

Review, evaluate, optimise.

Sustainability Report 2013/2014

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The next step is complete: You are now holding the second sustainability report of the Hamburg Port Authority (HPA) in your hands. The concept of sustainability has increasingly found its way into our work and is anchored in our targets to ensure that ecological, economic and social dimensions are taken into account. This approach requires the courage to rethink and compromise – which is the only way the HPA will fulfil its corporate and social responsibility to present and future generations as a supra-regional port. Megatrends such as climate change and resource scarcity are closely connected to and have significant effects on our economy and society, affects our stakeholders, and leads us to continuously adapt our company strategy according to these changing demands.

In this context, the intense dialogue with our stakeholders is extremely important and increasingly significant for us. We are vigorously working on optimising our internal structures and processes. Our integrated management system will help us to fulfil defined tasks in the port efficiently and with legal certainty. Under the heading of "corporate social responsibility", the HPA is also committed to providing a permanent contribution to the city and the metropolitan area. In this context, we asked ourselves in 2014 what the HPA and its employees stand for beyond mere task fulfilment.

Sustainability is a mainstay in our company's guidelines and a clear signal for the strategic embedding into our daily actions. As an economically led company, tasked with managing the port, we are striving to establish an optimum balance of our economic, ecological and social goals. As a result, this report shows a clearly improved ecological orientation compared to our 2011/2012 report.

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Chairman of the Management Board

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responsible for Sustainable Development

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Sustainable port development as a competitive factor



The HPA practices a future-oriented port management from a single source since 2005.



THE STRATEGY

Review, evaluate, optimise

In light of global megatrends and an ever-changing economic framework, the HPA initiated a change of values with its new 2011 strategy. It pursues a development of the port location Hamburg, taking equal account of sustainable aspects of all three dimensions.

The disclosure and evaluation of important aspects thereby fosters the dialogue with stakeholders and affects the quality of the HPA's services.

The HPA's report includes all subsidiaries¹⁾. The HPA reports the results of their sustainability performance every two years. The present report addresses the focus topics and special activities of 2013 and 2014. It is aligned with the existing organisational structure of the HPA and covers all units which are subject to the control of the HPA. As the responsible authority for port and area development topics, the HPA furthermore reports on aspects whose effects are relevant outside of the organisation.

In geographical terms, this report covers the area in which the HPA can exert influence on, rent and manage properties and land, and is responsible for roads, waterways, rails and sites.

Since this report reflects the latest standard of the Global Reporting Initiative (GRI) G4, it is not possible to directly

compare the indicators used in the reporting years 2011/2012, which were based on G3.1.

Due to methodical changes and content modifications, the presentation of the 2011/2012 results was waived. The HPA had an external agency validate the accuracy, completeness and adequacy of this report. The audit review (ISAE3000) has been carried out by the independent auditing firm Deloitte & Touche GmbH²⁾. Compliance has been confirmed with regard to the option "core" in accordance with the reporting standard GRI G4. With the renewed participation in the survey for the CRI (corporate responsibility index) of the Bertelsmann Foundation, the HPA once again faces comparison with other industries.

Three dimensions of transparent reporting

With the disclosure of its entrepreneurial activities and the economic, ecological and social consequences, the HPA is responding to the requirements of the markets and the public, as well as internal structural demands.

¹⁾ See Financial Report for company and ownership structure p. 22 and p. 24

²⁾ For test result see <http://www.hamburg-port-authority.de/en/press/Brochures-and-publications/Seiten/default.aspx>

Three dimensions of transparent reporting

Market-oriented reporting:

Strengthening of competitive position

- Portfolio expansion with regard to the construction/operation of cruise terminals
- Implementation of the smartPORT strategy for sustainable economic growth and optimum customer benefit with lower environmental impact
- HPA properties as part of the green supply chain

Management-oriented reporting:

Optimisation of the company's functionality

- Development of a target achievement system and system of indicators
- Development of an integrated management system
- Establishment of health management
- Informing and motivating employees

Public-oriented reporting:

Increase in credibility and acceptance

- Disclosure of conflicting goals and interdependencies
- Integration of stakeholders
- Reduction of environmental effects

THE COMPANY

Clear structures, defined goals

Since 2005, the HPA has provided future-oriented port management from a single source and takes care of the Port of Hamburg's efficiency, security and efficiency. The HPA meets the port's growing demands with intelligent and innovative solutions. Responsible for efficient, resource-saving and sustainable planning and execution of the port's infrastructure measures, the HPA is also the point of contact for questions regarding waterside and landside infrastructure, the security and efficiency of ship traffic, the dock railway, real estate management and economic conditions in the port, and safeguards the port's interests at a national and international level. The challenge for the future is to continue the path set by smartPORT³⁾ and to implement the respective projects.

Those who organise well can react to changes

The HPA is regulated by the Ministry of Economic Affairs, Transport and Innovation, Hamburg (BWVI).

The company's corporate bodies⁴⁾ consist of the supervisory board with nine members, and the executive management with two members⁵⁾. The organisational structure of the HPA has been adjusted in 2014 due to changing demands.

Three cruise terminal companies⁶⁾ have been established, for example, while management committee member Jens-Erik Wegner has been appointed as responsible for the sustainable development of the HPA and health management has been established as a department.

The release of the Baaken port from the port area was a geographical change that scaled down the area from 42 ha to

7,145 ha. Furthermore, due to a change in § 2 of the HPA law, the HPA has become the owner of the parcels named in the area of the Altenwerder port expansion. The organisational structure of the HPA is laid out in such a way that it can react quickly and flexibly to the demands of the market, politics and its customers.

Objectives for a future-oriented port

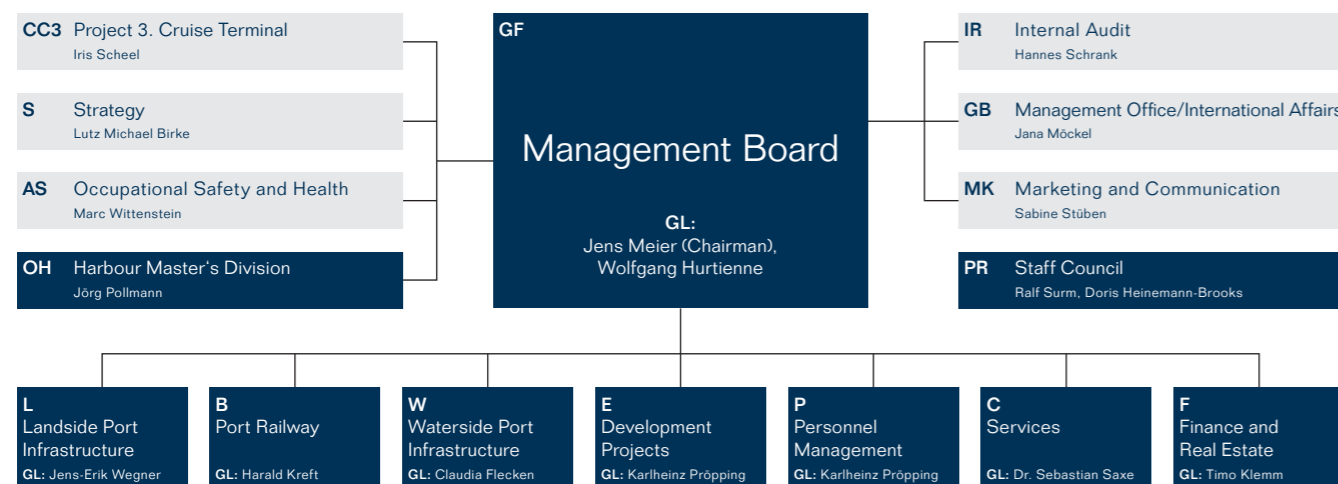
The HPA develops and operates the Port of Hamburg in a competitive way for the benefit of both its local and its international customers. The HPA has formulated and decided upon these tasks in its 2013 company vision.

The HPA thinks of economic sustainability as a conscious choice to protect and increase substance on the basis of the port development plan (HEP). Assessments and studies ordered by the HPA are the foundation for the economical use of resources, for identifying macroeconomic and political trends and benchmarks and for obtaining direction impulses for the port's development plan.

In its development planning for long-term (by 2025), medium-term (by 2020) and short-term (by 2015) goals, the HPA needs to align itself once again to react to changing demands.

A procedure for an annual evaluation and definition was established in 2014. The newly defined goals have been published as part of the works meeting. Target achievements are communicated transparently, for example in the case of the fairway adjustment. Unlike initially hoped, no decision has been made in the legal proceedings regarding the Elbe fairway

Organisational Chart



adjustment during the reporting period. The Federal Administrative Court will first await the decision on the Water Framework Directive by the European Court of Justice regarding the expansion of the Weser.

“One-stop port”: guidelines for efficient corporate management

The HPA's company guidelines and management principles are the foundation for efficient corporate management. One important aspect of this standardisation is the integrated management system, which brings together quality and environmental management, risk and opportunities management, occupational safety and health protection. Several management areas and handbooks are used for target setting and evaluation and contribute to the continuous improvement of corporate management. With its centralised and consistently monitored management approach for all substantial aspects and fields of action, the HPA has management principles on decision-making, regulation and feedback at its disposal.

Sustainability – a pillar of the HPA's company guidelines⁷⁾

In its sustainability guidelines, developed in 2014, the HPA combines all relevant regulations, rules, guidelines and voluntary commitments for working together within the HPA as well as for contact with customers and the supervisory authority. The sustainability principles as part of the company guidelines regulate the environmentally friendly and economic actions taken by the HPA, corporate management and ethics as well as questions concerning health, transparency and quality. In the future, the HPA will take life cycle costs such as operating and dismantling costs into consideration early on in order to reliably ensure the efficiency of infrastructure projects. The approach of considering the usage of environmentally friendly materials right from the planning phase, helps to reduce costs and conserve resources. According to precautionary principle 15 of the Rio Declaration⁸⁾, the HPA is committed to considering the effects of its actions and its projects right from the planning stage. Existing risk and opportunities management is tied to the responsible head of a business unit. Their specific expertise and leadership skills secure effective risk prevention as part of all day-to-day actions.

Objectives

Long-term goals (by 2025)

- Follow sustainable guidelines and principles of resource preservation, successfully position the port to compete internationally.
- Positioning of the HPA as an attractive employer in the core area of expertise of Hamburg's economy.
- Development of the Port of Hamburg to become one of the most intelligent and highest-quality ports in the world.
- Development of the Port of Hamburg to become one of the leading cruise ship destinations in Europe.

Mid-term goals (by 2020)

- Development of the Cruise Gate Hamburg (CGH) as a new business and operational area for all three cruise ship terminals in Hamburg.
- Climate targets – reduction of CO₂ emissions by 40% to 1990 – must be met.
- Continuous dialogue with relevant stakeholders of the port.

3) smartPORT see <http://www.hamburg-port-authority.de/en/smartport/Seiten/Unterbereich.aspx>
 4) The personnel composition of the supervisory board and the executive management is listed in the 2014 financial report p.28
 5) See http://www.hamburg-port-authority.de/de/hamburg-port-authority/geschaeftsleitung/Documents/hpa_organigramm.pdf
 6) See 2014 financial report p. 24 for ownership structure of the new cruise terminal companies
 7) For corporate guidelines and sustainability policies see <http://www.hamburg-port-authority.de/de/presse/broschueren-und-publikationen/Seiten/default.aspx>
 8) See <http://de.wikipedia.org/wiki/Vorsorgeprinzip>

Company guidelines





THE PORT

International hub, supra-regional job engine

The Port of Hamburg generates high levels of employment and added value, which makes it one of the most important economic factors in the Hamburg metropolitan area. To present the regional and overall economic significance of the Port of Hamburg, the HPA has PLANCO Consulting GmbH⁹⁾ analyse the effects of employment, gross value added, revenue and tax revenue.

In 2013, Hamburg's port-related tax revenues amounted to €825 m, roughly 11 % of Hamburg's tax revenues. With a total of €11.7 bn, 13.4 % of the added value generated in Hamburg was achieved in the Port of Hamburg. Very high contributors include the shipping industry at 20 % and logistics providers at 19%. The focus of the Port of Hamburg's cargo structure is on container goods. Nevertheless, the HPA realised the potential of the cruise industry as an employment multiplier early on and is therefore promoting the development of the Port of Hamburg as a cruise ship destination¹⁰⁾.

In 2013, around 53 % of the port-related jobs throughout Germany were located outside of Hamburg; in 2002 the share of other federal states was still at 43 %. These numbers clearly emphasise the increasing spatial networks of jobs related to the Port of Hamburg.

The port generated 13.4 % of Hamburg's total gross value added. When comparing this to the share of employment of the

Port of Hamburg for 2013, which amounted to 10.8 %, it is clear that the jobs in the Port of Hamburg are particularly productive.

Direct and indirect customers, markets supplied

Within the framework of development, maintenance and operation of the port infrastructure, direct customers include shipping companies as well as tenants and users of port real estate, port shippers (Hafenschiffer) and railway companies. Indirect customers include senders and receivers of goods and thus also the international clients of shipping companies and logistics providers. These are mostly located in North-east Asia, in the Baltic Region and in the hinterland in Germany and Eastern Europe. For the purpose of economical, future-oriented and global port management, the HPA is cooperating with national and international seaports such as the ElbePorts, Barcelona, Tianjin, Shenzhen, Shanghai, Kaohsiung, and Yokohama as well as national associations such as the Hamburg Logistics Initiative (LIHH) and international ones such as the European Sea Ports Organisation (ESPO) and the International Association of Ports and Harbors (IAPH).

9) PLANCO expertise 2013 see <http://www.hamburg-port-authority.de/de/presse/studien-und-berichte/Seiten/default.aspx>

10) Compare long-term goals (2025) p. 7 and the chapter "Investing in a competitive port" from p. 11 onwards

THE CONTENT

Information on sustainability reporting

The content of this report has been generated in accordance with the reporting standards of GRI G4 by the core sustainability team of the HPA, which is composed of members of different company units such as strategy, finance, HR, marketing and communication, and risk and opportunity management as well as the responsible member of the management board.

In 2011, this team was authorised by the management board to lead the sustainability process on behalf of the company and submit important decisions for approval.

Determination of report content, taking stakeholders into account

In preparation for this report, all topics reported in 2011/2012 were checked for their relevance and complemented with current topics. In addition, the HPA conducted an online survey with selected stakeholders to identify the prioritisation of important topics. For this purpose, stakeholders were evaluated, classified and categorised. Relevant selection criteria included their position within the supply chain, their influence on the HPA, the degree to which they are affected by decisions made by and activities carried out by the HPA and possible legal obligations. In accordance with the system boundaries that were determined for this report, the following stakeholder groups were included: employees, customers, consumers, capital market, political and administrative authorities, suppliers, associations

and non-governmental organisations (NGO). The core team evaluated the relevance of topics with the help of various factors such as risk minimisation and utilisation of opportunities as well as particularly high influence, far-reaching responsibility and financial importance, and then prioritised them accordingly: the relevance of topics from the stakeholder's and HPA's perspective (the latter within the framework of a stakeholder analysis workshop) was prioritised by means of a scoring system and visualised in a matrix.

The core team thematically derived all aspects of the materiality analysis with respect to the GRI and chose the specific standard specifications¹¹⁾ which reflect the main economic, ecological and social impact of the HPA. The selection took the delimitation of the main aspects into consideration and has been approved by the management board.

Compared to the 2011/2012 Sustainability Report, the scope of this report extends to the areas of water, biodiversity, products and services, transport, equal treatment and labelling of products and services. Taking test results into consideration, the content of this report with regard to the context of sustainability, relevance and completeness was validated by Deloitte & Touche.

¹¹⁾ See list of specific standard information in table section from page 5 onwards

Materiality analysis of the HPA/stakeholders

1. Priority	2. Priority	3. Priority
<ul style="list-style-type: none"> • Stakeholder communication • Sediment management • Energy transition • Allocation of space 	<ul style="list-style-type: none"> • Prevention of corruption • Availability of infrastructure • Occupational health and safety • Energy efficiency (facilities) • Human Rights • Water quality 	<ul style="list-style-type: none"> • Air quality • Employment • Social commitment

Investing in a competitive port





01 Among other things, the HPA is responsible for the maintenance of 130 km of road.

THE PATH

Sustainable development of the infrastructure

As an urban infrastructure company, the HPA supports the sustainable development of the Port of Hamburg. It puts the available means¹²⁾ to use in three fundamental areas: restructuring of the port area according to today's traffic requirements, maintenance, renewal and management of the port infrastructure and supply and development of port areas.

Financial consequences due to climate change as well as additional risks and opportunities for the organisation's activities are evaluated on a regular basis. The HPA has received the most recent report of the Intergovernmental Panel on Climate Change (IPCC), which details the observed and projected climate changes in Europe as well as trends for the potential development of climate factors and possible effects and risks. In addition, the North German Climate Office conducts studies on the possible effects of climate change on the metropolitan area of Hamburg. For this reason, scientific calculations by the HPA are currently not necessary. The HPA checks the scientific results for their relevance for itself and for the Port of Hamburg. Based on this, it is not likely that climate change will have negative consequences or will be a threat for the HPA in the short run (five years). At the present time, risks due to cli-

matic changes are not apparent or there are no financial implications for the activities of the HPA which can be attributed to the climate change. Risks for the HPA due to natural events are regularly checked within the framework of risk and opportunity management.

Accelerate transport transition, optimise the traffic flow

Growing markets mean increasing turnover, which leads to a higher traffic volume. In the future, a modal shift¹³⁾ from road to rail and inland waterways will be increasingly important. In 2014, the division of forms of transport for containerised hinterland traffic amounted to 2% inland vessel, 39% rail and 59% road. With regard to inland shipping, the Senate is pursuing the goal of increasing the proportion of containers in hinterland connections from the current level of 2% to 5% – however, these figures are subject to unstable factors such as weather conditions and water level. The HPA supports this goal by providing suitable infrastructure, for example by providing berths and waiting berths for inland vessels and by integrating inland shipping more strongly into the port information systems in the future. Furthermore, the perception of inland shipping with regard to both containers and the signifi-

cant share in the bulk product segment are set to be strengthened. In its role as a rail infrastructure company, the HPA has an active influence on the efficient use of railways and promotes the shift to rail in this area, for example, by providing the railway companies (EVU) with price incentives for swift settlement of their containers. In past reporting years, the quantities transported on the port's railway facilities (about 300 km) have developed in an extremely positive direction. Record results were achieved in both 2013, at a total of 41.6 m tonnes, as well as in 2014, at a total of 44.4 m tonnes (of which 2.24 m TEU (+7%)) of goods transported (increase of +6.8% over the previous year). This is how the hinterland share was increased to the benefit of railway transport to 43% with regards to total tonnage. The HPA is planning a locomotive service centre for the 100+ railway companies (EVU) that operate in the Port of Hamburg in order to reduce locomotive journeys on the already heavily used route sections. This service point is intended to increase the number of parking areas for locomotives and keep the rail tracks clear of unused locomotives. Communal areas offer space for the locomotive staff.

Efficient empty container management¹⁴⁾ also helps to process the freight traffic at the port even faster and more efficiently. According to estimates, more than one million truck journeys a year are solely due to empty container logistics. In an empty container logistics working group, initiated in 2012, the HPA, in cooperation with port companies and associations, worked out improvements for logistical processes and relief for the road infrastructure. The estimated potential for a transition in transport type between the terminal and the depot for port-internal transport is around 40,000 empty containers. Much higher quantities could be achieved by means of strategically placed terminals, which could combine empty container transport for the hinterland. Based on this, hinterland transport could be directly handled in the eastern port, where most containers are moved by truck. The estimated potential amounts to an additional 140,000 empty containers annually. The prerequisite for this is a tri-modal connection of the large depot operations. In 2013, the HPA monitored the implementation of a new berth for inland vessels on the Reihersteig on behalf of the depot operator CMR. Again, there would be a five-digit shift potential. Within the reporting period, the relocation of the empty container storage of the firm Progeco from Wilhelmsburg to Steinwerder was completed successfully. The new area offers the ideal framework for the operation of a tri-modal container depot. At the same time, the city district of Wilhelmsburg benefits from the reduced congestion.

A Sustainable sediment management

Waterside accessibility¹⁵⁾ for the port economy is one of the prerequisites for the port operations – which is why focused sediment management is indispensable for the efficiency and safety of the port. The HPA's sediment management concentrates on three factors. The main focus lies on the handling of sediments, which settle in the shipping channel and harbour basin and have to be excavated. The majority of the dredged material is emitted to the downstream Elbe. In addition, the HPA ensures that more highly contaminated sediments are removed from the river and treated and disposed of on land.

These measures make it possible to preserve the water depth of the Port of Hamburg for large container and cruise ships too – an important competitive factor for the port globally.

The HPA also makes an important contribution to the sustainable development of the tidal Elbe¹⁶⁾ with the planning and execution of basic river-engineering measures such as the Kreetsand pilot project and the project "ELSA – Elbe sediment pollutant remediation", which aims to improve the pollutant content in the Elbe all the way to the upper reaches and the Czech Republic. As described in the 2011/2012 Sustainability Report, the HPA and the Hamburg Environmental Authority are dedicating themselves with this project to improving the pollutant content of the Elbe sediments in the long term¹⁷⁾. In 2014, the financing of ELSA was extended up to and including 2021 following the second management plan of the EU Water Framework Directive.

Space acquisition with METHA material preserves depot capacities

With the backfilling of the Dradenau harbour basin, which was used as a temporary storagespace for dredged material for 20 years, the HPA is combining the development of the port area with sustainable sediment management for the first time. The recycling of Elbe sediments which have been processed and drained in the METHA (mechanical separation and dewatering of port sediments) sediment treatment plant for backfill conserves landfill resources and saves landfill sand normally used for backfilling. A special irrigation procedure makes it possible for 250,000 m³ of waste material to remain in the harbour basin and form a basis for the backfill of 300,000 m³ of METHA material as well as for sand drainage layers. A sophisticated drainage and pumping system artificially keeps the groundwater level in the area of the Dradenau port at a permanently low level so that contaminated water is supplied by the resulting pressure gradient with the help of pumps belonging to the flushing fields cleaning system SARA and cannot escape. The management of the groundwater and backwater level in this area is necessary beyond mere backfilling in order to permanently avoid environmental effects. The landfill is sealed to avoid the intrusion of rainwater. Thanks to this sustainable procedure, the HPA has achieved environmental compatibility and therefore approval for the first time. The goal is to use METHA material in future area development projects.

12) See table sections G4-9 on p. 3 and G4-EC4 on p. 5

13) Mode of transport

14) <http://www.hafen-hamburg.de/en/depots>

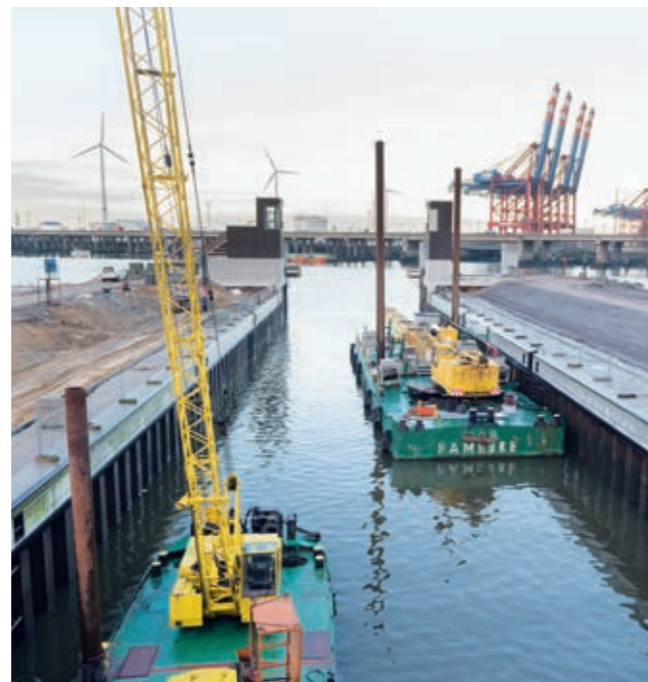
15) See http://www.hamburg-port-authority.de/de/hamburg-port-authority/strategische_themen/wasserwege/tideelbe/Seiten/default.aspx

16) See www.tideelbe.de

17) Compare 2011/2012 Sustainability Report, p. 15



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THE CHALLENGES

Preserve and expand the infrastructure

To make the port secure and efficient in the future, the infrastructure – roads, rail and waterways – has to be used more efficiently, maintained and expanded in a needs-oriented way. In addition, sites and real estate have to be developed in a forward-looking way and with a view to market requirements. In 2014, the HPA directly ordered goods and services¹⁸⁾ valued at €391 m and assigned them to construction companies, primary producers, manufacturers, wholesalers, consultants and engineering offices. As a public client, the HPA is bound to sector regulations, which is why regional suppliers cannot be preferred.

Expand infrastructure, segregate traffic

Over 30 bridges form an essential part of the port's infrastructure. Maintenance and new construction have been a main focus of the infrastructural investments of recent years. Up until 2016, all road bridges within the port area will be statically checked and evaluated according to the Directive for the Recalculation of Road Bridges in Stock by the Federal Ministry for Transport, Building and Urban Development (BMVBS) from 26 May 2011. Today, restoration and maintenance projects are

already being planned and executed based on the recalculation directive. Besides these ongoing activities, the HPA is also investing in comprehensive infrastructure projects that aim to segregate port traffic, optimise connections and increase the efficiency of the transportation network in the long run. Examples of this include the new Rethel bascule bridge and new Kattwyk railway bridge construction projects.

Promote area development with "inward growth"

With its land strategy, the HPA is implementing the given strategic guidelines for the port development in a concrete and practical manner. It applies to water and land areas of varying quality. The HPA leases and develops these according to their potential and in accordance with the demands of the surrounding area. Significant criteria beyond the present market situation and economic feasibility include the needs of tenants, residents and port users as well as the susceptibility of the surrounding areas. The development of single areas is always based on the potential and restrictions of the respective area. The HPA, for example, checks the tri-modal connection, the distance to the city and residents. The development of new

opposite page

- 01 Europe's largest bascule bridge of its kind emerges next to the Rethel lift bridge.
- 02 With the new construction of the Rugenberger lock, the HPA improves the connection to the container terminal Burchardkai.

this page

- 03 Maintenance and new construction have been the main focus of the HPA's infrastructure investments in recent years.



03

areas by backfilling water areas that are no longer needed is also a part of inwards-directed port development. The leasing takes place as part of a transparent, non-discriminatory, Europe-wide bidding procedure. Besides the rental rate, contribution to added value and the strategic benefit for the port, the decisive factors for the allocation of sites comprise the commitment of the tenants with regard to energy efficiency and generation from a renewable source as well as the number of directly and indirectly generated jobs. The HPA selects tenants using predefined criteria whereby sustainable award criteria are a binding part of the allocation procedure.

Sustainable aspects of holistic property management

Sustainability and the social responsibility of businesses are an increasingly important competition criterion for a port. Businesses increasingly value a clean supply chain. Right now, however, 40% of the overall CO₂ emissions in Germany are still attributable to properties. There is still great ecological and economic potential.

As the owner of large property portfolios, the HPA has to manage the life cycle of the property with commitment and expertise while measuring consumption in a way that creates added value. When it comes to new constructions, the HPA is therefore oriented towards the highest technical standards in the industry and is heavily investing in:

- Ecological quality: protection of the environment, conservation of natural resources
- Economic quality: decrease of life cycle costs, preservation of economic value
- Sociocultural and functional quality: conservation of health and comfort in the building, humane environment, conservation of social and cultural value

This will ensure that the equipment and circumstances of the property are coordinated with the needs of the user in the long run, and that the company portfolio is further optimised.

Secure port productivity with strategic flood protection

With a sustainable maintenance concept consisting of inspection, maintenance and restoration, the HPA is ensuring the long-term preservation of the flood protection system in the port area. The goal of the maintenance and the adjustment of polders to future water levels is to secure flood protection for the entire port area, to avert any threats and to keep port operations running whenever possible. This is why strategic flood protection is of utmost importance from a commercial perspective but also with regard to sustainable port development. When it comes to flood protection, the HPA acts partly as a property owner and landlord of port areas, partly as a shareholder of 15 private polder communities and in a superior function as a publicly appointed supervisory body. Roughly 70% of the port area is protected by private polder facilities. As part of its sovereign duties, the HPA plans to carry out comprehensive inspections based on static criteria in the near future to ensure that the conditions of all flood protection facilities at the port can be evaluated reliably. Within the scope of the required new and replacement buildings, all private flood protection facilities are due to be gradually updated to the new design water level, valid since 2012, in the long run.

¹⁸⁾ See details in table section G4-12, p.3

THE APPROACH

Innovative ideas for the efficient infrastructure

In order to develop a geographically limited port area in accordance with economic and infrastructural demands, intelligent solutions are needed that can move flows of traffic and goods at the port faster and more efficiently. Within the framework of the smartPORT logistics initiative and with projects such as smartPORT logistics, Port Road Management and the Port Monitor, the HPA is continuously developing innovative and all-inclusive traffic ideas for efficient port management¹⁹⁾.

Port Road Management: optimum occupancy of port roads

With Port Road Management²⁰⁾, the HPA is focusing on the automatic registration of all important traffic flows. The goal is to link traffic on the roads in an intelligent way and to have all necessary information and data at your disposal at the right moment in time and in the best possible quality to ensure time and cost savings for transport companies and port operations. One component of the intelligent linking of traffic data is DIVA, a dynamic traffic volume information system. Based on a

survey conducted among the drivers, the HPA has reworked the graphics of the DIVA boards and added information about the loading situation at the terminals of the HHLA. Besides the economic benefit of a faster and more efficient traffic flow, Port Road Management and DIVA also have a positive effect on the reduction of pollutant emissions from trucks. Last but not least, the improved information situation helps to avoid stress and deadline pressure among the drivers and dispatchers.

The Port Railway: faster and more efficient with EVITA

Hamburg is Europe's largest railway port. With 58,176 trains and 1,541,065 wagons, 2014 was one of the best years in the port railway's history. The transport volume on the railway further increased in 2014, especially when taking the transported quantities into account. Even though the number of trains only increased by 1.7 % from 2013 to 2014, the number of transported containers (TEU) increased by 7.0 %, while total tonnage rose by 6.8 %. This shows that trains and wagons



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opposite page

01 The new vessel traffic service centre is an important element for the future of the port.

this page

02 The DIVA screens provide information on the traffic situation in the port.



02

are being used more efficiently. With its rail traffic information and operations system (EVITA), the HPA has one of Europe's most modern and comprehensive railway telematics system networks. EVITA's implementation was completed in October 2014 with the introduction of the IT platform transport rail. This platform collects and links cargo-related information from all railway companies. This ensures that non-discriminatory distribution of the port's infrastructure is supported by the HPA and that everybody involved in the supply chain receives comprehensive logistics data early on. The IT standards of the port railway are therefore higher than in North Range ports, which provides a sustainable competitive advantage to the Port of Hamburg.

Cutting-edge standards for the ship traffic of the future

The vessel traffic service centre is responsible for monitoring, regulating and securing ship traffic in the port area. The significantly higher traffic volume with an increasing number of ultra large vessels²¹⁾ as well as the orientation of the port towards a future-oriented, competitive development also demand continued development. In areas where the width of the shipping channel is less than 300 m, there is currently an encounter ban in place for vessels whose width exceeds 90 m in total. One measure was the reconstruction of the vessel traffic service centre, which is now one of the most modern traffic centres in the world and an element of smartPORT. The equipment includes high-tech working areas and cutting-edge engineering facilities. Since 2012, the vessel traffic service centre has used the control centre application Port Monitor²²⁾, which, based on geo-referenced data, collects up-to-date information on events and conditions on port waterways, such as the position and destination of vessels, gauge data, berths, heights of bridges and current construction sites. The centre uses this data to

monitor and secure the port area and the entrance to the Elbe. Since 2013, it has also been possible to use Port Monitor on mobile devices from any location. The HPA's goal is to use the system across all modes of transportation in the future.

The smartPORT profession: leading innovation with university cooperation

At the beginning of 2014, the HPA and Hamburg University of Technology (TUHH) concluded a grant agreement for the establishment of a six-year junior professorship. The goal is to support teaching, research and scientific training in the field of intelligent port management. With this cooperation, the HPA hopes to create new impulses in the development and planning of logistics processes and traffic systems that take information technology megatrends such as the "Internet of Things" into account. In addition, the planning of the physical infrastructure of the port and the surrounding areas will be part of the professorship. The assessment procedures will be completed in 2015.

19) Compare the smartPORT logistics brochure (<http://www.hamburg-port-authority.de/de/smartport/logistics/Seiten/Unterbereich.aspx>)

20) See http://www.hamburg-port-authority.de/en/port-customers/roadtraffic_port/Seiten/default.aspx

21) >330 m long and/or 45 m wide

22) See <http://www.hamburg-port-authority.de/en/press/Press-archive/Seiten/Press-release-06-02-2014.aspx>

Responsibility for people, environment and society



01

01 An active dialogue improves the mutual understanding and helps to develop solutions.

THE STAKEHOLDERS

Relational capital of the HPA

Openness and honesty are important features in the exchange of opinions. This also goes for the dialogue between businesses and their stakeholders. During the day-to-day work of the HPA, the various stakeholder groups²³⁾ are involved in many different contexts. The exchange with customers and consumers, activists and non-governmental organisations, investors and political authorities provides potential far above and beyond the prevention of reputational risks. The HPA offers topic-based consultations on a regular basis in the form of info panels and discussion events, round tables or chaired dialogues. The methods that have been used in recent years comprise interviews, conferences, workshops and project discussions. The inclusion of stakeholders takes place primarily in order to evaluate interests and observe surroundings. The HPA has professionalised systematic issue management with social trends and sustainability topics to identify current needs and react accordingly. An active stakeholder dialogue helps to increase mutual understanding and work out solutions. The stakeholder survey prior to the sustainability report is one part of this dialogue.

Results of the online stakeholder survey

In mid-2014, the HPA conducted an online survey with over 100 stakeholders from eight groups. The high participation rate of 57 % shows for the high interest in the sustainable performance of the HPA. The results of this survey²⁴⁾ have been taken into consideration when selecting the contents of this report. As an example, four of the especially noteworthy results are listed below:

Demographic change/securing of young talents: Almost a quarter of survey respondents (24 %) evaluated the instruments that are currently used as sufficient. About half (47 %) were not in a position to comment, which shows that the measures of the HPA with regards to demographic change and its positioning as a desirable employer is not sufficiently known.

Employee satisfaction: Personnel-related factors such as work-life balance as well as training and career opportunities (ranked second and fourth) seem to be less important to employees than company-wide factors such as an open and appreciative management culture (ranked first) and transparency in internal communication (ranked third).

Consumer concerns: 48 % of stakeholders regard the measures for traffic management and traffic information as either barely sufficient or not sufficient at all – temporary restrictions to secure the port operations are nevertheless accepted by stakeholders (92 %).

Procurement: Taking account of social and ecological criteria for the selection of suppliers is of great significance for stakeholders (82 %).

23) See "Determination of report content taking stakeholders into account", p. 10

24) For survey results, see <http://www.hamburg-port-authority.de/en/press/Brochures-and-publications/Seiten/default.aspx>

THE DIALOGUES

The challenges of a city port at tidal Elbe

The HPA promotes effective exchange with its neighbours in the city and in the region. Through discussions with regard to port development, the HPA plans to continue four major port dialogues from 2011 in a specialised way and to involve the affected stakeholder groups in order to continuously support sustainable port development with regard to relevant social, ecological and economic factors. Besides holistic sediment management in the tidal Elbe area and the Moorburg discussion group, important topics in the reporting period included the dialogue with the HHLA and Eurogate on efficient traffic connection to the terminals, dialogues with adjacent districts with regards to area and traffic topics and regular exchange with the NABU. In addition to the importance that active exchange with stakeholders has for sustainable port development, these discussions also help improve the HPA's visibility to stakeholders.

Tidal Elbe forum: in dialogue with the region for sustainable sediment management

In order to secure seaside access to the Port of Hamburg and the ports on the Lower Elbe, holistic sediment management, which includes the entire Lower Elbe region and therefore concerns the diverse interests in this region is necessary. With this in mind, the HPA and the Federal Waterways and Shipping Administration (WSV) invited over 40 different advocacy groups based in the Lower Elbe to a dialogue. The goal of this dialogue process is to further develop existing river engineering and sediment management for the tidal Elbe – based on a broad foundation of knowledge that includes not only the professional advice from scientific and administrative

bodies but also everyday knowledge and experience from the region: from fishermen and environmental groups, from sailors and tourism and from municipalities and the business sector.

The river engineering and sediment management forum²⁵⁾ has dedicated over a year to this discussion. The goal of this work is to find ways to:

- Stabilise the sediment structure (Sedimenthaushalt) in the tidal Elbe in order to reduce the amount of dredge material in a sustainable way
- Improve the sediment quality

Based on this goal, over 30 options and measures have been checked and evaluated together. A resulting report with recommendations, which documents this opinion in a transparent way, will be presented to the public in the summer of 2015.

The TIDE project: estuaries from the perspective of experts and citizens

Exceptional natural events and competing usages pose a major challenge for the management of tidal river areas (estuaries) such as the tidal Elbe. In order to develop tools and recommended actions for such estuaries for managers and decision-makers, the HPA has implemented the EU TIDE project (tidal river development)²⁶⁾ until 2013 in cooperation with European institutions from the areas of science, port management and environmental administration. The project took a close look at the four big European estuaries the Elbe, the Humber, the Schelde, and the Weser. In addition to economic and ecolog-

01 The information pavilion "Deichbude" at the south end of Kreesand was a part of the communication concept funded by the TIDE project.



01

ical factors, the public perception of these habitats and economic areas played a major part as well. As part of this project, 800 people along the tidal Elbe and 500 households in Hamburg were asked how they see the Elbe, what they associate with the tidal Elbe and what is important to them with regards to the Elbe.

Two noteworthy results:

- The residents of the region appreciate the Port of Hamburg as an "economic engine", but at the same time want environmental protection, recreational use and re-naturation to be taken into account.
- The respondents think of decisions by public authorities as non-transparent, too short-term and driven by interests – however, only 10 % get involved in planning and design processes in the region.

Plan transparently and operate in the Moorburg port expansion area

In cooperation with various authorities and organisations in Hamburg, the HPA is supporting a community dialogue within

the Moorburg discussion group with residents concerning regulatory activities in the Moorburg port expansion area. A dialogue forum ("Ständige Gesprächskreis Moorburg/Hohenwisch") was established in 1998 at the time of the introduction of the Port Development Law, which identifies Moorburg as a port development zone (1 and 2). This discussion group has resulted in an open and constructive dialogue. Advocacy groups based in Moorburg, representatives of the HPA and the Ministry of Economic Affairs, Transport and Innovation (BWVI), SAGA GWG and the Landesbetrieb Immobilienmanagement und Grundvermögen (LIG) meet four times a year to present their plans and discuss current topics. Topics within the 2013/2014 reporting period included the expansion of the A 26, the planning of a sludge disposal site in Moorburg, the Moorburg power plant, ice formation on the dike due to service water and the construction of the New Kattwyk Railway Bridge.

25) <http://www.dialogforum-tideelbe.de>

26) <http://www.tide-project.eu>



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THE EMPLOYEES²⁷⁾

Growing together – Making things happen

Consistent and targeted youth development within the company has paid off, as shown by the fact that the average age of employees remains stable and the fluctuation rate has decreased within the reporting period. In 2013, the latter was once again, well below the average in the public administration of the Free and Hanseatic City of Hamburg. Most of the employees of the HPA are covered by the collective agreement of the AVH (Arbeitsrechtliche Vereinigung Hamburg) or are public sector employees. Employees with non-tariff contracts and special service contracts (<1 %) are not covered by collective agreements. For all employees subject to the collective labour agreement, the HPA offers a company pension plan and performance-oriented pay. Additional operational benefits such as the use of the canteen, company sports groups and discounts for sports activities as well as an emergency childcare facility are available to all employees. Altogether, the increase in employee numbers in 2013/2014 is a clear indication that the HPA is an attractive employer in Hamburg and the metropolitan area thanks to its operational benefits and its flexible, family-friendly working hour models. In 2014, the HPA celebrated the an open day, inviting all colleagues to the new port railway workshop hall on Spreehafen island to enjoy

a versatile programme. With music, dance and good food, there were plenty of opportunities to exchange ideas and get to know each other.

Employee development as a success factor

The HPA takes the professional qualification of its employees very seriously. In-depth professional training and individual employee development are the foundation for outstanding expertise and promote identification with the company. In addition to apprentices in commercial and business occupations, the HPA takes on trainees, dual-degree students and interns each year and trains student teachers for advanced technical services. In recent years, the HPA has also further invested in internal training. In 2013/2014, a clear increase in training was recorded. Overall, the training opportunities are very well received. The uptake of the mostly voluntary measures averaged 90 % during the reporting period. In addition to training, leadership plays an important role since it can have a major impact on the company's culture and attractiveness as an employer. Targeted expertise management programmes help to identify high-potential employees and promote their development so that a majority of leadership positions can be

opposite page

01 The HPA offers a variety of training and further education.

this page

02 The HPA employs approximately 1,800 people.

03 The HPA participated in the 2013 HSH Nordbank Run with 75 participants.



03



04

filled internally. In addition, all senior managers are evaluated at least every three years via systematic executive feedback, which indicates their strengths and areas where they need to improve. This has been implemented throughout the HPA during the reporting period. During change processes, senior managers receive support from internal moderators, for example. The plan is to develop an obligatory qualification programme for all senior HPA managers in 2015 to teach specific knowledge, leadership and social skills in a targeted manner.

Commitment to healthy coexistence²⁸⁾

Health, the working environment and job security play an important role for the HPA, not only in social and labour relations but also in economic terms: willingness to perform and commitment by employees increase in a positive working environment. In order to support health in a focused manner, the HPA has conducted a company-wide survey with about 1,000 voluntary participants. As a result of this survey, the company unit "health" was established as a company-integrated unit in 2014. The goal is to effectively implement holistic health management within the HPA. On the basis of these survey results, anonymous analysis workshops and workplace inspections, free health programmes were developed for employees. In 2013 and 2014, two health days, a stress management seminar and a smoke-free programme as well as trainings for senior managers focusing on corporate health took place. In 2014, working groups for corporate health management were established in three company units as pilot projects in order to develop new action fields for the specific health topics of these units. In 2014, the occupational safety unit, consisting of two security engineers, two safety officers and an administrative officer, was transformed into an executive department (Stabsstelle) for the management board. Clearly defined jurisdictions and a transparent online presence offer customised support. The goal of this unit is to offer a practicable and legally watertight solution for general and specific issues. In order to continue the trend of decreasing accident rates over the past three years, in 2015 it is planned to intensify on-site contact with senior managers and employees in order to be able to recognise threats reliably.

Social commitment – interaction with port and city

By participating in local social projects, the HPA wants to contribute actively to life in the metropolitan area and to social interaction. Since 2012, the social commitment of the HPA has been coordinated in a central in-house unit. The employees are encouraged to participate in voluntary activities in port-related projects, for example online or on the "marketplace for social projects". This is why the employees of the HPA regularly do voluntary work at the Krayenkamp and Duckdalben sailors' charities and participate in blood drives as well as Hamburg's Girls' Day and Boys' Day. The HPA is also represented at charity sporting events such as the HSH Nordbank Run and the Sternenkicker tournament. Overall, the HPA contributed to 22 social projects in 2013 and 25 in 2014. Ideas for the "Mein Papa liest vor" campaign by the Stiftung Lesen (German Reading Foundation) and the "Maritimes Zentrum Elbinsel" project by the Wilhelmsburg district school, where the construction of an aquaponic system being supported, often come from the employees themselves.

27) See details in table sections G4-10, G4-11 on p. 3, G4-LA1 on p. 8 and G4-LA9 on p. 9

28) See details in table section G4-LA6 on p. 8

THE PRINCIPLES

Act in a proactive and responsible way

Compliance with discrimination protection policies

The HPA is obliged to comply with discrimination protection policies according to the German Anti-Discrimination Act (AGG). Any complaints by employees made to the respective authority are checked according to § 13 AGG and appropriate measures are arranged if necessary. Within the 2013/2014 reporting period, one complaint was made on the grounds of sexual discrimination, which was found to be groundless after a thorough examination.

Prevention of corruption – inform and sensitise.

The prevention of corruption²⁹⁾ is one of the fundamental and ongoing duties of the HPA. For this reason, it has implemented a comprehensive internal catalogue of measurements to prevent corruption. The goal is to establish a clear code of conduct and transparency while dealing with corruption. The cornerstones of corruption prevention include, for example, an internal monitoring system based on a four-eyes principle as well as clearly defined signature powers. For cases of suspicion, an internal anti-corruption unit as well as an ombudsman have been established. Training is carried out by internal speakers in a five-year cycle for all employees and includes HPA guidelines for the prevention of corruption as well as a code of conduct for all employees. Overall, 12 training sessions took place in 2013 and 15 in 2014.

With the conclusion of the first five-year cycle at the end of 2014, all employees have completed extended training to prevent corruption. The refresher training, which will take place for the first time in 2015, will be made available in the form of e-learning tools. Within the reporting period, no cases of corruption were confirmed and no cases of suspected corruption were reported.

European safety standard for machines and facilities

General safety standards for machines and facilities are an important topic for occupational and public safety. In addition to compliance with the German Machinery Directive for all machines, facilities and mobile infrastructure constructed by the HPA, the company has advocated CE conformity for its products since 2008. The goal is to produce and document any new machines, facilities and mobile infrastructure built by the HPA in full compliance with CE standards. The medium-term goals of the HPA include reviewing CE conformity with regard to the entire supply chain as well as developing systematic complaints management for all public facilities managed by the HPA. Within the reporting period no violations against CE conformity were reported.

²⁹⁾ See details in table G4-SO3, G4-SO4 on p. 7 and G4-SO5 on p. 8

Heading for a green port



smartPORT energy³⁰⁾

Energy transition is a key environmental strategic topic in Germany. In cooperation with the Ministry for Urban Development and Environment (BSU)³¹⁾ and the Ministry of Economic Affairs, Transport and Innovation (BWVI)³²⁾, the HPA is committed to the initiative smartPORT for a reorientation of energy use at the Port of Hamburg.

Solar energy at the port: identify and use potential

In 2013 and 2014, the connected roofs and open spaces of all port users were checked for their suitability with regard to photovoltaic and solar thermal facilities. Because of uncertainties due to the new German Renewable Energy Act (EEG), the commitment of tenants is rather restrained at the moment. In addition, rental contracts with periods of less than 20 years influence the rate of return and the profitability of the facilities. In its new construction and renovation plans, the HPA has taken the construction of solar thermal and photovoltaic systems into account – provided this is technically and economically feasible. Among other things, a photovoltaic system with a power output of 66,500 kWh/a has been installed as part of the energy renovation of an administrative and residential building on Neuwerk island. In addition, the port railway building on Spreehafen island, which was finished in 2013, has a photovoltaic facility with a planned power output of 160,000 kWh/a for its own use.

Options for the utilisation of biomass

In and around the port area, biomass with energy potential is produced, for example in the form of grass cuttings. When fermented into biogas, this previously unused biomass can replace fossil or conventional fuels. In 2014, the HPA has checked the feasibility of a biogas plant from an economic, ecological and logistical point of view. From today's perspective, such a biogas plant does not yet make economic sense as the useable biomass from grass and the fermented portion of green waste is too low on the one hand at a maximum 1,000 tonnes a year, and too affected by seasonal variations on the other.

Clean air initiative

Within the framework of EU-compliant clean air planning by the Free and Hanseatic City of Hamburg, the shipping industry was identified in 2010 as one of the three main emitters of nitric oxide and fine particulate matter in the city area. In 2014, the HPA created an emission register for the entire port area, broken down by emitter groups.

Broken down into emitter groups (ships, road and rail traffic, industrial companies, terminals and small and mid-sized companies), the register shows the respective share of fine particulate matter (PM₁₀), carbon dioxide (CO₂), nitric oxide (NO_x) and sulphur oxide (SO_x). This is a valuable basis for the HPA in order to develop targeted measures for emissions reduction at the port.

Within the framework of the smartPORT energy initiative, the HPA has developed a land-based infrastructure, which provides power to vessels with a power barge³³⁾. Ships of the AIDA Sphinx class³⁴⁾ have been able to use this infrastructure since October 2014. The HPA has also been building a permanent landside power plant at the cruise ship terminal in Altona since summer 2014. This construction is funded by the European Union (€3.55 mill.) and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)³⁵⁾ (€3.7 mill.) The power barge as well as the landside power plant create important prerequisites for significantly decreasing the emission of nitrogen and sulphur oxides, fine particulate matter and carbon dioxide as well as for reducing the noise emission caused by ship engines.

30) Brochure, see http://www.hamburg-port-authority.de/de/presse/broschueren-und-publikationen/Documents/broschuere_smartportenergy_web.pdf

31) Ministry for Urban Development and Environment

32) Ministry of Economic Affairs, Transport and Innovation

33) Floating power plant

34) Cruise ship series

35) Federal Ministry for the Environment, Nature Conservation and Nuclear Safety



The roof of the port railway's factory hall features a photovoltaic system.



01 Port railway workshop hall on Spreehafen island.

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THE ACTION STEPS

Environmental management and climate protection

Environmental management

The sustainability of a port also involves a growing awareness of energy efficiency and the conservation of resources. The HPA is working on the introduction of a company-wide environmental management system (UMS) in accordance with the International Environmental Management Standard ISO 14001. In 2014, responsibilities were clearly defined and the systematic approach was documented in the environmental management handbook. In addition to a reduction of the environmental effects³⁶⁾ of HPA activities, the company-wide environmental management system also helps to implement of the HPA's environmental policy and goals derived from it. On a day-to-day basis, environmental tasks assigned to on the HPA by a number of business partners and social groups. For this reason, the tasks are manifold and concern all business areas.

- The HPA's customers expect services of the highest quality. Systematic consideration of environmental concerns is increasingly growing in importance since safe and environmentally friendly logistics are an important factor for the client's image.
- The immediate vicinity of the HPA and the general public expect and appreciate open and honest communication about environmental and safety activities, especially when it comes to potential difficulties and challenges.

- The employees and senior managers of the HPA are responsible for health and comfort at work, safety and environmental friendliness while handling dangerous goods and the environmental image of the HPA. An essential aspect of this is the prevention of personal liability risks for all employees.

For the third time in a row, the HPA received an award for its voluntary and active involvement in environmental protection from ÖKOPROFIT – an environmental management programme run by the Free and Hanseatic City of Hamburg. The HPA will remain an environmental partner of the City of Hamburg in 2014.

Climate concept: focus on resource conservation

In 2014, the climate concept of the HPA was revised and aligned with the climate protection targets of the Free and Hanseatic City of Hamburg. The basis of this realignment is the goal of reducing CO₂ emissions by 40 % by 2020. The HPA will achieve this by integrating its power supply into the pool agreement of the Free and Hanseatic City of Hamburg, which it will use to obtain power from renewable energy sources, thus compensating for about 50 % of the overall CO₂ emissions of the company, since total energy consumption accounts for about 33 %. The power supply contracts of properties rented

by the HPA have also been transferred to the pool agreement. This is how the HPA has been able to achieve an increase in the green power quota of 2.5 % to 95 % and an additional CO₂ saving of 545 tonnes a year. In addition, the HPA obtains natural gas with a resource-conserving biomethane share of 2 %. Hence, the 2020 CO₂ emission targets have already been achieved today. For this reason, the HPA is primarily focusing on energy conservation and the increase of energy efficiency as well as the conservation of resources.

METHA: innovative flocculation method to protect the environment

In the METHA treatment plant, contaminated Elbe sediments are prepared for storage in the landside landfill sites at the port. Flocculation chemicals made from petroleum are used for the treatment and drainage of dredged material which is hardly biodegradable. In 2006, the HPA initiated a research project in order to replace as high a share as possible of the annual requirement (320 tonnes). In 2014, a starch derivate based on renewable resources (potatoes) was produced, which meets process-related technical requirements and is already in use. In this way, 40 tonnes of chemicals can be saved annually, which corresponds to the primary oil needs (Primäröl) of 60 tonnes of raw oil.

Fleet management and employee mobility

The HPA operates a vehicle fleet for every task within the area of infrastructure maintenance. It consists of 246 road vehicles and 31 marine vessels. Transportation contracts are only awarded to companies whose vehicles fulfil the emission standard EURO 5. As a contribution to the emission reduction in the port and the city area, the HPA has put seven additional electric vehicles into operation and now owns over eight electric vehicles and ten gas-powered vehicles. In 2014, the calculated average value of fleet emissions for vehicles up to 3.5 tons has decreased by 6 % for particulate matter emissions and by 7 % for nitric emissions.

Since 2014, within the framework of a comprehensive new ship construction programme, the HPA has gradually replaced its fleet with new low-emission ships and equipment. Hence, the HPA is following the emission standard, which has been applicable since 2007, of the Central Commission for Navigation of the Rhine (CCNR, German: ZKR)³⁷⁾. Compared to the engines of older standards, the nitric oxide emissions, for example, have decreased by about 30 % and fine particulate matter emissions (PM₁₀) by about 65 %. Since the implementation of the standard, the HPA has equipped a total of six vessels with new engines based on CCNR stage II and built four entirely new vessels. A cable grab dredger (Seilgreifbagger) and a launch are currently under construction; four new tugboats will replace four older vessels by the end of 2016. The new pilot boat "Lotse 4" is environmentally friendly thanks to its lightweight aluminium design and geometric hull, which allows a fuel-saving departure, as well as a drive shaft that is lubricated in water rather than oil (wasser- statt ölgelagerte Antriebswellen). Since 27 March 2009, all vessels and equipment have been using low-sulphur diesel fuels DIN EN 590 (SO_x 0.001 %).

In addition, the employees of the HPA increasingly use public transport to get to work throughout the entire port area. The percentage of employees who own an HVV ProfiCard has increased 36.6 % to 38.7 % in 2014.

Energy-efficient construction ...

The HPA is increasingly capitalising on energy-efficient construction, which benefits both the HPA itself and the port from an ecological as well as an economic point of view in the long run. With the new port railway building on Spreehafen island, the HPA put Hamburg's very first office building entirely constructed according to the Passive House Standard into operation in August 2013. The building's annual energy consumption of 15 kWh/m² is 30 % below legal requirements. Due to the combination of a solar thermal system, optimised building insulation and a ventilation system featuring heat recovery, the specific energy consumption only accounts for about 10 % of the energy consumption of the old buildings. The result is a CO₂ reduction for heat and water supply of 238 tonnes a year. The building has been recognised as an outstanding "Cities and Climate Change" project by the IBA.

... energy renovation

In 2014, the HPA finished the energy renovation of the vessel traffic service centre and installed an ice storage facility at the vessel traffic service centre site on the Seemannshöft for effective heat recovery. In addition, a residential and office building in combination with a building yard on Neuwerk as well as parts of existing buildings of logistics complexes in Peute have been completely renovated in terms of their energy use. On one of the 75,300 m² areas on Peutestraße, the HPA built a 5,100 m² storage facility including an administration complex according to the highest sustainability standards in 2013. During the construction, the HPA was able to upgrade the preliminary silver certificate issued by the German Sustainable Building Council (DGfNB) to a gold certificate by making small structural additions. Thus, the logistics complex is helping to increase energy efficiency and is playing a pioneering role for sustainable construction in the port area.

Rail maintenance with synergy effects

In 2014, the HPA carried out rail maintenance work on the tracks in the Hamburg-Hausbruch area in order to reduce the sound level of traffic. To achieve this, the surface irregularities on the rails, which are caused by the mechanical strain on the tracks, were eliminated with a special grinding machine. Through the removal of irregularities on the rails, it was possible to reduce the emission levels to between 1.5 and 5 dB(A). The preventive treatment of the track system was included in the port railway maintenance concept. When it comes to this kind of work, the HPA puts special emphasis on large-scale machines with low working noise.

36) See details in table sections G4-EN3, G4-EN6, G4-EN8, G4-EN15 on p. 5, G4-EN16, G4-EN19, G4-EN21, G4-EN22, on p. 6 and G4-EN23, G4-EN27 on p. 7

37) For information on stage II see <http://www.umweltbundesamt.de/themen/verkehr-laerm/emissionsstandards/binnenschiffe>

The Kreetsand pilot project is located on the east side of the Wilhelmsburg Elbe island.

THE COMMITMENT

Nature conservation

An ongoing contribution to environmental and species protection

When it comes to construction and other operations, the HPA inevitably also works in aquatic areas or areas with lots of vegetation and hence areas that comprise the habitat of various groups of organisms (e.g. birds, insects, bats, fish). During preparation, the HPA considers all legally relevant guidelines in order to reduce environmental effects, especially impact regulations governing nature conservation in accordance with the Nature Conservation Law (die naturschutzrechtliche Eingriffsregelung der Umweltverträglichkeitsprüfung) as well as regulations for the protection of species.

The main focus is to prevent or reduce effects on the environment and ecosystem. Effects which cannot be avoided as a result of the project are counterbalanced with compensatory and replacement measures. To achieve this, areas in the port that are owned by the HPA and, primarily, areas outside the port are used and specifically upgraded in terms of their importance and functionality for the ecosystem, e.g. through the extensification of grassland use and thus in line with near-natural regulation of the water supply.

Following the adoption of the Eco Account Regulation (Ökokontoverordnung), dated 2 July 2012, the HPA used the opportunity to stock up on compensation measures and has set up two eco pools so far. In these areas, the enhancement measures for nature conservation are carried out and retained, initially dissociated from an immediate need. In specific cases, these can be assigned in parts to a project with compensation requirements. The eco pool areas are owned by the Free and Hanseatic City of Hamburg on the one hand (16.2 ha) and by the Niedersächsischen Landesforsten in the district of Lüneburg (22.9 ha) on the other. By December 2014, 5.0 ha

(22 % of the total area) had already been completely restored in the eco pool area in Lower Saxony. If protected or strictly protected species are affected, a spatially functional link between the total area and the compensation area has to be ensured. Suitable compensation areas are therefore limited to a significantly smaller area. Port areas are also used in this context. Examples of evaluation measures for nature conservation in the port include the removal of revetments (Deckwerk) on embankments to develop natural shore areas, the creation of suitable habitats for strictly protected bird and insect species and the manufacturing of strictly protected biotope structures in Altenwerder.

Within the reporting period, financial resources of €3 mill. were provided to the eco pool areas. The entire implementation was supervised by the BSU.

Kreetsand: use nature's processes

With the "Kreetsand" pilot project, the HPA has developed a new, tidal low-water area in a 47 ha outer dike area in eastern Wilhelmsburg. The additional tidal volume of around one million cubic metres will help to soften the tidal processes and reduce the unfavourable power balance of low and high tides. Upon completion of construction, it is intended that the area, which is protected by the Verbund des Naturschutzgebietes Auenlandschaft Norderelbe, will develop into a retreat for various species. In 2013, the "Kreetsand" project received an award for "Best Practice in Working with Nature" from the World Association for Waterborne Transport Infrastructure (PIANC). According to the jury, the project fulfils "... the project goal of working with nature's processes and achieving an improvement for the environment far beyond the legal dimensions as well as an early involvement of stakeholders in a perfect manner".

Incentives for a sustainable flow of traffic and goods

Efficiency on the track pays off with INES

Since 2008, the HPA has been using an incentive-based payment system with INES³⁸⁾. A number of different payment components offers railway companies the financial incentive to make efficient and resource-saving use of the port railway infrastructure, such as discounts for setting up especially long trains or trains with wagons that are all going to the same terminal, and for wagons that pass through the port within defined standard times. INES has managed to almost entirely eliminate wagons being permanently parked in traffic-critical zones. In the medium term the plan is to shorten the current average throughput time of trains from just over 30 hours down to 15–18 hours.

Since 2011, the HPA has been granting discounts for the use of wagons with noise-reducing brakes as well as locomotives with soot particle filters. The HPA registered a significant increase in both in 2014. At the present time, 35 of a total of 230 shunting locomotives registered in the port are equipped with soot particle filters³⁹⁾. Since the upgraded locomotives are running more often, the rate of runs has increased from 5 % in 2011 to 28 % in 2014. In the future, it is planned that additional components such as the use of hybrid locomotives will be integrated.

Financial incentives for low-emission ships

At the end of 2014, about 2,500 ships were registered globally for the internationally valid points system Environmental Ship Index (ESI)⁴⁰⁾. On this basis, the HPA has offered port fee incentives since 2011 for very low-emission ships that come to the port. As a consequence, 13 % of arrivals in the Port of Hamburg are ESI-registered, and 20 % of them have 20 or more of a possible 100 ESI points. In cooperation with the Green Award Foundation, the incentive system has been complemented with additional sustainability factors in 2014. The Green Award Foundation awards crude oil vessels in the categories of quality, safety, environmental protection, ship operation, crew and management. Since 1 January 2014, the HPA has rewarded such ships with a bonus.

Innovative award procedure for sustainable procurement

For several years, the HPA has placed importance on innovative road construction concepts such as road renovations by means of full recycling. To capitalise on these positive effects, the HPA has developed a unique and innovative nationwide incentive system for bidding and allocation for high-quality stone mastic asphalt. A high level of recycled material is resource-saving and reduces the carbon footprint of the supply chain due to the fact that fewer aggregates have to be delivered. In order to integrate these ecological allocation criteria into the profitability calculation, the percentage of mass of every single aggregate in %, the place of origin, the means of transportation and the CO₂ emissions of the various carriers were added to the specifications for the conventional construction method as well as the full recycling process. For the calculation of profitability, the value of costs is 75 % and the value of CO₂ emissions is 25 %. The ecological incentive lies in the shorter transport routes and the resulting lower emissions since the place of origin for the RC material is identical to the place of installation. The HPA is planning to transfer this incentive system conceptually to the supply chains of other procurement processes.

The HPA used the system for the first time in 2013 on a 10,000 m² road segment on the Veddeler Damm. This is how it was possible to save 484 tonnes of rocks and 26 tonnes of bitumen as cutting well as 4.6 tonnes of CO₂ emissions from the supply chain and relieve traffic routes at the same time. This idea earned the project the Hanse Globe Award⁴¹⁾ from the Logistics Initiative Hamburg in December 2013.

38) Incentive-based payment system

39) As of 07/2014

40) See <http://www.environmentalshipindex.org/Public/Home>

41) http://de.koinno-bmw.de/system/best_practices/files/000/000/245/original/HPA_-_Anreizsystem-Best_Practice_Koinno_2014_2.pdf?1411046921

A sustainable future needs innovative ideas





01

THE THINK TANK

smartPORT logistics

Innovative concepts for an intelligent port infrastructure

With smartPORT logistics, the HPA is developing intelligent ideas for the flow of traffic and goods at the port. The focus is on the areas of infrastructure and the flow of traffic and goods ⁴²⁾. Overall, 14 pilot projects have already been kicked off as part of smartPORT logistics. The IT solution SPL 1.0 and the intelligent switch "smartSwitch" were implemented within the reporting period; initial concrete data for parking space management is available.

The pilot project smartTAG involves a mobile sensor that, when attached to items, can detect its position and transmit its ID to a central system. It makes it possible to locate valuable objects and even construction site barks and to register their motion profiles. Overall, every project in the initiative has the clear potential to be a source of inspiration for future traffic planning and monitoring at the port.

After a two-year pilot phase, intermodal traffic information such as SPL 1.0 is centrally available and was released for official

use by the HPA, Deutsche Telekom, SAP and DAKOSY at the end of 2014. The goal of the IT solution is to unite the port's businesses, partners and customers at the level of traffic management in close networks. The basis of SPL is a comprehensive IT platform where traffic measurement data, cargo-related data and logistics information can be shared. If necessary, all users of the logistics chain can be linked via a central public cloud and make decisions based on the current traffic situation. During the pilot run, the participating forwarding agencies were able to use SPL 1.0 to significantly reduce waiting times and hence increase their efficiency.

For the "intelligent switch" pilot project ("intelligente Weiche"), critical points on the port railway were equipped with a multi-sensor system which measures the energy necessary for the switching process, thus determining the need for maintenance operations. The early warnings ensure that less switches fail due to a fault. This reduces the number of unscheduled assignments related to malfunctions and allows improved planning for maintenance projects.



02

opposite page

01 The smart switch is one of 14 pilot projects.

this page

02 Parking management for a better utilisation of the lots.
03 SPL is meant to reduce waiting times and increase productivity.



03

Parking management consists of three projects with the goal of optimising the usage of existing parking facilities and preventing traffic via a parking space search function – as a consequence, the port can accommodate the increasing traffic volume with less parking space.

The smartPort logistics mobile app (SPL) is designed to inform all truck drivers about the capacity of parking facilities and enable them to make a reservation. As a first step, the smartAREA parking subproject will be implemented in 2015 at the Dessauer Straße, Autohof Altenwerder-Ost and Dradenauer Hauptteich car parks, which currently have uneven occupancy levels.

In the future, the occupancy of these car parks will be counted by an intelligent parking space detection system in order to communicate current occupancy to traffic participants. The following technologies will be used:

- Vehicles will be counted and the type of vehicle recognised using an induction loop featuring correlated algorithm.

- Balancing of occupancy via evaluation of measured inflow and outflow at the induction loops.
- System calibration using a verification camera with comprehensive occupancy detection.

The other two projects deal with smart parking, which comprises a technological study to detect unmarked parking spaces, and pre-port parking, which concerns the management of parking space at the port.

⁴²⁾ Compare the smartPORT logistics brochure: <http://www.hamburg-port-authority.de/de/smartport/logistics/Seiten/Unterbereich.aspx>



01



02

this page

01/ Quick asphalt only needs three
02 instead of 18 hours to harden.

opposite page

03 The high-resolution large-screen
at the Vessel Traffic Service
Centre provides information from
the Port Monitor graphically.

THE TECHNIQUE

Going for efficient and environmentally friendly road construction

Every year, the HPA resurfaces roughly 45,000 m² of roads in the Port of Hamburg. To keep the economic and ecological effects of road maintenance measures to a minimum, the HPA has supported innovative concepts and products in road construction in recent years such as the use of rejuvenators⁴³⁾ and the use of Rhinophalt to conserve resources and/or quick-setting asphalt to increase efficiency. Conventional procedures use about 60 % recycled materials for the lower base layers of the road surface, but only about 30 % for the top layer for quality reasons. The processing and reprocessing of bitumen makes it possible to increase the proportion of RC material in the top layer from 30 % to about 90 %; in the process, bitumen makes up 5 % of the asphalt, but 50 % of the material costs. During the procedure, which is known as full recycling, the asphalt surface is removed in its entirety, heated on-site and supplied with a means of rejuvenation, which restores the original binding properties of the aged bitumen. The minimised transportation requirement reduces CO₂ emissions by about 60 %. The reprocessing of bitumen reduces the costs for resurfacing by up to 30 % compared to conventional methods. Based on the latest assessments, the procedure can be repeated up to ten times. This means that a new road surface could be preserved for up to 100 years.

Following a successful trial in 2010, the HPA used full recycling firstly to resurface 10,000 m² of the main port route in the area

of Veddeler Damm. An additional section of 10,000 m² will follow in 2014. In 2016, two sections will be resurfaced using the procedure.

The HPA implements a majority of its road construction projects in ongoing traffic. At the end of 2014, the use of HAKO asphalt was tested. The so-called quick asphalt (see above) is cooled with water. A top layer with a thickness of 14 cm needs only three hours, instead of 18, to achieve hardening and trafficability. In addition, quick asphalt is water-resistant, which reduces the formation of potholes and the maintenance work associated with them.

The main focus of the Rhinophalt procedure is on delaying the ageing of the asphalt surface and hence increasing the maintenance intervals. In this innovative procedure, a thin layer of natural asphalt in combination with a special bitumen (Rhinophalt) is applied to an existing asphalt top layer, which provides protection from premature ageing and extends its lifespan by 40–80 %. The HPA used Rhinophalt during trial runs in 2012 and 2014. Measurable results confirming the effect will only be available after a few years.

43) Means of restoring the original binding property of the aged bitumen.



03

THE MODEL

OPCIS increases safety on waterways

The manoeuvrability of ships in the Port of Hamburg is, among other things, influenced by the flow conditions of the tidal Elbe. This is a big challenge for the in the Vessel Traffic Service Centre, especially with regard to exceptionally large ships (AGF). To ensure that reliable data on the flow conditions keeps being collected for the port as economically as possible, the HPA has ordered the development of a geo information system for hydrological data. OPCIS (Operational Currents Information System) is an operational hydro-numeric model which indicates the water level and flow velocity of the tidal Elbe by tak-

ing the tide, upstream inflow and meteorological conditions into account. At 15-minute intervals, OPCIS delivers a six-hour prognosis for the development of flow conditions at any location in the port area. The OPCIS model was completed in 2014. A three-month trial run for the model is planned for 2015 before it is implemented throughout the HPA. For the in the Vessel Traffic Service Center and port pilots, OPCIS is a precise tool for maintaining nautical security and the efficiency of ship traffic.

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**FACTS**

At a total of €11.7 billion, the Port of Hamburg generated 13.4% of the added value generated in Hamburg.

The port railway generated a new record result with 44.4 million tonnes of goods transported in 2014.



In mid-2014, the HPA conducted a survey with 100 stakeholders from eight groups.

In 2013, the “Kreetsand” project received an award for “Best Practice in Working with Nature” from the World Association for Waterborne Transport Infrastructure (PIANC).



In 2013, the HPA has renewed 10,000 m² of the main port route using full recycling for the first time. An additional section of 10,000 m² will follow in 2014.

Facts, Figures, Data.

Sustainability Report 2013/2014

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OVERVIEW I

General Standard Disclosures

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G4-5 Location of organisation's headquarters	Free and Hanseatic City of Hamburg		
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GENERAL STANDARD DISCLOSURES

Organisational Profile

G4-9 Scale of Organisation	Unit	2013	2014	Trend
Sales	Mill., €	280.7	176.2	
Equity capital	Mill., €	1,017.2	1,098.3	
Liabilities/Loan capital	Mill., €	818.3	832.9	
Total assets	Mill., €	1,835.5	1,931.2	
G4-10 Workforce Metrics	Unit	2013	2014	Trend
Total workforce	Persons	2,092	2,060	↘
Workforce, male	Persons	1,642	1,621	↘
Workforce, female	Persons	450	439	↘
Total active staff	Persons	1,819	1,810	↘
Part-time staff	Persons	255	258	↗
Part-time staff, male	Persons		119	
Part-time staff, female	Persons		139	
Active staff (permanent employment)	Persons	1,775	1,764	↘
Active staff (permanent employment), male	Persons	1,422	1,419	↘
Active staff (permanent employment), female	Persons	353	345	↘
Active staff (temporary employment)	Persons	44	46	↗
Active staff (temporary employment), male	Persons	25	23	↘
Active staff (temporary employment), female	Persons	19	23	↗
Non-active staff (apprentices, on leave, representatives and other)	Persons	273	250	↘
Trainee employments (incl. dual-degree students and aspiring civil servants)	Persons	109	90	↘
Trainee employments (incl. dual-degree students and aspiring civil servants), male	Persons	94	79	↘
Trainee employments (incl. dual-degree students and aspiring civil servants), female	Persons	15	11	↘
Active civil servants	Persons	183	182	↘
Active civil servants, male	Persons	131	129	↘
Active civil servants, female	Persons	52	53	↗
Percentage of trainees	Per cent	5.2	4.4	↘
Average age	Years	45	46	↗
Percentage of part-time employees	Per cent	12.2	12.5	↗
Percentage of female employees	Per cent	20.5	20.3	↘

The majority of business operations is carried out by employees of the HPA.

G4-11 Collective Bargaining Agreements	Unit	2013	2014	Trend
Percentage of employees covered by collective agreements	Per cent	99.8	99.7	

G4-12 Supply Chain	Unit	2013	2014	Trend
Supply chain – order value	Mill., €	209.8	390.8	
Supply chain – order value in Germany	Mill., €	208.9	372.4	
Supply chain – order value of overseas suppliers	Mill., €	0.9	18.4	
Number of supplying countries	Number	20	17	
Total number of suppliers	Number	2,511	2,628	

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¹⁾ See 2014 financial report p. 17 ff., Profit and Loss Account, Balance Sheet and Fixed-Asset Movement Schedule.

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SPECIFIC STANDARD DISCLOSURES

Economic Performance

G4-EC4 Financial Assistance Received from Government	Unit	2013	2014	Trend
Received from government – tax relief and credits	Mill. €	0	0	
Received from government – subsidies	Mill. €	0	0	
Received from government – investment subsidies	Mill. €	237.5	232.0	
Received from government – awards	Mill. €	0	0	
Received from government – remission	Mill. €	0	0	
Received from government – financial support from export credit agencies	Mill. €	0	0	
Received from government – financial performance bonus	Mill. €	0	0	
Received from government – other financial advantages	Mill. €	0	0	

Energy

G4-EN3 Energy Consumption within the Organisation	Unit	2013	2014	Trend
Fuel consumption	GJ ¹⁾	1,055	964	↘
Diesel consumption	GJ	30,979	19,915	↘
CNG (compressed natural gas) consumption	GJ	0.16	0.18	↗
Marine diesel consumption	GJ	59,083	55,637	↘
Power consumption by e-cars	GJ	0	12	↗
Fuel consumption from renewable energy sources (5% bioethanol)	GJ	52.8	48.2	
Power consumption	GJ	79,504	69,104	↘
Heating oil consumption	GJ	15,228	8,377	↘
Natural gas consumption	GJ	33,516	17,848	↘
District heating consumption	GJ	5,554	4,594	↘
LPG (liquefied petrol gas) consumption	GJ	2.06	3.04	
Propane consumption	GJ	0.54	0.34	
Cooling energy consumption	GJ	<2% of total consumption	<2% of total consumption	
Steam consumption	GJ	–	–	
Energy sold	GJ	0	0	
Energy consumption, total	GJ	224,922	176,455	↘

G4-EN6 Reduction of Energy Consumption	Unit	2013	2014	Trend
Reduction of energy consumption – total savings	GJ	724	399	↘
Fuel savings	GJ	0	0	
Power savings	GJ	354	2	
Heat energy savings	GJ	370	0	
Cooling energy savings	GJ	0	397	
Steam savings	GJ	–	–	
Chosen base year		2012	2013	

Water

G4-EN8 Total Water Withdrawal by Source	Unit	2013	2014	Trend
Rinsewater extraction from the Elbe	m ³	62,558	30,132	
Water extraction from groundwater	m ³	0	0	
Water extraction from rainwater directly collected by the organisation	m ³	0	0	
Water extraction from waste water by other organisation	m ³	0	0	
Water extraction by municipal water providers	m ³	48,754	46,735	↘

Emissions

G4-EN15 Direct Greenhouse Gas Emissions (SCOPE 1)	Unit	2013	2014	Trend
Direct CO ₂ emissions (SCOPE 1 of the GHG Protocol Initiative), equivalents	t CO _{2eq}	7,734	6,095	↘
Greenhouse gas included in the calculation	CO ₂	CO ₂	CO ₂	
Emissions in base year 1990 were modelled after the Kyoto Protocol	t CO _{2eq}	6,363	6,363	

Source of emission factors: Free and Hanseatic City of Hamburg Ministry for Urban Development and Environment, climate protection control centre

1) Gigajoule

G4-EN16 Indirect Greenhouse Gas Emissions (SCOPE 2)	Unit	2013	2014	Trend
Indirect CO ₂ emissions (SCOPE 2 of the GHG Protocol Initiative), equivalents	t CO _{2eq}	485	407	↘
Greenhouse gas included in the calculation		CO ₂	CO ₂	
Emissions of base year 1990 were modelled after the Kyoto Protocol	t CO _{2eq}	10,071	10,071	

Source of emission factors: Free and Hanseatic City of Hamburg Ministry for Urban Development and Environment, control centre climate protection

G4-EN19 Reduction of Greenhouse Gas Emissions	Unit	2013	2014	Trend
GHG reduction of emissions of CO ₂ equivalents – direct savings	t CO _{2eq}	13,381.5	10,842.7	↘
Greenhouse gas included in the calculation		CO ₂	CO ₂	
Chosen base year		2012 (1990)	2013 (1990)	
GHG reduction of emissions of CO ₂ equivalents – savings SCOPE 1	t CO _{2eq}	73.8	0	↘
GHG reduction of emissions of CO ₂ equivalents – savings SCOPE 2	t CO _{2eq}	13,307.7	10,842.7	↘
GHG reduction of emissions of CO ₂ equivalents – savings SCOPE 3	t CO _{2eq}	0	0	

G4-EN21 Nitric Oxides, Sulphur Oxides and Other Significant Air Emissions	Unit	2013	2014	Trend
Significant emissions – NO _x	kg	50,856	47,299	↘
Significant emissions – SO _x	kg	920	507	↘
Significant emissions – PM ₁₀	kg	2,388	2,239	↘

Effluents and waste

G4-EN22 Total Water Discharge by Quality and Place of Discharge	Unit	2013	2014	Trend
Total volume of indirect effluents discharge – buildings and plants	m ³	43,491	44,291	↗
Place of discharge		Urban drainage	Urban drainage	
Treatment method		none	none	
Water quality		Waste water	Waste water	
Total volume of direct water discharge – Francop (SARA)	m ³	1,903,870	1,651,356	
Place of discharge		Finkenwerder Vorhafen (Elbe)	Finkenwerder Vorhafen (Elbe)	
Treatment method		Sedimentation and nitrification	Sedimentation and nitrification	
Water quality (monitoring values)		pH 6.5–8.5, CSB 85 mg/l, Pges 0.6 mg/l, Nges 80 mg/l, NH ₄ -N at T>12 °C 2 mg/l, NO ₂ -N 2 mg/l	pH 6.5–8.5, CSB 85 mg/l, Pges 0.6 mg/l, Nges 80 mg/l, NH ₄ -N at T>12 °C 2 mg/l, NO ₂ -N 2 mg/l	
Total volume of direct water discharge – Moorburg Ellerholz	m ³	475,024	94,583	
Place of discharge		Southern Elbe	Southern Elbe	
Treatment method		Sedimentation and deferrisation	Sedimentation and deferrisation	
Water quality (monitoring values)		pH 6.5–8.5, CSB 85 mg/l, Pges 1 mg/l, Nges 10 mg/l, NH ₄ -N 2 mg/l, NO ₂ -N 2 mg/l, Fe 4 mg/l, Fe(II) 0.5 mg/l	pH 6.5–8.5, CSB 85 mg/l, Pges 1 mg/l, Nges 10 mg/l, NH ₄ -N 2 mg/l, NO ₂ -N 2 mg/l, Fe 4 mg/l, Fe(II) 0.5 mg/l	
Total volume of direct water discharge – Deponie Feldhofe Ringgraben	m ³	258,803	185,091	
Place of discharge		Dove-Elbe	Dove-Elbe	
Treatment method		Sedimentation and deferrisation	Sedimentation and deferrisation	
Water quality (monitoring values)		pH 6.5–8.5, CSB 85 mg/l, Pges 0.6 mg/l, Nges at T>12 °C 8 mg/l, NH ₄ -N at T>12 °C 2 mg/l, NO ₂ -N 2 mg/l, Fe 2 mg/l, AOX 120 µg/l, KW 10 mg/l	pH 6.5–8.5, CSB 85 mg/l, Pges 0.6 mg/l, Nges at T>12 °C 8 mg/l, NH ₄ -N at T>12 °C 2 mg/l, NO ₂ -N 2 mg/l, Fe 2 mg/l, AOX 120 µg/l, KW 10 mg/l	
Total volume of direct water discharge – Neuwerk	m ³	8,462	8,719	
Place of discharge		German Bight	German Bight	

G4-EN22 Total Water Discharge by Quality and Place of Discharge	Unit	2013	2014	Trend
Treatment method		Purification plant	Purification plant	
Water quality (monitoring values)		85 mg/l CSB, 40 mg/l NPOC, 20 mg/l BSB5, 10 mg/l KW, 120 mg/l AOX, 2 mg/l Fe	85 mg/l CSB, 40 mg/l NPOC, 20 mg/l BSB5, 10 mg/l KW, 120 mg/l AOX, 2 mg/l Fe	
Recycling of another organisation	m ³	0	0	

G4-EN23 Total Weight of Waste by Quality and Method of Disposal	Unit	2013	2014	Trend
Total weight of hazardous waste – reutilisation	t	602	1,600	
Total weight of non-hazardous waste – reutilisation	t	5,739	9,773	
Reason for chosen method of disposal		Ecological	Ecological	
Total weight of hazardous waste – recycling	t	2,557	3,077	
Reason for chosen method of disposal		Ecological	Ecological	
Total weight of non-hazardous waste – recycling	t	110	208	
Reason for chosen method of disposal		Ecological	Ecological	
Total weight of hazardous waste – composting	t	0	0	
Total weight of non-hazardous waste – composting	t	616	419	
Reason for chosen method of disposal		Ecological	Ecological	
Total weight of hazardous waste – reprocessing	t	0	0	
Total weight of non-hazardous waste – reprocessing	t	1,501	1,519	
Reason for chosen method of disposal		No alternative	No alternative	
Total weight of hazardous waste – incineration	t	1,535	1,576	
Reason for chosen method of disposal		No alternative	No alternative	
Total weight of non-hazardous waste – incineration	t	872	160	
Reason for chosen method of disposal		Economical	Economical	
Total weight of hazardous waste – depth immersion	t	0	0	
Total weight of non-hazardous waste – depth immersion	t	0	0	
Total weight of hazardous waste – landfill	t	117,799	106,351	
Reason for chosen method of disposal		No alternative	No alternative	
Total weight of non-hazardous waste – landfill	t	10,035	5,011	
Reason for chosen method of disposal		Economical	Economical	
Total weight of hazardous waste – storage on-site	t	0	0	
Total weight of non-hazardous waste – storage on-site	t	0	0	
Total weight of hazardous waste – other	t	0	0	
Total weight of non-hazardous waste – other	t	0	0	

Products and Services

G4-EN27 Fighting the Effects of the Environmental Impact of Products and Services	Unit	2013	2014	Trend
Number of measures for the reduction of ecological effects	Number	8	5	

Local Communities

G4-SO1 Integration of Local Communities at Business Locations	Unit	2013	2014	Trend
Percentage of business locations for which measures for the integration of local communities, impact assessment and funding programmes were executed	Per cent	100	100	

Anti-Corruption

G4-SO3 Total Number of Business Operations Assessed for Risks with Regard to Corruption	Unit	2013	2014	Trend
Business locations checked for risk of corruption	Number/checked	1/100	1/100	
Corruption risk		Financial losses	Financial losses	

G4-SO4 Communication and Training on Anti-Corruption Policies and Procedures	Unit	2013	2014	Trend
Info to controlling bodies	Per cent	100	100	
Info to employees (grouping into employee category not necessary)	Per cent	100	100	
Info to business partner per type of business partner	Per cent	100	100	
Trained employees controlling body	Per cent	0	0	
Trained employees (grouping into employee category not necessary)	Per cent	100 in 5 years	100 in 5 years	

G4-SO5 Confirmed Incidents of Corruption and Actions Taken

	Unit	2013	2014	Trend
Cases of corruption	Number	0	0	
Terminations of work/warnings due to corruption	Number	0	0	
Cases of business partners whose contracts were not terminated	Number	0	0	
Public prosecutions against employees	Number	0	0	

Employment**G4-LA1 New Hirings and Employee Turnover**

	Unit	2013	2014	Trend
Number of new hirings/rate	Persons/per cent	–	45/2.49	
thereof women/rate	Persons/per cent	–	11/0.61	
thereof women under 30/rate	Persons/per cent	–	4/0.22	
thereof women aged 30–50/rate	Persons/per cent	–	5/0.28	
thereof women over 50/rate	Persons/per cent	–	2/0.11	
thereof men/rate	Persons/per cent	–	34/1.89	
thereof men under 30/rate	Persons/per cent	–	9/0.50	
thereof men aged 30–50/rate	Persons/per cent	–	23/1.27	
thereof men over 50/rate	Persons/per cent	–	2/0.11	
Total sum of fluctuation/rate	Persons/per cent	86/4.73	68/3.76	↘
Fluctuation women/rate	Persons/per cent	–	12/0.66	
thereof women under 30/rate	Persons/per cent	–	5/0.28	
thereof women aged 30–50/rate	Persons/per cent	–	4/0.22	
thereof women over 50/rate	Persons/per cent	–	3/0.17	
Fluctuation men/rate	Persons/per cent	–	56/3.09	
thereof men under 30/rate	Persons/per cent	–	7/0.39	
thereof men aged 30–50/rate	Persons/per cent	–	14/0.77	
thereof men over 50/rate	Persons/per cent	–	35/1.93	
Sum of all departed employees	Persons	86	68	↘

Occupational Health and Safety**G4-LA6 Type and Frequency of Injuries in the Organisation**

	Unit	2013	2014	Trend
Level of absence	Per cent	9.27	8.79	↘
thereof men	Per cent	9.24	8.72	↘
thereof women	Per cent	9.38	9.04	↘
Level of injuries ¹⁾ (accidents/total workforce)		0.04	0.036	↘
thereof men	Per cent	83.5	90.8	↗
thereof women	Per cent	16.5	9.2	↘
Rate of occupational illness during reporting period		0.22	0	↘
thereof men	Per cent	100	0	
thereof women	Per cent	0	0	
Type of injuries		Distortion (strains and sprains), contusion, burns, injuries by electric power	Distortion (strains and sprains), contusion, burns, injuries by electric power	
Level of absence ²⁾ due to accidents (lost days/planned working days)		0.0022	0.0011	↘
thereof men	Per cent	89	90	↗
thereof women	Per cent	11	9	↘
Fatal work accidents	Persons	0	0	

HPA is not liable for contractual partners

1) §2 Accident Prevention Regulation – No set of rules

2) Excl. minor injuries, day = planned working day, accidents that have to/do not have to be reported, excl. accidents on the way to/from work.

Training and Education**G4-LA9 Average Hours of Training per Year per Employee by Gender and by Employee Category**

	Unit	2013	2014	Trend
Training and further training	Hours/Person	–	12	
Active staff (permanent employment)	Hours/Person	–	12.1	
Active staff (permanent employment), male	Hours/Person	–	11.1	
Active staff (permanent employment), female	Hours/Person	–	16.2	
Active staff (temporary employment)	Hours/Person	–	19.4	
Active staff (temporary employment), male	Hours/Person	–	19	
Active staff (temporary employment), female	Hours/Person	–	19.7	
Non-active staff (apprentices, on leave, representatives, other)	Hours/Person	–	9.2	
Trainee employments (incl. dual degree students & aspiring civil servants)	Hours/Person	–	20.5	
Trainee employments (incl. dual degree students & aspiring civil servants), male	Hours/Person	–	20.4	
Trainee employments (incl. dual degree students & aspiring civil servants), female	Hours/Person	–	21	
Civil servants (active)	Hours/Person	–	13.6	
Civil servants (active), men	Hours/Person	–	10.7	
Civil servants (active), women	Hours/Person	–	20.4	

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FACTS

At a total of €11.7 billion, the Port of Hamburg generated 13.4% of the added value generated in Hamburg in 2013.

The port railway generated a new record result with 44.4 million tonnes of goods transported in 2014.



In mid-2014, the HPA conducted a survey with 100 stakeholders from eight groups.

In 2013, the “Kreetsand” project received an award for “Best Practice in Working with Nature” from the World Association for Waterborne Transport Infrastructure (PIANC).



In 2013, the HPA has renewed 10,000 m² of the main port route using full recycling for the first time. An additional section of 10,000 m² followed in 2014.