

EXECUTIVE SUMMARY

WHITE PAPER

MARITIME TECHNOLOGY IN EUROPE: A STRATEGIC SOLUTION PROVIDER FOR MAJOR SOCIETAL CHALLENGES

“Stimulating competitiveness, growth, innovation, employment and new markets to boost Europe’s global maritime technology leadership position”

SEA EUROPE’S VISION FOR 2030 AND BEYOND

TABLE OF CONTENT

INTRODUCTION.....	5
1. MARITIME TECHNOLOGY IN EUROPE: GLOBAL LEADERSHIP IN COMPLEX MARITIME PRODUCTS AT RISK	7
A sector that is economically important for Europe	7
Global leadership in complex maritime products	7
A global leadership at risk	7
2. MARITIME TECHNOLOGY: A STRATEGIC SECTOR FOR EUROPE.....	9
A strategic sector that contributes to Europe’s key policies and long-term ambitions	9
A strategic sector for Europe’s maritime cluster and Blue Economy	9
A strategic sector for Europe’s defence and security	9
3. THE URGENT NECESSITY OF A DEDICATED SECTORAL STRATEGY.....	11
No time for complacency	11
Horizontal versus sector-specific policies	11
EU shipping: An example of an EU sector-specific policy	12
The time for the EU to act in support of maritime technology is now	12
4. THE WAY FORWARD: AN ADEQUATE AND EFFECTIVE SECTORAL STRATEGY FOR MARITIME TECHNOLOGY.....	13
Pillar 1 Create adequate framework conditions for a true global level playing field.....	14
Pillar 2 Improve access to foreign markets in times of growing trade protectionism.....	17
Pillar 3 Facilitate Access to Finance	18
Pillar 4 Maritime technology: A solution provider for realising climate-neutrality and for untapping the promising potential of blue growth	20
Pillar 5 Stimulating employment, attracting competence and securing skills in a fast-changing (digital) world	22
Pillar 6 Reducing administrative burdens for maritime technology companies whilst maintaining maritime safety	23
Pillar 7 Enhancing Europe’s naval industry for the benefit of Europe’s defence and security	24

INTRODUCTION



Oceans and seas cover 71% of the Earth's surface, contain 97% of the Earth's water and are, therefore, key to mankind.

Europe is the most maritime of all continents. It has more sea than land mass and has one of the longest coastlines in the world. Almost half of the EU's population lives and works in maritime or coastal regions.

For Europe, the maritime sector and Blue Economy are vital. More than 80% of the EU's external trade and 40% of the EU's internal trade are carried by sea and EU shipping controls more than 40% of the world fleet. The Blue Economy not only generates an annual turnover of €566 billion and an added value of €174, billion but also creates jobs for nearly 3.5 million people. Both within the maritime sector and Blue Economy, Europe's shipyards and maritime equipment manufacturers (known as "maritime technology sector") are a core pillar.

1. MARITIME TECHNOLOGY: GLOBAL LEADERSHIP IN COMPLEX MARITIME PRODUCTS AT RISK

A sector that is economically important for Europe

Europe's maritime technology sector¹ comprises some 300 shipyards and more than 28,000 maritime equipment manufacturers and technology suppliers. The sector generates an aggregated production value of €114.8 billion². It represents 23.8% of the global maritime technology production value (€482.5 billion) and creates direct and indirect (mainly highly skilled) jobs for more than one million people³

in Europe. These jobs are often created in (remote) maritime regions and the sector thus contributes to the development of these regions. The production of the complex maritime products built and manufactured in Europe also requires an extensive and well-functioning supply chain network, involving many Small and Medium-Sized Enterprises (SME).

Global leadership in complex maritime products

After an almost complete loss of merchant shipbuilding (tankers, bulkers, containerships) – and partly offshore building – to Asia, Europe's shipyards became a global leader in complex shipbuilding, whilst Europe's maritime equipment industry has a global leadership in maritime equipment, systems and technologies, including high-tech products. Europe, furthermore, hosts the most advanced production sites in global maritime technology, which typically employ highly skilled people with technical or engineering

degrees or with a background in vocational education and training (VET).

This global leadership position is largely the result of the sector's creativity, specialisation and continuous investments in research, development and innovation (RDI). With an annual investment of 8-9% of its sales in RDI solutions, the maritime technology sector is amongst the highest RDI intensive sectors in Europe.

A global leadership at risk

Whilst the outlook of Europe's maritime technology sector looks positive at first sight, there is no room for complacency in Europe. The threats and risks coming from abroad are multiple and cannot be underestimated. In particular South Korea and China are targeting Europe's global leadership in complex maritime products.

or European – instruments for Europe's maritime technology sector have already resulted in an almost complete loss of Europe's merchant shipbuilding and partly offshore building. Without any adequate and effective policies, programmes and tools, there is a serious risk that Europe will also lose its global leadership in complex shipbuilding and (advanced) maritime equipment manufacturing.

The continuous lack of a global level playing field and the absence of any effective – international

1 Europe's maritime technology sector not only covers all enterprises involved in the design, building, maintenance, conversion, repair and retrofitting of civilian and naval ships, boats and other maritime platforms or structures, but also the complete supply chain of maritime systems, equipment, technologies and services, supported by research and educational institutions.

2 See BALance, "European Shipbuilding Supply Chain Statistics", May 2019. In contrast, the production value of SEA Europe members (16 EU Member States plus Norway and Turkey) amounts to €128.6 billion.

3 SEA Europe members employ appr. 660,000 employees (i.e. 8.3% more than the EU28). SEA Europe members include Norway and Turkey but no longer UK. See BALance, "European Shipbuilding Supply Chain Statistics", May 2019.

2. MARITIME TECHNOLOGY: A STRATEGIC SECTOR FOR EUROPE

As one of the core pillars of the maritime sector and Blue Economy⁴, maritime technology is a strategic sector for Europe:

A strategic sector that contributes to Europe's key policies and long-term ambitions

The maritime technology sector has enabled the EU to achieve the goals of the Europe2020 Strategy of Smart, Sustainable and Inclusive Growth. The sector also contributes to achieving and implementing other key EU policies and long-term ambitions, such as Climate Change, Blue Economy, Energy Union, EU Cohesion Policy, or EU Mobility Policy. The complex and innovative maritime products built or manufactured in

Europe have made shipping, ports and logistics smarter, safer, more secure and more environmental-friendly and will remain key in transforming the maritime sector into a climate neutral mode of transport and thus in making the EU a climate neutral society by 2050. These products are also instrumental in helping the EU to untap the promising potential of its Blue Economy.

A strategic sector for Europe's maritime cluster and Blue Economy

Europe's shipyards build ships that transport goods, passengers and tourists – both in Europe and worldwide – and connect Europe's maritime regions, including its peripheral regions. Europe's maritime equipment manufacturers produce maritime equipment, systems and technologies, including high-tech products, that have contributed to improving maritime safety and security and to making European and global shipping more environmental,

climate and energy-friendly. These maritime products also enable the EU to control access to oceans and seas, trade lanes, marine resources, energy sources, food supplies, offshore and other Blue Economy activities. More than ever before, this control is vital for geo-political and geo-strategic reasons, particularly in times of growing international tensions and increased protectionism.

A strategic sector for Europe's defence and security

Navy ships, coastguard and other public vessels built in Europe and (complex) naval systems, equipment and technologies manufactured in Europe enable the navies and coastguards of Member States to guarantee the EU's defence and security, to protect coastal and maritime regions and to control access to trade lanes, marine resources or Blue Economy activities. These products also contribute to the EU's Common Security and Defence Policy (CSDP), allow the EU to participate in peace-keeping operations, conflict prevention or in combatting ship piracy, and are important assets in fisheries inspections, salvage operations, anti-pollution actions or research activities. Furthermore, innovative naval products are relevant for developing

innovative commercial products and vice versa (so-called "dual-use technologies"). Since many naval products are state-owned, they are often subject to strict public procurement rules. Last but not least, Europe's naval shipyards are global leaders in naval shipbuilding and in the export of naval ships.

The strategic dimension of the maritime sector has been of all times. It was already acknowledged by Themistocles (524-459 B.C.) in ancient times, when he said: "Whoever controls the sea, controls everything". Like other foreign nations, Europe should acknowledge once again the strategic dimension of the maritime technology sector and reflect it in all EU policies, programmes and tools.

⁴ The Blue Economy consists of a variety of activities, such as ocean energy, aquaculture and seabed mining.

3. THE URGENT NECESSITY OF A DEDICATED SECTORAL STRATEGY

No time for complacency

Whilst Europe's maritime technology sector looks in a good shape at first sight, the sector cannot be complacent and underestimate the serious and multiple threats coming from abroad:

- **Targeting Europe's global leadership in complex maritime products:** South Korea and China in particular have identified Europe's complex shipbuilding and advanced maritime equipment manufacturing as markets for themselves (e.g. "Made in China 2025"). To that end, they apply dedicated sectoral strategies and programmes, which – unlike the European mindset – contain a "toolbox" of government-led policies, massive state aid (including operational aid and rescue aid for non-profitable companies or activities), other financial incentives, unfair trade practices and, more recently, the creation of big conglomerates ("national champions"). This toolbox has already helped them to conquer successfully Europe's merchant shipbuilding and partly offshore building. Once again, this toolbox pays off since the local shipyards in South Korea and China survived the deepest crisis in merchant shipbuilding and offshore building and recent orders for newbuilt ships, in particular for ferries and LNG-fuelled ships – including from European shipowners – are now massively ordered and built in China and/or South Korea.
- **Growing trade protectionism hampering Europe's maritime technology sector:** Europe's maritime technology companies doing business abroad are increasingly confronted with new or additional trade barriers, which stimulate the local industry to the detriment of European companies. Moreover, many European companies feel the negative consequences of recent trade wars. At the same time, Europe still has an open market policy towards foreign (non-EU) companies, allowing them to trade freely in the Internal Market, to buy European companies, to sell foreign products in Europe or to receive financial incentives from Europe. Hence, whilst European maritime technology companies face increasing difficulties to do business overseas, foreign (non-EU) companies can still do business freely in Europe.

Horizontal versus sector-specific policies

Unlike foreign countries, Europe does not apply sector-specific policies and programmes to stimulate its local maritime technology industry. Instead, Europe only applies "horizontal policies" to shipyards and maritime equipment manufacturers, which do not reflect the sector-specific characteristics that distinguish them from other industries⁵. Another shortcoming is the lack of consistent policy application along value chains.

The EU's current horizontal policies do not offer effective means allowing Europe's shipyards and maritime equipment manufacturers to combat the negative consequences of fierce and unfair

competition or to cope with the sector's many challenges, threats, needs and opportunities. The absence of a sector-specific policy and effective means explains why European shipyards were unable to stop the transfer from merchant shipbuilding and partly offshore building to Asia.

In doing so, Europe has not only helped European shipping companies to become competitive again. It has actually also financially supported the growth of foreign shipbuilding countries, mainly in South Korea and China, who themselves in fact already benefitted directly from massive local governmental aid.

5 Europe's maritime technology sector is one of the most research, innovation and capital-intensive industrial sectors, with the building of a cruise ship being one of the most complex industrial manufacturing processes. Ships are, furthermore, rarely built in big quantities (they are rarely produced in series).

EU shipping: An example of an EU sector-specific policy

Unlike for European maritime technology, the EU introduced sector-specific measures (e.g. tonnage tax) for European shipping in 1997, based on the Community Guidelines on State Aid to Maritime Transport⁶. These Guidelines offered substantial financial benefits to European shipping, enabled European shipping companies to regain their global competitiveness and facilitated a reflagging of the fleet under European flags or registers. Because of their success for European shipping, the Guidelines were renewed in 2004 and 2012/2013.

Apart from these Guidelines, European shipping companies also benefit from other EU financial incentives, without any obligation for a return

on investment to the EU (e.g. European shipping companies can receive EU funding to build new ships or to retrofit existing ships but are not obliged to build or retrofit them in Europe even though the vessel(s) are meant to operate solely in EU waters). In contrast, European shipyards and maritime equipment manufacturers do not enjoy any such forms of support or benefits.

In doing so, Europe has not only helped European shipping companies to become competitive again. It has actually also financially supported the growth of foreign shipbuilding countries, mainly in South Korea and China, who themselves in fact already benefitted directly from massive local governmental aid.

The time for the EU to act in support of maritime technology is now

If Europe wants to safeguard its own defence and security, keep control over its seas, maritime regions, trade lanes or Blue Economy activities (thus maintain its own independence) and safeguard its global leadership in complex maritime products, whilst stimulating a possible return of some lost markets or new promising activities, it should change its policy of “horizontal policies” by means of “adequate, effective and sector-specific policies, programmes, tools and strategies”. These policies, programmes, tools and strategies should fully reflect the sector-specificities of maritime technology and enable the sector to cope with its many challenges, threats, needs and opportunities. The approach

from foreign shipbuilding nations as well as from European shipping have evidenced the clear benefits of a sector-specific approach.

However, in the light of aggressive state-led policies (mainly from Asia), trade wars and growing trade protectionism, it is now time for the EU to act in support of maritime technology! This level of urgency was already acknowledged in a study for the European Commission in October 2017, which concluded that “The next 10 years will determine whether Europe’s maritime technology sector can survive and grow or will decline and fail”⁷.

⁶ The Community Guidelines on State Aid to Maritime Transport were prolonged twice, with some modifications, in respectively 2004 and 2012/2013.

⁷ “New Trends in Globalisation in Shipbuilding and Marine Supplies: Consequences for European Industrial and Trade Policy”, carried out by BALance Technology Consulting on behalf of the European Commission (published in October 2017).

4. THE WAY FORWARD: AN ADEQUATE AND EFFECTIVE SECTORAL STRATEGY FOR MARITIME TECHNOLOGY

To support the survival and growth of the maritime technology sector, the EU will need to change its policy of “horizontal policies” by means of “adequate and effective sector-specific policies, tools, programmes and strategies”. This sector-specific approach will need to fully take

into account the specificities of the maritime technology sector and enable this sector not only to play its role as solution provider for major societal challenges (e.g. climate change and Blue Economy) but also to cope properly with its many challenges, threats, needs and opportunities.

To that end, SEA Europe urges the European Commission and Member States to:

- Recognise maritime technology as a strategic sector for Europe.
- Adopt a holistic and coherent dedicated sectoral strategy, with effective and concrete policies and financial tools, allowing the sector to cope with its global and societal challenges, whilst harvesting the benefits from emerging opportunities.
- Support a consolidation of Europe’s current global leadership in complex shipbuilding and in advanced maritime equipment manufacturing.
- Enhance the (political) visibility of the maritime technology sector, either through a “European Maritime Co-ordinator” or through a co-ordinating European Commission service.

In concrete, SEA Europe calls for the adoption of a holistic and coherent sector-specific strategy for the maritime technology sector, which consists of adequate, effective and concrete policies, tools and programmes in support of the survival and growth of the sector. **This strategy should be based on 7 pillars.**



Create adequate framework conditions for a true global level playing field

Because ships are not “imported for resale”, contrary to most other manufactured goods, global shipbuilding has suffered from a unique lack of applicable and effective trade rules. The absence of a global level playing field has been a key characteristic of global shipbuilding for decades. It explains why Europe could not stop an almost complete loss of merchant shipbuilding

and partly offshore building from Europe to Asia.

To avoid a repetition of merchant shipbuilding and partly offshore building, the European Commission should take urgent actions – **both at international and European level** – aiming at creating adequate framework conditions for a true global level playing field.

ACTIONS AT INTERNATIONAL LEVEL

The EU should put political pressure on foreign nations to close the current legal loopholes for maritime technology in the existing trade defence instruments, e.g. through a reform of the WTO-rulebook and/or through other plurilateral channels. This is particularly important because the existing (horizontal) trade defence measures imposed at the border – like “antidumping duties” – are either not applicable or impracticable in shipbuilding. In concrete, the EU should take 5 actions:

ACTION ① : AMEND THE WTO ANTI-SUBSIDY RULES.

The European Commission should push to amend the current rules in order to tackle the most fundamental trade and competition distortions that adversely impact on the sector. In concrete, the EU should aim at broadening the notion of

“prohibited subsidies”, tackling effectively unfair practices from “State-directed companies or State-owned companies (SOEs)” and enhancing “Transparency of subsidies”.

ACTION ② : TACKLE INJURIOUS PRICING PRACTICES IN SHIPBUILDING.

The European Commission should push in all relevant international fora, including the WTO, for the negotiation of an international legally binding

and enforceable sector-specific instrument to tackle injurious pricing practices in shipbuilding.

ACTION ③ : ADDRESS FORCED TECHNOLOGY TRANSFERS AND INVESTMENT BARRIERS.

The European Commission should push to update the WTO rulebook so as to solve forced technology transfers and investment barriers imposed through any market access barriers for

foreign companies, any discriminatory treatment of foreign investors, and any “behind the border” distortions.

ACTION ④ : MAKE PROGRESS ON SERVICES LIBERALISATION.

The EU should explore alternative ways to liberalise services, including those supplied by the maritime technology sector (e.g. ship design, repair, maritime engineering/consulting), either

by relaunching the “Trade in Service Agreement” (TiSA) negotiations or by starting discussions on another – more comprehensive – agreement.

ACTION 5 : OPEN-UP PUBLIC PROCUREMENT MARKETS.

The European Commission should push for an opening-up of public procurement markets, by making market access in the EU conditional upon reciprocity and transparency in public procurement. The European Commission should also push for a reform of the international rules under the “Government Procurement

Agreement” (GPA) to enhance tools to disallow discriminatory “Buy-in” practices and to achieve the greatest possible extension of its coverage amongst all parties on the basis of mutual reciprocity.

ACTIONS AT EU LEVEL

The EU should introduce adequate and effective domestic legal and financial measures to safeguard the continuation of shipbuilding and maritime equipment in the EU and – simultaneously – build up “leverage” for successful negotiations on effective sectoral rules at the international level. To that end, the following 7 actions are necessary:

ACTION 1 : STRICTLY APPLY THE PRINCIPLE OF “RECIPROCITY”

to any foreign maritime technology companies doing business in the internal market and to any foreign States not offering the same market access to EU maritime technology companies. In addition, **EU government-financed R&D cooperation with third countries should be phased-out** as long as third countries maintain their policies of indigenous development, forced

joint-ventures, forced transfer of technology, etc. Finally, EU Member States should **strictly apply the principle of reciprocity in foreign (direct) investment**, e.g. by making full use of Regulation (EU) 2019/452 establishing a framework for the screening of foreign direct investments into the Union.

ACTION 2 : ADOPT A UNILATERAL TRADE DEFENCE INSTRUMENT AGAINST INJURIOUS PRICING PRACTICES IN SHIPBUILDING.

The elements for such instrument can be inspired by the principles of Regulation (EU) 2016/1035 on

“Protection against injurious pricing of vessels”.

ACTION 3 : ENFORCE THE PRINCIPLE OF “DUE DILIGENCE”.

The European Commission, its Agencies and Member States should check the existence of injurious pricing or below-cost pricing; any violations of standards, legislation, and intellectual property rights; any breaches of trade agreements; and any risk of competitive distortions. This principle should at least apply to foreign maritime technology companies doing business in Europe, to vessels trading into EU waters and to vessels entering into EU

ports but built outside Europe or equipped with foreign-manufactured equipment, systems and technologies. It should also be applied to any public funding programme; public financing or other incentives granted in Europe. In this respect, the principles of the EU’s ship recycling regime⁸, comprising a list of EU-approved shipyards that are allowed to scrap EU flagged vessels, can be applied mutatis mutandis to shipbuilding.

8 Regulation (EU) No 1257/2013 of the European Parliament and of the Council of 20 November 2013 on ship recycling and amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC

ACTION 4 : MAKE EU PUBLIC FUNDING CONDITIONAL UPON EU RETURN ON INVESTMENT.

The EU should stop granting EU public money, subsidies and/or any other financial measures and incentives, including fiscal and social alleviations, to newbuilding projects taking place outside the EU, to projects aiming at replacing older vessels by new ships built outside the EU or to projects aiming at equipping vessels with non-EU manufactured equipment, systems and technologies, when these projects are carried

out in third countries but do not respect fair competition, fair trade rules and standards and do not create added value and employment in Europe. In addition, the EU should establish a “European 50% local content safeguard”, along the lines of the possibility set out in Article 85 of Directive 2014/25/EU⁹, for EU-funded maritime projects.

ACTION 5 : NEW PUBLIC PROCUREMENT RULES IN SUPPORT OF EUROPE’S MARITIME TECHNOLOGY SECTOR.

The negotiations on the “International Procurement Instrument” should be resumed and finalised in order to create sufficient

“leverage” to push non-EU countries to open their public procurement markets.

ACTION 6 : MEASURES TO REGAIN COMPETITIVENESS IN LOST MARKETS.

The European Commission should start a dialogue with the maritime technology sector to consider the feasibility and/or appropriateness of concrete measures to make European shipyards competitive again, including in certain lost market

segments (e.g. tankers, bulkers, containerships for short sea trades); to stimulate the maritime technology sector to get involved in fleet renewal programmes and to make the sector ready when new market openings may arise.

ACTION 7 : USE ALL AVAILABLE TOOLS TO FOSTER TRANSPARENCY AND ENFORCE LEVEL PLAYING FIELD.

The European Commission should insist that third countries, in particular South Korea and China, provide full transparency on their state support measures to local shipyards so as to scrutinise their full impact and to assess any possible violations of applicable trade law obligations, in which case the European Commission should act. In parallel, the EU must enhance its “in-house” monitoring and economic intelligence capabilities to better detect – jointly with the maritime

technology industry – the most hidden and non-transparent cases of trade distorting behaviours from third country shipbuilding nations. To that end, the European Commission should task a dedicated Unit with coordinating a market and government support monitoring activity focused on the maritime technology sector, as it was the case in the early 2000s¹⁰, and publish its results on a periodic basis.

9 Article 85 of Directive 2014/25/EU (“Utilities Directive”) allows contracting authorities to reject any tender submitted for the award of a supply contract where the proportion of the products originating in third countries exceeds 50 % of the total value of the products constituting the tender. This is a concrete, already actionable way to promote growth and secure jobs in the EU, as many third countries already do.

10 Council Regulation 1540/98 (repealed) obliged the European Commission to present to the Council annual reports on the world shipbuilding market situation. The European Commission adopted six reports on a period basis, which included detailed cost investigations for shipbuilding orders awarded to Asian yards.



Improve access to foreign markets in times of growing trade protectionism

To improve access to foreign markets, especially in times of growing protectionism, the European Commission and Member States should take the following 3 concrete actions:

ACTION 1 : ACT AGAINST TRADE PROTECTIONISM ADVERSELY IMPACTING ON EUROPE'S MARITIME TECHNOLOGY SECTOR, WHILST EXPLORING NEW TRADE OPPORTUNITIES FOR THE SECTOR.

The European Commission and Member States should press hard – in all relevant fora – for fair competition and fair trade in global maritime technology and for a proper enforcement of these principles, e.g. through a better enforcement of treaty law obligations in existing bilateral Free Trade Agreements (e.g. in the EU/South Korea FTA). The EU should also respond adequately with similar measures against foreign companies and States applying such requirements against European maritime technology companies. In addition, the European Commission should ensure that there is full transparency of

regulations and government measures in third countries, robust IPR protection enforcement regimes and effective reciprocity in the treatment of investments and public procurement. Finally, the European Commission should identify opportunities for new Free Trade Agreements and for joint European initiatives to strengthen export activities and to facilitate access to new emerging markets, including offshore and Blue Economy markets in, for instance, South-East Asia, Gulf countries (Middle East), Brazil and India.

ACTION 2 : EXPLOIT THE FULL POTENTIAL OF FREE TRADE AGREEMENTS (FTAS).

Concluding more FTAs with foreign nations will offer more and promising business opportunities to European maritime technology companies and should therefore be fully exploited in very specific areas (e.g. the phasing out of industrial

tariffs for machinery, equipment and electronics or provisions prioritising trade liberalisation in green or climate friendly maritime products). In these areas, the principle of reciprocity should be strictly applied.

ACTION 3 : OPEN-UP THE US MARKET FOR SHIPYARDS AND MARITIME EQUIPMENT,

in particular by deleting the “US-built requirement” in the Jones Act or by amending the Buy American Act. In addition, the European Commission should reopen talks with the US government on a (at least partial) relaxing of the US Jones Act, starting from the lifting of the existing restrictions for supplying European manufactured maritime equipment to US Jones Act vessels and for European yards to carry

out ship repair and conversion activities on these vessels. Furthermore, the EU negotiators should broaden the EU-US Mutual Recognition Agreement (MRA) in order to simplify conditions for maritime equipment manufacturers wishing to obtain the US Coast Guard (USCG) type approval, ease the administrative burdens and costs in the form of fewer tests and certifications.

Pillar 3 Facilitate Access to Finance

The EU should support European maritime technology companies in finding more easily access to construction financing and guarantees and enable them to invest in promising projects, including start-ups. Such approach would, at least partly, bridge the competitive gap with primarily Asian competitors. To that end, the European Commission should take the following 12 actions:

ACTION 1 : STRIVE FOR A GLOBAL LEVEL PLAYING FIELD ON ACCESS TO FINANCE.

The European Commission should thereby take into account international developments (e.g. massive financial support from Asian state-owned companies to local shipyards) or the rise of new forms of finance. This includes the

creation of new, legally binding international instruments to tackle distortive practices, including preferential financing inconsistent with market-based conditions.

ACTION 2 : SECURE THE CONCLUSION OF AN AMBITIOUS AND EFFECTIVE INTERNATIONAL DISCIPLINE ON EXPORT CREDITS FOR SHIPS.

ACTION 3 : DEVELOP FINANCIAL INSTRUMENTS FOR DOMESTIC CUSTOMERS, WHO ARE NOT COVERED BY EXPORT CREDIT SCHEMES DURING THE SHIP CONSTRUCTION PERIOD.

The EIB should play a greater role in making its financing tools available for shipbuilding as well (e.g. through loans for the ship construction phase and/or guarantees). Furthermore, a revolving EIB-guarantee fund for shipyards, providing lines

of guarantees to cover both down-payments and interim payments from shipowners during the ship construction phase, would enhance the competitiveness of European shipyards.

ACTION 4 : STRENGTHEN, ALSO WITH ADDITIONAL BUDGET AND RESOURCES, TOOLS CURRENTLY BEING PILOT IMPLEMENTED

(such as the European Green Shipping Guarantee), by ensuring a wider roll-out and scope, awareness, and easier access, and by

promoting their use to stimulate activity for the maritime technology sector.

ACTION 5 : STUDY THE INTRODUCTION IN EUROPE OF DEDICATED FUNDS TO SUPPORT DIRECTLY THE EFFORTS FROM EUROPEAN MARITIME TECHNOLOGY COMPANIES.

Such study should improve the greening of shipping (both existing ships and newbuilt vessels), without requiring these shipyards or

maritime equipment manufacturers and service providers to take any additional risks.

ACTION 6 : PROMOTE AND INCENTIVISE – THROUGH EXISTING FINANCING PROGRAMMES FOR SHIPOWNERS (E.G. CONNECTING EUROPE FACILITY) – A BETTER RETURN ON INVESTMENT IN EUROPE

e.g. by establishing a “European 50% local content safeguard”, along the lines of Article 85 of Directive 2014/25/EU, for EU-funded maritime projects; by introducing conditionality criteria and incentives to support European

shipyards and equipment manufacturers and by making the “creation of European added value” a mandatory eligibility and selection criterion for any maritime project seeking EU co-funding.

ACTION 7 : RAISE AWARENESS OF THE EU FINANCIAL PROGRAMMES THAT ARE RELEVANT TO EUROPE'S MARITIME TECHNOLOGY INDUSTRY AND SUPPORT THE DEVELOPMENT OF RELEVANT ASSISTANCE OR SUPPORT.

ACTION 8 : ENSURE THAT ALL INVESTMENT-RELATED EU INSTRUMENTS, INCLUDING EU STRUCTURAL FUNDS, ARE OPEN FOR COMPANIES OF ALL SIZES, INCLUDING LARGE COMPANIES.

ACTION 9 : INTRODUCE DEDICATED FLEET RENEWAL AND/OR RETROFITTING SCHEMES

(e.g. to enhance the greening of shipping and inland navigation more rapidly).

ACTION 10 : ENHANCE AWARENESS AND IMPROVE AVAILABILITY OF EU FINANCIAL INSTRUMENTS.

The European Commission should organise campaigns to increase awareness and understanding of existing EU financial instruments, including relevant non-maritime funds and the opportunities they may offer to the maritime

technology sector. In addition, the European Commission should recognise the role of big enterprises in the maritime technology sector, by allowing them to participate in relevant EU financial instruments.

ACTION 11 : EU FINANCIAL INSTRUMENTS TO STIMULATE MORE EUROPEAN MARITIME TECHNOLOGY.

The European Commission and relevant EU Agencies, when granting EU public money, should **financially incentivise** EU shipping to build in Europe and to install EU-manufactured equipment, systems or technologies, or alternatively grant EU public money to EU shipping under the condition that the vessels are manufactured and equipped according to

European state aid rules and all relevant European standards and are produced in compliance with principles of fair market-based competition and IPR respect. This approach should definitely apply to intra-shipping and shortsea shipping and as long as there is no global level playing field putting Europe's maritime technology companies on the same footing of their third country competitors.

ACTION 12 : IMPROVE THE EIB FINANCIAL TOOLS.

To that end, the EIB should improve its existing financial tools, in particular for intermediate and direct loans; lower the €25 million threshold (which is too high for SMEs to apply for direct loans) to a €10 million threshold; establish a dedicated guarantee scheme for shipyards,

with guarantee volumes per project between €5 million and €100 million; and ensure that the EIB-Green Ship Facility Funds for environmental retrofits also accepts second ranking mortgages as security for environmental retrofits, next to first ranking mortgages.



Maritime technology: A solution provider for realising climate-neutrality and untapping the promising potential of blue growth

Europe's maritime technology sector is a solution provider for environmental-neutral shipping and for realising Europe's ambition for a climate-neutral society by 2050. The sector is also a key enabler and solution provider for untapping the promising potential of Europe's Blue Economy.

To tackle its many societal challenges, which also offer promising opportunities, the maritime technology sector – together with the Waterborne Technology Platform – has established an ambitious long-term vision, based on three priorities:

- Transform waterborne transport into an environmental-neutral, safe and secure mode of transport which is fully connected and automated, with the assistance of safe, competitive and eco-friendly shipyards and production sites;
- Develop European leadership and new business models for blue growth, in particular through a better understanding and protection of the oceans, seas and inland waters, by improving the oceans, seas and inland waters as a source of natural resources and by enhancing the working and living at sea; and
- Integrate shipping and inland navigation into seamless port and logistics operations.

To implement this ambitious long-term vision, the sector needs political and financial support. To that end, the European Commission and Member States should take the following 3 actions:

ACTION 1 : STIMULATE AND SUPPORT RDI TO SOLVE MAJOR SOCIETAL CHALLENGES.

The European Commission and Member States should fully support the ambitious strategic research agenda of the Waterborne Technology Platform, including with sufficient financial incentives (e.g. through partnerships). They should also financially back the waterborne and maritime technology sectors' significant investments in RDI (as well as in education and training throughout the supply chain). At the same time, lessons should be learned from

the decision not to grant a contractual Public Private Partnership (cPPP) to the Waterborne Technology Platform (TP) under Horizon 2020. Finally, the policies and strategies followed by Europe's direct competitors in maritime technology should be closely monitored since they should be a benchmark for the EU to follow. Finally, the waterborne sector, including maritime technology should be qualified under Horizon Europe as a **strategic priority sector for Europe**.

ACTION 2: INCENTIVISE INNOVATIVE TECHNOLOGIES AND FRONTRUNNERS, WHILST PROTECTING KNOW HOW, PATENTS AND INTELLECTUAL PROPERTY RIGHTS THROUGH ADEQUATE LEGAL INSTRUMENTS AND TOOLS.

To that end, the European Commission should adopt an integrated, holistic and co-ordinated strategy to better align regulations and finance RDI activities (including innovative technologies),

with a view to stimulating frontrunners in technological innovation (both amongst shipyards and maritime manufacturers and shipowners or other maritime stakeholders¹¹), to penalise

¹¹ Financial tools should be used to stimulate and/or reward European shipowners, i.e. to opt for green and clean technologies "made in Europe" instead of financing the building of ships outside the EU. Green ships e.g. should benefit from reduced ports dues (e.g. Port of Rotterdam) or from other financial incentives (e.g. Norway financially stimulates innovation of transport technologies, including maritime). Financial incentives or fiscal alleviations should be granted to European shipowners building and repairing their ships in Europe. A CO₂ tax should be levied on shipping for reinvesting the money in or rewarding cleaner shipping, etc.

the polluters, and to provide the necessary legal certainty to frontrunning companies. Furthermore, the EU should create possibilities for cross-fertilisation between civil and military technologies (dual-use technologies), both for shipyards and maritime equipment companies, and start a dialogue with the maritime technology sector to identify legislation that necessitates revisions and/or amendments to cater for innovative solutions, including on autonomous shipping. Finally, the EU should ensure that all

relevant maritime-related and horizontal EU funding programmes and financing opportunities encompass an opportunity to financially support technology-research and development activities, putting Europe's maritime technology sector at the forefront of developing connected and automated ships and shipping. Despite the call of academia to further enhance cooperation with China in the framework of Horizon Europe, such cooperation should be based on reciprocity.

ACTION ③ : PROTECT KNOW HOW, PATENTS AND INTELLECTUAL PROPERTY RIGHTS, THROUGH ADEQUATE LEGAL INSTRUMENTS AND TOOLS.

To that end, the EU should, inter alia, put in place specific measures to control counterfeited products installed onboard vessels calling European ports; create a pan-European monitoring system (or black-listing system) to collect information about counterfeited products and ship design IP infringement cases; or facilitate

the access to EU patents and IP protection tools for European maritime technology. The EPO should also take the necessary steps, according to their respective responsibilities and fields of action, to avoid wrong SEP patents or SEP patents simply copying the content of legislation.



Stimulating employment, attracting competence and securing skills in a fast-changing (digital) world

To stimulate employment in the maritime technology sector, to secure the necessary skills in a technological fast-changing world and to support the sector to attract the right people, including youngsters, the European Commission and Member States should take the following 3 actions:

ACTION 1 : ENHANCE THE KNOWLEDGE BASE THROUGH IMPROVED EDUCATION AND TRAINING.

Existing maritime education and training programmes should be enhanced and, where relevant, these programmes should be adapted to the demands of new emerging markets and new innovative technologies. To that end, the maritime technology industry and education providers should jointly develop adequate curricula, including programmes for lifelong training and for inter-European educational exchange programmes. Furthermore, efforts from maritime technology companies should be

supported to solve existing skills' gaps, which are increasing and challenging the competitiveness of the sector. It is of utmost importance to reinforce the efforts already started by the Sectoral Social Partners (i.e. SEA Europe and IndustriAll Europe) in order to implement solutions in the short and medium term (i.e. for the period 2019 to 2023). Finally, the creation of new Lifelong Learning (LLL) programmes should be facilitated at EU level, allowing for the adaptation of the skills of workers to the specific needs of the industry.

ACTION 2 : INCREASE THE VISIBILITY AND ATTRACTIVENESS OF THE MARITIME TECHNOLOGY SECTOR.

An EU study should be financed to map career opportunities in the maritime technology sector and better use should be made of existing tools provided by EU programmes and/or initiatives,

in particular support and promote a "Maritime Technology Week", and make better use of the European Maritime Days.

ACTION 3 : ENFORCE THE RESPECT OF SOCIAL AND OTHER STANDARDS.

The industry finds it unacceptable that third country companies not respecting the European social standards still have access to EU funds (such as EIB finance, tonnage tax, etc.). Therefore, the EU should apply the principle of

reciprocity strictly as regards the respect of social standards. This strict approach must ensure that EU financing tools are not used by companies perpetuating social dumping and disrupting the global level playing field.

Pillar 6

Reducing administrative burdens for maritime technology companies whilst maintaining maritime safety

For almost ten years, SEA Europe discussed the need to reduce administrative burdens and bureaucracy linked to classification certification with the European Commission and Classification Societies. Unfortunately, ten years after the adoption of Regulation 391/2009¹², Article 10 (1), laying down the principles of **mutual recognition of classification certificates and harmonisation of class rules**, has still not been implemented to the satisfaction of Europe's maritime equipment industry. The main reason for this is the reluctance from classification societies

to move forward. Therefore, **SEA Europe calls upon the European Commission to continue to put pressure on the EU ROs/classification societies to arrive ultimately at a system of mutual recognition within ship classification, which meets the demands from the maritime technology sector and reduces both existing administrative burdens and significant high costs linked to obtaining classification certificates. This approach, of course, should be adopted without any compromise to maritime safety.**

¹² Regulation (EC) No 391/2009 of 23 April 2009 on common rules and standards for ship inspection and survey organisations, OJ L-131, 28.5.2009.



Enhancing Europe's naval industry for the benefit of Europe's defence and security

In the context of the revised Strategic Research Agenda (SRA) of the European Defence Agency and through the EDIDP Feasibility study for Future Naval Platforms and related Technologies, SEA Europe has made a number of concrete recommendations underlining the strategic importance and challenges of the naval industry for Europe. To address these challenges, particularly from the perspective of naval integrators, a number of enablers are key, notably a meaningful and stable naval R&D budget,

co-operation using pooled R&D resources for pre-competitive topics, the establishment of joint requirements to further interoperability of systems, vessels and fleets and reduce cost of ownership, and large projects with multi-year duration. To that end, SEA Europe calls upon the EU to ensure that dedicated naval integration topics are a distinct part in the coming R&D Defence Programmes, supported by an adequate level of funding at EU level.

NOTES

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