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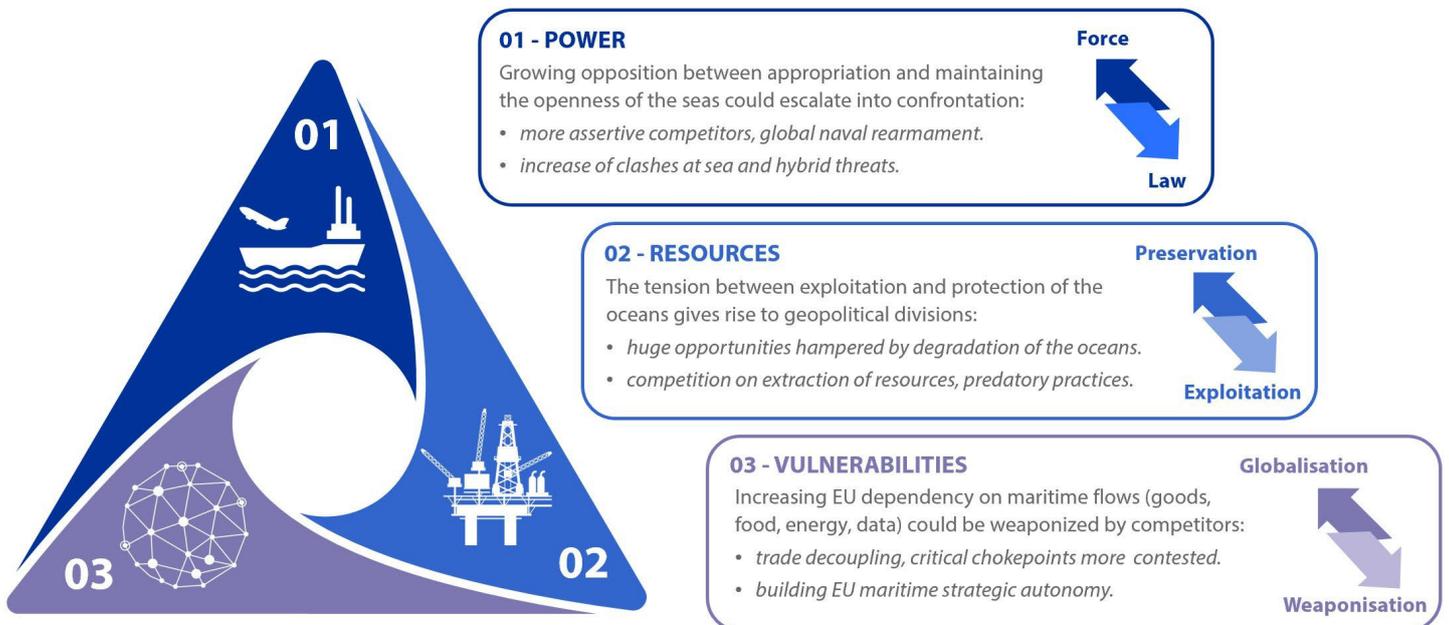
## ANALYSIS AND RESEARCH TEAM

16 February 2023

# THE EU: FROM MARITIME ACTOR TO SEA POWER

## THE OCEANS

Source of tensions over power, resources and vulnerabilities



Source: ART

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## INTRODUCTION

### **Why are the oceans so critical today and why should Europeans take the strategic importance of the sea more seriously?**

Oceans<sup>1</sup> have long played an important role in the pursuit of military, commercial and political power. They have helped determine the rise and fall of nations. Control of sea routes has often proved to be a source of confrontation, but the seas are also essential to the survival of humanity. Oceans are a measure of the state of both international relations and the health of the planet. In today's world where the post-war rule-based system is increasingly being undermined, the environment is being degraded, and there is ever greater competition for critical but limited resources, the **oceans highlight three of the most pressing geopolitical challenges for Europe in their role as a source of (1) power, (2) resources and (3) vulnerabilities.**

Despite Europe seeing itself as a global maritime actor<sup>2</sup>, **the EU is not a genuine sea power.** The EU Member States have different interests and traditions and a maritime presence which depends almost entirely on their history and geography. Despite having 70,000 km of coastline (spanning 22 Member States) and direct access to 4 seas and 2 oceans, as well as an Exclusive Economic Zone of 19

million km<sup>2</sup>, the EU rarely regards the role and importance of the oceans as central to the political debate. Yet the oceans are key to its prosperity, influence, and security.

**Other global and regional powers embrace the strategic importance of the sea.** This is reflected in increasingly assertive action by state and non-state actors, some of whom are pursuing their maritime interests through force as a way of appropriating space, exploiting resources and weaponising dependencies on maritime flows. The recent sabotage of the Nordstream pipeline in the context of the Russian war of aggression of Ukraine is one of many reminders of **our increased dependence on the sea for energy, information, trade, and food and marine resources.** Overall, 90% of goods globally are transported by sea. For Europe, 77% of its foreign trade and 35% of goods moved internally travel by sea.

The maritime dimension is therefore key to **EU's strategic autonomy.** The aim of this note is to draw attention to the many ways in which maritime issues are critical to the military, environmental and commercial interests of the EU, and to suggest that they be brought to the heart of the political debate.





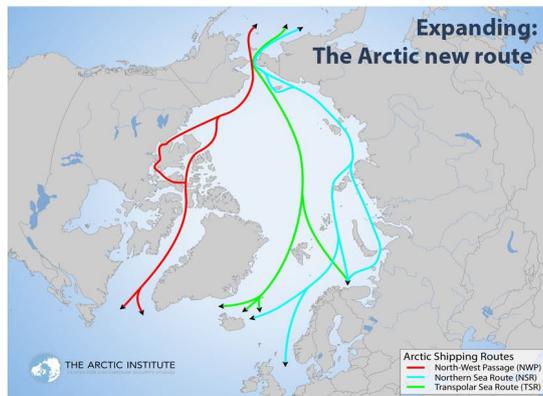
## THE OCEANS ARE ESSENTIAL TO THE SURVIVAL OF THE HUMAN RACE

- Oceans are essential to human life. They cover 80% of the surface of our planet. They are host to a significant share of wildlife and natural resources. They are a crucial regulator of the climate by producing half of the oxygen on earth and absorbing 25% of CO<sub>2</sub>.
- Oceans offer immense opportunities as a way of connecting distant lands and facilitating exchanges and trade, ensuring food security, generating wealth through the blue economy (shipping, tourism, seaweed...) and providing medical breakthroughs.
- They act as sources of energy through the extraction of fossil fuels and gas, but also as providers of renewable energy through wind and tidal turbines and the exploitation of wave power.
- They host a critical part of the infrastructure of the digital economy, with hundreds of submarine cables used to transfer data (more than 95% of data is sent by cables<sup>3</sup>).

### THE OCEANS ARE

#### Disputed

- Increasing illegal activities
- Power competition around strategic routes, chokepoints and resources
- Floating nations deemed to emerge



#### An uncharted space



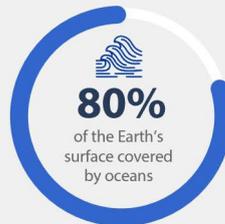
less than  
**2%**  
of the seabed is  
mapped

#### Damaged

Overfishing 34%



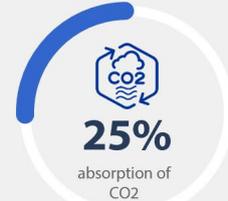
#### A blue planet



#### Vector of globalisation

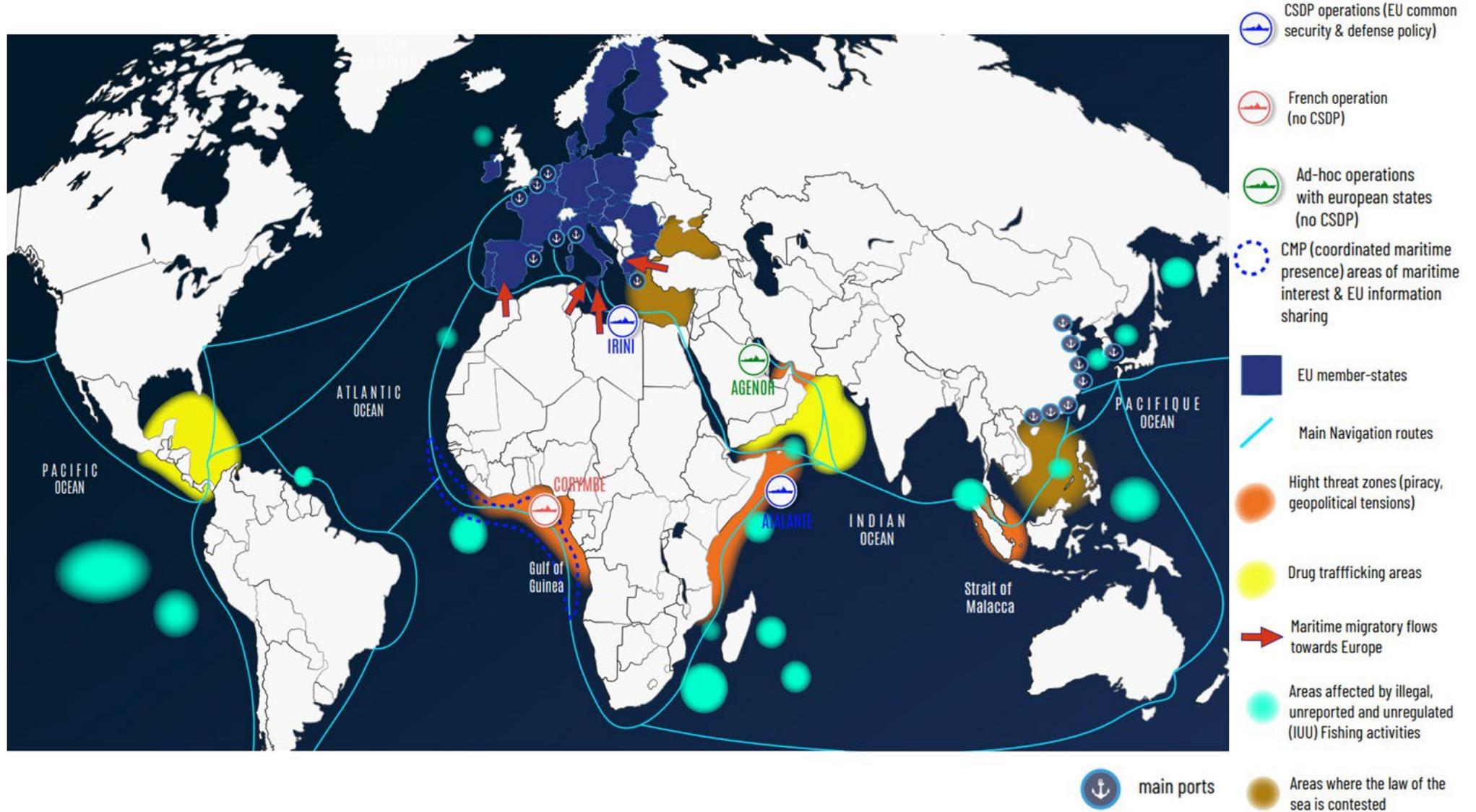


#### CO<sub>2</sub> Absorption



Source: ART

## Looking at the world through the sea: thinking as a global seapower



Source: *Europe, Cooperating for a Naval Ambition*, Etudes marines n°21, CESM, June 2022.

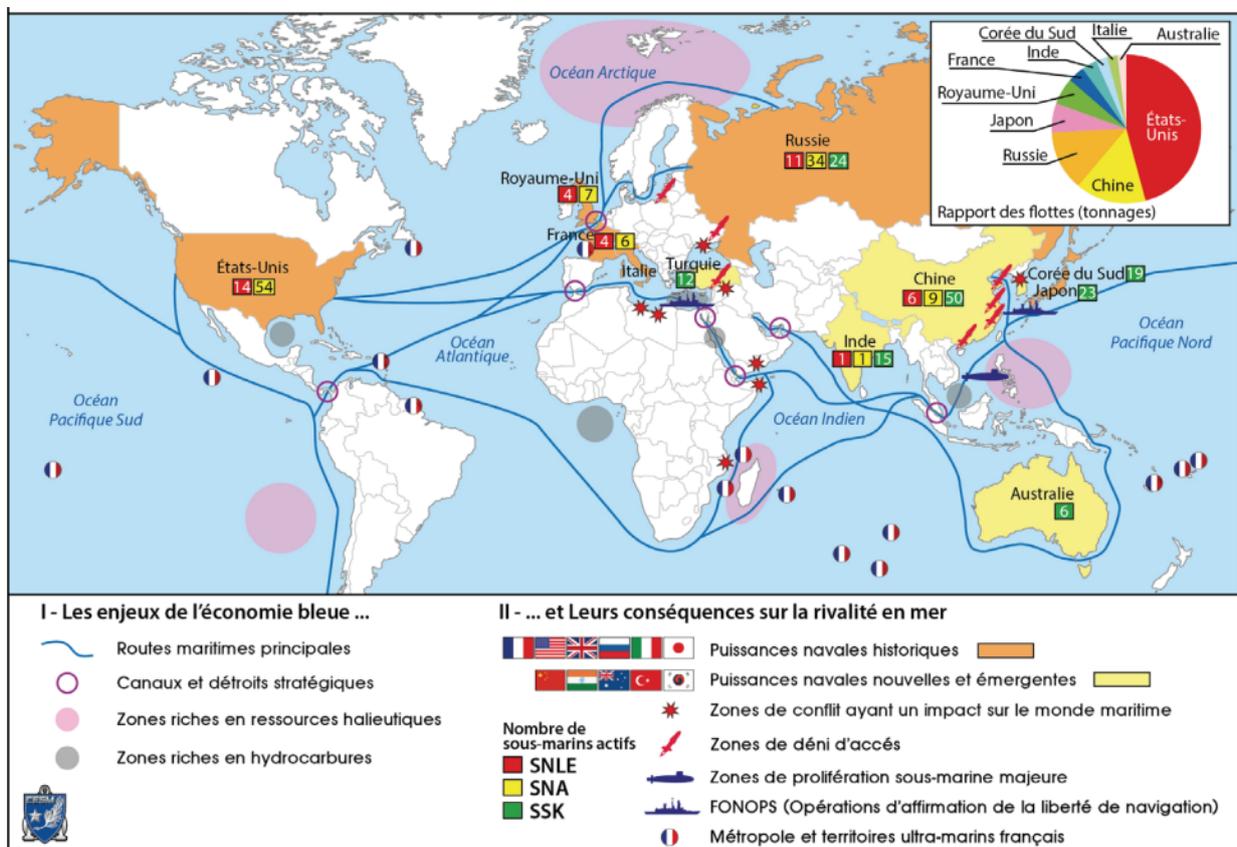
# 1. A RENEWED THEATRE OF POWER RIVALRY

## Growing tension between maintaining the openness of the seas and appropriation

The growing appropriation of the oceans by states challenging the rules of international maritime law **undermines the notion of the sea as an open space for movement and trade**. Appropriation can be motivated by a desire to exploit the seas for natural resources, such as illegal gas drilling in the Mediterranean<sup>4</sup>, or to restrict access to parts of the sea for reasons of territorial interest, such as in the China Sea. Appropriation runs the risk of generating territorial disputes backed by the implicit or explicit threat of the use of force (South China Sea, Eastern Mediterranean, or Arctic Ocean).

Many states, including EU Member States, are committed to maintaining open and safe access to the high seas based on the principle of freedom of navigation and overflights. They deploy forces to ensure respect for international law and to protect their sovereignty and long-term interests. For example, the US is conducting Freedom of Navigation operations (FONOP) in the South China Sea. Appropriation policies based on the exercise of power are in direct opposition to the rules-based order enshrined in the United Nations Convention on the Law of the Sea (UNCLOS), which reflects customary rules governing the sea, as well as international humanitarian law<sup>5</sup>.

### Rivalry at sea



Source: Brèves Marines n°243, *Combattre pour l'usage de la mer*, CESM, octobre 2021.

## More assertive behaviour in a context of rapid naval rearmament

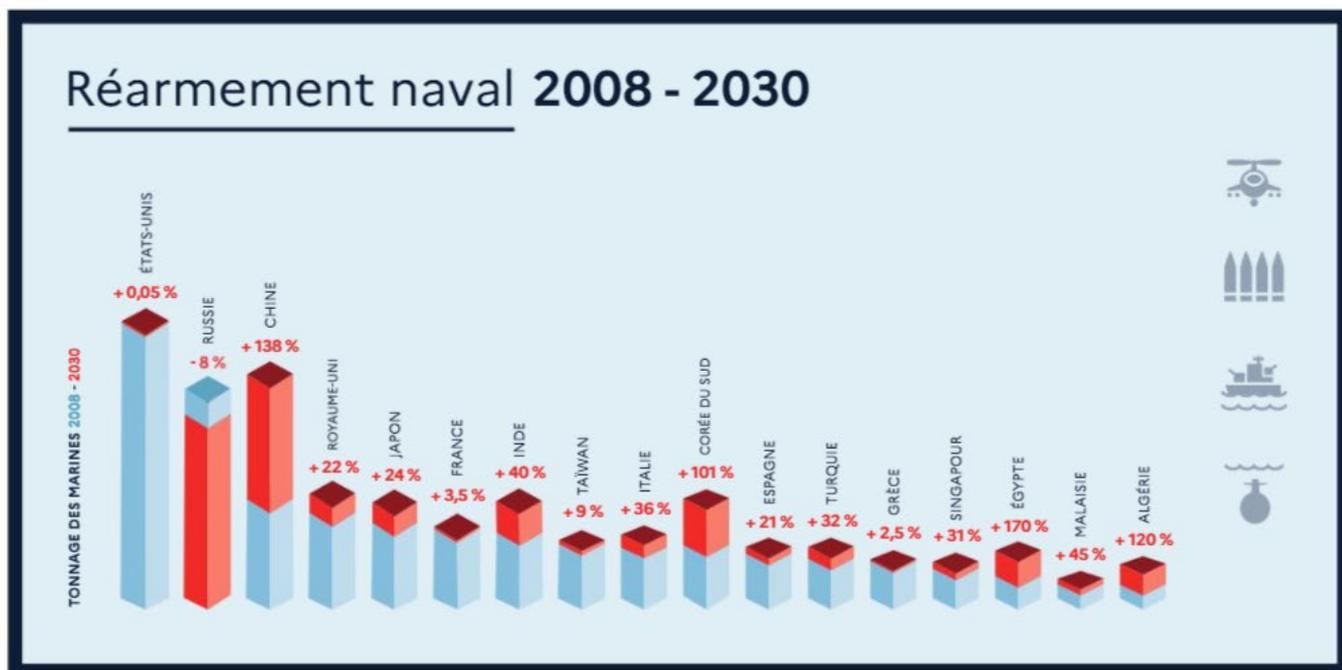
**Military incidents have become increasingly frequent in a range of locations.** In 2020, a French frigate was illuminated in the Mediterranean Sea by a Turkish Navy ship to prevent it from controlling a cargo ship it was escorting to Libya<sup>6</sup>. In 2021, a British frigate passing through territorial waters off Crimea was denied innocent passage by Russia, which gave rise to incidents involving at least three ships and dozens of aircraft<sup>7</sup>. In the Pacific Ocean, Australian and Canadian patrol aircraft were "chaffed" in international waters by a Chinese aircraft on the grounds that their behaviour was considered provocative and endangered China's security.<sup>8</sup> These types of incidents risk escalating into direct confrontation.

The tension between appropriation of the sea (*Mare Clausum*) and maintaining the right to free passage (*Mare Liberum*) has always been a part of maritime history<sup>9</sup>. But as geopolitical insecurity grows, aggressive posturing and provocative unlawful acts at sea have become increasingly common.

Incidents involving civilian vessels operating on behalf of criminal organisations are also posing an increasing threat. Maritime insecurity is growing, with illicit trafficking (drugs, fisheries, migrants, weapons) becoming more prevalent, piracy and maritime robbery on the increase while the threat of terrorism remains.

**The dynamic of power assertiveness is fuelled by a naval rearmament on a scale not seen since the Second World War.** Since the late 2000s, there has been a rapid increase in the growth of combat units across the globe, although this is uneven, with a particularly striking expansion in Asia. Chinese's rearmament (+138% in global tonnage expected between 2008-2030) is driving expansion in India (+40%), Japan (+24%) and South Korea (+101%) as well as leading to extensive redeployment of US naval forces over the last decade<sup>10</sup>. Rearmament is also significant in the Eastern Mediterranean, with an increase of about 50% in naval combat capability over the last decade, coupled with significant technological advancement<sup>11</sup>.

## Evolution of global tonnage of the main combat naval units



Source: Cols Bleus n°3103, février 2022, Marine Nationale.

**This arms race is the result of a vicious circle in which the growing ambitions of different powers are perceived as a threat by other powers.** Some states see naval power as a way of asserting their control and influence in a particular region and/or globally. Political ambitions lead to the enhancement of naval capabilities as a way of providing protection from a dominant or aggressive competitor. Navies are the main instrument to protect economic flows and maritime resources and can provide for the protection of their own nationals in the event of a crisis. But they are also a powerful tool for exerting

### ***EU navies risk seeing their relative weight diminish***

**The ongoing shift in naval power towards Asia is set to continue until at least 2030.** This is a result of both a longer-term decline in defence budgets in Europe (despite the recent increases in response to the war in Ukraine), but also the dynamism of Asian economies. During the Cold War the most powerful navies were mostly concentrated in Europe. But by 2030 the largest naval powers after the US will be (together with the UK) China, India and Russia, with Japan and South Korea also fielding increasingly large and modern navies.<sup>14</sup>

At the global level, naval rearmament depends on the capacity to operate fleets on the high seas with strike capability and the ability to project power.

### ***More hybrid threats***

Power competition is also based on **hybrid threats and lawfare operations**.<sup>15</sup> The Chinese playbook of maritime bullying incorporates the use of naval militia composed of civilian ships as a proxy, in combination with the use of the coast guard. Although apparently harmless, fishing vessels engage in harassment, dangerous navigational practices, or even intentional ramming as a way of asserting Chinese territorial claims or fishing rights in the EEZ.<sup>16</sup> Clashes between military ships and Chinese fishing vessels, such as that in March 2020 involving a Japanese destroyer.<sup>17</sup> are increasing. Russia, which has a long tradition of lawfare, uses it to try to secure the Northern Sea Route as well as in the Crimean Sea.<sup>18</sup>

political influence (eg. the closing by Turkey of access to warships between the Mediterranean and the Black Sea, or the provision of aid to countries affected by natural disasters). They may also be used for the purposes of intimidation or coercion. A strong actor is even able to leverage the potential threat of fleet mobilisation without even leaving port to impose its agenda ("fleet in being" effect).<sup>12</sup> Naval rearmament does not necessarily lead to confrontation. However, the concentration of naval force in a particular theatre against the backdrop of increasing tension can intensify the risk of miscalculation and accidental confrontation.<sup>13</sup>

This means first and foremost vessels such as aircraft carriers and (ballistic) submarines. Automation, drones, and data are also increasingly important, as well as the development of hypersonic capacities. China is building up its armed forces at an astonishing rate and deploying them around the world. Russia is also modernizing its navy by upgrading its frigates, amphibious vessels, and submarine force. Other regional actors such as Turkey, Egypt, Algeria, and Israel are also expanding their naval assets. By contrast, without adequate investment, **European navies risk becoming operationally obsolete, leading to a significant shift in the balance of power away from Europe.**

The blockage of a chokepoint (ports, harbours, straits, and canals), even temporarily, can result in severe economic damage.<sup>19</sup> Cyber espionage and physical sabotage operations are being used to target cables and pipelines, both to destabilise economies but also generate costly pollution. Ports, ships, and maritime companies have already been targeted by cyber attacks. Other infrastructure such as desalination plants remain highly vulnerable to cyberattack. The protection of undersea infrastructure remains difficult and costly. Migration in the form of dangerous and illegal sea crossings is also being weaponised.

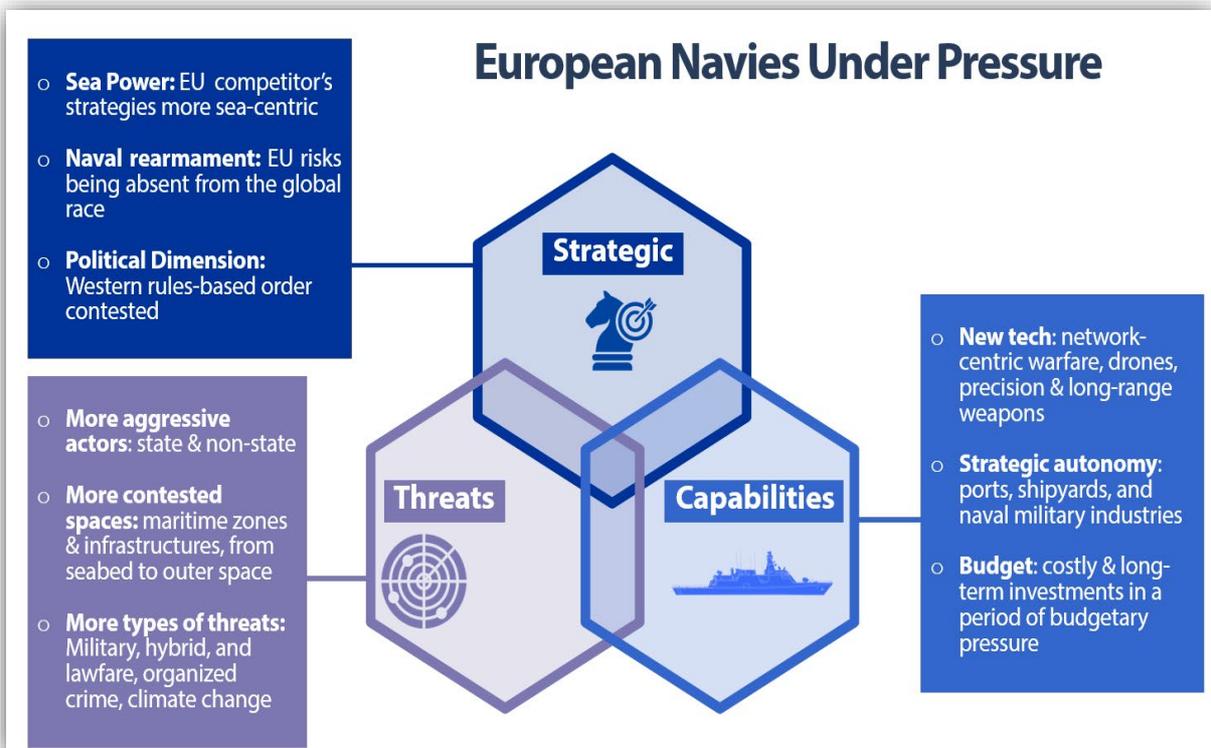


## EUROPEAN NAVIES UNDER PRESSURE

The EU has underlined its determination to be a global maritime security actor. It is expanding its maritime presence in different theatres and in different formats (PSDC, Coordinated Maritime Presence, ad hoc). But the number of areas where it has vital interests and the scale of the critical infrastructure which needs protection are increasing rapidly.

European navies are being challenged by global powers such as China, Russia, as well as regional powers such as Turkey, all of whom are investing heavily in more modern naval capabilities. In addition to the provision of new aircraft carriers and submarines, this **renewed naval arms race** is heavily dependent on new technologies and data-centric systems. European navies find themselves exposed to ever more aggressive and unlawful behaviour at sea. At the same time the number of **maritime areas** that are of vital strategic interest for the EU is expanding. These include not just neighbouring areas such as the Mediterranean and the Baltic Seas, but increasingly also more distant regions such as the Indo-Pacific and the Polar regions. The **protection** of maritime resources and biodiversity will require an appropriate level of capabilities. Beyond deployment on the sea itself, navies have been using **outer space** for decades for the transit of ballistic missiles and the use of satellites for navigation, surveillance, communication, and intelligence. They are increasingly operating in **cyber space** as well as on the **seabed**.<sup>20</sup> The low level of investment by EU Member States in their naval forces by comparison with other major regional or global powers is a matter of concern.

### European navies must be strengthened if they are to face future challenges



Source: ART

## 2. CRUCIAL RESOURCES FOR HUMANITY

### *Oceans are crucial for life but are increasingly suffering as a result of human activity*

**The oceans play a major role in climate regulation and biodiversity.** These natural carbon sinks absorb 25% of the CO<sub>2</sub> emitted on Earth and 90% of the extra heat resulting from the GHG effect.<sup>21</sup> Plankton provide half of the oxygen produced on Earth.<sup>22</sup> Unsustainable human activity is leading to **profound and irreversible transformations in the oceans.** The absorption of CO<sub>2</sub> and heat causes ocean warming and acidification, which is highly damaging. This includes sea level rise due to ice melting,<sup>23</sup> modification to marine currents, the multiplication of extreme phenomena, coral bleaching,<sup>24</sup> stratification, deoxygenation, dead zones and changes to biological productivity and to the distribution of

### *There is increasing competition over the exploitation of the oceans*

Like other shared spaces such as outer space and cyber, the oceans face **increasing predatory pressure over time.** The oceans are literally being drained of their fishery resources.<sup>27</sup> 55% of the surface of the oceans (i.e. 4 times the area devoted to agriculture) is affected by industrial fishing activity.<sup>28</sup> **Illegal, unreported and unregulated (IUU) fishing** is on the rise. This is a highly lucrative activity supported not only by criminal organisations but also in some cases by states for destabilising purposes. IUU fishing is estimated to account for more than 30% of total global catches and results in an estimated annual loss for the legal fishing industry of between \$26 and \$50 billion a year.<sup>29</sup> The decrease in global biomass of marine animal communities<sup>30</sup> and of fisheries catch potential, as well as a shift in species composition, could lead to existing international fisheries agreements being contested and even to a greater risk of international conflict. In twenty years, China has built up the largest deep-sea fishing fleet, with around 3,000 vessels. After depleting the resources near its coasts,<sup>31</sup> Chinese fishermen are now deployed at an unprecedented scale across the globe, including off Ecuador, Peru and as far south as the coast of Argentina in the South Atlantic.<sup>32</sup>

species and habitats. Marine protected areas only accounted for 5.3% of coastal and marine areas in 2020, well short of the target of 10% set by the Convention on Biological Diversity signed in Nagoya in 2010.<sup>25</sup>

**There will soon be more plastic than fish in the oceans** (they already contain 300 million tons of plastic, with an annual increase of 10 million tons per year.<sup>26</sup>). Giant areas of accumulated microplastic are drifting, the largest being an area of 3 million km<sup>2</sup> in the Northern Pacific. All this has a profound impact on maritime wildlife as well as on the value of the oceans as a source of food (fish remains the staple diet for one third of the world's population).

Other ways of exploiting the oceans could give rise to tensions. **Algaculture**<sup>33</sup> or **water security** through desalination to obtain drinking water is likely to be one area. China is interested in the desalination of icebergs, which is linked to its wider ambitions in the Arctic and Antarctic, the latter containing 70% of the globe's freshwater reserves.<sup>34</sup> The need to produce energy could also be a source of competition, an example being the use of seawater to extract deuterium, an isotope of hydrogen, to fuel nuclear fusion.<sup>35</sup> Tensions could be sparked by concerns over the environmental impact of certain activities such as desalination.<sup>36</sup>

Geopolitical tensions may also arise around responses to climate change. There is increasing interest in **ocean-based geo-engineering**, called carbon dioxide removal (CDR) activities, such as carbon capture and sequestration in sub-sea geological formations or ocean fertilisation. Disputes could arise between neighbouring states over the use of geo-engineering and how this might affect the environment and biodiversity as well as the associated social, economic, and cultural impact.<sup>37</sup>

## *The seabed as a new field of potential conflict*

The **seabed**, which is the subject of scientific, technological, and military competition, could end up being a new area of conflict. Like space, the sea is increasingly seen as a territory that can be colonised. Many powers have flagged their ambitions in this area to different degrees. The US is looking at "Full Spectrum Undersea Warfare", and the Chinese have a similar project for a "great underwater wall", based on sonars and unmanned vessels/drones.<sup>38</sup> Russia has a long tradition of special mission submarines for seabed warfare and espionage and is ramping up this capability.<sup>39</sup> The UK has set out its ambitions over the seabed in its 2021 Integrated Review. Some Member States recently published a Seabed Warfare strategy.<sup>40</sup>

There is also technological competition over the charting and collection of data related to the deep seabed: a vast, highly coveted but largely unknown area. The deep seabed is defined as lying at depths greater than 200m and covers about two-thirds of the total seafloor.<sup>41</sup> Attempts are being made to expand the investigation of the seabed down to 6,000 m deep. In 2020, the Fendouzhe, a Chinese manned submersible, reached the bottom of the Mariana Trench (approx. 11,000 m). The establishment of an experimental autonomous platform in abyssal waters (4,000 m) is one of China's 10 priorities. Space agencies are also drawing parallels between Earth's abysses and the oceans of other planets (eg. NASA's Subsea programme).

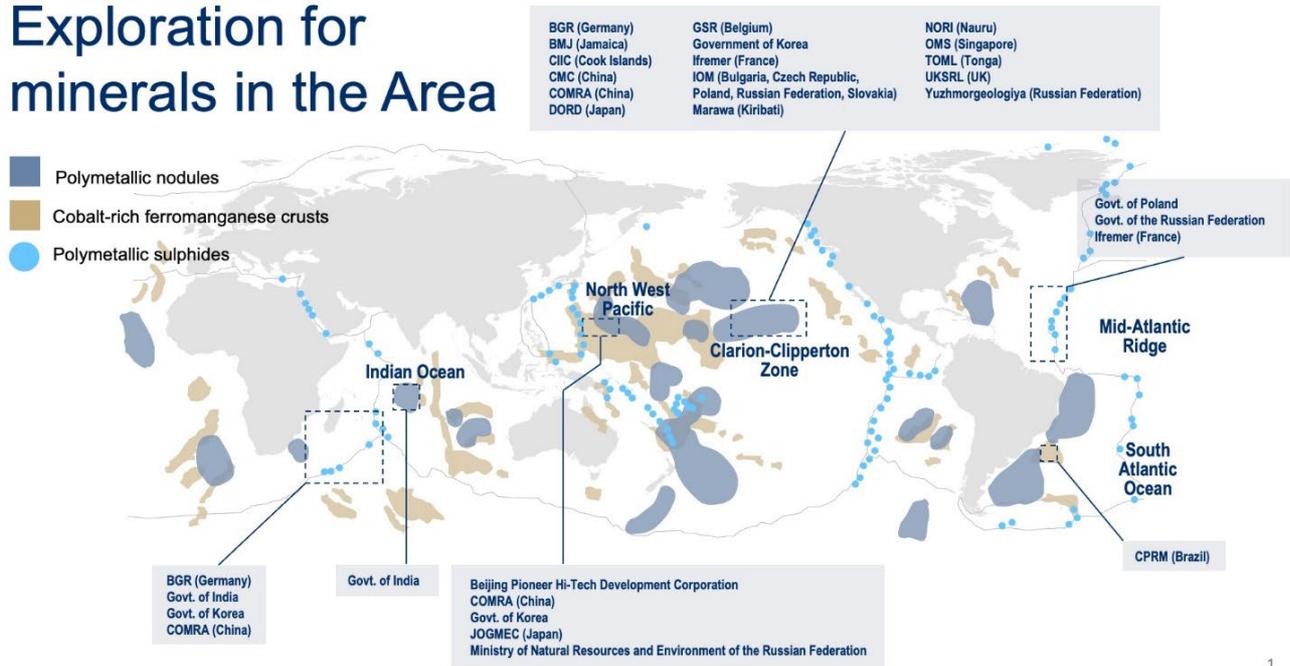
The seabed is expected to host an extremely rich biodiversity, with millions of species inhabiting the abyssal plains. As sources of food, raw materials and

space, these territories are attracting growing economic interest. The biotechnology industry is focussing on the ocean floor and its micro-organisms to develop rare properties in the fields of medicine, science, food or cosmetics. Since the early 2000s, the combination of a growing demand for materials, technological progress and the scarcity of raw materials on land has prompted a new industrial race to the bottom of the oceans.<sup>42</sup> New forms of exploitation such as offshore drilling platforms, water extraction, and deep-sea mining are being added to more traditional activities such as fishing and shipping.

The Chinese are taking a long view on seabed mining. The interest by the US in particular in the extraction of raw materials for its electric vehicles industry could lead to extraction competition with Chinese companies.<sup>43</sup> Some nations hope that the renegotiation in 2048 of the Madrid Protocol to the 1950 Antarctic Treaty, signed in 1991, which prohibits any activity related to the exploitation of subsoil resources, will be modified to allow for mining. Even if the exploitation of the oceans were seen as an opportunity for Western countries to break free from the Chinese monopoly on rare earths, the EU has nevertheless called for the continuing prohibition on deep-sea mining until science allows for a clearer picture of the impact.

The EU consistently promotes coordinated multilateral responses and a rules-based international system for the governance of exploitation and sharing of maritime resources.<sup>44</sup>

# Exploration for minerals in the Area



Source: International Seabed Authority (ISA).

## 3. VULNERABILITY OF MARITIME ROUTES AND INFRASTRUCTURES

### Maritime flows are critical to global stability

**The flow of goods, energy, food and information are dependent on the seas.** Oceans are crucial to international trade (90% of world goods - almost 12 billion tonnes - are transported by sea. About two-thirds of the world's oil and gas supplies either come from the sea or move by sea.<sup>45</sup> Energy is also exchanged through underwater pipelines. More than 400 optic fibre cables, with a total length of 1.3 million kilometres, now constitute a vast undersea communications web, with a constant expansion in the flow of data (between 2010-19 this increase was running at nearly 50% annually.<sup>46</sup>). **Our own security and prosperity, as well as global stability, depend on the smooth functioning of these connections and facilities.**

**The future of global maritime flows is however uncertain.** In line with emerging patterns of global trade,<sup>47</sup> they could evolve into a mix of interdependencies and concentration, supported by regional and interregional flows. Current forms of decoupling, through regionalisation and the shortening of supply chains, could have an impact

on trade between Asia and Europe. Some countries could try to insulate themselves from European trade or sanctions issues.<sup>48</sup> The war in Ukraine has also led to more land-based transportation and has generated uncertainty in the shipping industry.

The shipping industry itself is also changing. Disrupting factors such as volatility in container prices (which rocketed from an average of 2,000€ in late 2019 to 13,000€ in late 2021.<sup>49</sup>), rising insurance premiums as a result of conflicts or extreme weather events,<sup>50</sup> the expected decline of energy commodities trade,<sup>51</sup> and the transformation of shipping industry itself (decarbonisation, automation...<sup>52</sup>) could also affect the nature of and demand for maritime trade. Conversely, diversification could lead states to look at a wider geographic spread to reduce risks. New maritime routes could bring a substantial boost and considerable change to the configuration of maritime trade flows, not least the Belt and Road Initiative, or the future Northern Sea Route in the Arctic if this fully materializes.

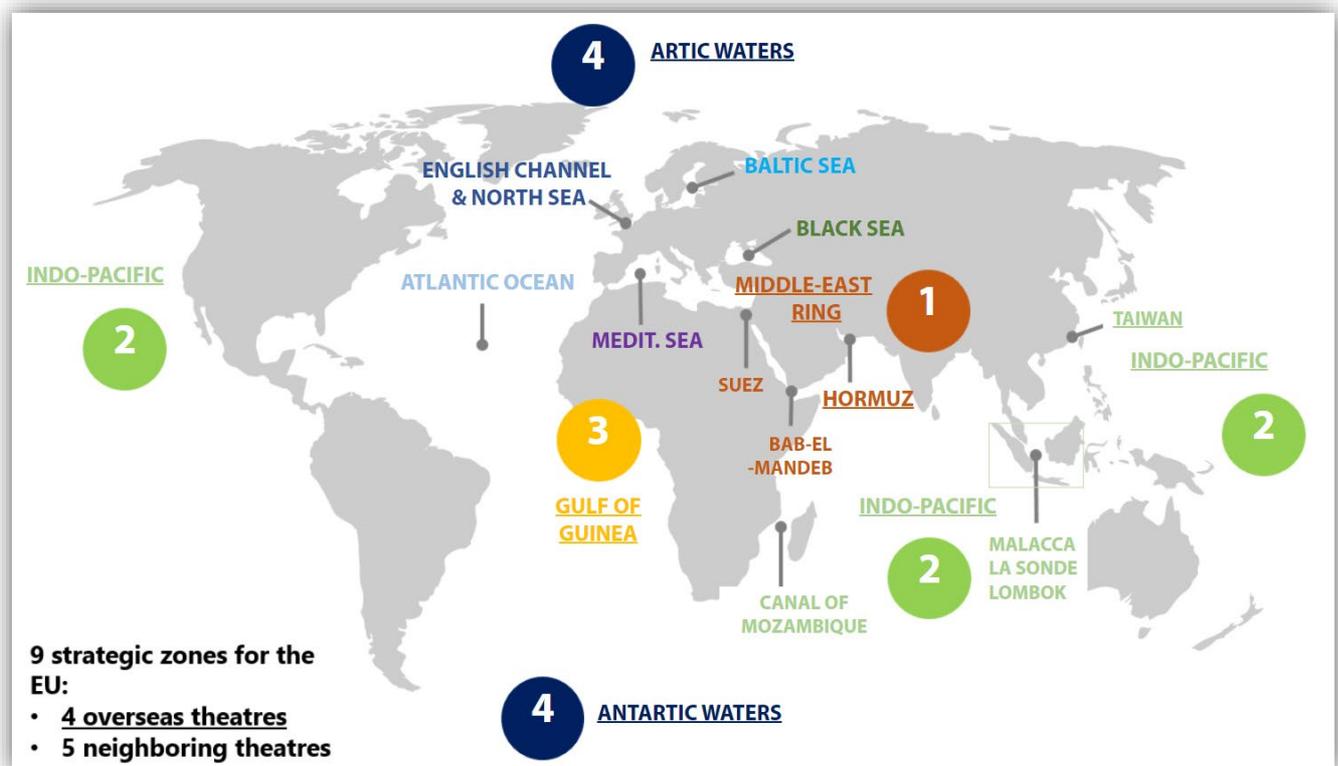
## Weaponisation of (inter)-dependencies

European daily life depends very much on maritime flows. **Energy supplies are likely to be increasingly imported to the EU by sea.** Like other manufacturing-dependent regions, the EU has increased its relative reliance on imports, unlike resource-dependent regions such as the US, which have tended to see a decrease in imports. Europe (EU27 + Norway, UK, and Switzerland) currently imports more than 50% of its energy resources<sup>53</sup>. As demonstrated by the Russian blockade on Ukrainian exports, **food security** is heavily dependent on maritime trade. **This dependency can be weaponized by hostile actors.** This can be directed against the EU itself or its neighbourhood, for example the North Africa and Middle East region (as seen with the blockade of grain exports from the Black Sea).

As pointed out in the Strategic Compass, **maritime zones, critical sea lanes of communication and several maritime chokepoints, as well as seabeds, are increasingly contested.**

There are at least **9 strategic maritime zones for the EU**: 5 neighbouring basins (the English Channel and the North Sea, the Atlantic, the Baltic Sea; the Black Sea, and the Mediterranean Sea) but also 4 overseas theatres (the corridor from the Gulf of Aden to the Strait of Hormuz, the Indo-Pacific including the Strait of Malacca, the Strait of Taiwan and the Canal of Mozambique<sup>54</sup>, the Gulf of Guinea; and the two poles<sup>55</sup>). Those zones contain **chokepoints** that are key for the EU's security, economic development, trade links, transport, food, and energy security. They become even more critical when there is no comparable alternative route available. These chokepoints, which constitute funnels for key maritime routes, are also of strategic interest to an increasing number of parties. The reliance, and consequently the importance, of chokepoints is likely to grow in the foreseeable future. They may be vulnerable to a range of security threats such as geopolitical competition, war, political instability, piracy, organized crime and/or terrorism.

## The main strategic maritime zones for the EU



Source: ART

Today, no state is entirely self-sufficient, and all regions remain interdependent, albeit to differing degrees (eg. European access to raw materials from China vs access to European markets for Chinese products). In the short term, a relatively high level of interdependency is likely to persist, not least since diversification takes time. A closure of the Malacca Strait would not only hurt European's interests and South Asia countries but also China itself, most of whose oil imports (almost 80% in 2016.<sup>56</sup>) pass through the South China Sea via the Strait of Malacca. Interdependency does not necessarily lead to cooperative and responsible behaviour.

### *Towards an EU maritime strategic autonomy*

**The EU's competitors are harnessing seapower for political influence and the promotion of an alternative global order.** The Belt and Road Initiative (BRI), which includes a maritime dimension ("The road"), is the main tool through which China hopes to realise its objective of self-sufficiency. It constitutes a security and development package, combined with a standard-related narrative, which is offered as an alternative to that proposed by the US/western-led international order. This strategy puts European strategic autonomy at risk. Chinese firms already control 10% of European shipping<sup>57</sup>, and now own Piraeus harbour, having taken advantage of the financial difficulties of the Greek government. The recent takeover in Hamburg triggered intense debate. Greater Chinese control over global shipping flows and ownership of European ports means more influence not only over commercial supply chains but also European politics.

Strategic autonomy in this area also entails having the **domestic industrial capacity** to build and step up the production of civilian and military vessels. With its strong civilian shipbuilding industry, China today has a potential in this area which most Western countries are unable to match. **Research** capabilities and maritime knowledge are also crucial assets. The EU will need to develop close links between several different aspects, for instance by connecting security with trade, digital partnerships, and the connectivity agenda (Global Gateway).

**The EU should be ready to protect these spaces from assertive powers and be prepared to respond to military confrontation.** However, the capacity of the EU and its Member States to deploy maritime assets in several different theatres at the same time is questionable. With the US pivoting towards Asia, Russia and Turkey are today the most active players in the Eastern Mediterranean Sea. Although China's actual military presence in the region remains very limited, it is focusing on its economic interests, principally by securing a hold on key ports such as Suez and Piraeus as part of its new silk road initiative. However, it is not excluded that China could establish a permanent naval base in the region to support its expanding interests, as it has done already in the Indian Ocean.

**Private actors also play a vital role.** States must deal increasingly with powerful private actors at sea. In some cases, NGOs can play a role in compensating for a lack of state capabilities. For instance, Gabon and Liberia have delegated part of their surveillance operations over their marine protection zone to Sea Shepherd, which is also engaged in the fight against illegal fishing. Private actors also increasingly control digital infrastructure and data through the ownership of maritime cables. Since 2010, Google has invested in 15 submarine cables, five of which it owns exclusively. Meta's cable 2Africa - the world longest marine cable at 45,000 km.<sup>58</sup> - and Google's Equiano are expected to make a huge impact on the continent of Africa. Some expect US big tech companies to end up controlling 95% of transatlantic communication capacity.<sup>59</sup>

**In the foreseeable future, new floating territories could constitute a new type of sovereign actor.** Aquatic urban projects intended to relieve overcrowded coastlines threatened by rising sea levels are being planned. For example, Oceanix City aims to create floating cities of 10,000 inhabitants. These projects are made up of small island states that are submerged or severely threatened by rising seas or tsunamis. They are also political projects funded by tech sector or NGOs.<sup>60</sup> Some foresight work even raises the possibility of communities of political and climate refugees gathering along the coasts and living as a network of boats in large floating cities.<sup>61</sup>



## IN CONCLUSION: 5 KEY QUESTIONS

Greater attention should be given by the EU to the strategic role of the oceans. In the face of increasing military tension at sea, accelerating climate change, heightened pressure on maritime resources, and the major disruptions in trade patterns, **the following issues merit attention at political level:**

- **Are we ready for more confrontation at sea?** The growing pressure for the control of the same critical chokepoints, the unilateral appropriation of resources and renewed power rivalry risk leading to direct confrontation, including the possibility of high-intensity combat at sea.
- **How will the EU establish a balance between exploiting and protecting the oceans?** The green and digital transitions both require energy and resources, which could be extracted from the sea or seabeds, in apparent contradiction with the EU's climate and environmental goals.
- **Should the EU's response to the Maritime Silk Road Initiative be more ambitious?** While the BRI is a political project based on global economic and security goals, combining civil and military maritime assets, the EU Global Gateway initiative is currently focusing on cables, marine ecosystems, and ports. The full range of instruments should be mobilised by the EU in support of its maritime interests.
- **How can we enhance our resilience in addition to protecting our maritime infrastructure?** Our vulnerabilities at sea are extensive and growing. They come in addition to the full range of threats and risks with which the EU is already confronted, meaning that total security is unrealistic.
- **How can the EU ensure a greater commonality of vision amongst Member States on how to defend and promote the EU's maritime interests?** The various threats to the EU's maritime interests suggest a need to move from multiple and fragmented forms of cooperation to a more comprehensive and strategic approach.

## REFERENCES

- <sup>1</sup> The five Oceans and the many seas are delimited by geographical conventions. In short, the seas are the maritime spaces bordering the oceans and close to a continent («Géopolitique de la mer - 40 fiches illustrées pour comprendre le monde», Julia Tasse & Sébastien Abis, 2022).
- <sup>2</sup> The EU is very active in the field of maritime security (Strategic compass, EU Maritime Security Strategy, CSDP missions, Coordinated Maritime Presence, TF 150, Euronavfor...), as well as in many sectorial aspects coordinated through the integrated maritime policy. The EU is also active in international fora such as IMO or the UN. Strong commitments have been taken by 41 Heads of States and Governments at the One Ocean Summit organized by the French Presidency of the Council on 11 February 2022.
- <sup>3</sup> *Security threats to undersea communications cables and infrastructure – consequences for the EU*, DG EXPO, European Parliament, April 2022.
- <sup>4</sup> The discovery of gas deposits in the Mediterranean subsoil is attracting the interest of Egypt, Israel, Turkey (which has not ratified the UNCLOS), Cyprus, Lebanon and Libya. Around Cyprus, claims are thus based on rights of a state not recognised by the international community (the "Turkish Republic of Northern Cyprus"), and the deployment of Turkish ships, in a context of competition for competition for the exploitation of gas fields.
- <sup>5</sup> Despite the US are not party to the UNCLOS, they are firmly committed into freedom of navigation and rules.
- <sup>6</sup> [Incident avec la Turquie : La France suspend sa participation à l'opération Sea Guardian, menée par l'Otan - Zone Militaire \(opex360.com\)](https://opex360.com)
- <sup>7</sup> [The HMS Defender Incident: Lawfare, Optics, and a Changing European Strategic Direction | Center for International Maritime Security \(cimsec.org\)](https://cimsec.org). On this, President Vladimir Putin declared: "Even if we had sunk that ship, it would still be hard to imagine that the world would be on the brink of a Third World War". *Naval rearmament in the world*, Marine & Océans / CESM, 1<sup>er</sup> trimestre 2022
- <sup>8</sup> [China Denies Harassing Canadian, Australian Patrol Aircraft in the Western Pacific - USNI News](https://usninews.com)
- <sup>9</sup> In response to Dutch Hugo Grotius *Mare Liberum* (1609), British John Selden coined the term *Mare Clausum* (1635). This dispute took place during the fierce competition between Netherlands and UK for world trade's domination.
- <sup>10</sup> *Naval rearmament in the world*, Marine & Océans / CESM, 1<sup>er</sup> trimestre 2022.
- <sup>11</sup> *Naval rearmament in the world*, Marine & Océans / CESM, 1<sup>er</sup> trimestre 2022.
- <sup>12</sup> A strong dissymmetry in naval capabilities would force the weakest fleet to give up confrontation as an option.
- <sup>13</sup> *Naval rearmament in the world*, Marine & Océans / CESM, 1<sup>er</sup> trimestre 2022.
- <sup>14</sup> [Which Navies Will Be the Most Powerful In the World in 2030—and Why? | The National Interest](https://www.nationalinterest.org)
- <sup>15</sup> Hybrid threats means acting below the threshold of an armed conflict. Lawfare concept (legal warfare) was coined by Charles Dunlap as a method of warfare where law is used as a means of realising a military objective, including as a form of asymmetrical warfare ("*Russian Lawfare – Russia's Weaponisation Of International And Domestic Law: Implications For The Region And Policy Recommendations*", Mark Voyger, December 2018).
- <sup>16</sup> [Pentagon Official: Chinese Military Actions Against Foreign Ships, Aircraft Are No Accidents — They're Policy - USNI News](https://usninews.com)
- <sup>17</sup> Brèves Marines n°239, *Les Milices Maritimes: une "troisième marine" dans la stratégie navale chinoise*, CESM, mars 2021.
- <sup>18</sup> [Wrangling Warships: Russia's Proposed Law on Northern Sea Route Navigation - Lawfare \(lawfareblog.com\)](https://lawfareblog.com). Russia has initiated a national law that would require diplomatic clearance for any foreign warships transiting the straits of the Northern Sea Route. Russia announced the closing off portions of the Black Sea off the Crimean Peninsula and near the Kerch Strait to foreign warships and other state vessels during one week of April 2021.
- <sup>19</sup> The cost of blockage of the Suez Canal by the container ship Ever Given in 2021 was estimated to \$10 bn in trade per day. It was refloated following a six-day salvage operation ([What to Know About the Suez Canal, and How a Cargo Ship Got Stuck - The New York Times \(nytimes.com\)](https://www.nytimes.com)). Disorganising ports (strikes), establishing control zones at sea or blocking SLOCs for a shooting exercise are credible scenarios ([NEW Handbook-on-maritime-threats\\_RGB.pdf \(hybridcoe.fi\)](https://www.hybridcoe.fi)).
- <sup>20</sup> [Cols bleus N° 3104.pdf \(defense.gouv.fr\)](https://defense.gouv.fr)
- <sup>21</sup> The oceans provide more oxygen than all forests combined (JOIN (2022) 28 final of 24.6.2022).
- <sup>22</sup> «Géopolitique de la mer», Julia Tasse & Sébastien Abis.
- <sup>23</sup> The mean sea level will continue to rise to around 0.3 metre by 2050 and 2 metres by 2100 under the very high greenhouse gas emissions scenario – risking forced human displacement – up to 340 million people by 2050 and 630 million people by 2100 (JOIN (2022) 28 final of 24.6.2022).
- <sup>24</sup> More than 99% of coral reefs would be lost with warming by 2°C (JOIN (2022) 28 final of 24.6.2022).
- <sup>25</sup> [Aires marines protégées \(France, monde\) — Géoconfluences \(ens-lyon.fr\)](https://www.eea.europa.eu). By the end of 2016, 10.8% of the surface of Europe's seas had been designated as MPAs, ranging from 27.1% of the Greater North Sea to 2,9% of Aegean-Levantine Sea ([Marine protected areas - European Environment Agency \(EEA\) \(europa.eu\)](https://www.eea.europa.eu)).
- <sup>26</sup> «Géopolitique de la mer», Julia Tasse & Sébastien Abis, 2022.
- <sup>27</sup> 34% of the world's marine fisheries are overfished (JOIN (2022) 28 final of 24.6.2022).
- <sup>28</sup> «Géopolitique de la mer», Julia Tasse & Sébastien Abis, 2022.
- <sup>29</sup> Brèves Marines n°242, *The illegal, unreported and unregulated (IUU) fishing*, mai 2021, CESM.
- <sup>30</sup> Marine species are disappearing at twice the rate of those on land due to warming (JOIN (2022) 28 final of 24.6.2022). Some practices such as bottom trawling degrades deeply coral reef.
- <sup>31</sup> China is by far the largest fishing country in the world (15 million tons per year versus 5 for the UE, the US, India or Russia), the world's number one exporter with Norway (average sales of \$10 to 15 billion), as the leader of aquaculture supply (50 million tons) («Géopolitique de la mer», Julia Tasse & Sébastien Abis, 2022).
- <sup>32</sup> China has colonised the very fishy waters of the Galapagos. In the summer of 2020, nearly 300 Chinese boats were operating around the Ecuadorian archipelago, accounting for 99% of the catch. IUU also originates from other countries (Russia, India). It's particularly widespread in artisanal fishing communities on the West African and Asian coasts.

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<sup>33</sup> Algae are one of the most important untapped resources, capable of feeding people with many nutritional benefits, storing carbon and de-acidifying the oceans, increasing the number of juvenile fish. It could also create jobs in the blue economy (fertilisers, biofuels, cosmetics, etc.).

<sup>34</sup> "Les enjeux polaires", Yves Frénot and Martin Motte, *Stratégique* 2018/3 n°120. Only 1% of the water we drink comes from the oceans, whereas 97% of the world's water comes from the sea. The global desalination market is estimated at \$18 billion and should double by 2030 («Géopolitique de la mer», Julia Tasse & Sébastien Abis, 2022).

<sup>35</sup> Distilling seawater allows to obtain deuterium. Every cubic metre of seawater contains 33 grams of deuterium, which is routinely extracted for scientific and industrial purposes ([Les combustibles \(iter.org\)](#)).

<sup>36</sup> Brèves Marines n°235, *Les usines de dessalement, nouveaux enjeux géopolitiques*, juin 2020.

<sup>37</sup> Originally conceived as a simple method for injecting CO<sub>2</sub> into the ocean to reduce the atmospheric burden of the greenhouse gas, today geo-engineering refers to a wide set of methods for voluntarily modifying the system on large scale, mainly Carbon Dioxide Removal (CDR) and Solar Radiation Management (SRM). ([JRC99777\\_01 geoengineering.pdf](#)).

<sup>38</sup> The undersea monitoring system has both military and civilian purpose ([China Is Building a "Undersea Great Wall" To Take on America in a War | The National Interest](#)).

<sup>39</sup> The Defense Ministry Main Directorate of Deep-Sea Research 10th Department (called "GUGI") was established in 1976, responsible for Russian 'underwater engineering'. An Army force of "Hydronauts" was trained for submarine intelligence (listen to communications cables, install motion sensors, as well as collected from the seabed shipwrecks, planes and satellites). ([Main Directorate of Deep-Sea Research \(Military Unit 40056\) GUGI - Russia \(globalsecurity.org\)](#)). GUGI operates specially-equipped surface vessels, including "Yantar".

<sup>40</sup> [France Unveils New Seabed Warfare Strategy - Naval News](#)

<sup>41</sup> The seafloor includes abyssal plains 3,500m–6,500m below the sea surface, seamounts (volcanic underwater mountains), hydrothermal vents with bursting water heated by volcanic activity, and deep trenches such as the Mariana Trench. [Deep-sea mining - resource | IUCN](#)

<sup>42</sup> Deep sea mining, which refers to the extraction of minerals in marine areas at depths of 1,400 to 6,000 metres, seeks to mine a huge variety of raw materials (gold, silver, copper, manganese, cobalt, zinc, nickel, lead, lithium and rare earths), in "*Forages en eaux profondes: cartographie d'une controverse*", Clémence Seurat, AOC, 10 février 2022.

<sup>43</sup> [The Ocean Edge | Belfer Center for Science and International Affairs](#)

<sup>44</sup> The EU supports the UN Resolution A/RES/76/296 of 21 July 2022 endorsing the Declaration entitled "Our ocean, our future, our responsibility" adopted by the 2nd UN Ocean Conference ("Lisbon Declaration"). See the joint Communication JOIN (2022) 28 final of 24.6.2022 on the *EU's International Ocean Governance agenda: "Setting the course for a sustainable blue planet"*.

<sup>45</sup> JOIN (2022) 28 final of 24.6.2022 on the EU's International Ocean Governance agenda.

<sup>46</sup> [global-flows-the-ties-that-bind-in-an-interconnected-world-vfinal.pdf \(mckinsey.com\)](#)

<sup>47</sup> [the-future-of-trade-issues-paper-22-september-2021.pdf \(europa.eu\)](#)

<sup>48</sup> Countries maintaining normal relations with Russia (e.g., China or India) may seek to shield themselves against secondary sanctions by selectively decoupling their supply chains ([Why global industrial supply chains are decoupling \(ey.com\)](#)).

<sup>49</sup> « Géopolitique de la mer », Julia Tasse & Sébastien Abis, 2022.

<sup>50</sup> After the Gulf of Aden was classified as a war risk area due in 2008, premiums surged from \$20,000 to \$150,000 ([How Much Trade Transits the South China Sea? | ChinaPower Project \(csis.org\)](#)).

<sup>51</sup> [future-maritime-trade-flows.pdf](#). Shipping volumes of fossil fuels will fall further in the long term, with trade in energy commodities declining after a peak by 2030. Natural gas – as liquefied natural gas (LNG) and liquefied petroleum gas (LPG) – should experience sustained growth in the short and medium term.

<sup>52</sup> For example, ageing populations demand more services than goods. However, trade in manufactured goods have proven pretty resilient in 2021 and should continue growing faster than GDP despite new disruptions in 2022 ([global-flows-the-ties-that-bind-in-an-interconnected-world-vfinal.pdf \(mckinsey.com\)](#)).

<sup>53</sup> [global-flows-the-ties-that-bind-in-an-interconnected-world-vfinal.pdf \(mckinsey.com\)](#)

<sup>54</sup> For the EU, this region is spanning from the East Coast of Africa to the Pacific Island States (JOIN (2021) 24 final of 16.9.2021 - The EU Strategy for Cooperation in the Indo-Pacific) - The term was first coined by Japan Prime Minister during a visit in India in 2007. Council Conclusions (16 April 2021).

<sup>55</sup> JOIN(2021) 27 final of 13.10.2021 *A stronger EU engagement for a peaceful, sustainable and prosperous Arctic*.

<sup>56</sup> [How Much Trade Transits the South China Sea? | ChinaPower Project \(csis.org\)](#)

<sup>57</sup> [COSCO takes stake in Hamburg Port terminal | Merics](#)

<sup>58</sup> 2Africa will make 46 landings and connect 33 countries, running the length of Africa's east and west coasts (it will connect Kenya, Tanzania, South Africa, Mozambique and Nigeria), and with an extension linking India, Pakistan and the Gulf states ([Google, Meta cables will be 'game-changers' for Africa | Light Reading](#)).

<sup>59</sup> [Câbles sous-marins : l'avenir d'Internet se joue sous les océans \(incyber.org\)](#)

<sup>60</sup> Seasteading Institute is a non-profit organisation founded in 2008 by a former Google engineer and Peter Thiel with the aim of supporting the development of floating, ecological and politically autonomous cities. BlueSeed is a start-up whose aim is to build a floating State on a liner sailing in the international waters of the Pacific. Anarchist projects such as the Ocean Builders company are heir to the attempts to found micronations in international waters, e.g. the Sealand platforms off the coast of England (1966), the Rose Island off the coast of Rimini (1968) or the Republic of Minerva near Tonga (1970).

<sup>61</sup> See the French Red Team scenario of a P-Nation (Pirate Nation) [P-Nation - Saison 0 \(redteamdefense.org\)](#).