



# SETTING A LOW CARBON PATHWAY ON THE BALTIC RIM

This article explores decarbonisation challenges in the ports and shipping industry.

Decarbonisation is one of many environmental challenges facing the ports and shipping industry. Merdan Haydarov of the UK's Maritime Advisory team looks at an example of how this subject is relevant to an existing port client in Poland.

There is no doubt that the ports and shipping industry are a key part of greater supply chain efforts to lower the overall impact on the environment. This also means that there may be business opportunities, as we can witness in the Baltic region.



## ***What does decarbonisation mean for the ports and shipping industry?***

Decarbonisation relies on a process that requires alternative fuels and lower carbon metrics in products at ports, at sea and across the logistics supply chain, complying with strong environmental regulations, such as international agreements and commitments (e.g. Paris Agreement 2016, IMO 2020, etc.). It is also now heavily involving Environmental, Social and Governance (ESG) performance requirements from investors, lenders, and rating agencies.

For any port or terminal, this means that transitioning is not simple and subject to a complex system, including a variety of interacting activities in the facility (involving ships, landside equipment and machinery, etc.) and the number of players in the supply chain. While there is a need to embrace alternative fuels, it is critical to have all stakeholders aligned and onboard, including tenants, customers, suppliers, partners, investors and regulators – all of which are relevant to DCT Gdansk, in Poland.

Indeed, from a port point of view, this means addressing three key areas of activity:

- **Construction** – i.e. port planning and master planning to assess and understand what is needed in terms of “green” infrastructure.
- **Operations** – i.e. how the port operates, plus maintenance and repair requirements, to ensure that the correct procedures are in place and key performance indicators are met, especially using more environmentally-friendly equipment.
- **Logistics** – i.e. the support offered to ports and their customers across the supply chain, so covering factors such as distribution warehousing, trucking and inland transportation etc. and using a range of “green” equipment and services.

DCT Gdansk is a highly successful facility. It is currently the largest deep-sea container terminal in Poland and has announced plans to expand its flagship container terminal to handle 4.5 million TEU per annum (up from the current

3.0m TEU) with the construction of a third deep-water terminal (T3), which is adjacent to the existing facilities, T1 and T2.

The emergence of Gdansk has challenged existing port infrastructure, especially the German ports which have had a traditional role of serving the Baltic region via transshipment. Since 2014, DCT Gdansk has grown its container volumes by an average of 8% per annum, surpassing 1.9 million TEU in 2020 – and Q1 2021 throughput of more than 515,000 TEU is an increase on Q1 2020 of 8.6%, but it also means the port is the largest in the Baltic region based on containers handled.

Continued growth and the need for expansion, to serve both local Polish markets, but also transit corridors into Central Europe and transshipment markets throughout the whole Baltic region, places strong emphasis on DCT Gdansk to maintain very high standards of environmental improvements, which include decarbonisation.

### **Leading by example**

As part of the T2 expansion, 15 electrical RTG cranes were purchased to reduce exhaust fume emissions, with extra electrified cranes added, while the yard expansion required further all-electric e-RTGS too. In addition, greater use of rail saw the number and length of terminal sidings increased, each supported by dedicated electrified RMG handling equipment.

The planned expansion of the facility with T3 will see similar investment made once again, with cold ironing also on the agenda, along with introduction of terminal automation to deliver enhanced environmental benefits and achieve operational service levels with improved profitability.

DCT Gdansk's decarbonisation initiatives also include KPI setting for Management Systems

that focus on goals for quality (i.e. average service time of trucking to reduce time in the terminal and lower emissions) and meeting environmental and energy targets, through reduction of CO<sub>2</sub> emissions from terminal operations.

These are important examples of what a rapidly expanding and successful modern container facility needs to undertake to meet its sustainability goals. In doing so, DCT Gdansk is making sure it is ready to further adopt a low carbon pathway to serve the Baltic region.

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