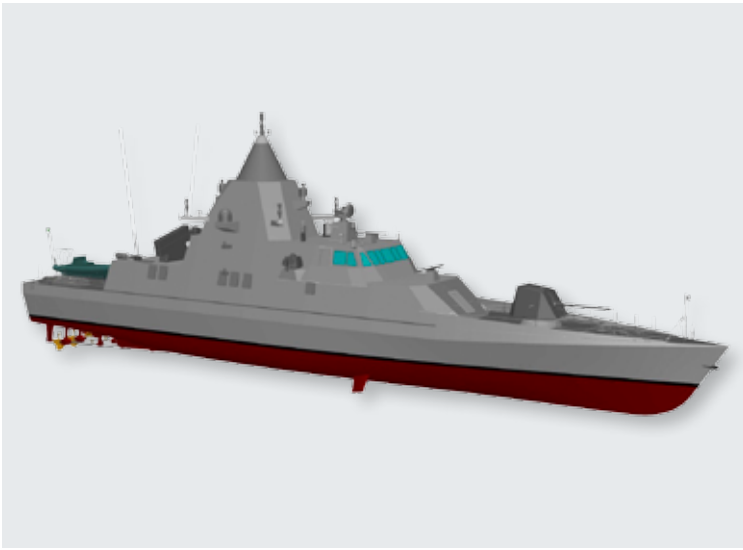


— Offshore Patrol Vessel Sirio Class

Length overall.....	88.60 m
Length between perpendiculars.....	80.00 m
Max breadth	12.20 m
Depth.....	8.20 m
Full load displacement.....	1 580 t
Max continuous speed.....	≥ 22 kn
Range at 17 kn.....	abt. 3 300 nm
Crew	70 people

ENERGY AND PROPULSION SYSTEMS

2 DDEE W12 V 26XN 4 320 kW and 3 DDGG - 750 kVA	
Rudders	2
Feathering C.P. propellers	2
Stabilizers	2 active fins



— Fast Attack Craft 60m

Length overall.....	60.00 m
Length between perpendiculars.....	58.00 m
Beam.....	9.00 m
Depth.....	5.50 m
Design displacement.....	600 - 650 t
Speed (max/range)	30 / 15 kn
Range	1 500 nm
Endurance.....	14 days
Crew	25 - 30 people

ENERGY AND PROPULSION SYSTEMS

Propulsion system.....	4 x DE / 4 x FCPP
Generating sets	3 + 1 Emerg.



— Stealth Attack Craft

Length overall.....	55.00 m
Length between perpendiculars.....	50.50 m
Moulded breadth	8.60 m
Moulded depth.....	5.50 m
Full load displacement.....	abt. 520 t
Max speed	≥ 20 kn
Range at 14 kn.....	1 500 nm
Crew	28 people

ENERGY AND PROPULSION SYSTEMS

Main engines	2 MTU 16V 4 000 M90
Max continuous rating (ISO cond.).....	2 x 2 720 kW
Diesel generators	4
Propellers	2 FCPP



— Saettia MK2

Length overall.....	52.80 m
Length between perpendiculars.....	47.20 m
Moulded breadth	8.10 m
Moulded depth.....	5.40 m
Full load displacement.....	427 t
Max speed	31 kn
Range at 16 kn.....	over 1 800 nm
Crew	29 people

ENERGY AND PROPULSION SYSTEM

4 DDEE (2 360 kW each) and 3 DDGG (208 kW each)	
Rudders	2
Propellers	4 controllable pitch
Bow thruster	1
Emergency generator.....	1



_ Saettia MK4 Class

Length overall.....	53.40 m
Length between perpendiculars.....	47.20 m
Moulded breadth	8.10 m
Depth.....	5.40 m
Full load displacement.....	401 t
Max speed.....	23 kn
Range at 16 kn.....	2 100 nm
Crew	38 people

ENERGY AND PROPULSION SYSTEM

Propulsion.....	2 DDEE (2 360 kW each) and 3 DDGG (208 kW each)
Emergency generator.....	1
Propellers	2 controllable pitch
Fin stabilizer	1 couple
Bow thruster.....	1
Interceptor (GFE)	1



_ LPD Enhanced San Giusto Class

Length overall.....	142.90 m
Length between perpendiculars.....	127.60 m
Breadth	21.50 m
Depth to flight deck	16.20 m
Full load displacement.....	abt. 8 800 t
Main diesel engines.....	2 x 6 000 kW
Maximum speed	20 kn
Range at 15 kn	7 000 nm
Crew	152 + 450 transported people

ENERGY AND PROPULSION SYSTEM

Main diesel engines.....	2 x 6 000 kW
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HELO CAPABILITIES

Flight deck with 2 landing spots for EH101 and 2 take-off for EH101 & Super Lynx-type helicopters	
Hangar	recovery of Super Lynx helicopters type
Hangar/Garage deck	up to 465 m (garage + fore area of flight deck)
Hospital area	abt. 250 m²
Floodable dock	abt. 20.50 x 7 m
Vehicle ramps	1 stern + 1 side



_ LHD Landing Helicopter Dock

Length overall.....	245.00 m
Length between perpendiculars.....	213.40 m
Beam at flight deck	36.00 m
Depth.....	27.70 m
Speed (max/range)	25/16 kn
Range	7 000 nm
Endurance.....	30 days
Crew + transported personnel.....	1064 people

ENERGY AND PROPULSION SYSTEM

Propulsion.....	CODOG (2 x DE + 2 TAG and 2 EM up to 10 knots/2 x FCPP)
Generating sets	4 + 2 Shaft generators



_ LSS Logistic Support Ship

Length overall.....	179.00 m
Length between perpendiculars.....	164.90 m
Beam.....	24.00 m
Depth.....	16.30 m
Speed (max/range)	20/16 kn
Range	7 000 nm
Endurance.....	30 days
Crew	180-200 people

ENERGY AND PROPULSION SYSTEM

Propulsion.....	CODLAD (2 x DE + 2 EM/2 x FCPP)
Generating sets	4 + 2 Shaft generators + 1 Emerg.

HELO CAPABILITIES

Flight deck for NH90 or EH101	
Hangar for 2 EH101	



_ LHD 20 000 t

Length overall.....	190 m
Length between perpendiculars.....	167 m
Max breadth	33 m
Full load displacement.....	20 000 t
Operational speed	20 kn
Range at 16 kn.....	7 000 nm
Crew	200 + 750 troops

ENERGY AND PROPULSION SYSTEM

Propulsion	MMPP 2 x 11 000 kW + 2 x 6 500 kW and DDGG sets 4 x 2 500 kW
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HELO CAPABILITIES

Flight deck	up to 6 helicopters EH-101 type
Helicopters hangar.....	up to 6 EH-101 type
Vehicle deck capability	up to 1 200 metric lanes
Hospital area	abt. 1 000 m² plus 1 000 m² of convertible areas
Floodable dock	abt. 50 x 15 m
Vehicle ramps	1 stern + 1 side



_ Fleet Tanker 27 500 t

Length overall.....	175.00 m
Length between perpendiculars.....	162.70 m
Moulded breadth	25.00 m
Depth to flight deck (Deck 01).....	19.30 m
Full load displacement.....	27 500 t
Ship mobile cargoes.....	2 100 t
Transported useful cargoes.....	15 760 t
Max speed at full load	20 kn
Range at 16 kn.....	10 000 nm
Crew + additional personnel	248 people

ENERGY AND PROPULSION SYSTEM

MCR of Propulsion diesel engines.....	2 x 9 600 kW
4 DD/GG sets	Eng. 1 600 kW - Gen. 1 500 kWe - 50 Hz each
1 Bow thruster driven by a 1 500 kW electric motor, 1 rudder	

HELO CAPABILITIES

Flight deck for landing of helicopters up to ALH or SK 42 C	
One hangar to recover either ALH or SK 42 C helicopter types	

Double hull, responding to the new MARPOL rules on environmental protection



— Submarine Rescue Diving Support Vessel

Length overall..... 131.50 m
Length between perpendiculars..... 126.80 m
Beam..... 23.00 m
Depth..... 9.00 m
Speed (max/range) 18/12 kn
Range..... 6 000 nm
Endurance..... 30 days
Crew..... 80-180 people

ENERGY AND PROPULSION SYSTEM

Propulsion..... 2 x ELE-AZ.TH.
Generating sets 6

HELO CAPABILITIES

Aviation facilities for helicopter EH-101, SH-90 and UAV



— MARPOL-compliant Oceanographic Vessel

Length overall..... 105.70 m
Length between perpendiculars 92.40 m
Beam..... 18.80 m
Depth..... 7.80 m
Design displacement..... 4 200 - 4 400 t
Speed (max/range) 14 kn
Range..... 9 000 nm
Endurance..... 45 days
Crew..... 25 - 80 people

ENERGY AND PROPULSION SYSTEM

Propulsion system..... 2x ELE-AZ.TH.
Generating sets 4 + 1 Emerg.



— Submarine U212A Todaro Class

Length overall 57.15 m
Length between perpendiculars..... 55.90 m
Max breadth (on P.H.)..... 7.00 m
Height overall (masts in) 11.875 m
Surface displacement (ready to dive)..... 1 509 t
Submerged displacement..... 1 720 t

Lead cells battery banks (two sub-batteries)
1 Synchronous motor with permanent magnet excitation
1 16 Cyl. Turbocharged diesel-generators set
A.I.P. System with 8 + 1 Fuel cell module
Low signature (acoustic, hydrodynamic, magnetic, radar, I/R)
Maximum surface speed..... 12 kn
Endurance at 8 kn on surface 8 000 nm
Maximum submerged speed >16 kn
Crew..... 27 people



— Hydrographic Survey Vessel

Length overall..... 94.00 m
Length between perpendiculars..... 80.00 m
Beam..... 16.60 m
Depth..... 8.50 m
Design displacement..... 3 400 - 3 600 t
Speed (max/range) 18 - 14 kn
Range..... 5 000 nm
Endurance..... 20 days
Crew..... 25 - 80 people

ENERGY AND PROPULSION SYSTEM

Propulsion system..... 2x DE / 2x FCPP
Generating sets 3 + 1 Emerg.



— Polar Research Vessel
IMR Norway - Kronprins Haakon

Length overall..... abt. 100.00 m
Length between perpendiculars..... abt. 84.80 m
Moulded breadth abt. 21.00 m
Full load displacement..... abt. 10 885 t
Icebreaking design draft abt. 7.80 m
Icebreaking maximum draft..... abt. 8.10 m
Maximum draft scantling..... abt. 8.65 m
Speed 15 kn
Range at 11-12 kn 15 000 nm
Crew 55 people
• Single cabins 21
• Double cabins 17

MAIN MACHINERY

• Azimuth thrusters aft..... 2 x abt. 5 000 kW
• MDGs..... 2 x abt. 4 300 bkW + 2 x abt. 2 900 bkW

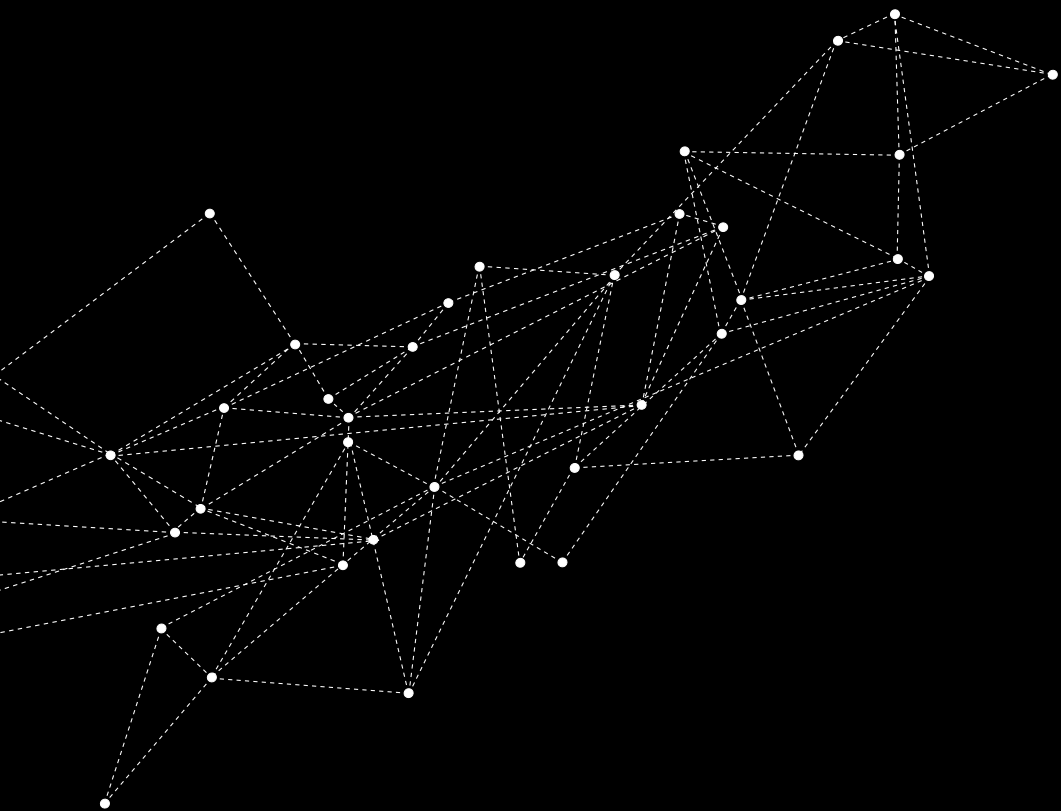


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