Port of Rotterdam Contribution to Discussion Paper

Inland Waterway Transport – Key to the Green Deal

The port of Rotterdam owes its position to a large extent to its location on the Rhine, Waal and Meuse and an extensive waterway network, enabling inland shipping to serve customers in the hinterland reliably and cost-efficiently. This is expressed in the share of inland shipping in the hinterland transport to and from Rotterdam of 154 million tonnes, of which 3.6 million TEU in containers. The Port receives around 73,000 barge visits annually carrying an average of more than 2000 tons of cargo.

As this figure indicates, this is a unique transport mode with a high intrinsic energy efficiency compared to other modes of transport. Inland waterways transport therefore offers a huge potential to contribute to the objectives as set out in the European Green Deal and stimulates modal shift.

The current scenarios depicted of the future goods flows however paint a prospect in which not all segments of inland waterway transport will continue to grow. After all, as a consequence of the energy transition, fossil cargo flows will decline and container shipping will become more important. This latter development requires inland shipping capacity and offers opportunities for inland shipping. At the same time, this creates more uncertainty. The expected doubling of container traffic results in more pressure on the logistic system. The container transport market is extremely competitive, demanding and constantly competing with other modes. **Reliability therefore will become even more important for inland shipping to prevent a reverse modal shift and keep road freight transport accessible for goods that depend on it.**

In addition, the growth scenarios are based on a starting situation with reliable waterways. **But in reality the modal shift potential is currently not being met because of reliability problems.** Inland navigation is under pressure due to the expected increasing frequency of low and high water levels due to climate change. The use of additional ships, planning costs, storage costs and even delivery problems - and the scarcity of certain products and raw materials - are all factors that have increased transport costs, making inland shipping a less attractive transport mode. Finally, the sector is faced with a sustainability challenge, with a fleet that must become cleaner, while the way in which the sector is organized and financed makes large-scale investments in this area more difficult. This is worrying as it does not correspond to the Green Deal objectives.

Port Commitment

The efforts of The Port of Rotterdam are clear. The Port is actively participating with the sector to achieve the most safe, efficient, reliable and sustainable handling of inland shipping through its infrastructure. We want to achieve this by focusing on growth in the containers and new sustainable cargo segments over the next 10 years, on increasing hinterland transport and on efficient handling of inland shipping.

In the first place, the port takes its responsibility in working towards an integrated logistics system for the exchange of goods between sea and hinterland. This takes place by optimally organizing the port, its sites, quays and infrastructure to enable efficient exchange. It also includes the investment in, and development of digital products and services for rapid handling and chain optimization, such as the integrated planning of inland container shipping (Nextlogic), track and trace of cargo (Cargotracker), route planner (Navigate) and data exchange via the Port Community System *Portbase*. In addition, the port coordinates and facilitates consultation and collaboration between market parties and sector organizations to further improve the inland container shipping chain. This involves collaboration between barge operators and deep sea terminals in bundling containers in the port and on the corridors.

Secondly, the Port Authority is actively committed to clean and climate-neutral inland shipping. The port authority stimulates cleaner ships through incentives such as the exemption from port dues and specific port regulations. In the Dutch *Green Deal Maritime, Inland shipping and Ports*, the sector agreed with the Dutch government to scrap the tax on shore power to make electrification profitable, making Clean Energy Hubs possible where the provision of exchangeable battery systems for inland shipping on the main waterway corridors is envisaged. For this reason, the Port of Rotterdam is investing and participating in the so-called ZES[1] initiative (battery containers propelling electromotors for short distance IWT) , but also in the Rh2ine project (hydrogen propelling electromotors for long distance IWT), which together aim at 60operational ships with an electric drive train with 15 docking stations on 20 routes in 2025. Additionally, the port supports with the development of the required bunkering and loading infrastructure, for example in the field of safety.

Envisaged **ZES & **Rh2ine** network*

Tasks & solutions

The inland shipping sector can become more innovative, more reliable and more sustainable when all chain parties work together and are involved. This also applies to responding to the opportunities and uncertainties with regard to future cargo flows. **Only by forging vertical coalitions**, such as in the joint Dutch Green Deal approach just mentioned, or along the lines of the initiated sectoral consultation "*container barge supply chain*[2]*"*, **can system adjustment be achieved instead of being limited to tackling symptoms**. In terms of sustainability, investing in a clean ship alone is not enough. It is important to ensure that investments made by the skipper or operator contribute to improving the system. This also requires commitment from shippers. In their own way, they struggle with uncertainty while having little influence on the port and waterways systems.

Dealing with uncertainties in operations is difficult**. Ideally, you want to bring all stakeholders together with regard to all phases along the entire corridor in order to arrive at joint planning for the longer term**. This creates perspective for the entire chain to cope with the existing uncertainties. Governments and policymakers also play an important role in this. **Sustainability goals can only succeed if investments are made in charging infrastructure that is accompanied by large-scale availability of fleet renewal incentive funds, to provide financial support for refitting and cover first losses.** Here, ideally the synergy between energy and transport networks will be sought by establishing a hydrogen pipeline network along the Rhine Alpine TEN-T corridor. Successful rollout is also facilitated by the **provision of fast approval processes for pilot programs and fit for purpose legislation** in order to offer a timely response to autonomous sailing (crew legislation) initiatives and both alternative fuel and cargo usages.

The above problems and solutions are also expressed **in the field of spatial planning and infrastructure with regard to the future navigability of the waterways**. The Dutch and German projects in the field of low water adaptation and navigability deserve praise and appreciation. Here too, however, **it is important to let the corridor perspective prevail**. Infrastructure projects, in the field of navigability, for example, cannot be solely left to the local authorities. Distribution locations as well, must be arranged together in such a way that you can grow with the demand of the logistics system at corridor level. This requires more direction. It would be advisable if forums such as the Rhine Commission and TEN-T could offer a consultation structure in which stakeholders jointly develop a market eco-system in which sustainable transport can become profitable and individual initiatives can be tested against the long-term corridor perspective.

[1] Zero Emission Services

[2] https://www.portofrotterdam.com/en/doing-business/logistics/connections/intermodal-transportation/inland-shipping/optimising-inland