

# A future-proof port city

## Building a new container terminal for Helsingborg in Sweden



**A port designed for increasing traffic, larger vessels and more violent weather**



**A safety-first port design tested by pilots**



**Modelling and data for efficient decision-making in further environmental assessments**

## Challenge

The Port of Helsingborg has grown over the years and is located in the heart of the city. This offers multiple challenges for urban development, and noise pollution, emissions from ships, machinery and port traffic also present challenges. The port is Sweden's second-largest container port and is a critical port of import and export activities for the Southern part of Sweden.

The port and city authorities consequently decided to move the container terminal south of the city. This will free up space for central living, and the new port will be both deep and large enough to accommodate large vessels and increasing traffic.

It was critical for the port and city authorities to ensure that the container terminal was designed to meet all needs, both present and future. The new port should also have minimal impact on the marine environment.

## Solution

The design phase of a new port terminal is typically more manual than digital and relies heavily on experience. However, the city and port authorities knew that the current and an increasing number of violent weather incidents caused by climate change could present challenges in the future that experience alone would not be able to anticipate.

In other words, they needed more advanced and comprehensive data, modelling and tests that would ensure a final port designed for the future and for safety.

DHI has a long-standing collaboration with the Port of Helsingborg and has comprehensive knowledge of the local marine environment and metocean conditions. This allowed for an efficient, fast and comprehensive feasibility study that was adapted to the specific needs and priorities for the new container terminal.

*'We needed to make sure that the new port could fulfil both current and future traffic needs. We expect more traffic, larger vessels and more violent weather, and the new port should be ready for all of this, always with safety in focus. It was imperative for us that the design and construction of the new port is done with as little impact on the environment as possible. We knew that the conventional approach to port design would not be sufficient. We needed a more innovative, data-based and comprehensive approach, and DHI delivered.'*

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