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Shipbuilding in inland navigation

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Summary of the report

In the context of the preparation of the Maritime industrial strategy, this report aims to provide a comprehensive overview of the inland navigation shipbuilding industry in Europe, examining its current state, challenges, opportunities and outlook. It is important to know that when it comes to the delivery of newbuilds, the European market capacity should not be assessed from the perspective of the shipyards only, but from the perspective of the entire shipbuilding industry, which includes subcontractors, components manufacturers, naval architects. Depending on the years, between 100 and 150 inland navigation vessels come into the market each year[1], having in mind that the European fleet is about 15,000 vessels. Pleasure craft are not included within this scope, yet these generate activities for the shipyards as well. Even though some maritime shipyards are also active in the field of inland navigation, shipyards active in the field of inland navigation are generally specialized in this field. The sector is highly concentrated, with most activity based in the Netherlands and Germany. While most final outfitting takes place in western Europe, hull construction is often outsourced to countries such as Romania, Serbia, and China. European shipyards benefit from strong expertise, especially in the outfitting process of vessels. In recent years, the sector has seen growing demand in two key areas: river cruise vessels, which are recovering post-Covid, and retrofits driven by environmental regulations. Moreover, there is a tendency towards larger vessel sizes, particularly in the tanker market. However, the industry faces several challenges: a shortage of skilled labour, limited investment capacity on the side of vessel owners, and a certain dependence on non-EU countries for hull construction. Long construction processes and bottlenecks at the level of subcontractors and inspection bodies constrain flexibility. Despite these pressures, the sector has promising opportunities. Energy transition, the emergence of new markets, and a possible growing demand for low water adapted vessels could drive innovation, investment and demand. Increasing hull production within Europe may reduce external dependencies.

[1] Based on IVR database and expert input. This figure captures commercial cargo and passenger vessels (cabin and day-trip) special purpose vessels (such as patrol vessels/government vessels)and floating equipment in the scope of the Rhine vessel inspection regulations / Directive (EU) 2016/1629 laying down technical requirements for inland waterway vessels as well as some which fall outside this scope such as ferries and vessels (other than passenger vessels and floating equipment) with a length below 20 metres.

To summarise the key characteristics of the inland navigation shipbuilding industry, the following SWOT analysis was prepared.

Strengths	**Weaknesses**
- Strong European expertise, especially for the outfitting of vessels, including specialised companies and subcontractors. - Low dependency on China for the passenger transport market. - A dedicated regulatory framework based on European (rather than worldwide) standards (ES-TRIN[2] standards, developed in CESNI[3]), taking into account the specificities of European inland navigation.	- A certain dependency on China for hull construction, in particular for the tanker fleet. - Capacity utilisation almost full at the level of shipyards, but also subcontractors. - Long construction process and necessity to book shipyard slots well in advance. - Capacity bottlenecks within inspection bodies.
Opportunities	**Threats**
- Growing demand in the IWT sector, especially the passenger transport sector. - Energy transition, a driver for newbuilds and retrofits. - Emergence of new markets linked with the energy transition, urban logistics and the circular economy - Digitalisation, automation and remote-control of vessels - Fluctuation in water levels which requires low water adapted vessels to be built and increases relevancy of smaller vessels (which have been following a decreasing trend in the last decade). - Development of training programmes. - Increasing hull shipyards capacity in western Europe, possibly through subsidies (within the limits of available space). - Better coordination among inland navigation shipyards in view of a more efficient contribution to ES-TRIN.	- Climate change: vulnerability of the inland navigation fleet to fluctuating water levels on free-flowing rivers like the Rhine or the Danube which could impact IWT demand. - Shortage of skilled staff. - Macroeconomic and geopolitical conditions (which can have an impact on supply and price of raw materials and components necessary for shipbuilding). - Lack of investment capacity in the IWT sector (need for subsidies), especially for small and medium-sized companies and vessels of smaller size class. - Delays in adapting the regulatory framework to innovations (i.e. energy transition). - The size (in number) of the EU fleet is expected to decrease by 2050, continuing the downward trend observed in recent years even if the transport capacity should remain stable or even increase.

[2] Source: https://www.cesni.eu/wp-content/uploads/2024/11/ES_TRIN_2025_signed_en.pdf
[3] https://www.cesni.eu/en/

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CHAPTER 1: INTRODUCTION

In the Mission Letter to the Commissioner for Sustainable Transport and Tourism[4], the President of the European Commission announced a 'new industrial maritime strategy to enhance the competitiveness, sustainability and resilience of Europe's maritime manufacturing sector'.

The maritime manufacturing sector encompasses a broad range of industrial activities and specialised services. These include, among others, the design, building, repair, maintenance and retrofitting of seagoing vessels and inland navigation vessels. Indeed, even though some maritime shipyards are also active in the field of inland navigation vessels, shipyards active in the field of inland navigation are generally specialised in this field. Inland navigation shipyards generally carry out both newbuilding works as well as repair and conversion works, while some, especially in Germany, have a tendency to specialise either in repairs/conversions or newbuilds/retrofits. Today, key opportunities and threats that influence the shipbuilding inland navigation industry include energy transition, the evolution of technical requirements for vessels, shortage of qualified staff, reliance on the eastern European and Chinese shipyards for building hulls. In this context, any legislation impacting these factors, for instance in the form of mandatory emission limits for the inland navigation fleet, will necessarily have an impact on shipbuilding (newbuilds and retrofits). Of course, the shipbuilding industry is also strongly linked with the development of the inland navigation market. If IWT market demand evolves positively in a specific inland navigation segment, as is the case for example in the river cruise segment, it can be assumed that demand for new vessels in this specific market will grow, and vice versa. In more general terms, macro-economic and geopolitical factors also affect the inland navigation shipbuilding industry.

In the context of preparing the upcoming EU maritime industrial strategy, it is therefore important to collect input regarding the inland navigation shipbuilding industry in order to:

- gain a better overview of the EU's inland navigation shipbuilding industry and its specificities (Chapters 2 and 3)
- understand the main trends expected to affect the inland navigation shipbuilding industry in the future (Chapter 4)
- formulate recommendations to support the development of this industry (Chapter 5).

In this context, the CCNR Secretariat has collected information on the inland navigation shipbuilding industry, based on a set of indicators which are both quantitative (number of shipyards, capacity, number of vessels built each year) and qualitative (trends influencing the shipbuilding industry, challenges and opportunities for the future) (*exhaustive list in Annex 1*), which are analysed in the next chapters of this report.

To conduct this research, the CCNR Secretariat has relied on input from experts (*list of experts interviewed available in Annex 2),* based on predefined questionnaires. Such experts could be found among classification societies, European and national associations representing the shipbuilding industry, individual shipyards, passenger and freight transport experts, inland navigation companies and managers of funding programmes that support retrofits/newbuilds. In addition, the CCNR Secretariat has also relied on its own expertise and desk research to collect complementary quantitative and qualitative data (reports, articles, books, database…).

The limitations faced in the course of this study related mostly to the collection of quantitative data per shipyard (i.e. number of newbuildings, retrofits and repairs per year per shipyard). While average numbers could be found for the biggest shipyards, this was not necessarily the case for the smaller ones, which for instance deliver one new vessel every two or three years, or those which focus only on repairs. Based on the various input collected, the CCNR Secretariat drafted a list of inland navigation shipyards active in Europe, together with relevant characteristics for each of them, whenever available. This list includes primarily shipyards that have built new vessels in the last 15 years. It only partially covers those focused on repairs and maintenance, as well as those which are active in the inland

[4] Mission letter, Apostolos Tzitzikostas, 17 September 2024. Available at: https://commission.europa.eu/document/download/de676935-f28c-41c1-bbd2-e54646c82941_en?filename=Mission%20letter%20-%20TZITZIKOSTAS.pdf

navigation field only to a limited extent and those occasionally building small commercial passenger ships. It excludes shipyards that build only pleasure craft[5].

[5] For instance, in the Netherlands, a dedicated organisation represents shipyards involved in this business (NJI): NJI Leden yachtservice en onderhoud | Nederlandse Jachtbouw Industrie

CHAPTER 2: THE INLAND NAVIGATION SHIPYARD INDUSTRY IN EUROPE

This chapter provides an overview of Europe's inland navigation shipbuilding industry, covering the main shipyard locations, vessel specialisations, evolving trends in shipbuilding and retrofitting, and key factors influencing the sector.

1. NUMBER OF INLAND NAVIGATION SHIPYARDS OVERALL AND PER COUNTRY

According to the compiled data, inland navigation shipyards operating across Europe amount to around 200, including almost 100 in the Netherlands and 50 in Germany.

When it comes to newbuildings, it is important to distinguish between the construction of hulls (which are predominantly built in Serbia, Romania and China) and the completion of the vessels (which is predominantly carried out in western Europe). Completion (outfitting or finishing) requires complex and sophisticated work, thereby requiring specific skills as that provide for electrical installation, engines, piping, painting, accommodation, and air conditioning. The completion process is generally handled by specialised companies or subcontractors, which are mostly Dutch, while the role of the western European shipyards is primarily to coordinate their work. Outfitting also has an important commercial value as it requires a significant amount of skilled labour and specialised equipment and is essential to secure the safe and efficient operation of a vessel. Depending on the type of vessels, it is estimated that up to 75% of newbuilding costs are associated with outfitting activities.

Most of the inland navigation shipyards are small family-owned companies with around 50 employees. While some companies are somewhat larger, they remain the exception. The larger shipyards often operate in both inland and maritime shipbuilding.

The Netherlands hosts the largest number of shipyards active in inland navigation with around 20 shipyards delivering several inland vessels per year. While the exact number is unknown, there are approximately 100 shipyards which are active in the building of new inland navigation vessels or in retrofit/repair/conversion activities[6]. Many Dutch shipyards specialise in both newbuilding and retrofits. While the Netherlands has a strong market position in the field of vessel outfitting/completion, numerous shipyards also undertake full construction of inland navigation vessels (hull construction and outfitting), particularly push boats, ferries, state-owned vessels and to a lesser extent cargo vessels.

Among the most prominent Dutch shipbuilders is the Damen Shipyards Group, which operates 16 domestic yards, and is active both in the inland navigation and maritime fields. The Damen's subsidiary, which is the most relevant for the inland navigation shipbuilding market, is Concordia Damen.

Germany is the country with the second highest number of shipyards (50 in total[7]). These yards cover a broad range of activities including hull construction, complete shipbuilding, and vessel repair. Notable examples include Neptun Werft, part of the Meyer Group, which – since 2022 - has notably delivered 76 inland cabin vessels.

In France 15 shipyards have been identified as having delivered at least one inland navigation newbuild in recent years[8]. Most focus on the construction of passenger ships and other specialised inland vessels. However, not all of these shipyards deliver inland vessels each year. In the Paris region, the shipyards Chantier de la Haute-Seine and Chantier Vandenbosshe are particularly active. One of the main players, Chantiers de l'Atlantique, built inland vessels in the past, but has not continued in this line of production. Most French shipyards build entire vessels domestically rather than importing hulls. Though the French yards are fewer in number, they often take on high-complexity or custom design projects. This was for instance the case of the River Creation, built by the shipyard Chantier de la Haute-Seine and relies fully on batteries for its propulsion[9].

[6] For inland vessels above 25 meters
[7] This number covers almost all active shipyards (newbuilding and repairs) according to the organisation representing German Shipyards (VSM).
[8] Regarding France, complementary information is expected to become available in the coming weeks.
[9] https://chantiers-navals-haute-seine.fr/reference/le-ducasse-sur-seine/

Serbia and Romania play a key role in hull production for the European market. Other European shipyards in Poland, Czech Republic, Ukraine, Slovakia, Hungary, Austria, Bulgaria and occasionally Portugal also deliver hulls for the European market while also occasionally delivering complete vessels.

Based on desk research and expert interviews, seven Chinese shipyards have been identified as delivering hulls for the European inland navigation market.

Shipyards in Belgium, the number of which has decreased in recent years, mostly focus on repairs. The recent closure of the last university training course in inland navigation shipbuilding at the University of Liège suggests that the national expertise may decline in the coming years, potentially leading to a further reduction in shipbuilding activity in Belgium.

Occasionally, shipyards outside Europe are also active, as is the case of Turkey.

2. OVERALL CAPACITY

Depending on the years, between 100 and 150 inland navigation vessels come onto the market each year. During the period 2017-2024, the average number of new buildings built per year amounted to 120[10]. Pleasure craft are not included within this range of vessels, yet they also generate activities for the shipyards. Taking into account only newbuildings within Rhine vessel inspection regulations / Directive 2016/1629, which sets out the technical requirements for inland waterway vessels, this figure represents 100 vessels. When considering only dry cargo and tanker vessels, but also cabin vessels in the above-mentioned range, the total is 88. It is important to note that the newbuilding shipyards' capacity utilisation rate in Europe however fluctuates, depending mainly on the regulatory and economic environment.

The inland navigation shipyard sector in Europe has been operating at or near full capacity in the past two years (2022-2024) when it comes to newbuilds. The outlook in the next two years remains similarly positive. This extends beyond the shipyards themselves, as subcontractors responsible for engines and propulsion systems, electrical systems, interiors, and other critical components are also working to the limits of their capacity. Bottlenecks at their level can generate delays in the delivery for newbuilds and retrofits. When it comes to the delivery of newbuilds, the European market capacity should therefore not be assessed from the perspective of the shipyards only, but from the perspective of the entire shipbuilding industry, which includes subcontractors, components manufacturers, naval architects… Anconav indicated that shipyards in Romania could still have the potential to absorb additional demand. As a result, the number of vessels delivered in recent years essentially reflects the maximum volume the sector can produce under current conditions.

Dutch shipyards such as Dolderman, TeamCo, and Breko can each complete between eight to 12 tankers annually, depending on the specific yard and the complexity of the project. In Germany, for example, Viking River Cruises has ordered a total of 19 new river cabin vessels to be built by Neptun Werft, 11 scheduled for 2025 and 2026, and eight more for 2027 and 2028. Romanian and Serbian leading shipyards each deliver around nine to 12 hulls annually, most of which are destined for the western European market. In France, production is oriented towards high-complexity and customised vessels. The production amounts to approximately three day-trip vessels per year.

[10] Based on IVR database and expert input. This figure captures commercial cargo and passenger vessels (cabin and day-trip) special purpose vessels (such as patrol vessels/government vessels) and floating equipment in the scope of the Rhine vessel inspection regulations / Directive (EU) 2016/1629 that lay down technical requirements for inland waterway vessels as well as some that fall outside this scope, such as ferries and vessels (other than passenger vessels and floating equipment) with a length below 20.

3. A SPECIFIC REGULATORY FRAMEWORK DIFFERENT FROM MARITIME[11]

The regulatory framework in the maritime sector is different from the inland navigation sector.

3.1 Vessel technical requirements

In terms of shipbuilding standards in inland navigation, an inland vessel operating on EU waterways or on the Rhine must carry either a Union inland navigation certificate or a Rhine vessel inspection certificate. Both certificates are issued by the competent national authorities (inspection bodies) and confirm the full compliance of the vessel with the European Standard laying down Technical Requirements for Inland Navigation vessels (ES-TRIN[12]). This standard contains provisions on inland navigation vessel construction and equipment as well as special provisions for certain categories of vessels such as passenger or container vessels. The objective of these technical requirements is to guarantee a high level of safety in inland navigation, thereby also protecting the environment and the people on board. ES-TRIN is updated every two years by the European Committee for drawing up standards in the field of inland navigation (CESNI[13]). ES-TRIN also includes safety requirements for different types of propulsion systems, such as internal combustion engines, electric motors and hybrid systems.

3.2 Regulation on the transport of dangerous goods

Specific rules for the transport of dangerous goods (explosives, poisonous or corrosive substances) also exist and are compiled in the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)[14]. In order to transport dangerous goods by inland waterways (bulk, tank or container), a vessel must carry a certificate of approval issued by the competent national authorities (inspection bodies) in compliance with the provisions of the ADN.

3.3 Regulations applicable to engines or energy converters

With regard to the regulations applicable to engines or energy converters, it is important to note that beyond the safety requirements for engine rooms of inland vessels, since 2003, new engines for inland vessels have been subjected to specific requirements in terms of emissions of air pollutants. The first limits of air pollutants were introduced in the RVIR in 2003 (known as CCNR stage I). These limits only applied to newly installed engines onboard of inland vessels. A few years later, the CCNR and the EU introduced jointly stringent emission limits in the RVIR and the Directive 2004/26/EC (known as CCNR II and EU IIIa). As of 1 January 2019, new emission limits were introduced by the “NRMM Regulation” (EU) 2016/1628[15] (known as EU Stage V limits) which are mandatory for newly installed engines and are now the new state-of-the-art.

3.4 Classification rules

Contrary to the maritime sector, apart from tanker vessels within the scope of the ADN or for high-speed vessels in accordance with ES-TRIN[16], the classification of inland vessels is not mandatory. ES-TRIN sometimes requires a specific attestation from a classification society (as for vessels longer than 110 metres in Article 28.03), without requiring that the vessel be classed. In other words, only part of the fleet is built and surveyed in accordance with classification rules. The inland vessel certificate is issued by competent authorities, taking into account the attestations issued by the classification societies. For innovative vessels - although not required by regulation - classification societies are involved in almost all pilot projects. Indeed, they have special rules and expertise to handle the new technologies, provide

[11] Based on PLATINA 3 D2.7 “Report on policy recommendations on regulatory pathway towards zero emission fleet”, 2023. Available at: https://platina3.eu/towards-zero-emission-fleet/

[12] Source: https://www.cesni.eu/wp-content/uploads/2024/11/ES_TRIN_2025_signed_en.pdf

[13] https://www.cesni.eu/en/

[14] UNECE, “ADN 2025”, January 2025. Available at: https://unece.org/transport/dangerous-goods/adn-2025

[15] European Union, “Regulation on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery”, (EU)2016/1628. Available at: http://data.europa.eu/eli/reg/2016/1628/oj

[16] ES-TRIN 2025, Article 29.01(3). Available at: https://www.cesni.eu/wp-content/uploads/2024/11/ES_TRIN_2025_signed_en.pdf

assistance to perform the risk assessment required by ES-TRIN and ensure proper implementation of the risk mitigation measures in the design and building phases.[17] The classification rules and guidelines are a very valuable source for the development of pilot projects, while maintaining high levels of safety.

4. RETROFIT AND NEWBUILD: SIMILAR OR DIFFERENT PRACTICES?

Retrofit and newbuild practices in the inland navigation sector differ considerably in duration, technical complexity, and regulatory challenges.

The construction of a new vessel begins with the design phase, which can last from three to 24 months, depending on the type of vessel, its complexity, and whether it is based on a new or previously used design. Following the design phase, hull construction, typically subcontracted to shipyards in China, Romania, or Serbia, usually takes between six and 12 months. For hulls built in China, an additional two to four months are needed for transporting them to Europe. Once the hull arrives, the outfitting phase can last four to five months for tankers and six to seven months for cabin passenger vessels. Altogether, the entire construction process for a new inland vessel can range on average from 15 to 47 months, depending on the vessel type, the owner's delivery expectations, the availability of resources, the vessel's complexity, and whether the hull is sourced from nearby or overseas shipyards. The construction phase (hulls and completion) lasts around 18 months. In recent years, building times have increased due to growing delays in the delivery of vital components such as main engines, which now often need to be ordered during the early stages, before construction contracts are finalised. Additional delays can also arise due to capacity constraints at the level of subcontractors and authorities (such as tonnage measurement authorities or inspection bodies in some countries). Furthermore, the post-Covid period has exacerbated material supply issues, with prolonged delays in receiving essential raw materials, such as stainless steel (up to ten months delay) and certain components, as well as price increases for materials such as steel.

On the other hand, retrofitting timelines depend greatly on the nature of the intervention. Major retrofits of propulsion systems typically take eight to ten months in total, leaving the vessel out of operation for three to six months, depending on the retrofit scale and whether the retrofit requires full disassembly. Sometimes, in such large retrofits, the only part of the vessel that remains is the hull. This is especially relevant for day-trip passenger vessels, which often undergo transformation into battery or hybrid propulsion. Retrofits to alternative fuels remain rare, primarily due to their high financial costs and complexity, but are seen by several experts as a great opportunity for shipyards in the future. Besides retrofits to alternative propulsion systems, retrofits to improve energy efficiency represent a fine opportunity. However, more frequent retrofits, such as main engine replacements, refurbishment, or conversions such as lengthening, are more common and quicker to realise. Regarding conversions to lengthen a vessel, it should be noted that with the ageing of the fleet and the hulls becoming older, discussions are ongoing regarding the reinforced inspections of such lengthening operations due to the impact on the vessel's structure, thereby generating potential safety issues[18]. For example, the higher bending moment due to lengthening can be compensated by reinforcing the vessel's steel plates in the centre of the vessel. Retrofitting generally does not take place in the same shipyard as where the vessel was originally built.

In recent years, retrofitting has become more common, driven by both environmental goals and pressures from new regulations. In particular, ES-TRIN has become a decisive factor where several stakeholders have confirmed that compliance with the transitional provisions[19] of ES-TRIN is a common reason for vessel owners to undertake retrofits. In addition, in some cases, access to mooring locations is only given if operators can prove that their vessel has been modernised. This is for instance the case

[17] Nowadays, six classification societies are recognised by the EU in inland navigation, in accordance with Directive (EU) 2016/1629: DNV, Bureau Veritas Marine & Offshore (BV), Lloyd's Register (LR), RINA, Polish Register of Shipping (PRS) and Croatian Register of Shipping (CRS). The list of classification societies recommended for recognition by the ADN Administrative Committee can be found on the UNECE website "List of classification societies recommended for recognition by the ADN Administrative Committee", 2022. Available at: https://unece.org/classification-societies

[18] Several accidents have been observed in recent years due to uneven distribution of load on vessels leading to hold deformation/fold such as the Renkse in 2021, the Botlek Rotterdam in 2023 (link) or the Courage in 2024 (link)

[19] The application of the requirements of ES-TRIN to existing vessels is governed by transitional provisions. These provisions outline a gradual adaptation process for the existing fleet with specific deadlines.

in the port of Amsterdam where only cabin vessels reaching a certain score within a Green Award label are allowed to moor at a berth in the city centre[20].

It has been noted by a naval architect based in France that many vessels must undergo retrofit due to the long lifespan of inland ships (often 50 to 60 years), which makes periodic upgrades a necessity. Such upgrades also reduce the distortion of competition between old and new vessels. In fact, the architect in question has reported seven retrofits over two years, mostly involving decarbonisation technologies such as battery-electric propulsion.

Furthermore, retrofit demand is, according to experts, growing faster than the availability of qualified shipyards. It is therefore necessary to anticipate the completion of mandatory retrofits to meet regulatory deadlines in order to avoid potential difficulties.

5. DESTINATION OF NEWBUILDS

Data from SEA Europe reports that European shipyards held an average European home market share of 85% for inland waterway vessels between 2020 and 2024, with an average of 64 inland vessels delivered annually during that period. According to SEA Europe classification, which collects data both for maritime and inland vessels, these figures only capture inland navigation vessels that are classed below 5,000 GT and which are therefore underestimated. This explains the difference to the figures provided in Chapter 2.

As confirmed by experts, the inland shipbuilding market is largely focused on serving demand within Europe, with few exceptions on the international market. One example is the delivery of the Veronica V, a shallow-draft push boat built by Concordia Damen for the Paraguayan operator Girona SA.

6. FACTORS INFLUENCING SHIPBUILDING AND SHIPYARD CHOICE

The three primary factors influencing the selection of a shipyard across Europe are:

- Delivery time
- Cost
- Quality/expertise

These factors were widely confirmed by stakeholders across a number of different countries, all of which described the decision-making process as falling within the well-known "cost-time-quality" triangle. In the Dutch market, delivery time often appears as the most decisive factor, particularly in a highly active shipbuilding environment where most shipyards operate near full capacity. Price differences between shipyards in this market tend to be limited, and the quality is broadly consistent due to the widespread use of the same subcontractors for key components such as electrical systems, piping, engines, and interiors.

Increases in raw material and energy prices, especially steel and fuel, can have a significant impact on the overall costs of inland vessels. Such price increases can impact on the number of newbuilds, as they reduce the investment capacities of companies. These pressures can delay or reduce new orders, particularly among smaller operators or those with capital constraints. Market-specific trends and world economics also play a major role (see Chapter 2.7).

Beyond these core factors, regulatory compliance - particularly with the ES-TRIN as mentioned in the previous point - plays an increasing role, especially in the context of new technologies and retrofits. As noted by stakeholders in France, some shipyards are selected specifically for their capacity to manage ES-TRIN certification, which differs from maritime legislation (see 2.3), presents a certain complexity and is not always well understood by shipowners.

[20] Source: https://www.portofamsterdam.com/en/news/implementation-date-green-award-requirement-river-cruise-ships-postponed

Another decisive element is the strength of existing relationships. In several responses, especially from the Netherlands and Germany, it was highlighted that trust and previous experiences with a shipyard strongly influence the selection. For example, owners often prefer to return to yards they know will deliver on time and can handle subcontractor coordination efficiently. In some cases, shipowners may commission a “sister ship” with similar design specifications, making it natural to return to the same yard. An example is the Concordia Damen’s “Parsifal” tanker design, on the basis of which a series of sister tankers were built for the company Shell. Similarly, the sister tankers “Courage” and “Curiosity” were built in the same shipyards (Severnav in Romania for the hull and De Gerlien van Tiem in the Netherlands for their completion) just a few months apart.

Finally, in countries such as Romania and Serbia, geopolitical stability was mentioned as an additional consideration, particularly for western European buyers outsourcing hull production. Trust in the political and logistical reliability of a region can be a decisive factor in choosing where to build. For the Czech shipyard, water levels on the River Elbe can considerably delay the transfer of a vessel from the Upper Elbe to the western European IWT network.

7. MARKET SPECIFIC TRENDS: PASSENGER, LIQUID, AND DRY CARGO

It is worth mentioning that there are similarities between the development in the inland waterway market and future trends in shipbuilding activity.

7.1 Passenger vessels

The passenger vessel segment, particularly cabin vessels, is currently the most dynamic and growing market in inland navigation shipbuilding. The Netherlands leads the global market, accounting for the construction of around 50% of all new cabin vessels, followed to a lesser extent by Germany and France. It is important to note that cabin vessels form only part of the wider passenger vessel fleet, which also includes day-trip boats and ferries. These represent 76% of all passenger vessels on European inland waterways and, for the most part, were constructed in the 20th century. Nevertheless, the sector has seen notable newbuilding activity in the 21st century, a trend likely to accelerate due to energy transition. Indeed, ferries and day-trip vessels, given their short and fixed routes, are generally well suited for battery-electric propulsion. At the same time, they are subjected to stricter environmental regulations in city centres. This suggests significant market potential for shipyards in the coming years, both in retrofits and newbuilds for these segments.

This strong performance is supported by the Netherlands’ advanced infrastructure (equipped shipyards, specialised ports and dry docks), skilled subcontractors, and a high concentration of specialised shipyards. The luxury segment is particularly buoyant, although new construction depends heavily on demand from tour operators.

Innovation in this sector is accelerating, for instance, Neptun Werft builds cabin vessels for Viking River Cruises with diesel-electric propulsion combining battery and stage V engines. Similarly, the cabin vessel A-Rosa SENA, built by the Shipyard Concordia Damen, has a battery pack allowing it to sail approximately 30 minutes on batteries during harbour operation. In recent years, the battery capacity installed on inland vessels has increased.

For the delivery of passenger vessels, a peak was observed for the years 2013 and 2014. These years benefited from the booming number of travelers on cabin vessels. After 2014, a negative trend was seen, which can partly be explained by terrorist attacks during the 2015-2018 period in Europe. Terrorist attacks in Europe deter overseas customers from booking a cruise and therefore have an impact on newbuilding figures. In addition, construction activity calmed down after the booming years with a huge delivery of new capacities. The Covid pandemic was a third influencing factor for the downturn of shipbuilding for cabin vessels, which hit particularly hard the shipyards concentrating on passenger ships. The bankruptcies of the shipyards such as Merwede and De Hoop in the Netherlands, Pella Sietas in Germany, Manche Industrie Marine in France, and the Meuse et Sambre in Belgium soon after the Covid pandemics are examples of this negative impact. With regard to recent years, the new building activity for river cruises remained rather slow between 2022 and 2024. Newbuilding figures for

2024 were still higher than in 2023 and are expected to almost triple in the period 2025-2026. This is driven by the boom in river cruise demand observed since 2023 which is expected to continue in the forthcoming future.

7.2 Liquid cargo vessels

While the tanker market has been historically strong, a decline is expected due to energy transition, moving away from fossil fuels. From mid-2026, the number of new tankers is projected to drop to just ten to 15 per year. However, technological developments continue to emerge in this segment.
For instance, ammonia and CO_2 are expected to become a growing market for the inland tanker fleet, which will support the development of new vessel designs.

7.3 Dry cargo vessels

The dry cargo vessel market has experienced a gradual slowdown since 2010, primarily due to oversupply of newbuilds constructed between the late 1990s and 2010. However, there are indications of recovery, particularly in the larger vessel segment (above 110 metres).

From mid-2022 to mid-2024, many older dry cargo ships and push barges were sold to eastern European countries, largely to support grain transport from Ukraine. This has created space in the western European market and is likely to stimulate demand for newbuilds to replace the fleet that was exported.

In parallel, the trend towards low-water-optimised vessel designs is becoming more significant. New ships are being constructed with shallower drafts and optimised hulls to ensure operability during drought-induced low water periods, especially on the Middle Rhine[21].

7.4 Push boats and tugboats

Six new push boats and tugs were built in 2023 (compared to four in 2022), of which four are registered in the Netherlands, one is registered in Germany, and one in Belgium.

As explained in section 4, some newbuilds from European inland shipbuilders, particularly in the Netherlands, are destined for markets outside Europe. One notable example is the delivery of the Veronica V, a shallow-draft push boat built by Concordia Damen for a Paraguayan operator.

In parallel, ThyssenKrupp Veerhaven, a major inland shipping operator in Germany, is designing together with European shipyards a new generation of push boats using methanol as fuel[22]. It is expected that the first order for such push boats in 2025 will be with the shipyard Kooiman in the Netherlands.

[21] For example, the HGK Gas 94, a low-water-optimized gas tanker. See: https://www.hgk.de/fileadmin/pressemitteilungen/2023/01_10_2021_Press_Release_HGK_Shipping_Gas_94_naming_ceremony.pdf

[22] See: https://www.thyssenkrupp.com/en/newsroom/press-releases/pressdetailpage/thyssenkrupp-veerhaven-is-planning-the-climate-friendly-pusher-tug-of-the-future-252043

CHAPTER 3: DATA PER COUNTRY

1. FOCUS ON THE NETHERLANDS

The Netherlands is the leading country for inland vessel shipbuilding in Europe. While the steel hulls of the vessels are mainly built in eastern Europe and in China, almost all inland waterway cargo vessels in Europe, and a large proportion of inland waterway passenger vessels, are completed in the Netherlands.

The hulls that are built in eastern Europe and in China are usually delivered to the Netherlands by shipbrokers. The shipbroker Rensen Driessen Shipbuilding delivers approximately 70% of all hulls. Some of the Dutch shipyards are specialised in the construction of freight vessels, but many construct both freight and passenger vessels. Regarding freight vessels, mainly tanker vessels are built.

Over the last couple of years, the shipyard with the highest number of vessels built was Dolderman, where 12 tanker vessels and one dry cargo vessel were completed on average per year. Shipyards such as Dolderman, TeamCo, Breko, Gerlien van Tiem and Concordia Damen have a staff of around 50 employees, whereas the other shipyards are smaller.

The following Dutch shipyards are also active in both the maritime and inland shipbuilding sectors: the Holland Shipyards Group (Hardinxveld and Werkendam), Padmos (Stellendam and Bruinisse) and Zwijnenburg (Rotterdam). In general, shipyards which are also active in the maritime sector are larger companies with more than 50 employees.

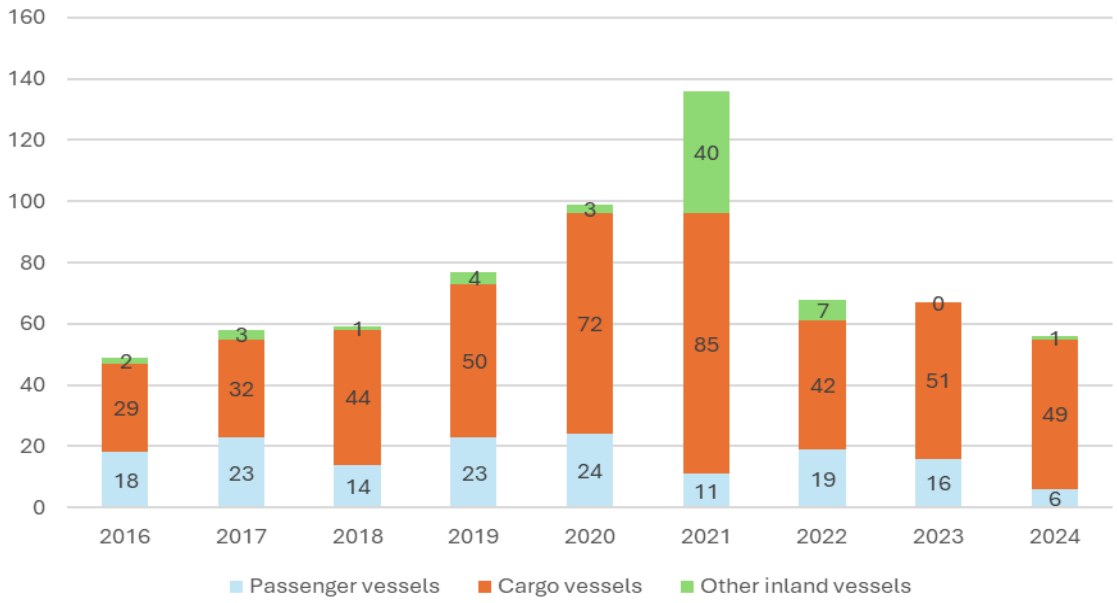
TABLE 1: COMPLETION OF INLAND VESSELS BY THE MAIN DUTCH SHIPYARDS ON AVERAGE PER YEAR

Shipyard and Location	Number of completed vessels			Repair and maintenance	Conversions
	Tankers	Dry cargo vessels	Passenger vessels		
Asto, Raamsdonksveer	6	3	0	no	no
Breko, Papendrecht	7	0	0	yes	yes
Concordia Damen, Werkendam	6	1	1	yes	yes
Den Breejen, Hardinxveld	3	0	2	yes	no
Dolderman, Dordrecht	12	1	0	no	no
Gerlien van Tiem, Druten	6	0	2	yes	yes
Kooiman, Zwijndrecht and Dordrecht	0	0	0	Yes	no
Olthof, Krimpen a.d. IJssel	0	1	0	yes	yes
Oonincx, Werkendam	1	1	0	yes	yes
P.C. Kamp, Raamsdonksveer	4	0	0	no	no
Scylla, Hardinxveld	0	0	3	no	no
TeamCo, Heusden	8	0	3	no	no
Vahali, Gendt	0	0	3	no	no
Volharding, Werkendam	3	0	0	no	no
ZMS, Wemeldinge	3	3	0	no	no
Holland Shipyards, Hardinxveld and Werkendam	unknown	unknown	unknown	yes	yes
Padmos, Stellendam and Bruinisse	unknown	0	0	yes	no
Zwijnenburg, Rotterdam	0	0	3 (hulls)	no	no

Source: information provided by Lloyd's Register, May 2025

More than 99% of all ships that are built in the Netherlands are delivered to owners in western Europe. Hereby, owners in the Netherlands have a share of 60%, and owners in Belgium and Germany each account for 20%. The construction of vessels for other regions is rare. The number of delivered inland vessels for cargo transport of Dutch shipyards followed an upward trend until 2021 (see figures 2 and 3). The decrease during the 2022-2024 period could be explained by the Covid pandemics. As for passenger transport, although the post Covid-19 years weighed heavily on the shipyard industry, the shipbuilding trend is expected to become more positive from 2025 onwards, mirroring the boom in passenger vessel demand.

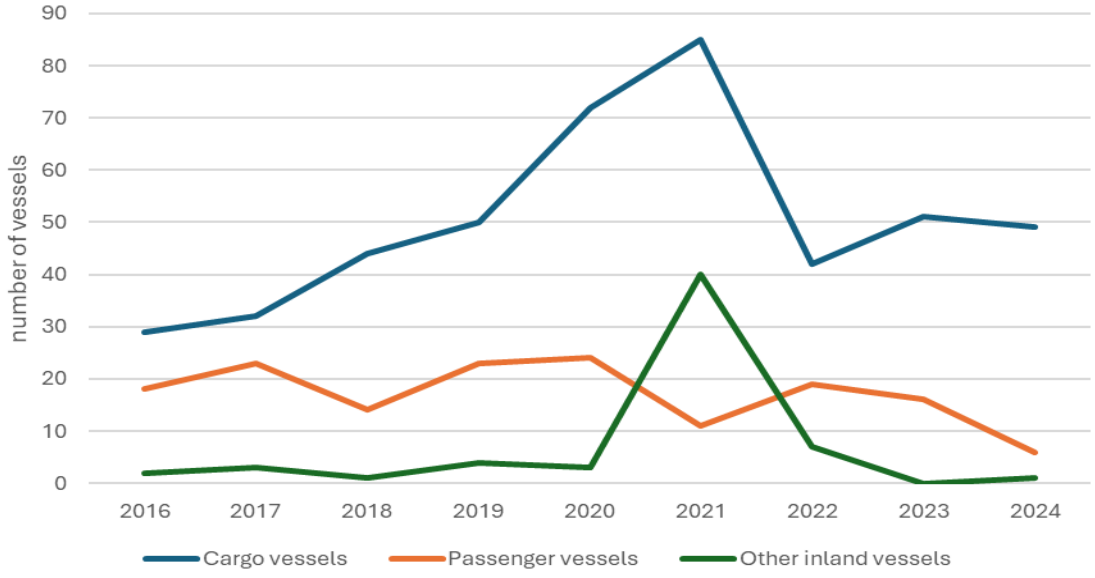
FIGURE 1: NUMBER OF DELIVERIES OF SHIPYARDS IN THE NETHERLANDS *



Source: Netherlands Maritime Technology (NMT), based on IHS, 2025. It is estimated that 25% of the fleet is not captured in the data monitored by NMT.

** Other inland vessels = push and tug-boats, research vessels, dredging vessels*

FIGURE 2: DELIVERIES OF INLAND VESSELS BY DUTCH SHIPYARDS



Source: NMT, based on IHS, 2025. It is estimated that 25% of the fleet is not captured in the data monitored by NMT.

2. FOCUS ON GERMANY

Germany counts around 50 inland shipyards (including shipyards that focus on repair and maintenance only), which employ around 2,000 people directly. Most shipyards are family-run businesses which act in a competitive market and have less than 50 employees. Only those which are active in both the inland and maritime fields have a higher number of employees.

Regarding the categories of inland vessels built by German shipyards, it can be said that the majority of inland vessels being built are state-owned vessels, harbour vessels and work boats. The orders to build these ships therefore come from state authorities. An example is a new patrol boat for the water police of Cologne, which was entirely built in Germany in 2024.[23]

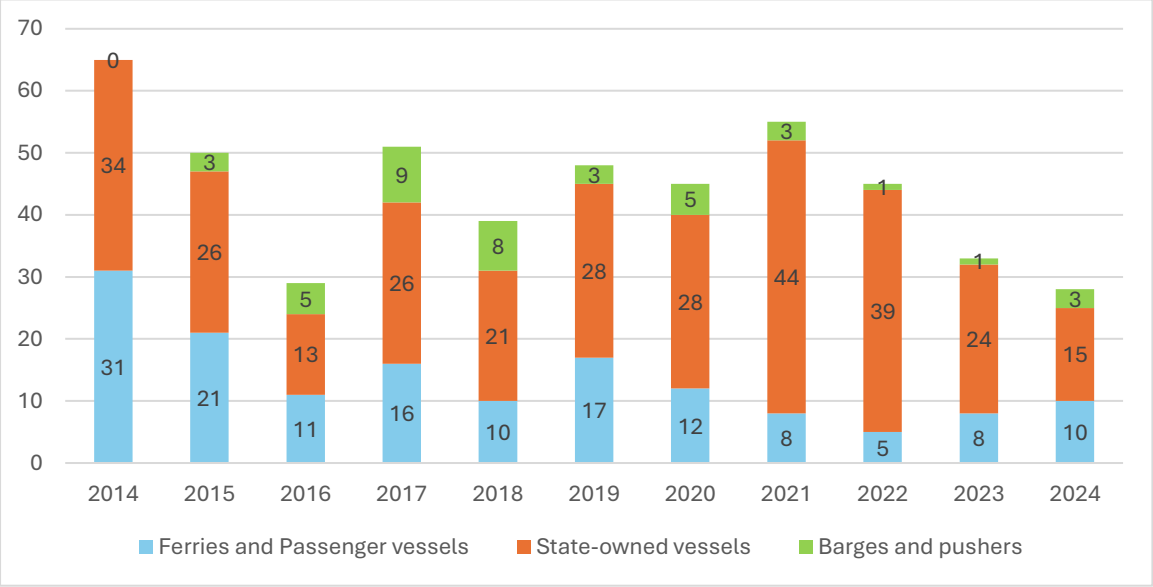
The complete vessel is generally built in Germany and only occasionally in eastern Europe (Serbia and Romania). In the period 2014-2024, an average share of 61% of all inland vessels built by German shipyards were state-owned vessels.

Almost no cargo vessels for private companies are now built in German shipyards, as they are mainly constructed in the Netherlands. Occasionally, some German shipyards, such as Neue Ruhrorter Schiffswerft in Duisburg or Roßlauer Schiffswerft on the River Elbe, build the hulls of such vessels. In addition, the industry constructs ferries and passenger vessels, in particular cabin vessels built by the Neptun shipyard in Rostock for the Viking company.

Newbuilds from German shipyards are exclusively intended for the European market.

Another activity of German shipyards is the repair and maintenance of inland vessels. Generally, the shipyards that realise newbuilds do not carry out repairs, and vice versa. Altogether, it can be said that German shipyards specialise in state-owned and passenger vessels. For the latter, Lux Werft in Mondorf near Bonn had a remarkable market share for newbuilds in the 1990s and early 2000s, using a catamaran vessel design.

FIGURE 3: DELIVERIES OF GERMAN SHIPYARDS BY TYPE OF VESSEL (2014-2024)



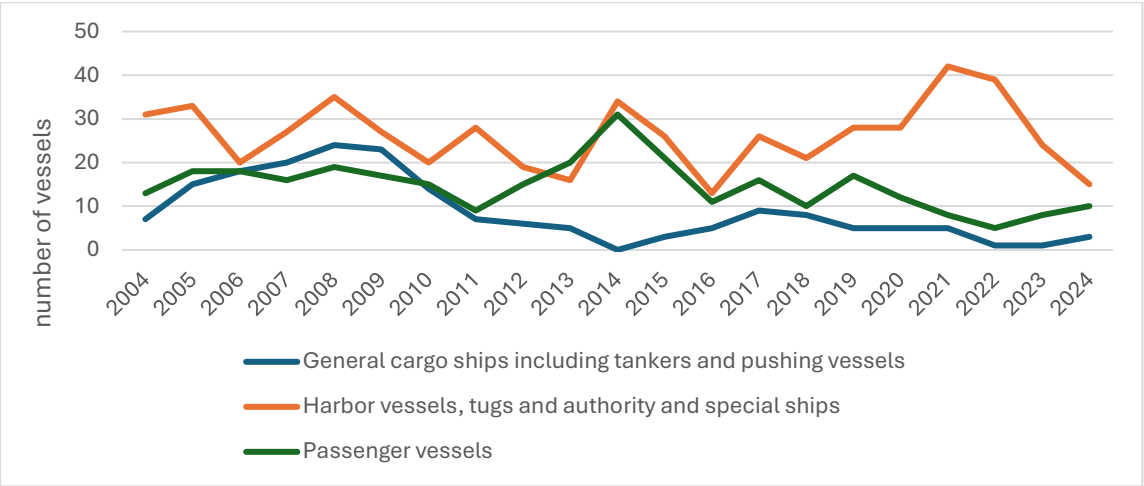
Source: German Association for Shipbuilding and Marine Technology (VSM), May 2025

The following figure shows the number of newbuilds delivered in the last 20 years for different types of inland vessels. For the general cargo ships including tankers and push and tug-boats, an upward movement until 2009 is observed. This trend is explained by the booming economy before the economic crisis in 2008/2009. During the economic crisis, the construction of cargo vessels decreased

[23] Source: Weekblad Schuttevaer, article “Nieuwe patrouilleboot voor WSP Keulen”, 24 May 2024.

significantly, in line with the deterioration of the overall economy. A small recovery can be seen after the low point of 2014. Compared to the general cargo vessels, including tankers and push and tug-boats, the trend for state-owned vessels is less dependent upon the general economic conditions. These vessels are ordered by state authorities, which explains why the deliveries do not follow the macroeconomic cycles. As reported by German shipyards, a significant share of German state-owned vessels is not built in Germany but in foreign countries (lower construction costs abroad).

FIGURE 4: DELIVERIES OF INLAND VESSELS BY GERMAN SHIPYARDS



Source: German Association for Shipbuilding and Marine Technology (VSM), May 2025

The following table gives an overview on main indicators of the German shipbuilding industry for inland vessels.

TABLE 2: ACTIVITY OF GERMAN SHIPYARDS FOR INLAND VESSELS IN 2024

Indicator	Data	Change compared to 2023
Production	Number: 28	-5
	Value in million euro: 58	-15
Orders received	Number: 43	+6
	Value in million euro: 78	-374
Orders on hand*	Number: 69	+15
	Value in million euro: 511	+15
Repair and maintenance	Million euro turnover: 110	+5
Exports	Number: 4	+/-0
Capacity utilisation	95%	+/-0
Employed persons	1850	+/-0

Source: German Association for Shipbuilding and Marine Technology (VSM), May 2025.
** stock of orders*

As is the case for Dutch shipyards, the capacity usage of German shipyards was nearly 100% in 2024 (see table). Hence, the capacities for constructing inland vessels were almost fully exploited.

As mentioned above, a problem for German shipyards is that a significant share of the newbuilds ordered by public authorities are not built in Germany but in foreign countries. Hence, public authorities in Germany award a significant proportion of shipbuilding contracts abroad. This is problematic as it concerns the niche in which German shipyards are specialised. The reason for awarding contracts abroad is the lower construction costs incurred and the lower price of building ships. This phenomenon leads to a loss of production and turnover for German shipyards. The German Association for Shipbuilding and Marine Technology (VSM) is aware of this issue and is appealing to the German parliament and the waterway administration to improve the framework conditions for new construction projects so that German shipyards can be more successful.

3. FOCUS ON EASTERN EUROPE AND CHINA

The entire construction process of inland vessels is mostly based on an international division of labour. The hulls of the vessel are mostly built in eastern European countries and in China (see annex 3 for the list of main shipyards active mainly in the delivery of hulls).

Serbia has around 10 shipyards, including prominent names such as Kladovo[24] and Vahali Shipyard[25], which operate as subcontractors for western European clients. These shipyards are well-integrated into the inland waterway vessel supply chain, providing partially finished hulls that are later outfitted in countries such as the Netherlands and Germany. Romania, with six shipyards, including Severnav and Orsova Shipyard, is similarly focused on hull manufacturing. Two shipyards in Poland (Partner Stocznia and Malbo & Malbo) and the Czech Republic (Loděnice Chvaletice and Barkmet boats) are also active in the delivery of hulls. Two shipyards are also active in Ukraine for the delivery of hulls for the European Union market: Kiliya shipyard, which has however not delivered hulls for the EU market over the past ten years, and Kherson Shipyard, which has mainly been working with the Dutch shipyard Veka in recent years. Some others are located in Slovakia, Hungary, Austria (Öswag Werft Linz) and Bulgaria. It is interesting to note that Damen Shipyard also has several shipyards that participate in the delivery of hulls to the EU market in several locations outside the EU such as Ukraine, Poland, Turkey and Vietnam.

With regard to Chinese shipyards, these often serve European clients by delivering prefabricated components and hulls. Some European operators work with Chinese yards to reduce construction timelines or manage costs, although final outfitting and compliance with European regulations usually take place in western Europe.

Over the past five years, approximately 80% of the tanker hulls have been built in China, and the remainder in Romania and Serbia. The hulls of the cabin vessels are built in Serbia, Romania, the Netherlands and Germany. Other ship types such as dry cargo ships and dry cargo push barges have been built in China, Poland and the Netherlands.[26] The hulls of the cabin passenger vessels are more commonly produced in eastern Europe (Serbia, Romania) and in the Netherlands and Germany, rather than in China (see Chapter 3.4 on the river cruise industry). Other shipyards involved in the building of hulls are located in the Czech Republic, Bulgaria, and France.

The building of hulls is a somewhat price driven market, which partly explains the increased demand towards Chinese shipyards in recent years, whose prices are lower than in Europe. According to the IVR database, it is observed that dry cargo hulls for the dry cargo sector had been ordered from Chinese shipyards in the years 2000-2010, while the focus shifted to the tanker market after 2010. This was certainly influenced by the transition of the liquid cargo fleet towards double-hull systems, as single-hull vessels had to be substituted by double-hull vessels at the latest in 2019. However, the number of hulls built in China is now decreasing. The quality of hulls that come from China compared to those built in Europe should however be carefully monitored (i.e. Do the vessels have a more limited lifespan? Do they suffer from structural problems more quickly?). Indeed, the price gap between the two might be linked to the quality of the hulls.

Usually, the hulls are delivered via a shipbroker (see Chapter 3.1). Rensen Driessen Shipbuilding delivers approximately 70% of all hulls needed for the building of vessels by Dutch shipyards and works with Chinese and Romania shipyards. Another large ship broker is Mercurius Shipbuilding which is specialised in stainless steel chemical tankers and order their hulls from two Chinese shipyards.

A recent example of Chinese-built hull deliveries is in August–September 2024, when a ship carrying 11 inland vessel hulls coordinated by Rensen Driessen arrived at the Port of Rotterdam[27]. However, geopolitical instability, including the war in Ukraine and safety concerns in the Red Sea, had significantly impacted logistics. Hulls from China are now routed around South Africa, due to security concerns in

[24] Shipyard Kladovo is owned by the Dutch family business Gebr. De Jonge B.V.
[25] Vahali Shipyard operates with a hull fabrication yard in Serbia, and a finishing and outfitting yard in the Netherlands.
[26] Source: Lloyd's register, May 2025
[27] Source: *Schuttevaer* (2024). *Toren vol casco's aangekomen in Rotterdam*. Published 13 September 2024. Available at: https://www.schuttevaer.nl/nieuws/actueel/2024/09/13/toren-vol-cascos-aangekomen-in-rotterdam/?gdpr=deny

the Red Sea which increase delivery times and complexity. Despite these challenges, this system allows European shipyards to maintain a regular supply of hulls, which are then outfitted either according to customer requirements or using standard designs with little customisation.

Two Dutch companies, De Jonge Brothers and Vahali Shipyards, also have their own facilities in Serbia for the building of hulls. The shipbroker De Jonge specialises in the building of tankers and dry cargo vessels, whereas Vahali, which is a shipyard, specialises in cabin passenger vessels.

4. SHIPBUILDING FOR THE RIVER CRUISE INDUSTRY[28]

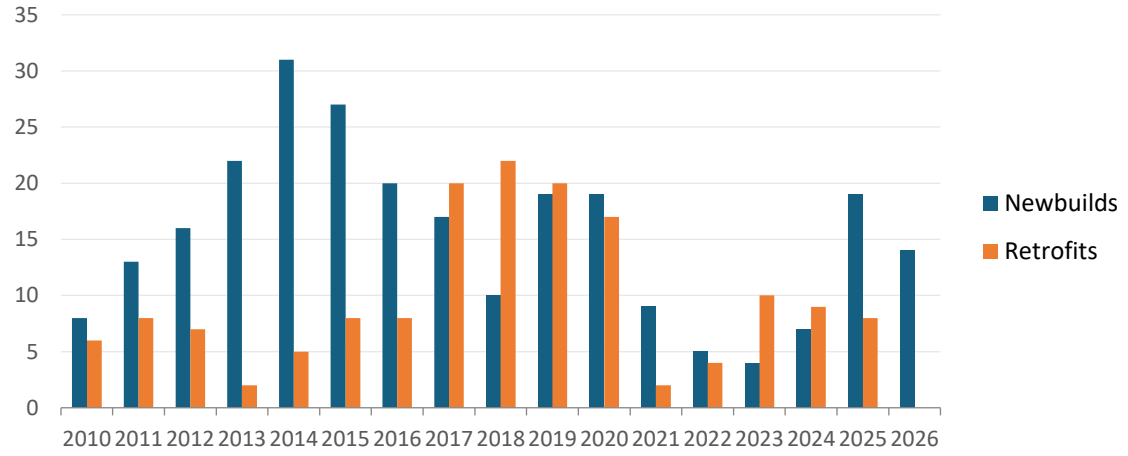
4.1 Overview of newbuild activity in the river cruise industry (2010–2024)

The shipbuillding of river cabin vessels (only river cruise vessels with a minimum of 40 beds are considered in this analysis), has experienced several distinct phases of development over the last 15 years. A period of strong growth was observed between 2010 and 2015, culminating in a peak of 31 new vessels in 2014. Following this boom, a sustained decrease was observed but activity recovered in 2019 and 2020, when 19 new ships were launched in both those years. During this time, the industry saw a notable expansion in fleet size, driven in part by growing international demand for river tourism, particularly in Europe.

The impact of the Covid-19 pandemic was visible in the period 2021 and 2022 when newbuilds dropped significantly, with only five vessels added to the market in 2022. However, retrofitting activity remained strong with 17 retrofits being carried out in 2020. This suggests that operators focused on modernising existing ships to maintain fleet relevance despite limited new construction.

Signs of recovery became clearer in 2023–2024, where newbuilding activity slightly increased again (seven vessels in 2024), complemented by a rise in the number of retrofits. This suggests the market is gradually regaining confidence.

FIGURE 5: NUMBER OF NEWBUILDS AND RETROFITS FOR THE PERIOD 2010-2026*



Source: A. Hader, The River Cruise Fleet Handbook (May 2025)
** 2025 and 2026: based on order books as of May 2025. For three vessels expected in 2026, the name of the shipyard is missing.*

Supporting this trend is the evolution of the active river cruise fleet in Europe. In both 2023 and 2024, the number of active cabin vessels remained stable at 408, representing over 60,000 beds. Despite the subdued pace of newbuilding activity from 2022 to 2024, the outlook is positive. 19 new vessels are expected to enter the market in 2025, and 14 vessels have already been ordered for the 2026 season.

[28] Source: CCNR analysis based on A. Hader, *The River Cruise Fleet Handbook* (May 2025).

In addition, the Celebrity Cruises company, belonging to the Royal Caribbean Group, is expected to start its activities on European inland waterways as of 2027 and ordered a series of ten cabin vessels[29].

Passenger demand continues to recover as well. Navibelle, a charter operator, reported that 2024 was the first year during which all of their ships were fully booked, and 2025 is already entirely sold out due to their exclusive B2B sales strategy. According to IG River Cruise[30] capacity utilisation is back on track, with rising demand despite geopolitical uncertainties. The recovery of the degree of capacity utilisation of river cruise vessels in 2024 is also confirmed by statistical data on the transit of river cruise vessels through locks on the Danube. [31] In 2024, 1.39 million passengers traveled on European rivers, a 14% increase compared to 2023. The steady rise in demand has a direct influence on newbuilding activity, as operators seek to expand or modernise their fleets to meet growing customer expectations.

Moreover, environmental performance is becoming a key factor in investment decisions. Growing public awareness of sustainability issues and evidence that passengers are willing to pay more for low or zero-emission vessels is encouraging operators to invest in greener technologies. However, while technologies such as battery packs are being adopted for specific use cases, such as peak-shaving or short-time (30 minutes) electric sailing during harbour operations, there is no fully battery electric cabin vessel. Indeed, these vessels need a great deal of energy (propulsion and hotel needs) requiring a significant number of costly batteries to be installed on board and thus reducing drastically the space available on board. In addition, the weight of such batteries, which have an impact on the vessels' draught, is also a bottleneck. At this stage, future retrofits and newbuilds are more likely to focus on hybrid systems combining stage V engines and batteries.

4.2 Shipyard distribution in the river cruise industry

The construction of cabin vessels in Europe is highly concentrated among a small number of specialised shipyards. As shown in Figures 9 and 10, most newbuilds and retrofits have been carried out by shipyards located in the Netherlands[32] and Germany, with a smaller share in central Europe. The graphs below show only shipyards that completed at least five projects between 2010 and 2026.

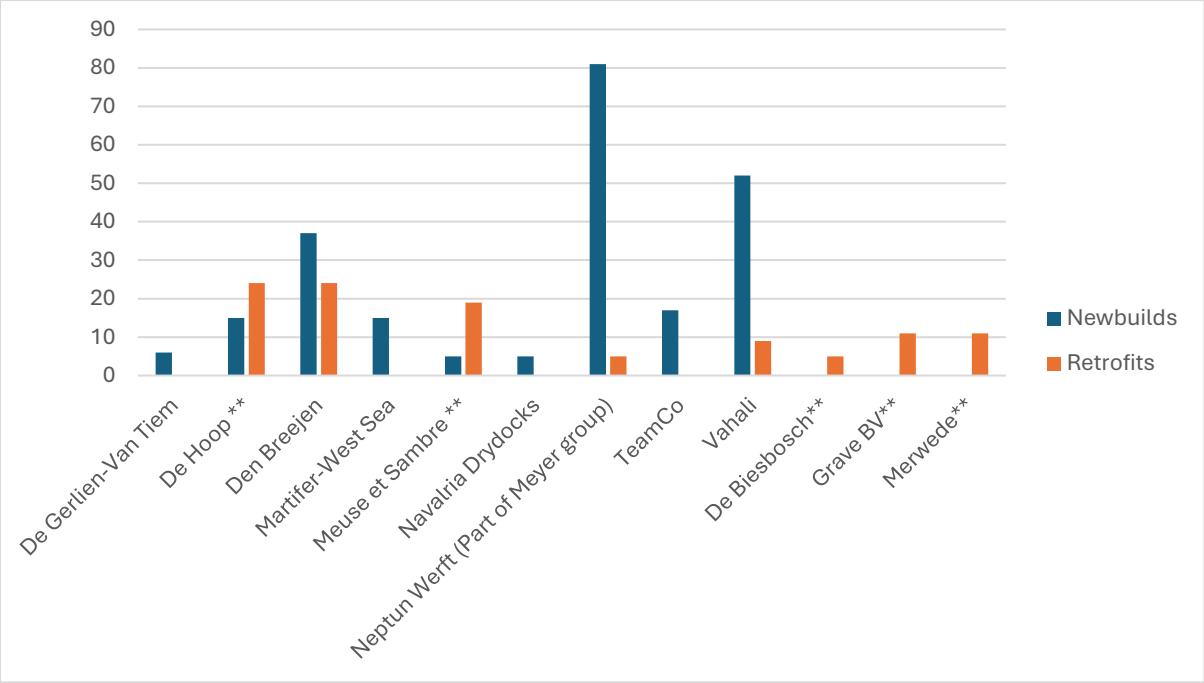
[29] Source: https://www.royalcaribbeangrouppresscenter.com/news/celebrity-cruises-announces-launch-of-river-vacations-2027

[30] Der Flusskreuzfahrtmarkt 2024 – IG River Cruise

[31] Capacity utilisation = ratio of number of passengers divided by passenger capacity. The statistical data contain the transit of river cruise vessels at the lock of Jochenstein (border between Germany and Austria. The source of the raw data is the German Waterways Administration

[32] Vahali operates shipbuilding facilities in both Serbia and the Netherlands. Hull construction is primarily carried out at its Serbian sites; while outfitting and final assembly take place at its yard in Gendt, the Netherlands.

FIGURE 6: SHIPYARDS WITH AT LEAST FIVE CABIN VESSELS BUILT OR RETROFITTED FOR THE PERIOD 2010-2026*



Source: CCNR based on A. Hader, The River Cruise Fleet Handbook (May 2025)
**For vessels that involve more than one shipyard during their construction, graphs include only the shipyards responsible for the final outfitting. Beyond the most active shipyards shown in this table, ten other shipyards have participated in the building of new cabin vessels and 30 other shipyards in the retrofit of cabin vessels over the past 15 years. These shipyards have each completed fewer than five projects, accounting together for a total of 25 newbuilds and 48 retrofits.*
*** The shipyards De Hoop, De Biesbosch, Grave, Merwede and Meuse et Sambre are now bankrupt*

4.3 Shipyards involved in hull construction of cabin vessels

It is noteworthy that many vessels involve more than one shipyard during their construction. Typically, a primary yard handles the hull, while the secondary yard manages the outfitting. Over the past 15 years, 27.5% of cabin vessels built were constructed through partnerships with eastern European shipyards. This kind of partnership is a cost-effective strategy to combine skilled labour and lower construction costs in eastern Europe with the expertise of western yards for the more complex final outfitting. However, based on interviews, it appears that this type of cooperation occurs to a much lesser extent for the so-called captive European fleet — vessels operating on isolated river systems not connected to the main European inland network - such as the Rhône or the Douro.

While the final outfitting and technical completion of vessels are usually carried out in western Europe, many leading shipbuilders rely on eastern European partners for the construction of the hulls. Based on the available data, it appears that among the top five shipyards, Den Breejen and TeamCo have collaborated most frequently with eastern European shipyards, more specifically with the shipyards Vahali in Serbia, Severnav in Romania, and Santierul Naval Orsova also in Romania[33].

No Chinese shipyards are listed in the dataset across the 2010–2024 period, underlying a key distinction from other shipbuilding segments such as tankers. This can be explained by the inability of Chinese shipyards to provide thin steel shipbuilding plates of the same quality standard as European shipyards.

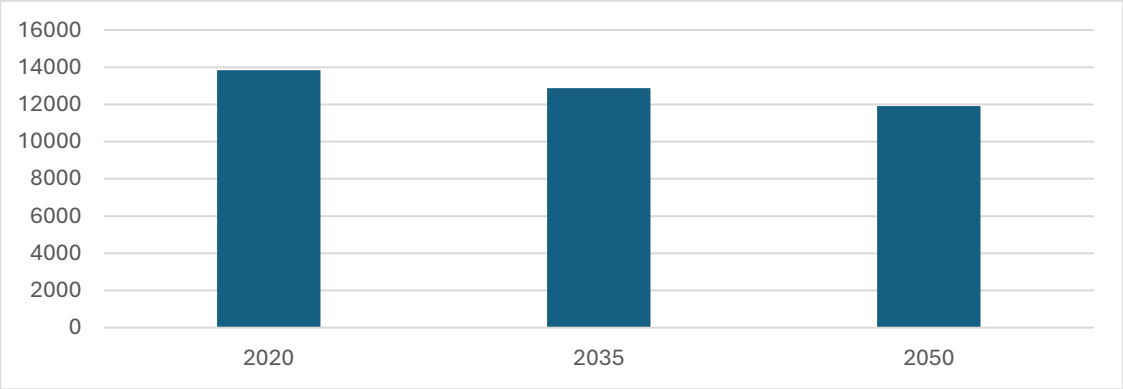
[33] It can be noted that beyond these three main shipyards, four other eastern European shipyards remain active in hull construction but have each contributed to only one or two projects per year over the last 15 years. Collectively, these shipyards have contributed to seven vessels during this period.

CHAPTER 4: KEY TRENDS THAT ARE EXPECTED TO INFLUENCE SHIPBUILDING ACTIVITY

1. FLEET DEVELOPMENT BY 2050: DIFFERENT OUTLOOKS ACCORDING TO MARKET SEGMENTS

In general, the development of the fleet by 2050 represents a good indicator for shipyards to anticipate demand for newbuilds and retrofits. Overall, the size of the EU fleet is expected to decrease by 2050, continuing the downward trend observed in recent years.

FIGURE 7: FLEET (CARGO AND PASSENGER) EVOLUTION IN NUMBER OF VESSELS IN SERVICE IN THE RHINE AND DANUBE REGION 2020-2050



Source: Study on financing the energy transition towards a zero-emission European IWT sector, Deliverable C (Edition 2) "Assessment of technologies in view of zero-emission IWT", CCNR, 2021

This is more or less explained by the higher number of vessels foreseen to be decommissioned by 2050 for some vessel categories, in particular the smaller vessel category (below 80 metres), and not by a reduction of the newbuilding rate. However, an analysis according to market segments provides for more targeted conclusions.

For the short- and mid-term outlook on shipbuilding, there are different trends according to the types of vessels. The tanker market is expected to decline, as the number of new constructions foreseen will drop from ten to 15 vessels per year from mid-2026. However, the tanker fleet is expected to increase in size. One reason for the decline in any new construction of tankers is the energy transition, which leads to less demand for liquid fossil fuels in the economy, even though a certain shift to more sustainable biofuels and the development of new markets is expected to compensate for this decline.

The cabin passenger vessel market is very strong with over 25 vessels ordered or under construction in the period 2025-2026. It is expected that this high number will remain for the following years as this market is once again booming after the Covid pandemic. In addition, investment potential is rather high in this market and is therefore seen as one of high potential with regard to innovative design.

The market for the new construction of dry cargo vessels has been very weak since 2010. This could be caused by the substantial number of new constructions dating from the late 1990s until 2010. According to Lloyd's Register, it is expected that this market will grow again, especially for the larger vessels involved in the container business. From mid-2022 to mid-2024 a number of older dry cargo ships and push barges were sold to eastern European countries for grain transport from Ukraine. This will lead to more new construction of this type of ship in western Europe.

Finally, the European freight fleet is becoming quite dated[34]. Around 80% of the dry cargo fleet was constructed in the 20th century, whereas this share amounts to 38% of the tanker fleet. Regarding the passenger fleet, most passenger ferries and day-trip vessels (which represent 76% of all passenger vessels) were constructed in the 20th century, but there has nevertheless been significant newbuilding

[34] Based on IVR database

activity in the 21st century. Regarding the river cruise fleet, around 75% of the active fleet was built in the 21st century.

It should be noted that, contrary to the maritime sector, even after inland navigation vessels are no longer used for commercial transport, they can be used to serve other purposes, such as hotels for refugees or as floating stocks/storage.

Overall, the market for new construction is expected to decline slightly in the coming years.

1.1 A trend towards larger vessels

Regarding the size of vessels, a general trend towards the construction of larger vessels can be observed and it is expected that this trend will continue in the future. According to the "*Study on financing the energy transition towards a zero-emission European IWT sector (CCNR, 2020)",* the following long-term trends per ship type are expected:

TABLE 3: EXPECTED EVOLUTION OF THE FLEET PER VESSEL TYPE 2020-2050 *(GROWTH RATE OF NUMBER OF VESSELS)*

Vessel type	Number of new vessels per year 2020-2050	Number of vessels scrapped per year 2020-2050	Growth rate of the fleet 2020-2050
Motor vessels dry cargo ≥110m	14	10	+19 %
Motor vessels dry cargo 80-109 m	10	12	-3%
Motor vessels < 80 m	5	80	-57%
Motor vessels liquid cargo ≥110m	20	15	+11%
Motor vessels liquid cargo 80-109 m	11	7	+5%
Push boats ≥ 2000 kW	1	1	+/-0%
Push boats 500-2000 kW	10	9	+6%
Push boats < 500 kW	5	15	-36%
Coupled convoys	5	4	+21%
Large cabin vessels (longer than 86 m)	13	10	+25%
Small cabin (shorter than 86 m) and day trip vessels	50	40	+13%
Ferries	3	3	+/-0%

Source: Study on financing energy transition towards a zero-emission European IWT sector, Deliverable C (Edition 2) "Assessment of technologies in view of zero-emission IWT", CCNR, 2021

As can be seen from the table, larger vessels have a more positive outlook than smaller vessels. For the dry cargo vessels, a growth rate of +19% is foreseen for vessels whose length is ≥110m, while smaller dry cargo vessels (below 80 metres) will diminish in number by -3% and -57% respectively.

For liquid cargo vessels, a growth rate of +11% is foreseen for large vessels, while the growth rate for smaller tanker vessels is less than half as high (+5%).

High growth rates are also foreseen for formations with a high loading capacity such as coupled convoys.

For the passenger transport market, a growth rate of +25% is foreseen for large cabin vessels (longer than 86 metres) and a growth rate of +13% for small cabin and day trip vessels. The number of ferries is expected to remain constant.

1.2 A shift towards more Stage V engines by 2050 as an indicator of the retrofitting potential

Inland navigation vessels are extremely long-lasting. However, this also leads to the conclusion that the renewal rate of the engines is low (typically every 15 to 20 years). As a result, a large majority of inland waterway vessels do operate without the latest engine technology or without exhaust after-treatment systems.

The renewal rate of engines during the period 2015-2020, which increased during this period before the entry into force of NRMM Stage V regulation, is a good indicator to anticipate the retrofit potential of vessels with stage V engines after 2020. Increases in engine renewal during this period were due to:

- Investment in CCNR 2 engines in order to avoid uncertainty and expected higher costs for NRMM Stage V engines
- Various grant schemes made available in different countries, especially in the Netherlands, Germany and France
- Announcement of access restrictions to some main ports, such as the Port of Rotterdam

Similar trends are expected to lead to the renewal of engines in the coming years.

TABLE 4: ENGINE RENEWAL DURING THE PERIOD 2015-2020

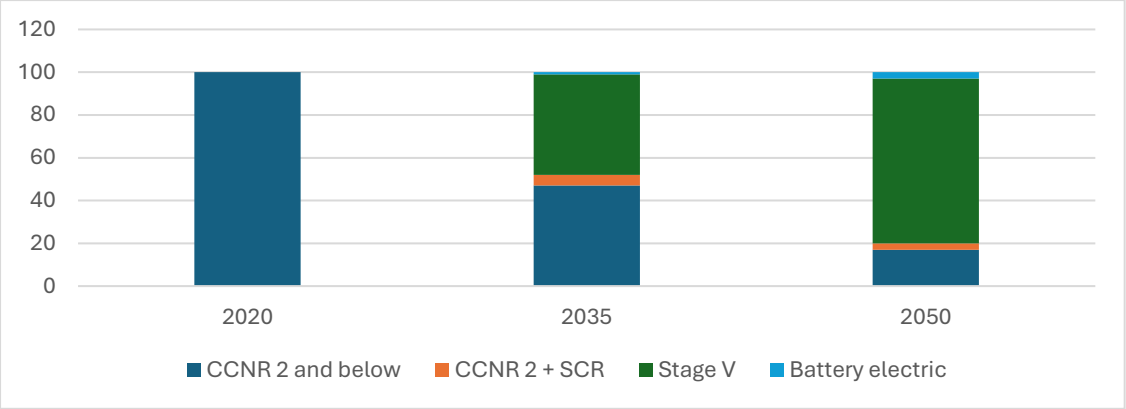
	New CCNR2 installed	Unregulated engines leaving the market	Engine replacement in existing vessels to CCNR2
Large cabin vessels	65	50	50
Push boats < 500 kW	5	75	75
Push boats 500-2000 kW	10	45	40
Push boats ≥2000 kW	1	5	20
Motor vessels dry cargo ≥110m	14	50	20
Motor vessels liquid cargo ≥110m	20	135	20
Motor vessels dry cargo 80-109m	10	60	480
Motor vessels liquid cargo 80-109m	11	80	210
Motor vessels <80 m	5	550	850
Coupled convoys	5	20	50
Ferries	3	15	20
Day trip and small cabin vessels	50	200	100

Source: Study on financing the energy transition towards a zero-emission European IWT sector, Deliverable C (Edition 2) "Assessment of technologies in view of zero-emission IWT", CCNR, 2020

In addition, estimations regarding the development of engines by 2050, show that:

- The share of CCNR 2 and older engines in 2050 is expected to remain around 17%
- The share of Stage V engines is expected to grow to 47% in 2035, and 76% in 2050, driven by newbuilds and engine replacements on existing vessels (since 2020 only Stage V can be installed). Ultimately, it is expected that engine renewals (investments in new Stage V engines in particular) will be the most intense between 2025 and 2035.

FIGURE 8: DEVELOPMENT OF THE DISTRIBUTION OF ENGINES BY 2050 FOR THE ENTIRE FLEET



Source: Study on financing the energy transition towards a zero-emission European IWT sector, Deliverable C (Edition 2) "Assessment of technologies in view of zero-emission IWT", CCNR, 2020

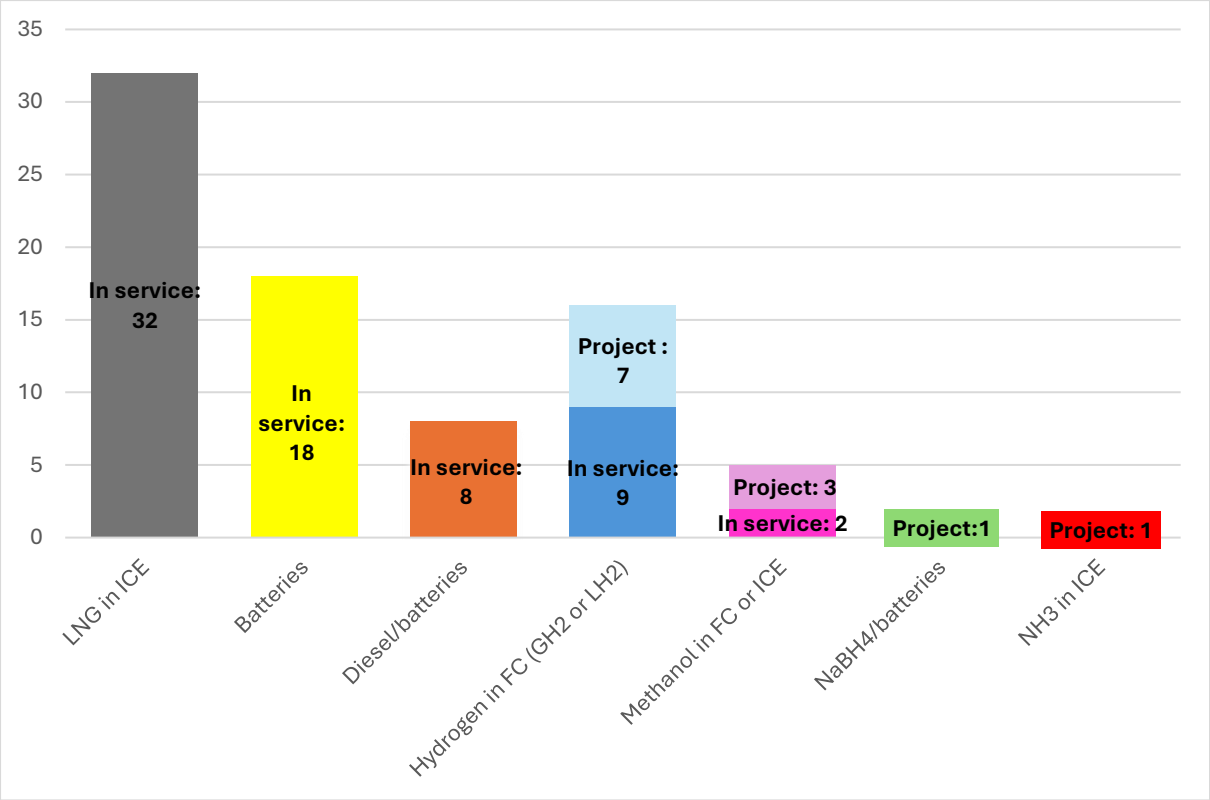
Engine renewal is expected to drop after 2040. Potential for retrofits (engine renewal) is therefore foreseen to be rather high in the coming years.

2. ENERGY TRANSITION

2.1 The energy transition as a driver for new vessel design running on alternative fuels

In the long term, energy transition will be an influential factor for shipbuilding and for the design of vessels. This concerns the construction of environmentally friendly vessels by using alternative fuels. However, for the time being, the greening of the inland waterway fleet by using alternative fuels (excluding biofuels) is still at a very early stage, and the yearly growth rate remains low (less than 1% of the fleet).

FIGURE 9: NUMBER OF VESSELS USING ALTERNATIVE ENERGIES AS ONE OF THE MAIN ENERGY CARRIERS *



Source: CCNR database

** The category "Hydrogen" includes vessels that use or are likely to use fuel cells for propulsion The category "Methanol" includes 4 vessels operating with a combustion engine and 1 is foreseen to operate with a fuel cell system. The category "Batteries" includes vessels sailing solely on batteries The category "Diesel/batteries" consists solely of vessels which are capable of relying on batteries alone for propulsion. ICE=internal combustion engine; FC = Fuel cells*

Among the key alternative energy sources foreseen for the propulsion of inland vessels, and which are expected to trigger innovative vessel design, batteries, methanol, compressed hydrogen, and to a lesser extent ammonia can be highlighted. Such innovative technologies will generally be seen in newbuilds or large retrofits. There is no "one-size-fits-all" solution for achieving the ambitious emission reduction objectives set at the international level. The choice of appropriate emission reduction technologies depends on several factors, which include the sailing profile of the vessels, their type, the market segment in which they operate, the related costs, but also the related technical constraints. For instance, vessels operating locally (especially in densely populated areas) with a limited energy demand and a fixed route may benefit from low energy costs for electricity from the grid used. Such vessels are expected to often use batteries in the future.

There are other vessels for which the use of such technologies is not realistic. In this case, the focus would rather be on investing in clean and efficient combustion engines (according to the Stage V) as well as optimising their energy efficiency, for example, for large push boats. With their high energy demand, 24/7 operation and high engine utilisation, they are expected to continue relying on combustion engines for several decades. This is especially relevant for the navigation on the Danube, given that on the Lower and Middle Danube almost 60% of inland waterway traffic is accounted for by high-capacity push convoys (up to 15,000 tons).

It also seems that most recent newbuilds are equipped with a combustion engine as their main energy converter and are also equipped with an electric motor. It is expected that such designs will increase in the future for vessels whose operating profile is compatible with technologies relying on electric drivetrains, as they facilitate a modular system approach. Indeed, the integration of batteries or fuel cell

systems in existing vessels requires a vessel to be equipped with an electric motor in the first place. It should be highlighted that the use of swappable batteries is also promising.

Examples of several retrofits are:

- the Alphenaar (retrofitted by Concordia Damen, the Netherlands) navigating with a swappable battery system and
- the H2 Barge 1 and 2 (retrofitted by Holland Shipyards, the Netherlands) operating with compressed hydrogen in fuel cells.

2.2 Energy transition as a driver for new vessels designs capable of transporting alternative energies

The energy transition can also lead to new vessels being built to transport new types of cargo, such as ammonia or CO_2.

An example for the construction of inland vessels that can transport alternative fuels is the new vessel design 'Pioneer' which is designed by HGK Shipping for the transport of liquefied ammonia and carbon dioxide (CO_2). The economic reason behind the project is the expectation that it will not be possible to transport all predicted volumes of ammonia, one of the main energy carriers for hydrogen in the future, by pipeline. Therefore, inland navigation can acquire market shares in the transport of this renewable energy. In addition, with the development of carbon captures technologies (CCS), transport of CO_2 is also expected to grow, thereby requiring new vessels to be built.

3. EMERGENCE OF NEW MARKETS

Beyond the energy transition, the emergence of new markets linked with the circular economy or the development of urban logistics, certainly consists in new opportunities for shipyards. Indeed, capturing new markets often implies new types of logistics, new types of vessels and new areas of operation, what can influence the work of shipyards.

4. LOW WATER

Another important trend in shipbuilding is the necessary adaptation to low water levels. Such phenomena, which affect mostly free-flowing rivers, lead to low navigable channel depths. These notably limit the maximum cargo-carrying capacity of a fleet. With climate change, low waters are expected to become even more frequent and severe in the future, hence the need for the fleet to adapt[35]. With an optimisation of the hull shape, inland vessels can still be used to transport cargo in shallow water conditions. A complementary solution is the use of smaller vessels, including in coupled formation, which are more resilient to low waters. In times of low waters, three to four vessels may be needed to carry the same volume of goods generally transported on one single vessel. This can also generate demand for shipyards to replace the ageing dry cargo fleet below 85m. After the two low water periods of 2018 and 2022, there are already examples of new vessel constructions adapted to low water. An example is a low water adapted gas tanker built for HGK Shipping[36]. According to the company, the optimisation for shallow waters helps to overcome the shallows on the Middle Rhine during critical periods. Considerable optimisation work has already taken place in this regard.

[35] CCNR Reflection Paper « Act now ! » on low water and effects on Rhine navigation, Edition 3.0 of 27 October 2023: https://www.ccr-zkr.org/files/documents/workshops/wrshp180123/Act_now_3_0_en.pdf

[36] For example, the HGK Gas 94, a low-water-optimised gas tanker. See: https://www.hgk.de/fileadmin/pressemitteilungen/2023/01_10_2021_Press_Release_HGK_Shipping_Gas_94_naming_ceremony.pdf

5. LACK OF PERSONNEL

As is the case for the crew of inland vessels, a limiting factor for the growth of the construction of inland vessels is the lack of personnel in the shipyards. Due to this lack of qualified personnel, the number of shipyards has already declined and will continue to decline in the future. The reduction in the number of shipyards concerns especially small yards that are active in repair and maintenance. In addition, there is an increasing demand for the development and installation of high-end electrical applications and hydraulic systems, which require technically trained personnel. For these sophisticated techniques, it is not easy to find who must first be trained by shipyards. In order to deal with this scarcity of skilled personnel, some shipyards develop their own training programmes, as it is the case of the Damen Group in the Netherlands[37]. Classification societies have also developed training programmes for shipyards' staff[38].

6. DIGITALISATION, AUTOMATION AND REMOTE-CONTROL OF VESSELS

Digitalisation and the need for vessels to be "connected" in expected to increase in the future. Similarly, even though gradual automation or remote-control of vessels as such does not influence vessel design, or only marginally, it will require new equipment to be installed on board (adding sensors in certain areas). This will require shipyards to develop specific expertise in this field, what makes it a relevant trend for the shipbuilding industry. Automation or remote-control might contain one of the solutions to address skills shortages which lead to high personnel costs, and therefore to increase competitiveness in inland navigation.

[37] https://www.damen.com/services/lifecycle-support/training-programmes
[38] Such as Lloyds' Register or DNV

CHAPTER 5: POLICY RECOMMENDATIONS

Today, the capacity of the inland navigation shipyard industry is almost fully exploited and the shipbuilding and retrofit activity in the inland navigation sector is back to pre-Covid levels. To cope with the upcoming opportunities and challenges (energy transition, adaptation to low waters, dependency on China), the industry's efficiency could be strengthened. This requires securing the EU shipyards' expertise and its capacity. Recommendations in view of the upcoming EU maritime industrial strategy are formulated below. These recommendations are based on expert input and do not represent the views of the CCNR or its Secretariat. More generally, SEA Europe, representing European shipyards, has recently published a policy paper providing policy recommendations in view of the industrial maritime strategy which could complement the following recommendations.

1. Support the IWT market, the client of the inland navigation shipyard industry

- The development of shipbuilding activity is directly linked to the IWT market and to world economics.
- If the IWT market is strong, shipyards' activity is expected to increase. Trends are different according to market segment: dry cargo transport, liquid cargo transport, passenger transport (including tourism and ferries) and vessels used by the administration. For instance, the rise in river cruise newbuilds expected for 2025 and 2026 mirrors the strong increase in demand for river cruises.
- As such, any policy measure to support the development of the fleet, including in view of capturing new markets, for instance to support innovation and automation, is expected to have a positive effect on the inland navigation shipyard industry.

2. Provide financial support to the inland navigation sector and its shipyards

- Demand for newbuilds also depends on the capacity of entrepreneurs to invest. Financial support to help the sector make the appropriate investments to reach climate neutrality goals would be valuable in this regard.
- This could take the form of a European-wide funding programme, based on the revenues generated through the European Trading Scheme (ETS) system that promotes investment in climate-neutral inland and coastal shipping. To benefit from such financial support, European added value creation should be a condition and, if necessary, be protected against subsidised Chinese imports by further regulatory measures and tariffs.
- Support for the inland navigation sector also lies in making existing/future EU funds more accessible for the fleet, especially for small and medium-sized companies which are predominant in the inland navigation sector and for vessels of smaller size class. The energy transition requires substantial investments beyond the capacity of the IWT sector to bear alone. It is therefore essential that existing and future funding opportunities take into account the specific characteristics of the IWT sector. This means that they should be tailored for inland navigation, administratively easier to access for smaller entities, while remaining possible to check the legality and effectiveness of the expenditure.
- The EU could implement a strong European financial subsidy for shipbuilding through EU funds, also with a special focus on research and innovation for the greening and digitalisation of the fleet[39]. This would help foster research, innovation and investment to further enhance the efficiency of shipyards and enable a higher number of ships to be constructed or converted for the use of alternative fuels.

3. Integrate inland navigation in the future maritime industrial strategy and adapt the name

- Even though some shipyards are active in both the inland navigation and maritime sectors, it should always be kept in mind that some shipyards are specialised in the shipbuilding/retrofit of inland navigation vessels only.

[39] The EU Clean Industrial Deal could be a suitable basis for this.

- For this reason, it consideration should be given to whether specific measures may be required for inland navigation shipyards.
- It should also be assessed whether the measures which will be foreseen in the maritime industrial strategy, and which will mainly target maritime shipyards, are also suitable for shipyards that are mostly involved in the inland navigation sector. Indeed, the regulatory framework in the maritime sector differs from the inland navigation sector: no FuelEU Maritime equivalent in the inland navigation sector, different classification rules, different shipbuilding rules defined at European level (ES-TRIN vs IMO codes) and an inland navigation shipyard market which remains mainly European with only a partial dependency on China.
- In this context, the name and more importantly the scope of the maritime industrial strategy should be adapted to “waterborne industrial strategy” or “maritime and inland navigation industrial strategy”, in order to explicitly include the inland navigation sector.

4. Preserve the European shipyards’ expertise

- It appears essential to preserve the European shipyards’ expertise, especially in the context of transformation which will require developing innovations in terms of vessel design. For instance, under the impulse of the energy transition, inland navigation vessels will navigate with new fuels and transport new cargo that will require vessel adaptation. Similarly, the inland navigation fleet will increasingly need to be adapted to navigation in low water conditions.
- Such expertise is already present in Europe, with most of the outfitting and completion expertise being centralised in western Europe. Indeed, outfitting covers the process of installing all the necessary equipment, furnishings, and systems inside a vessel, such as electrical installation, engines, piping, painting, accommodation, and air conditioning after its main structure (hull) is built. The quality of this process lies in the expertise of specialised companies, which has important commercial value[40]. The safe and efficient operation of the vessel depends on this.
- As this process requires a significant amount of skilled labour and specialised equipment, it is essential to ensure that a sufficient number of skilled personnel join the shipyards industry on a regular basis.
- The European shipyards’ industry environment should make sure that such expertise, including their regulatory expertise, can be preserved and improved in the future.
- Further collaboration with research institutes can also support this development.

5. Adress the lack of skilled personnel

- The lack of skilled personnel could create capacity bottlenecks and would require targeted measures.
- Indeed, shipyards’ personnel should be able to understand the inland navigation regulatory environment and apply it. Some shipyards are in fact selected specifically for their capacity to manage ES-TRIN.
- To cope with this scarcity of skilled personnel, some shipyards develop their own training programmes, a practice which should certainly be encouraged. In addition, an assessment of whether sufficient training programmes currently exist should be carried out.

6. Reduce dependency on China

- As developed in Chapter 3, inland navigation shipbuilding has a certain dependency on China, particularly for the tanker fleet. However, this dependency is not as pronounced as in the maritime shipyard industry.

[40] Depending on the type of vessels, it is estimated that up to 75% of newbuilding costs is associated with outfitting activities.

- To address this dependency, it is important to ensure that eastern European shipyards specialised in hull construction have sufficient capacity to absorb the demand currently directed towards China and remain competitive with Chinese shipyards while upholding a high standard of quality.
- The quality of hulls coming from China compared to those built in Europe should however be carefully monitored.
- It could be assessed whether specific subsidy programmes could be a suitable way to reach this goal. This is certainly an aspect to be monitored when assessing the EU's dependency on China.

7. Secure capacity

- It is understood that shipyards have been operating almost to full capacity, at least in Germany and the Netherlands.
- In addition, it is understood that capacity issues can arise at the level of subcontractors involved in the construction/retrofits of vessels, as well as inspection bodies in some countries, thereby delaying the delivery process.
- To accommodate possible growth in demand, especially in the passenger transport sector, it is important that the capacity remains sufficient in the entire chain of actors involved in shipbuilding.

8. Mobilise standardisation, especially via ES-TRIN requirements

- Unlike global regulations for seagoing vessels, inland waterway vessels are subject to a European standard called ES-TRIN (mandatory for vessels navigating on the Rhine and EU waterways). This standard, developed in the framework of the CESNI, evolves every two years to follow the technical developments and maintain a high level of safety.
- Shipyards represented by Sea Europe are involved in standardisation work. However, better coordination among European inland navigation shipyards would be beneficial to ensure more regular feedback on difficulties in the field and concrete contributions to the amendments of ES-TRIN.

9. A higher number of repairs shipyards

- Improving access and repair services for large vessels in a greater number of existing river shipyards to ensure repairs are carried out as close as possible to shipping routes.
- This is necessary to limit possible financial losses due to vessels standing idle until they are repaired, especially in case of vessels running 365 days a year (i.e. day-trip vessels)
- An assessment could be carried out on whether specific subsidy programmes might be a suitable way to reach this goal.

Annex 1: exhaustive list of indicators analysed

- Number of shipyards in the EU active in the IWT vessels newbuilding and retrofitting (possible non-EU countries if IWT relevant – i.e. Ukraine or Serbia), their location, their size and capacity (e.g. maximum vessel size that the yard can handle, percentage of available slots in the yards, the backlog (i.e. the time between the order is placed and the delivery)), whether they are generally specialised in one segment (i.e. passenger/freight/ferries) or not, and so on.
- General information about the shipbuilding and retrofitting practice in the IWT sector (i.e. building of the different inland vessels' parts in Europe vs abroad…)
- Number of new vessels built and retrofitted in Europe per year, and if possible, how many per shipyard.
- Possible shipbuilding trends for passenger and freight, including expected IWT fleet replacement and retrofitting potential.
- Factors influencing shipbuilding (i.e. increase in steel prices, impact on energy crisis, impact of Covid on passenger newbuilds with for instance the bankruptcy of De Hoop in NL…)
- Reasons for choosing a shipyard over another.
- Economic/regulatory challenges or opportunities for the future (i.e. finding qualified workers/a less dynamic EU industry/energy transition, dependence on hulls from overseas).
- What could be done to strengthen the EU IWT shipbuilding industry.
- Description of economic outlook.

Annex 2: input from experts

1. SHIP ST (Naval Architect), France

2. Lloyd's Register, the Netherlands

3. ANCONAV, Romania

4. VSM (Verband für Schiffbau und Meerestechnik), Germany

5. CRS (Croatian Register of Shipping), Croatia

6. NMT (Netherlands Maritime Technology), The Netherlands

7. Meyer Werft, Germany

8. Navibelle, Switzerland

9. Viking River Cruises, Switzerland

10. Experts from the economic committee of the CCNR

11. SEA Europe, Belgium

12. Bateaux Parisiens, France

Annex 3: Main shipyards involved mainly in the construction of hulls

Main Shipyards delivering hulls	Shipyard location	Remark
Jiangsu Haitong Shipyard	China	Collaboration with shipbroker Rensen Driessen Shipbuilding
Changqingsha, Shipyard	China	
Jingjiang Nanyang Shipyard	China	
Yongxing Shipyard	China	
Zhenyang Shipyard	China	
Jiangxi New Jiangzhou Shipyard	China	Collaboration with shipbroker Mercurius Shipbuilding
Bengbu Shenzhou Shipyard	China	
Kladovo Shipyard	Serbia	Owned by Dutch shipbroker De Jonge brothers
Vahali Shipyard	Serbia	A Dutch shipyard with a yard in Serbia
Arsenal Rem doo	Serbia	
Begej	Serbia	
VIP group	Serbia	
Barkmet boats	Czech Republic	
Loděnice Chvaletice	Czech Republic	
Manche Industrie Marine	France	
Transmetal industrie	France	
Neue Ruhrorter Schiffswerft	Germany	
Roßlauer Schiffswerft, part of Heinrich Rönner Group	Germany	
MLF Concept	Poland	
Partner Stocznia Shipyard	Poland	
Malbo & Malbo Shipyard	Poland	
Severnav Shipyard	Romania	Collaboration with shipbroker Rensen Driessen Shipbuilding
Orsova Shipyard	Romania	
ATG Shipyard Giurgiu	Romania	
Constanta shipyard	Romania	
Mangalia Shipyard	Romania	
Slovenska plavba a pristavy a.s.	Slovakia	
Breko (Belgian yard in Hemiksem)	The Netherlands	Breko is a Dutch shipyard with its yard in Hemiksem, Belgium, specialised in repairs and the building of hulls
Tinnemans Floating Solutions (Unit scheepsbouw & reparatie)	The Netherlands	Their unit in Maasbrachs is specialised in the delivery of hulls
SAS Waterhuizen	The Netherlands	They have a separate department for the fabrication of all kinds of steel structures
GS Yards	The Netherlands	Relying on European steel for the building of steel structures
Zwijnenburg	The Netherlands	
Pattje Shipyards	The Netherlands	
MTG Dolphin	Bulgaria	
Kherson Shipyard	Ukraine	
Damen shipyard group subsidiaries	Vietnam, Turkey, Poland, Ukraine and the Netherlands	

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