

Management as the engine of sustainability

Wolfgang Hurtienne, *managing director,
Hamburg Port Authority, Hamburg, Germany*

The Port of Hamburg is the backbone of the economy in Hamburg. It provides employment, income security and growth in the region. The entire German economy benefits from the port, the numbers speak for themselves: jobs supported by the Port of Hamburg employ about 261,000 people in all of Germany.

At the same time it is a landmark of the city and makes Hamburg the proverbial gateway to the world. To make this gateway greener and more prosperous is a challenge the Hamburg Port Authority (HPA) is happy to face. The vast majority of the land within the port area belongs to the HPA. It concludes long-term lease contracts with the port operators with a maximum maturity of 30 years.

Looking at strategy

Recently, the HPA has presented its first sustainability report titled 'Greening the Gateway to the World'. The report describes numerous economic, ecological, and social projects that were realised in the 2011/2012 reporting period and simultaneously outlines future developments. The certification to the standards of the Global Reporting Initiative (GRI) was accompanied by Deloitte & Touche, an audit firm. The sustainability report is a first step towards documenting HPA's commitment. At the same time it motivates HPA to improve and refine the sustainability strategy. The reporting forms part of a broader process initiated to define the sustainable strategy of the HPA, implement action plans and assess results. The HPA plans to issue a sustainability report every other year to document the development process and the results in a transparent way.

Sustainability and the responsibility of business towards society and the environment are increasingly important competitive criteria for a port. The HPA aspires to enhance its image as a

sustainable port by developing workable ideas and innovative technologies to improve the competitiveness of the Port of Hamburg in Germany.

In its role as manager and infrastructure provider of the Port of Hamburg, the HPA is responsible for the strategic development of the port to ensure that it stays competitive. One of its main tasks is to provide, operate and maintain the public infrastructure for the benefit of Hamburg and Germany as a whole. This includes the maintenance of the port's waters and the Hamburg-managed section of the River Elbe as a federal waterway. Port management for the HPA involves advancing the macroeconomic interests of the city and the metropolitan region as part of its duty to provide public services. At the same time, it safeguards its own commercial interests and acts for the benefit of its customers and the port community while also ensuring that environmental and social issues are adequately addressed.

Effective environmental and sustainable building projects

The HPA has prepared a climate protection concept that contains protection objectives, areas of action, activities to reduce emissions and suggestions on how to monitor and evaluate currently planned measures. The HPA's climate protection objectives are based on the regulations of the Free and Hanseatic City of Hamburg, which foresee a 40 percent reduction in carbon emissions by 2020 and an 80 percent reduction by 2050, based on 1990 as reference year. To ensure the continuous reduction of adverse impacts on the environment, a systematic environmental management system in line with the criteria of the international environmental management standard ISO 14001 was introduced in 2011.

The relevant impacts on the

environment are analysed and quantified in order to be able to identify and specify further areas of action and develop appropriate measures. When building on port land, the HPA makes a point of deploying sustainable construction techniques. In July, the port railway, a division of HPA, moved into an office building located on the river island of Sprechafeninsel. The building is Hamburg's first office building that meets the low-energy standards of a Passivhaus. The reinforced concrete skeleton frame structure with exterior insulation and finishing system (EIFS) houses technical rooms as well as office and common rooms for the port railway.

A new HPA building on the Peute site was awarded the preliminary certificate in silver by the German Sustainable Building Council (DGNB). The institution recognises buildings that meet high environmental and sustainability standards after completion. The refurbishment of existing buildings to make them more energy-efficient and reduce their energy requirements has a firm place on the HPA's environmental agenda. The consolidation of physical servers based on green IT criteria had the same purpose and created energy-efficient and highly available IT infrastructure. By standardising, consolidating and virtualising physical servers, 194 hardware units could be dispensed with, which significantly reduced energy consumption. Furthermore, the HPA demonstrated its active commitment to the environment by taking part in the ÖKOPROFIT® (EcoProfit) project. Strict separation of waste at the HPA's headquarters in Speicher P for example, has increased the recycling rate from 30 percent to 80 percent. The use of water flow restrictors lowered water consumption by about 25 percent. Since 2011, the HPA has been involved in pilot projects that use

Picture courtesy of Hamburg Port Authority



Top: HPA's port railway moved into Hamburg's first Passivhaus-Standard (low-energy-standard) office building; Right: Wind turbines in Hamburg-Altenwerder



Picture courtesy of Hamburg Port Authority

recovered materials in road building. All this helps save money as resources decline and raw materials costs rise. In addition, the HPA is carrying out various material tests to develop effective recycling strategies. From 2013 onwards, the HPA will be supplied with natural gas which contains 1.8 percent of resource-saving biomethane and the percentage of the HPA's energy consumption derived from renewable energy sources will increase from 92.5 percent to 97 percent.

Our aim: more clean energy

Not only the Port of Hamburg but ports worldwide have realised that the offshore wind energy industry is offering enormous value-adding potential to their development. Events like the accident in the nuclear power plant of Fukushima in Japan in 2011 created new dynamics in the debate on energy politics and the production of renewable energy. Europe currently has the largest offshore wind energy market and the region has demonstrated how suitable ports are to act as a production location as well as a base or service port for wind energy. The International Association of Ports and Harbours (IAPH) has a port planning and development committee (PP&D), which has put together a report on demand and requirements for the offshore wind industry concerning ports worldwide. The project was championed by the HPA. In May 2013 as chair of the PP&D committee, I presented the report at the IAPH conference in Los Angeles. The PP&D committee has now been studying the specialised port infrastructure required

to install and accommodate offshore wind farms for two years.

Wind energy is also one of the core issues of the smartPORT Energy project. In 2012, the HPA initiated the project together with the state Ministry of Urban Development and Environment (BSU) and the state Ministry of Economic Affairs, Transport and Innovation (BWVI). The declared aim is to extend the Port of Hamburg's green-energy strategy beyond the HPA's scope of action by:

- Making the port a 'flagship port' for renewable energy, in particular wind energy
- Making the port less dependent on conventionally generated energy by increasing the share of energy derived from renewable sources and providing renewable energies in line with demand as well as by installing and expanding storage capacities
- Lowering energy consumption and emissions by increasing energy efficiency and providing intelligent infrastructures
- Promoting innovative and eco-friendly mobility to reduce sulphur oxide, nitrogen oxide, carbon dioxide and particulate matter emissions

The HPA is responsible for planning and implementing the sub-project – 'Shore power facility to supply cruise ships while they are berthing' at the cruise ship terminal in Altona. In cooperation with business partners and local approval authorities the topic of the availability of liquefied natural gas (LNG) as fuel in the port, could be advanced as a sub-project under the smartPORT Energy project.

About the author



A graduate from the Technology University of Braunschweig in 1981, Wolfgang Hurtienne has over thirty years of experience in the maritime industry. After several positions related to port planning and port projects, Mr. Hurtienne joined the HPA as director of port development in 1994. He became a member of the HPA's executive committee in 2008 before becoming the organisation's strategy director a year later, when he began his tenure as the managing director of the HPA.

About the organisation

Since 2005 the Hamburg Port Authority (HPA) has been providing future-oriented management of port infrastructure. As an institution under public law, the HPA is in charge of paving the way for the efficient, resource-friendly and sustainable implementation of infrastructure projects in the port. The HPA is the contact point for all kinds of questions concerning the waterside and the landside infrastructure, the navigational safety of vessel traffic, port railway facilities, port property management and the economic conditions within the port area. The HPA ensures the provision of land as required, carries out all statutory duties placed on it and provides port industry services.

Enquiries

Hamburg Port Authority AöR
 Neuer Wandrahm 4
 20457 Hamburg/Germany
 Tel: +49 40 42847-0
 Email: info@hpa.hamburg.de
 Web: www.hamburg-port-authority.de