



HAMBURGER HAFEN UND LOGISTIK AKTIENGESELLSCHAFT

Sustainability Report 2013

Sustainability

HHLA's actions have always been guided by economic considerations and a sense of responsibility towards its employees, the environment and society as a whole. Due to high levels of capital intensity and long useful lives, those who build and operate handling facilities, hinterland networks and logistics centres are compelled to take a wider view and gear their business operations towards long-term success spanning several economic cycles. Ever since it was established, the Group has therefore attached the utmost importance to sustainable business practices.

HHLA's business model aims to provide an ecologically sound link between global goods flows at port terminals on the one hand and hinterland networks and logistics centres on the other. Ecological transport chains are therefore central to HHLA's sustainability strategy. By extending its facilities and networks, HHLA is paving the way for a disproportionately high increase in the percentage of hinterland transport accounted for by rail. The central interfaces in international goods flows are operated in an environmentally friendly manner which also conserves land and resources. They are constantly developed with an eye on the future.

Organisation

For five years now, HHLA has had a Sustainability Council headed by the Chairman of the Executive Board. Its members meet regularly with HHLA's stakeholder groups – especially customers, staff, investors, suppliers, non-governmental organisations and the general public – to discuss key sustainability issues of relevance to HHLA. Since the council was established, the Group has also had a specialist

team dedicated to sustainability which reports directly to the Chairman of the Executive Board.

Strategy

HHLA's sustainability strategy is based on three pillars: the environment, society and the economy. Ten fields of activity and guidelines have been defined and implemented within these areas. This puts HHLA in a position to take a leading role in the area of sustainability. The fields of activity focus on environmentally friendly transport chains, climate protection and efficient land use.

Principles and Reporting Standards

HHLA's commitment to sustainability is binding, transparent, measurable and comparable. Since the reporting year 2012, the company has applied the Global Reporting Initiative (GRI) guidelines on sustainability reporting, the most commonly used standard of its kind in the world. In doing so, HHLA also facilitates comparison at an international level. Furthermore, HHLA was the first maritime company to issue a declaration of compliance with the German Sustainability Code (GSC). This declaration of compliance is available at ► www.nachhaltigkeitsrat.de. By publishing this declaration, HHLA has made a firm commitment to its sustainable business model. The GSC lists 20 different criteria relating to environmental, social and corporate governance aspects, each with up to two performance indicators. Issues such as the usage of resources, compliance, equal opportunities and health protection for employees play an important role in the code. Companies are also expected to provide clear sustainability targets.



A Hapag-Lloyd container ship makes its way into the Port of Hamburg

Sustainability Initiative

	Fields of activity	Guidelines
Environment	Ecological transport chains	Actively networking with other logistics operators and creating sustainable, environmentally friendly transport chains
	Space conservation	Increase the efficient use of port and logistics areas
	Nature conservation	Minimise the impact on nature and actively protect natural habitats
	Climate protection	Utilise technically and economically viable means of reducing CO ₂ emissions
Society	Occupational safety/ health protection	Ensure safety, provide appropriate working conditions and promote health-conscious behaviour
	Staff development	Offer vocational and ongoing specialist training and tailored staff development programmes
	Social responsibility	Step up dialogue with society; information and discussions regarding port logistics
Economy	Added value	Make an ongoing and significant contribution to value added and consequently raise prosperity at all locations
	Business partners	Offer tailor-made customer solutions and reliable cooperation with suppliers
	Shareholders	Safeguard a long-term increase in company value and transparency for investors

Environment

Emissions and Energy

HHLA has published its carbon footprint regularly since 2008 as part of the international Carbon Disclosure Project (CDP). The CDP is a non-profit initiative which now manages one of the world's largest databases of corporate greenhouse gas emissions on behalf of institutional investors and makes this information widely available. HHLA calculates its CO₂ emissions on the basis of the Greenhouse Gas Protocol, a global standard for recording greenhouse gas emissions. Within the HHLA Group, air pollution is largely restricted to absolute CO₂ emissions, which are primarily influenced by throughput and transportation volumes, use of its own traction stock and the use of electricity from renewable sources. In line with the Greenhouse Gas Protocol, electricity from renewable sources was classified as carbon-neutral. The power needed by a terminal depends largely on the number of seaborne containers it handles and the number of containers transported by land. HHLA uses seaborne and overland throughput as an effective indicator to determine specific CO₂ emissions in line with the recommendations of the European Economics Environment Group (EEEG).

HHLA has set itself the climate protection target of reducing CO₂ emissions by at least 30 % for each container which it handles by 2020. 2008 figures serve as the baseline here. In the period from 2008 to 2013, the company already succeeded in reducing CO₂ emissions by 24.9% per container handled and transported. Specific CO₂ emissions fell by 0.6 % in the year under review.

Absolute CO₂ emissions rose year on year by 14,391 tonnes (or 12.9 %) to 126,095 tonnes in the reporting period. Of this figure, 16.4 % or 20,662 tonnes were CO₂ emissions resulting from the use of traction current in the Intermodal segment. The rise over the last few years is attributable to increasing use of the Group's own locomotives, which are powered exclusively by electricity and thus more environmentally friendly. A long-term increase in the percentage of electricity used within the Group's energy mix will enable the company to utilise a greater share of renewables and thereby substantially reduce its carbon footprint. To achieve this goal, HHLA is converting more and more of its equipment and machinery at the terminals to electricity. Such equipment and machinery produces fewer emissions and less noise and is also easier to service. HHLA has been making greater use of power from renewable sources since 2009. As

CO₂ Emissions
by equipment type



- 49 % Straddle carriers
- 20 % AGVs
- 12 % Container and rail gantry cranes
- 11 % Lighting for buildings and open areas
- 5 % Reefer containers
- 3 % Storage cranes

The CO₂ emissions are based on measured and calculated data as well as estimates. The data refer to the container terminals of Hamburg.

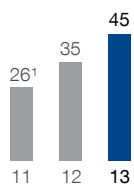
Electric vehicles at the charging station in the HHLA Container Terminal Tollerort



Direct CO₂ Emissions in thousand tonnes



Indirect CO₂ Emissions in thousand tonnes



¹ 2011 without traction current of Metrans

of this date, the electricity required by all office buildings and workshops in Hamburg occupied by HHLA has come from renewable energies. The Container Terminal Altenwerder (CTA) has been making exclusive use of green electricity since 2010. In the year under review, these measures reduced CO₂ emissions by 24,712 tonnes (previous year: 22,255 tonnes).

In addition to power from renewable sources, HHLA continued with a number of CO₂ reduction projects at the Group's various affiliates to improve its carbon footprint. Four additional battery-powered automated guided vehicles went into service at the Container Terminal Altenwerder (CTA) in 2013 which produce zero local emissions. This fleet of all-electric automated guided vehicles (AGVs) will be expanded further in the future. In the year under review, the fleet of all-electric cars grew by 12.5% to 27. That means electric vehicles are now in use at three of the four seaport terminals in Hamburg. These vehicles are powered by renewable electricity and are a quiet, low-maintenance solution which does not

generate any local emissions. Using them saves approx. 90 tonnes of CO₂ every year.

Hamburger Container- und Chassis Reparatur Gesellschaft (HCCR) joined the Hamburg environment partnership by replacing 19 of its older units with vehicles which are significantly more environmentally friendly, with reduced diesel consumption and considerably lower harmful emissions.

As well as choosing highly energy-efficient machinery and equipment, HHLA is actively stepping up its use of renewable energy. In 2011, a photovoltaic system was installed on the roof of the Container Terminal Tollerort (CTT). Set up and operated by the energy supplier Hamburg Energie Solar, this system provided 116,600 kWh of CO₂-free electricity in the year under review.

In addition, the computer-aided optimisation of container storage positions minimises the distance travelled by transport equipment, thereby reducing

Direct and Indirect Energy Consumption

	Diesel in millions of litres	Heating oil in millions of litres	Petrol in millions of litres	Natural gas in millions of m ³	Electricity in millions of kWh	District heating in millions of kWh
2011	26.0	0.1	0.1	2.0	145 ^{2,3}	5.2
2012	26.5	0.1	0.1	2.1	157 ⁴	4.6
2013	26.7	0.1	0.1	3.1 ¹	187 ⁵	4.6 ¹

¹ Consumption of natural gas and district heating in 2013 is based on measured and estimated figures.

² 2011 without traction current for using e-locomotives in Germany, Austria, Czech Republic, Slovakia and Hungary

³ Of which approx. 72 million kWh from renewable energies

⁴ Of which 70.2 million kWh from renewable energies

⁵ Of which 78.0 million kWh from renewable energies

energy consumption and noise pollution. The use of retreaded tyres for various container handling machines also helps to protect the environment.

Water Consumption

Water is mostly used in the HHLA Group to clean large-scale equipment and containers and for employee hygiene. Compared to the previous year, the amount of water consumed by operations in Germany, Poland, Slovakia, the Czech Republic and Ukraine fell by 3,670 m³ or 3.2 % to 111,165 m³ in 2013. HHLA's facilities in Hamburg draw water from the public supply network.

Waste and Recycling

HHLA reduces refuse and separates rubbish for recycling wherever possible so that reusable waste can be fed back into the resource cycle. Excluding soil and building rubble, the amount of waste produced at the sites in Germany fell in 2013 by 6.2 % compared with the previous year, taking it to 8,790 tonnes. Waste classified as hazardous also decreased further in the same period by 12.3 % to 2,845 tonnes. This is equivalent to a share of 32.4 % (previous year: 34.6 %). 2,188 tonnes or 24.9 % of the annual waste total was attributable to sludge from oil/water separators collected at the washing, fuelling and parking spaces for straddle carriers and AGVs. This mixture of sludge, oil and water undergoes treatment at a chemical water treatment plant operated by a specialist waste disposal company. Once it has been separated from the oil, the water passes through a biological waste water treatment plant. Commercial waste accounted for 22.0 % of the total figure (1,931 tonnes), while scrap metal made up 12.2 %, at 1,072 tonnes. Of the total waste volume, 965 tonnes or 11.0 % was made up of overripe bananas and other foodstuffs unsuitable for processing or consumption. More than 68 % of this food waste was recycled to generate biogas. In this way, some 150,000 kWh of zero-carbon electricity was produced in the reporting year. Waste wood and structural timber accounted for a share of 6.8 %. Paper-based waste represented 6.1 %, while road sweepings amounted to 4.6 %. Other waste came to 12.4 %.

HHLA strives to conserve resources at its terminals, e.g. by using a total of 48,000 tonnes of recycled building materials to maintain its terminal areas during 2013. Of this 48,000 tonnes, electric furnace slag accounted for the largest share (25,500 tonnes). This results from the melting of steel scrap and mineral additives in electric arc furnaces which is now reused as aggregate. The

use of this recycled building material means that less natural stone needs to be mined, thus protecting the landscape.

Society

In addition to its corporate social responsibility, HHLA's key fields of activity include providing staff training and ensuring occupational health and safety.

Employees Staffing Situation

HHLA had a total of 4,994 employees at the end of 2013. Compared with the previous year's total, the number of employees increased by 79, or 1.6 %. In geographical terms, the workforce was concentrated mainly in Germany, with 3,480 staff members. This corresponds to a share of 69.7 %, of whom the majority worked in Hamburg. The 1,514 jobs at foreign sites consisted mainly of 890 workers (17.8 %) at the Intermodal companies in the Czech Republic and Slovakia and 465 employees (9.3 %) in Ukraine. The remaining 159 employees were spread across subsidiaries in Poland and Georgia.

Employees

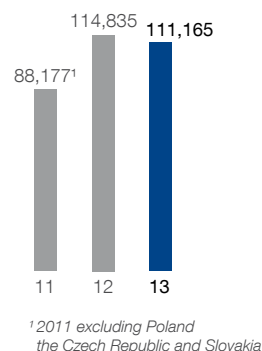
by segment as of 31.12.

	2013	2012	Change
Container	2,939	2,935	0.1 %
Intermodal	1,128	1,010	11.7 %
Logistics	288	311	- 7.4 %
Real Estate	35	37	- 5.4 %
Holding/Other	604	622	- 2.9 %
Total	4,994	4,915	1.6 %

Headcount in the Container segment – which accounts for 58.9 % of all jobs at HHLA – remained stable, with an increase of 0.1 % to 2,939. However, staffing levels in the Intermodal segment rose at a much faster rate, by a total of 11.7 % to 1,128, thus accounting for 22.6 % of the total workforce. This growth was largely due to the opening of a new inland terminal in the Czech Republic and dynamic development in Germany, Austria and Switzerland. The number of employees in the Logistics segment fell by 7.4 % to 288 and therefore accounted for 5.8 % of the total HHLA headcount. This reduction was mainly attributable to the pooling of project and contract logistics activities. With 35 employees, the Real Estate segment accounted for 0.7 % of HHLA's staff, a decrease of 5.4 % on the previous year. The number of employees at the strategic management holding

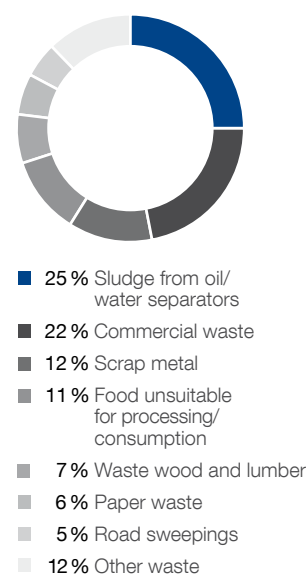
Water Consumption

at HHLA's sites in Germany, Poland, the Czech Republic, Slovakia and Ukraine in m³



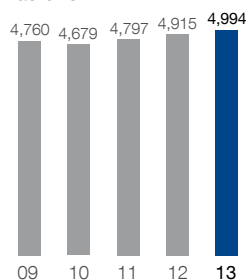
Commercial Waste

by type



Employees

HHLA Group as of 31.12.



A total of 160 young people were employed by HHLA as apprentices in 2013



company – including operational IT employees and associated areas – decreased by 2.9 % to 604, or 12.1 % of the total workforce.

The fluctuation rate in Germany (excluding reassignments within the Group) fell from 4.3 % to 3.8 % in 2013. Almost as in the previous year, the average employee age was 43 (men: 44, women: 39).

Personnel Expenses

Personnel expenses rose by 5.7 % to €395.2 million (previous year: €374.1 million). This figure includes expenses for external staff totalling €61.0 million (previous year: €53.1 million). The rise was mainly attributable to higher union wage rates, increased manpower due to peak loads at the terminals and an increase in the number of employees at the Intermodal segment.

Collective Labour Agreements

Collective labour agreements govern pay and working conditions for approx. 92 % of our staff in Hamburg.

In May 2013, the parties to the labour agreement – the Association of German Seaport Operators (Zentralverband der deutschen Seehafenbetriebe e. V. or ZDS) and the trade union ver.di – agreed a 24-month period for wage table increases of 3.2 % from 1 June 2013 (1 June 2012: 4.1 %) and 2.8 % from 1 June 2014 for port workers at companies which operate German seaports. Similar deals have been reached for further wage agreements of the HHLA Group.

In addition, a new company wage agreement came into force for clerical employees on 1 January 2013. More than 500 employees now benefit from a uniform wage-related appraisal system with variable remuneration. The goal is to establish a modern systematic feedback culture and to identify and offer appropriate staff development measures. In the period under review, training events were held for all managers and employees covered by labour agreements to help implement the appraisal system. A first management feedback on the basis of these labour agreements will be conducted in early 2014.

Occupational Safety and Health Promotion

Numerous preventive measures and guidelines are in place to ensure that staff from both HHLA and external companies, customers, suppliers and visitors do not come to bodily harm, which is a key concern for HHLA. Occupational safety and health promotion have a great bearing on employees' performance levels and are a key commitment of our sustainability guidelines. The company strives to continually improve health and safety in the workplace and considers this an important task for its managers. These measures are geared towards specific needs at the sites. The issues of all employees in Hamburg are discussed by occupational safety committees. Key measures are evaluated at the statutory meetings of these occupational safety committees, which are held four times a year.

The number of accidents at the companies in the Port of Hamburg (excluding accidents while commuting) was held at a consistently low level of 66 (previous year: 72). Based on throughput, this represented a ratio of one accident per 100,000 loaded and discharged containers, as in the previous year.

The occupational safety management team actively helps to develop initiatives and delivers information internally by means of in-house tuition, training and practical exercises focusing on emergency precautions, such as preventing fires and water pollution, advisory services as well as prevention and risk management programmes. HHLA also uses state-of-the-art technologies to bring about improvements. HHLA uses an occupational safety management system as a monitoring tool to verify fulfilment of its goals.

HHLA regularly wins awards for its innovative approaches to occupational safety. In the reporting period, the German Employers' Liability Insurance Association for Trade and Goods Distribution (BGHW) presented the SCA Service Center Altenwerder its 2013 Prevention Award. HHLA developed a mobile quayside railing for work on the waterside travelling gear unit of container gantry cranes. This quayside railing prevents employees carrying out repair work from falling into the water.

The company's health programme includes company doctors, help with addictions and social problems, an integration management programme for employees following a lengthy period of illness,

representatives for the severely disabled and staff sporting activities. The works council and HR management also play a part in running the various schemes. Targeted measures, campaigns and incentives are in place to prevent classic occupational illnesses such as those caused by excessive noise.

Strategic HR Management

The Group attaches great importance to HR management and has thus established it as a central division at Executive Board level.

Staff Development

Staff development schemes for all employee categories and hierarchy levels in Hamburg are managed by the Central HR Management division. Continuous learning processes and long-term development paths are created and supported uniformly across the Group. The Staff Development department implements appropriate measures to support restructuring and other change processes. Drafting and implementation of these programmes, access to them, the amount of funding provided by HHLA, quality control and evaluation of the measures are coordinated and set out together with the Group's works council.

HHLA invested a total of €5.3 million (previous year: €5.2 million) in the training and development of its staff – excluding travel costs – in 2013. This corresponds to average expenditure of around €1,500 on training for each HHLA employee in Germany.

Diversity

HHLA believes that a mixture of perspectives, cultural backgrounds, experiences and values form the foundation for commercial success. A diverse workforce can identify with global requirements and is capable of generating greater innovation. HHLA considers this to be a competitive advantage. For this reason, diversity management has been a firm part of our strategic personnel management for several years now and is already producing excellent results in many areas.

The majority of jobs at HHLA are in a segment of the labour market in which men are traditionally employed and women are proportionately less represented. Women (including apprentices) therefore accounted for only 14.6% of HHLA's workforce in Germany during the reporting period (previous year: 13.9%). Female employees account for 20%

of those under the age of 40. This shows that HHLA is actively supporting the changing nature of the profession. The key goal is always to fill vacant positions with the best possible applicants, whether male or female.

In its clerical professions, HHLA has worked closely with the German Federal Employment Agency to design structured selection processes for new employees and training measures which give particular consideration to diversity issues. These processes were introduced in late 2013. For example, for all selection processes where the pool of applicants includes women, the selection panel features at least one woman. Staff involved in the selection process also receive special diversity training. Women accounted for more than 20 % of participants in the training exercise for clerical employees in the port handling segment. Suitable applicants over the age of 50 and applicants from migrant backgrounds have also successfully completed the selection process and been permanently hired.

Vocational Training and Studying

In view of its future staffing requirements, HHLA remained fully committed to its training efforts in the reporting period. A total of 160 young people were employed as apprentices in 2013 (previous year: 159). 37 apprentices completed their training in the course of the year and were given permanent contracts. HHLA hired 29 new apprentices in mid 2013. Women account for around 37 % of all apprenticeships and student positions. In the clerical sector, 21 % of apprentices are women. Female instructors are used intensively and with great success for technical equipment training in the clerical segment.

In 2013, the Association of German Chambers of Commerce and Industry (DIHK) presented a female HHLA apprentice with an award as Germany's best apprentice in port logistics.

Staff Development and Training

A total of 917 events lasting one or more days were offered and attended in the period under review, accounting for around 5,600 participant days. In terms of seminar attendance, women accounted for a third of all participant days. Training clerical staff was a key focus and accounted for around one quarter of total expenditure.

A Group-wide junior management programme was successfully completed in 2013, with evaluation

in three different groups. 41 potential managers completed this programme, of which 11 already assumed tasks involving additional management responsibilities or managerial positions either during or after the course. Participants and their superiors provided positive feedback in relation to the course content and their learning progress. The participants were drawn from all over the Group and particularly appreciated the opportunity to liaise with one another. In development meetings with their superiors, further individual development measures will now be defined for all of the participants. Training programmes continue to be offered for young professionals and prospective managers to prepare them for their future responsibilities.

HHLA also continued its ongoing training and support schemes for container handling managers. The aim was to support current and prospective managers in relation to evolving workflows and organisational processes, to involve them in change processes and to support them during their transition to new functions.

In addition, experienced professionals and managers are supported with targeted measures such as seminars or coaching on the basis of individual consultations with the HR division. This process was continuously expanded in 2013.

Employee Retention

Bonus Scheme

Employees at the Container Terminal Altenwerder (CTA), Container Terminal Burchardkai (CTB) and Service Center Altenwerder (SCA) benefit from the company's commercial success. Bonuses are based on waterside container throughput and granted to staff of CTA and SCA in the form of payments. The new rule introduced at CTB in 2013 may enable staff to take additional days off.

Flexible Working Models

Employees are increasingly making use of part-time working models as a flexible option. At the end of 2013, 2.9 % of staff at HHLA in Germany worked on a part-time basis (previous year: 2.4 %). At the holding company, where most roles are clerical, this percentage was slightly over 10 % in 2013 (excluding apprentices). In addition, due to the conclusion of a company agreement to encourage part-time working for clerical staff at a container terminal, the ratio of part-time employees increased from 2.7 % to 3.5 % in the reporting period. In 2013 approx. 25 % of part-time staff were male.

Work-Life Balance

Helping staff to reconcile their professional and family commitments, providing opportunities for a flexible return from maternity or paternity leave and proactively increasing the proportion of women at the various levels of the company's hierarchy are integral parts of HHLA's work culture.

Company Pension Scheme

As well as various company pension schemes, HHLA offers its employees working lifetime accounts. In the context of a changing economic environment and in view of the need to achieve a sustainable footing for the future, the parties to the labour agreement successfully completed their negotiations surrounding the restructuring of working lifetime accounts at Group level in late 2013. Key issues here were the investment scheme and the introduction of a Web-based pension portal which enables employees to review their current pension situation online.

Staff Survey

In the period under review, an agreement was reached with the works council committees of the individual companies to conduct a staff survey covering 91 % of employees in Germany. Entitled 'Employees: the Foundation of our Success – Job Satisfaction at HHLA', the survey was conducted in November 2013. The findings will be reported to staff in the first quarter of 2014 and used for the company's future development.

Regional Responsibility

Approximately one in eight jobs in Hamburg has some connection with cargo handling at the Port of Hamburg. This means that the port and associated industries are major employers in the greater

Hamburg metropolitan region. HHLA processes around 76 % of Hamburg's container throughput (in TEU), or more than 50 % of the total throughput in tonnes. The company therefore sees itself as an integral part of economic developments in the greater Hamburg metropolitan area. It is well aware of its responsibility towards society both here and at all its other sites.

Social Dialogue

The company's dialogue with society focuses on raising awareness of port and logistics-related issues. Its most important education project is the Aqua-Agenten initiative launched by the Michael Otto Foundation. This project has already received multiple awards (e. g. as an official project of the UN's World Decade 'Education for Sustainable Development' and as a 'Landmark in the Land of Ideas'). It takes a fun approach to teaching schoolchildren aged about eight or nine why water is important for people, nature and the economy. School classes learn about the significance of shipping and ports for world trade at HHLA's container terminals. In the reporting year, around 230 schoolchildren visited HHLA facilities as part of this education project. Since the project was launched in 2009, another 6,475 children have been taught about the importance of water and ports at school.

Compliance

Compliance with legal requirements and internal company guidelines is a key part of HHLA's corporate governance policy. HHLA's compliance system centres on a code of conduct which formulates overriding principles on relevant topics for compliance, such as conduct in the competitive environment, the prevention of corruption and conflicts of interest, and how to deal with sensitive corporate information.



The number of employees increased by 1.6 percent to 4,994 in 2013

A container train belonging to HHLA's subsidiary Metrans at the new hub terminal in Ceska Trebova



Source of Added Value

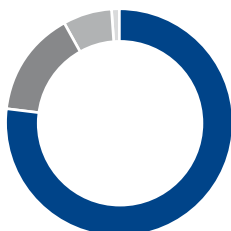
Production value
€1,178 million = 100%



- 45 % Added value
- 32 % Cost of materials
- 12 % Other expenses
- 11 % Depreciation/amortisation

Application of Added Value

Added value
€532 million = 100%



- 77 % Employees
- 15 % Shareholders
- 7 % Public authorities
- 1 % Lenders

Economy

Net added value fell by €18.8 million to €532.2 million in 2013, primarily as a result of expenses. At 45.2 %, added value was lower than in the previous year. In particular, this was due to the development of interest expenses and the cost of materials. Net added value serves as an indicator of business activities' economic value creation. It is calculated by taking the value of production and deducting all intermediate inputs, depreciation and amortisation. Added value is shared between employees, lenders, the state (taxes) and shareholders. The largest proportion, 76.5 % or €407.3 million, went to employees. Shareholders accounted for the second-largest share of €80.4 million (15.1 %), followed by the public authorities with €36.9 million (6.9 %) and payments to lenders amounting to €7.6 million (1.5 %).

Added Value in the HHLA Group

in € million	2013	2012	Change
Employees	407.3	389.5	4.6 %
Shareholders	80.4	111.7	- 28.0 %
Public authorities	36.9	41.5	- 11.1 %
Lenders	7.6	8.3	- 7.5 %
Total	532.2	551.0	- 3.4 %

Research and Development

One of HHLA's strategic objectives is to continuously improve the efficiency of its operating systems, and consequently its competitiveness, by developing application-oriented technologies. The main focus of these activities is therefore on engineering and IT-based innovation projects. HHLA's project portfolio comprises a range of overarching pilot schemes. A good example is the HHLA Container Terminal Altenwerder (CTA), which is regarded as one of the world's most technologically advanced handling facilities. The intelligent, compact terminal layout, cutting-edge handling technology, innovative IT systems and high level of automation all ensure that loading and discharging is conducted efficiently. Especially in the case of container mega-ships, this leads to shorter lay times, giving the terminal a significant competitive advantage.

Development activities are carried out in a decentralised manner at HHLA's respective operating sites. The specialist departments assemble teams of employees with a wide range of qualifications for the various development projects based on the specific requirements. In some cases, these teams include staff from different departments and even

different Group companies. Due to close collaboration with technical universities, institutes, industry partners and government authorities, joint projects can be planned, managed and developed by task forces. A unique feature, however, is the largely proprietary software for terminal operations at the port.

In the 2013 financial year, HHLA mainly focused its resources and available capacity on the successful completion or continuation of the following model projects.

Innovative Seaport Technologies II

New technologies for German seaports and their hinterland links were explored and developed as part of the support initiative Innovative Seaport Technologies II (ISETEC II) of the German Federal Ministry of Economics and Energy. The aim is to enable them to cater for fast-growing transport volumes, which remain a long-term trend. The main focus of HHLA's projects was on enhancing and optimising operating processes at the company's container terminals and throughout the transport chain. The research project VESUHV (Networking Seaports and Railbound Hinterland Transportation) was successfully completed in the financial year 2013. It was the last of a large number of HHLA projects included in this support initiative. This project focused on developing a standardised system which will enable the German seaports and hinterland rail service operators to exchange data reliably at an early stage. As a result of improvements to the flow of information in the Container and Intermodal segments, the transport chain's performance was boosted by improving reliability at the operational planning stage.

Performance Certified

In order to document its performance, CTA once again received certification in accordance with the Container Terminal Quality Indicator (CTQI) in the reporting year. The standard, which was developed by the Global Institute of Logistics and Germanischer Lloyd, checks criteria such as the safety, performance level and efficiency of a terminal on both the water and land sides, as well as its links to pre- and onward carriage systems. With its successful certification, CTA proved once again that it is one of the most productive container terminals in the world.

Battery-Powered Container Vehicles

Researching and developing eco-friendly drive systems is a key aspect of HHLA's sustainable business model. In collaboration with Gottwald Port Technology, Vattenfall Europe Innovation and several research bodies, HHLA is pursuing its BESIC project (Battery Electric Heavy Goods Transports within an Intelligent Container Terminal), which is funded by the German Federal Ministry of Economics and Energy. It aims to use modern information and communication technology to improve the planning and management of charging cycles for battery-powered automated guided vehicles (AGVs) at CTA – particularly at times when there is a surplus of renewable power in the grid. The primary goal in the development of this battery management system and in testing innovative energy storage systems is to improve the level of flexibility for terminal operations and to increase the share of power provided by renewable energies.



Battery-powered automated container transporters (AGVs) at the HHLA terminal in Hamburg-Altenwerder



HAMBURGER HAFEN UND LOGISTIK AKTIENGESELLSCHAFT

Bei St. Annen 1, 20457 Hamburg, Germany, Phone: +49-40-3088-0, Fax: +49-40-3088-3355, www.hhla.de, info@hhla.de