




WE ARE
MOVED
BY
SUSTAINABILITY

SUSTAINABILITY REPORT
2016

Key sustainability figures

Key performance indicator	2016 fiscal year
Company profile	
Revenue (incl. Dematic)	€ 5,587.2 million
Consolidated earnings (incl. Dematic)	€ 246.1 million
Products and solutions	
Research and development expenditure	€ 147.1 million
Patent applications and patents granted	2,689
of which new applications in the reporting year	93
Number of orders for electric industrial trucks	147,120
Number of used industrial trucks sold	49,152
Environment	
Level of ISO 14001 certification (plants as well as sales and service locations)	40%
Total energy consumption	2,013,045 GJ
Greenhouse gas emissions (Scope 1, 2, 3)	206,257 t CO _{2e}
Total water consumption	455,099 m ³
Total waste produced	51,042 t
Employees	
Employees (incl. Dematic)	30,544
Personnel expenses	€ 1,520.3 million
Percentage of female employees	16.3%
Number of apprentices	580
Level of OHSAS 18001 certification (plants as well as sales and service sites)	31%
Health rate	96.2%
Lost time injury frequency rate (occupational accidents per million hours worked)	14.8

About this report

 G4-17, G4-18, G4-28, G4-30, G4-32, G4-33

REPORT CONTENT

This is the KION Group's first sustainability report on its sustainability activities.

In it, it focuses on explaining its strategies, management approaches and measures in addition to presenting its figures. To identify the most material sustainability topics for its report the KION Group reflected on the materiality assessment conducted in 2015 by Linde Material Handling, and transferred it to the Group in 2016. In 2018 it plans to review the materiality analysis at KION Group and operating unit level.

In this Sustainability report, the KION Group has aligned itself with the G4 guidelines of the Global Reporting Initiative (GRI). In doing so, it opted not to have the contents of this report audited by an external firm. This report has been prepared in accordance with the G4 guidelines, "core" option.

SCOPE AND REPORTING PERIOD

The contents of the report relate to the KION Group and its consolidated subsidiaries. It is in the process of integrating Dematic, which was acquired in November 2016, into the Group so this company is only reflected in certain KPIs for 2016. Disclosures including Dematic are reported separately. Data relating to the Egemin Group – which had joined the Group before Dematic and which is now part of the Dematic operating unit following Dematic's consolidation – is included in all KPIs for 2016, including those figures highlighted as being exclusive of Dematic.

90 reporting entities were included in the gathering of KPIs. These include data gathered on 24 separate production and administration locations, which it refers to as 'plants', while 66 disclosure points on sales and service companies in some cases include aggregated data from multiple locations. The report therefore covers approx. 400 locations in 29 countries. With the exception of Egemin Group locations, the reporting entities do not include any Dematic locations.

The majority of disclosures cover 24,395 employees, which represents around 80 percent of the workforce as at 31 December 2016. Currently, the Group's various Financial Services units and Dematic are not covered. The entire workforce is covered in the case of data that already includes Dematic. During 2017 the Group will expand the scope of the report to include all subsidiaries, including Dematic and its Financial Services units. For a list of all consolidated units, see [Table 129 of the KION Group Annual Report 2016](#).

The Sustainability Report 2016 relates to the fiscal year 2016 covering the period 1 January to 31 December 2016. As this is the KION Group's first Sustainability Report it includes important developments in the 2017 fiscal year up to the editorial deadline of 30 June 2017.

GATHERING AND COMPARABILITY OF DATA AND INFORMATION

Within the Company the KION Group uses the WeSustain software solution to record around 800 indicators across the Group. These indicators underpin the key figures contained in the report. The KION Group is now one of the leading users of this software, and it shares its experiences of using it in specialist articles and webinars as well as with other companies.

As this is the KION Group's first sustainability report, this was the first time it had gathered most of the figures. In future, the KION Group will show the development of sustainability KPIs over the course of several years. Certain numbers in this sustainability report have been rounded up or down. This may result in differences between the sum of the individual amounts in the tables and the overall totals stated as well as between the figures stated in the tables and their analysis in the main body text of the sustainability report. All percentage changes and indicators were calculated based on the underlying data.

FORWARD-LOOKING STATEMENTS

This sustainability report contains forward-looking statements that relate to the current plans, objectives, forecasts and estimates of the management of the KION Group. The management of the KION Group cannot guarantee that these forward-looking statements will prove to be correct. The future development of the KION Group and its subsidiaries and the results that are actually achieved are subject to a variety of risks and uncertainties which could cause actual events or results to differ from those reflected in the forward-looking statements.

ADDITIONAL REMARKS

In the interests of legibility, the KION Group avoids the use of double-gender pronouns. No significance is implied, and any mentioning of personal pronouns is to be understood as gender-independent.

The Sustainability Report 2016 is available in German and English in both online and PDF editions. For further information, see the corporate website www.kiongroup.com and the [Annual Report](#).

The Company will publish its next sustainability report in early 2018.

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Foreword KION Group Sustainability Report



DR. THOMAS TOEPFER

Member of the Executive Board (CFO), KION GROUP AG

Dear Ladies and Gentlemen,

I am delighted to present to you today the KION Group's first sustainability report.

With our acquisition of Dematic last year, we bolstered our portfolio with an automation and supply-chain optimisation specialist, ushering in a new chapter at the KION Group. We have become an even stronger company, and can now offer our global customers an extensive portfolio of intralogistics solutions.

A great deal is rightly expected from such a company – and we are doing everything we can to meet what is expected of us by our customers as well as a large number of other stakeholder groups with an interest in our Group's activities.

The fair treatment of business partners, our dependability as an employer towards our employees and their families, the responsible use of resources, climate protection and engagement in society, in which we are actively involved as a company, are all key aspects of our actions, and a cornerstone of our sustainability activities.

By meeting our stakeholders' expectations we also address the key challenges faced by companies and society today, ranging from climate change, through resource scarcity, to the consequences of globalisation and demographic change. We are all called upon to address these core issues. After all, only those companies which can provide specific answers will have a future.

Even though our Group is still young, our brands have a tradition reaching back many decades – with some stretching back over 100 years. Our company history has taught us that sustainability and business success are inextricably linked. So we see our sustainability activities

as a long-term investment – in our company as well as for the benefit of our customers and the society of which we are a part.

Going forward, we will report transparently on our engagement every year, providing updates on our progress and performance, as well as on the objectives we have not yet achieved. The internationally recognised Global Reporting Initiative guidelines form the basis of our reporting activities, as we want to ensure that our activities are comparable. This comparability is underpinned by our facts and figures for 2016, which will serve as comparative values for future reports.

Our first report illustrates that we are serious about wanting sustainability to be an integral part of our company. We are harmonising our processes along those lines, raising awareness among our employees and managers, and calling on them to make the KION Group that bit better every day – also in terms of sustainability. We also have our suppliers and business partners firmly in view. We call for and encourage their commitment, as sustainability does not begin and end at our factory gates. Rather, we need to ensure that our entire value chain meets our high standards. In doing so, we also aim to lead our industry by our sustainability engagement.

Indeed, we have already achieved a great deal in recent years in this area. We now need to bring a systematic structure to our activities and measures within a Group-wide sustainability management system. To this end, in the reporting year we developed a clear Sustainability Strategy and are currently establishing the structures to coordinate our activities across the Group. Our recently established Sustainability steering committee will meet regularly to support these activities and put them on the right track. Their work will be underpinned by a dedicated sustainability programme, which we are currently defining.

As CFO, I know that controlling is a challenging task – even more so in terms of sustainability, as there are very wide-ranging levers and KPIs. However, I am confident that we will successfully drive forward the systematic integration of our sustainability management. I am already looking forward to next year and our 2017 report, in which we will share the progress we have made to becoming a more sustainable Group. I would like to thank you for accompanying us on this journey, and I hope you find this report both informative and interesting!

Yours sincerely,



Dr. Thomas Toepfer

COMPANY PROFILE

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Company profile

 G4-3, G4-4, G4-9

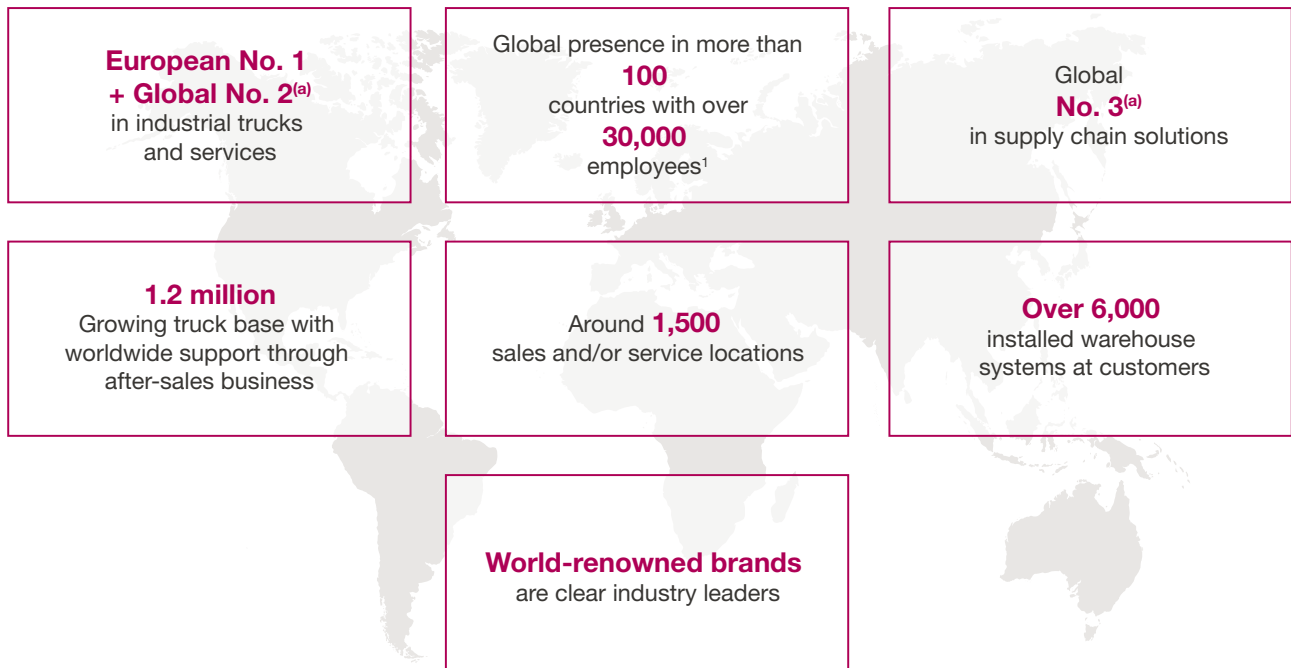
WE KEEP THE WORLD MOVING.

The KION Group is a global leader in industrial trucks, warehouse technology, related services and supply chain solutions. Across over 100 countries, the KION Group designs, builds and supports logistics solutions that optimise material handling processes and the flow of information within factories, warehouses and distribu-

tion centres. With around 30,000 employees¹, the Company is the largest manufacturer of industrial trucks in Europe, the second-largest producer of forklifts globally and a leading provider of warehouse automation technology. With a global installed base of more than 1.2 million industrial trucks and over 6,000 systems, the KION Group's customer base includes companies in all industries and of all sizes on six continents (> **Figure 1**).

KION Group at a glance: A global market leader of supply chain solutions, industrial trucks and services

FIGURE 1



Note: Based on total revenues 2016
 Source: (a) Modern Materials Handling, 2017
¹ incl. Dematic

WE ARE MOVED BY SUSTAINABILITY.

The KION Group aims to capture customer requirements as best as possible, and offer its customers safe, efficient and innovative logistics solutions. Sustainable business practices are the logical consequence of this aspiration. By aligning KION Group actions with environmental, social and economic aspects it also supports its customers in implementing their sustainability programmes, thereby meeting a key prerequisite for their own success.

This makes sustainability a task for every employee in the Company. Everyone is encouraged to contribute through innovations, ideas and consistent action to ensure the KION Group also meets its claim to be a leader in the field of sustainability. With a clear sustainability strategy, ambitious objectives and straightforward measures, the KION Group is on the right track. This report sets out its approach.

BUSINESS MODEL AND ORGANISATION

G4-4, G4-7, G4-8, G4-13

The KION Group offers its customers a unique product, technology and service portfolio ranging from industrial trucks and warehouse technology systems, through fleet and warehouse management solutions, to fully automated material handling and logistics systems.

This makes the KION Group a full-service provider for customers of various industries and sizes, from major key accounts with a global reach, through to small and medium-sized businesses. With the acquisition of Dematic in November 2016, this also makes the Company the leading intralogistics partner for Industry 4.0.

The KION Group comprises KION GROUP AG, a company incorporated under German law as the parent company, and its subsidiaries. KION GROUP AG is a strategic management holding listed on the Frankfurt Stock Exchange, and is also included in the MDax, the STOXX Europe 600 and the FTSE EuroMid.

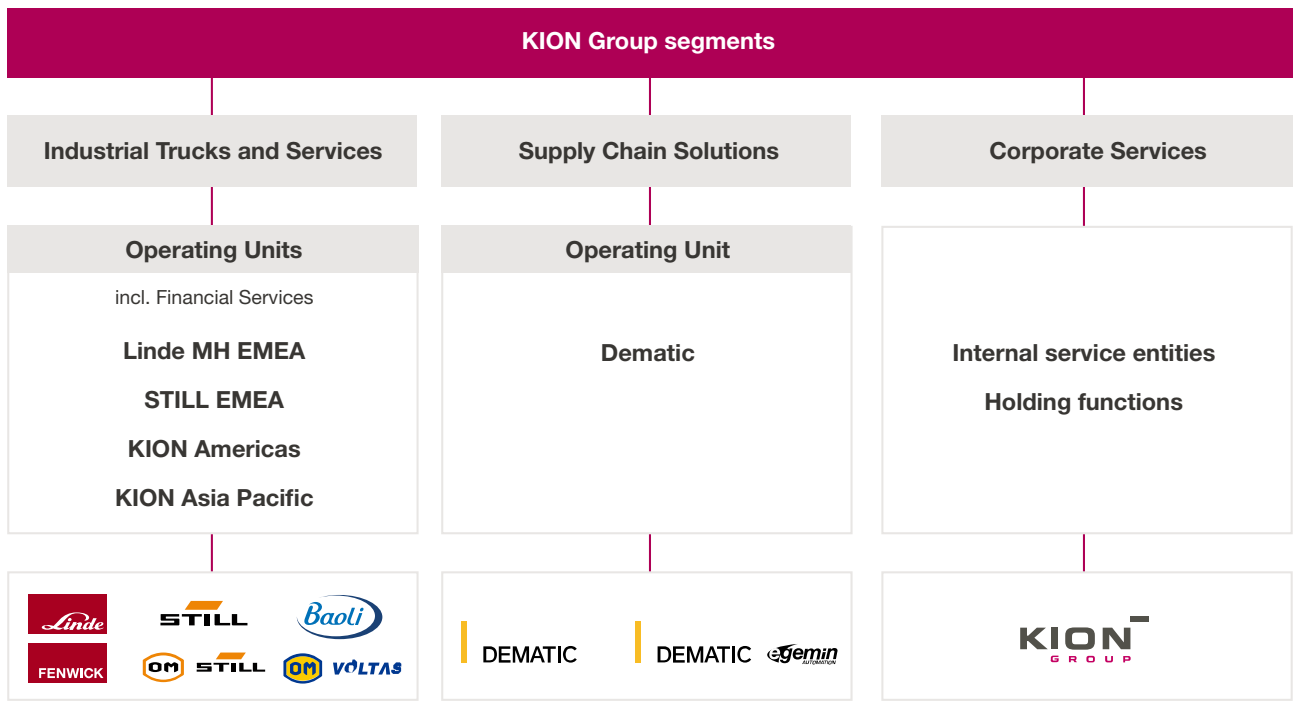
For a detailed illustration of the **KION Group's organisational structure, its business model and its key markets** see the Annual Report 2016.

Segments

The KION Group manages its business through the two segments: Industrial Trucks & Services and Supply Chain Solutions. In addition, cross-segment services are provided by the segment Corporate Services, which includes the holding and other service companies (> **Figure 2**).

KION Group segments

FIGURE 2



With its numerous industrial truck and system solution plants, the KION Group is present on five continents (> **Figure 3**).

Global presence – overview of production plants

FIGURE 3



The Industrial Trucks & Services segment comprises forklifts, warehouse technology and associated services plus supporting financial services. Its products and services are offered under the three international brands Linde, STILL and Baoli plus the three regional brands Fenwick, OM STILL and OM Voltas.

For effective and close collaboration across regions and markets, the industrial truck business has been structured into four

operating units since the fiscal year 2016: Linde Material Handling EMEA and STILL EMEA, which each focus on Europe, the Middle East and Africa, plus KION APAC and KION Americas, which hold cross-brand responsibility for the Asia-Pacific region and the regions of North, Central and South America respectively.

The Supply Chain Solutions segment encompasses integrated technology and software solutions that are used to optimise supply chains. Manual and automated solutions are provided for all functions along customers' supply chains, from goods inward and multishuttle warehouse systems, to picking and value-added packing. In this segment, the recently acquired companies Egemin Automation (Belgium) and Retrotech Inc. (USA) will be fully integrated into Dematic by the end of 2017. As its fifth operating unit, Dematic is responsible for the joint cross-brand market presence.

The KION Group is strengthening the competitiveness of its operating units across segments, brands and regions by consolidating the technical functions of R&D, procurement, quality assurance and production systems in its new CTO (Chief Technology Officer) organisation. Through the resulting uniform standards and global coordination of its engineering activities, it will be able to offer more product variants with less effort and shorter development processes.

Global success with strong brands

Strong brands, which in some cases have long traditions stretching back over 100 years, underpin the KION Group's global success. The KION Group's brands are among the best in the industry globally. Dematic, the latest addition to the KION Group, is a global leader in automated material handling processes, providing a comprehensive range of smart supply chain and automation solutions. Integrating Egemin into Dematic makes KION one of the biggest suppliers of automated guided vehicles (AGVs). The Linde and STILL brands serve the premium industrial truck segment, while Baoli focuses on industrial trucks in the economy segment. Among its regional industrial truck brand companies, Fenwick is the largest supplier of material handling products in France, while OM STILL is a market leader in Italy. Voltas serves the Indian market where it is a leading provider of industrial trucks.

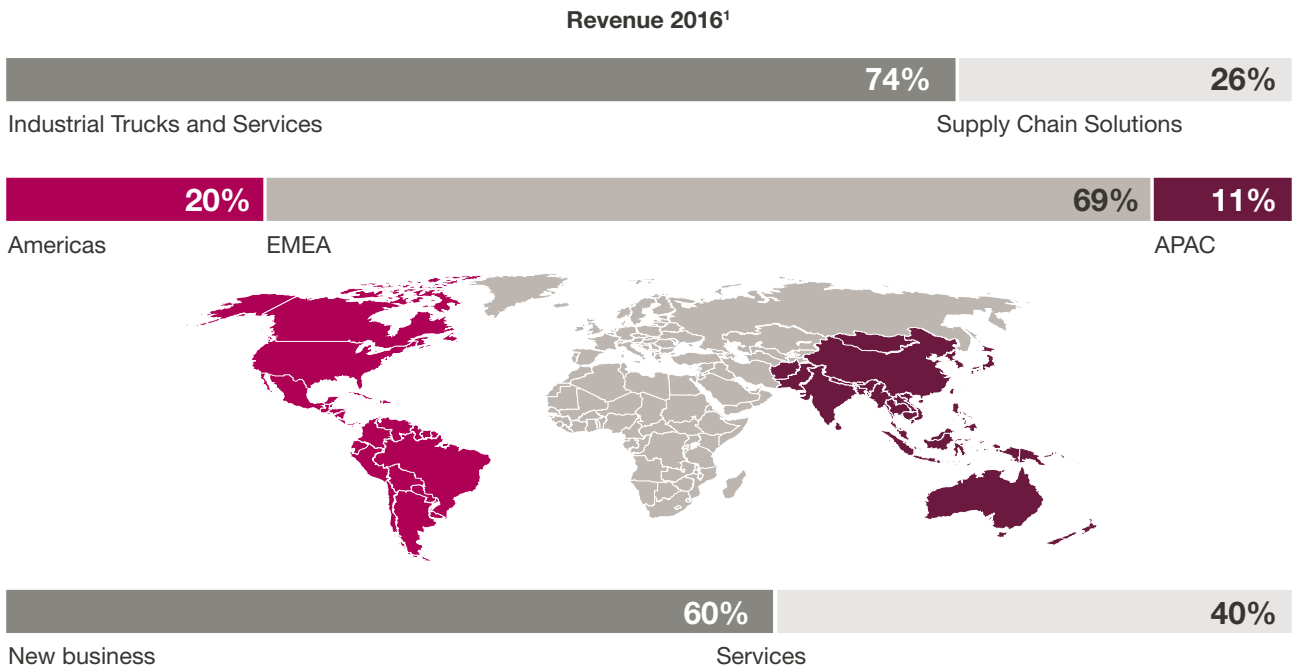
FINANCIAL DATA 2016 – THE KION GROUP SHOWS ITS ECONOMIC STRENGTH

G4-EC1

In 2016 the KION Group generated revenues of around €5.6 billion, exceeding the previous year's figure by 9.6 percent despite significant currency effects. For further information on its revenue mix, see > **Figure 4**.

KION Group market presence

FIGURE 4



¹ Based on pro-forma financials for FY 2016

As at the end of 2016 the Group-wide order book stood at €2.2 billion, forming a stable basis for future growth. The KION Group generated a total net profit of €246.1 million (> [Table 1](#)).

KION Group financial key figures – annual comparison

TABLE 1

in € million	incl. Dematic		KION GROUP AG (alone)			
	2016	2016	2015	2014	2013	2012
Order intake	5,833	5,553	5,216	4,771	4,489	4,590
Revenue	5,587	5,328	5,098	4,678	4,495	4,560
Adjusted EBITDA ¹	932		850	780	722	701
Adjusted EBITDA margin ¹	16.7%		16.7%	16.7%	16.1%	15.4%
Adjusted EBIT¹	537	527	483	443	417	408
Adjusted EBITDA margin ¹	9.6%	9.9%	9.5%	9.5%	9.3%	9.0%
Consolidated earnings	246		221	178	138	161
ROCE²	6.8%	12.4%	11.9%	11.4%	–	–
Capital expenditure ³	167		143	133	126	155
R&D total expenditure	147		131	120	114	120
Free cash flow⁴	-1,850	318	333	306	196	514
Net financial debt	2,903		573	811	979	1,790
Employees ⁵	30,544		23,506	22,669	22,273	21,215

1 Adjusted for effects of KION acquisitions as well as one-off and extraordinary effects

2 ROCE is derived as a ratio between Adjusted EBIT and Capital Employed; the calculation of ROCE is only carried out at the end of a fiscal year

3 Capital expenditure including capitalised development costs, excluding leased and rental assets

4 Free cash flow is defined as cash flow from operating activities plus cash flow from investment activities

5 Including apprentices and trainees

For a detailed picture of the KION Group's financial performance and position, see the [Annual Report](#). Regular quarterly reporting supplements and updates this picture.

EXECUTIVE BOARD STATEMENTS

Sustainability is multifaceted – like the views of the KION Group Executive Board on the topic. Nevertheless, one common understanding is shared above all: taking a sustainable approach and economic success go hand-in-hand, as they are two sides of the same coin.



Gordon Riske

Chairman of the Executive Board

” KION is leading the way – also in terms of sustainable business practices. Sustainability is another area in which it strives to attain a leading position within its industry, and is something it is pursuing with the same resoluteness and consistency as it pursues its growth targets. The Group’s sustainability strategy, which it produced in 2016, is a key milestone in this respect – and anyone can monitor the Company’s achievement of objectives through its regular reporting.



Ching Pong Quek

Asia Pacific Executive Board

” Taking a sustainable approach in the interests of people brings long-term success, in the Asia Pacific region as well as on a global scale. This is what we strive for at the KION Group. Through responsible, transparent business practices and by playing an active role in society we are establishing an important pillar for its success as a company – while at the same time also contributing to ensure we all have a brighter future.

**Dr. Eike Böhm**

Chief Technology Officer

” The KION Group and its brands are a byword for innovative and reliable products, and for efficiency and safety at the highest technical level. Sustainability has always been an integral part of our commitment to deliver what we promise – this is and will continue to be reflected in our products. As our customers know: we deliver what we promise.

**Dr. Thomas Toepfer**

CFO

” Taking a sustainable approach also improves cost structures, prevents risks and offers numerous competitive opportunities – so it comes as no surprise that an ever-increasing number of financial analysts and investors are also taking sustainability aspects into account. In doing so, they not only assess the quality of an investment, but also the future viability of a company. In our Sustainability steering committee, we put these Group activities on the right track and in doing so shape our future. We take responsibility – both in terms of the aims we set ourselves and in the interests of our customers, employees and shareholders. Measurability and transparent reporting are key success factors in this regard. After all, only clearly defined targets and KPIs will steer the Company's activities in the desired direction. This report shows that we are on the right track!

CORPORATE GOVERNANCE

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Sustainable corporate governance

2016 marked the start of a new chapter in the KION Group's history. It has become an even larger and stronger Company, and can now offer its global customers all they need for their intralogistics. With Dematic joining the Group, its portfolio has been dramatically expanded. While it marks the start of a new era, the Group's aspiration remains as steadfast as ever: the KION Group intends to count among the best of the best in its industry. This also applies to the sustainability of its business practices, as the KION Group intends to create added value for its customers through innovative, efficient and safe solutions, driven by an approach focused on meeting stakeholder needs. In short: adding sustainable value.

SUSTAINABILITY STRATEGY

G4-18, G4-19, G4-20, G4-21

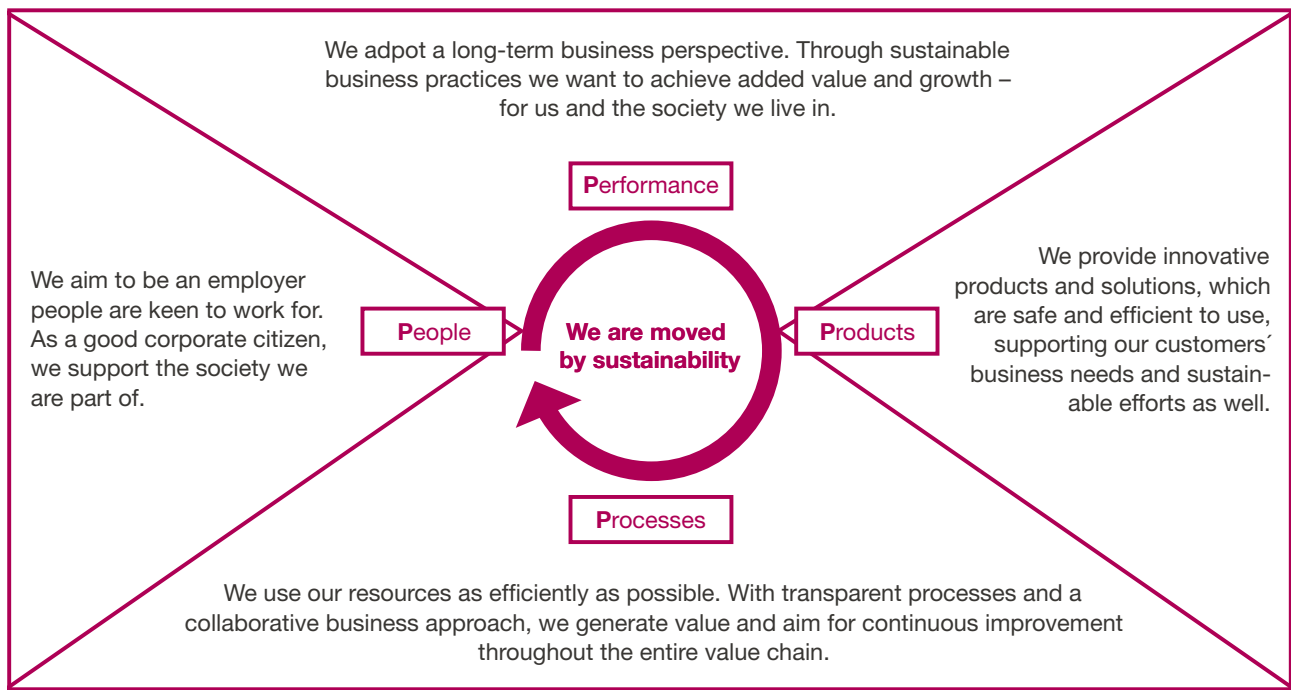
The KION Strategy 2020 remains the guiding framework for the KION Group. It aims to achieve growth, profitability, efficient capital investment and increased robustness in economic downturns. The sustainability activities within the Group support this strategy, which is why sustainable and responsible business practices are a core principle of the KION Group's activities. The Company and operating units have always strived to balance environmental, economic and social considerations in its activities. In 2016 this

strategy was embedded even more deeply in the Company to give Group-wide control of sustainability factors through corresponding structures. These new structures also gave rise to a Group-wide internal reporting system, which is a fundamental basis for managing and continuously improving KION's sustainability activities. It also meets the requirements of a transparent reporting system.

At the heart of its sustainability strategy (> **Figure 5**) is the aspiration to take responsibility, and in doing so promote the Company's sustainable development. With clear aims, efficient structures and processes, and an effective reporting system it intends to attain a leading position in its industry in terms of sustainable business practices. Consequently, sustainability should be integral to the way its employees go about their work, combined with the aspiration to continuously improve. To achieve this, it intends to further enable and encourage its employees to act sustainably. Further, the KION Group intends to promote sustainability along its entire value chain, in close collaboration with its suppliers and customers; the KION Group will therefore continue to integrate environmental and social considerations into its business processes – and contribute lasting value to its Company, customers and society in the process.

The sustainability strategy is guided by the principle of 'We are moved by sustainability', brings together the core measures and sets out its approach in each of its four focus areas: Performance, Products, Processes, and People.

We take responsibility – to foster sustainable development of our company, our industry and the society we live in.



Four guiding principles drive implementation

To implement its sustainability strategy, the KION Group established four guiding principles that set out the guidelines for its sustainable approach:

1. We embody sustainability – it is an integral part of our activities, and we strive to make further improvements every day.
2. We champion cost-effective sustainability across the entire value chain – together with business partners and suppliers, we offer customers efficient solutions which also assist them in their sustainability activities.
3. We pursue clear sustainability goals – and achieve them through effective structures, efficient processes and transparent reporting.
4. We enable our employees to drive innovation, which increases our Company's sustainability performance.

We integrate sustainability aspects into our business processes based on these principles, thereby adding long-term value for our Company, our customers and society.

Three-step implementation plan for the Group-wide sustainability management system

Since September 2015 the Sustainability Management head of office department has managed and coordinated the KION Group's and operating units' sustainability activities. To embed the sustainability management system Group-wide, ensure its targeted management and thus make sustainability aspects a visible part of the way it manages its Company, the KION Group takes a three-step approach.

In the first step, in 2016 it produced a Group-wide sustainability strategy and formed the basis for the Group-wide sustainability reporting system. It incorporated both the expectations of its top management team as well as those of a highly diverse range of stakeholders here. At the same time it leveraged the experience gained by Linde Material Handling, as it had already pioneered sustainability within the Group, developing a brand-specific sustainability strategy and establishing the requisite management and reporting structures between 2014 and 2016. The KION Group is now following this proven path at Group level and has defined the material action fields based on a materiality analysis (see [Key challenges for the KION Group](#)). This resulted in the definition of action fields at Group level with clearly assigned responsibilities within the organisation, and an initial set of objectives. The Company is now establishing Group-wide governance structures at its operating units.

Currently, it is also in the process of rolling out the second implementation step: by the end of 2017 it will have defined sustainability KPIs (key performance indicators) and established the

required data management system. This will form the basis of its sustainability management system, including its first comprehensive Group-wide sustainability programme which encompasses all operating units.

The third step focuses on internal and external communication. Its regular sustainability report, which meets the requirements of current statutory regulations, forms the basis of its external communication activities. It also aims to position the KION Group appropriately in the relevant sustainability ratings and rankings. In terms of internal communication, which means informing employees and involving them in the Company's sustainability activities, KION intends to embed its sustainability activities on a broad basis within its Group.

Key challenges for the KION Group

Materiality as the basis for strategy development

The materiality analysis performed by Linde Material Handling EMEA at the start of 2015 formed the basis for the development of the KION sustainability strategy (> [Figure 6](#)). The management team's assumptions at the time, together with the stakeholders' expectations, were reviewed with regard to the KION Group and very largely adopted. This also gave rise to a systematic approach at Group level, which addresses and prioritises the material challenges facing the Group. The units with the highest overall relevance are also the focus of the KION Group's sustainability management (> [Table 2](#)).



It analysed twelve global sustainability challenges according to their relevance in the opinion of its stakeholders as well as the KION Group.

It plans to update and expand on its materiality analysis in 2018 to include its operating units. In doing so, it plans to take into account both its acquisition of Dematic as well as the stronger re-

gional focus of its sustainability programme within its operating units.

Material challenges and related GRI aspects

TABLE 2

Challenges	Aspects	[i]	[a]
Climate Change	Emissions	x	x
	Energy	x	x
	Products and Services (environmental impact)	x	x
	Supplier Environmental Assessment		x
Human Rights	Supplier Assessment for Labor Practices		x
	Supplier Human Rights Assessment		x
	Assessment	x	x
	Forced or Compulsory Labor	x	x
	Child Labor	x	x
	Investment	x	x
	Freedom of Association and Collective Bargaining	x	x
Resource Scarcity	Diversity and Equal Opportunity	x	
	Effluents and Waste	x	x
	Water	x	x
	Materials	x	x
	Products and Services (environmental impact)	x	x
	Supplier Environmental Assessment		x
Demographic Change	Compliance	x	x
	Diversity and Equal Opportunity	x	
	Occupational Health and Safety	x	
	Training and Education	x	
Health	Employment	x	
	Occupational Health and Safety	x	
	Customer Health and Safety	x	x
Diversity and Equal Opportunity	Compliance	x	x
	Training and Education	x	
	Diversity and Equal Opportunity	x	
Urbanisation	Employment	x	
	Emissions	x	x
	Energy	x	x
	Products and Services (environmental impact)	x	x
	Supplier Environmental Assessment		x

i = material within the organisation / a = material outside the organisation

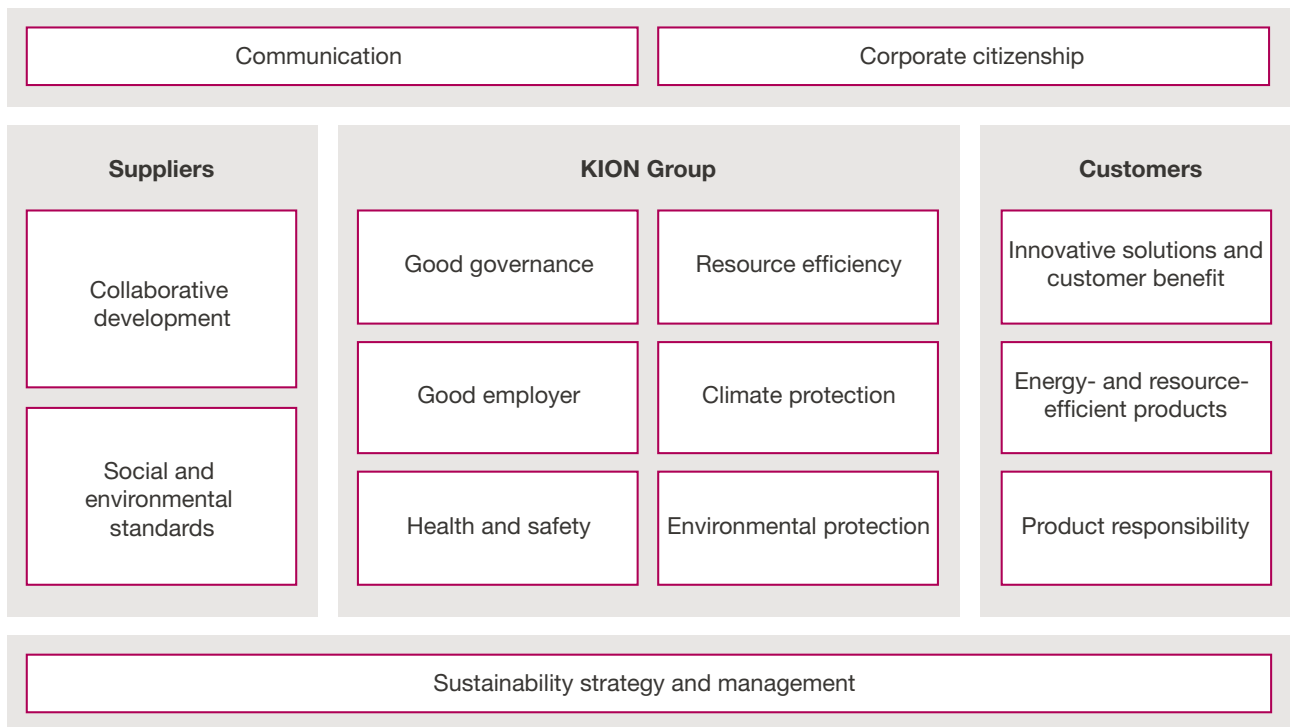
Comprehensive sustainability programme with 14 action fields

The 14 action fields which the Group defined, based on the findings of its materiality analysis, form the structure of its sustainability programme (> Figure 7). By the end of 2017 it will set out its sustainability programme in more detail and roll it out in its approved form. At the same time it will also formulate the material KPIs for each action field by which it will manage sustainability within the Group, and which it will gradually communicate publicly, starting with this report. Behind each action field lies a spe-

cific programme with targets, measures and KPIs to develop the Group's sustainability activities on an ongoing basis (> Table 3). Responsibility for implementing these measures lies with the person in charge of the action field. Typically, this is the head of the department, as the individual also responsible for integrating sustainability aspects into the processes. The sustainability objectives set out a minimum standard which is binding on the entire KION Group. Individual units may achieve higher standards in their sustainability activities or supplement them as required.

KION sustainability strategy action fields

FIGURE 7



Main objectives

TABLE 3

Objective	Relevant Action field	Planned implementation
Further development of the KION sustainability management system, including the establishment of a sustainability programme encompassing all action fields and the updating and expansion of the materiality analysis	— Sustainability strategy and management	2018
Further development of the HSE management system including the establishment of Group-wide minimum standards and the expansion of the existing Safety Championship – as an internal safety competition – to include environmental and climate-protection aspects	— Climate protection — Environmental protection — Health and safety	2018
Further development of the Group's diversity strategy	— Good employer	2018
Full implementation of the Group's HR strategy	— Good employer	2019
External certification of the occupational health and safety as well as environmental management systems in accordance with international standards (e.g. OHSAS 18001, ISO 14001) in all entities as well as the implementation of an ISO 50001-compliant energy management system at the 25 reporting entities with the greatest energy use	— Environmental protection — Health and safety	2019
Definition and establishment of comprehensive climate-protection, waste-management and resource-efficiency programmes	— Climate protection — Environmental protection — Resource efficiency	2019
Reduction in the accident frequency rate measured by the LTIFR (Lost Time Injury Frequency Rate) to < 10 to further tackle accidents and occupational illness with the aim of safeguarding each individual's long-term capacity to work	— Health and safety	2020

ORGANISATION AND MANAGEMENT

G4-15, G4-34, G4-35, G4-36, G4-56, G4-HR4, G4-HR5, G4-HR6, G4-HR9

The Executive Board of KION GROUP AG is responsible for the operational management of the KION Group. As at the end of 2016, it comprises four members.

The Executive Board maintains a trusting relationship with, and is monitored by, the Company's Supervisory Board. This also advises the Executive Board in its handling of core tasks and major business transactions. The Supervisory Board's size and composition is governed by the German Codetermination Act (MitbestG). KION GROUP AG's Supervisory Board comprises 16 members, consisting of eight shareholder and eight employee representatives.

For further information on the duties and composition of the Executive Board and Supervisory Board of KION GROUP AG, see the [Corporate governance report](#) which is available online as part of the Annual Report 2016.

The Executive Board and Supervisory Board of KION GROUP AG believe that an uncompromising commitment to rigorous corporate governance oriented on best practice standards is essential to the Company's long-term success. Compliance with these principles also promotes the trust that its investors, employees, business partners and the public have in the management and monitoring of the Company.

The KION Group works according to recognised standards of good, responsible corporate governance. The German Corporate Governance Code (DCGK) guides how it manages and controls the Company. The KION Group fulfils all of the DCGK's recommendations aside from one relating to an excess in the D&O insurance policies for Supervisory and Executive Board members. The annual declaration of compliance which it is required to submit in accordance with section 161 of the German Stock Corporate Act (AktG) is accessible on its [corporate website](#). Further information can also be found in the [Corporate governance report](#).

To ensure professional and responsible corporate governance, the Executive Board needs to rely on the risk management system established in the Company to regularly gather in-

formation about current risks and how they are evolving, and then report on this to the Supervisory Board's Audit Committee. The KION Group's risk management system is documented in a Group risk policy that defines tasks, processes and responsibilities, and sets out the rules to identify, assess, report and manage risk. Specific individual risks are then reported by the relevant Group entity using an online reporting tool. Reporting on cross-segment risks and Group-wide risks is carried out by Corporate Controlling and the relevant departments. The risks that have been reported are reviewed on a quarterly basis and re-assessed until the reason for reporting a risk no longer exists (see the [Risk report](#) in the Combined Management Report section of the Annual Report 2016).

Sustainability organisation

Clear responsibilities for a sustainable approach

Taking a sustainable approach is linked with clear responsibilities at the KION Group. For this purpose, the overall structure of the KION Group's sustainability management system, as described below, was approved by the KION Group Executive Board at the start of 2017.

While the Executive Board's decisions ensure that the Company's sustainability aspirations are underpinned by specific measures, its Sustainability steering committee will ensure going forward that the Group's sustainability programme is uniform across the Company and continually developed further (> [Figure 8](#)). To do so, it monitors the activities and achievements in each action field, taking corrective action as and when required. The Sustainability steering committee will convene for the first time in autumn 2017, and then meet biannually.

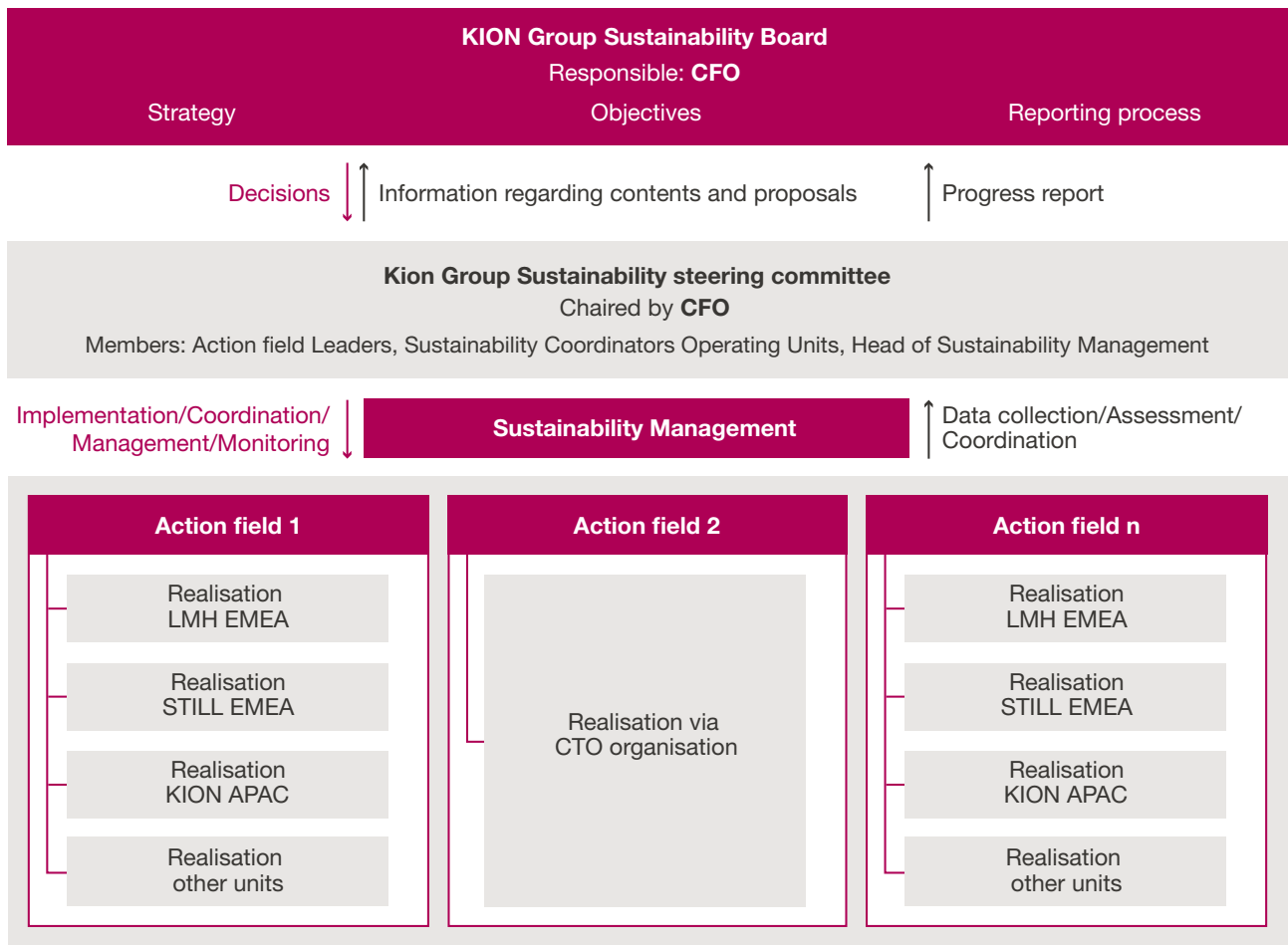
The sustainability programme agreed by the KION Group Sustainability steering committee will subsequently be presented to the KION Group Sustainability Board, which comprises members of the Group Executive Committee (GEC) – members of the KION Group Executive Board and the Presidents of the operating units – for formal adoption. The Sustainability Management head office department controls and coordinates the sustainability programme in the Group, sets sustainability KPI targets and monitors their achievement. It also ensures the individual action fields, units

and activities within the Group are coordinated, and is available to provide support as the specialist in this area. Each person responsible for an action field manages their specific programme, and has full responsibility over their allocated budgets and resources. They are also responsible for implementing the agreed packages of measures, through to their expansion to cover the operating units and subsidiaries, whereby they coordinate their activities with the sustainability coordinators in the operating

units. At an operational level, each unit establishes its own sustainability programmes that correspond to the KION Group action field model, which are in turn broken down to a local level. When the KION Group Sustainability steering committee convenes, both those responsible for the action fields as well as the operating unit coordinators report back on the progress achieved to date, and develop the programme further.

KION Group Sustainability steering committee as a central element of the sustainability organisation

FIGURE 8



Principles and guidelines

Comprehensive sustainability regulations

The KION Group sustainability strategy and the corresponding objectives are based on existing Group-wide standards and codes of conduct which ensure rules and regulations are complied with (> **Table 4**). These include the KION Group Code of Compliance (KGCC), which sets out the guidelines for ethical, value-based and lawful business activities. The KGCC is available in 22 languages and is binding on all of the Group's employees around the world. It sets out clear rules that include clear guidance on correct conduct between employees and their colleagues, as well as on how they deal with customers, partners and the public.

As a German corporation, KION GROUP AG is primarily subject to German law. At the same time, the Company is required to uphold national laws at its global locations. The KGCC provides rules in case of a collision of legal jurisdiction applying for the same circumstances.

If local legislation contains more stringent provisions than German legislation, local laws and regulations apply. If local laws around the world are less stringent than German legislation, the KION Group can decide as a Group whether a more stringent regulation is generally desired, appropriate or legally necessary. These regulations are then laid down and published in internal policies and instructions. The national companies may also issue more stringent internal guidelines to take into consideration local customs or other considerations in a suitable manner. Group policies apply across the Company, unless they infringe or contradict local laws. Its Compliance or Legal departments are the point of contact in all cases of doubt in terms of legal requirements. The **KION Group Code of Compliance** is available on the KION Group's corporate website.

Furthermore, the KION Group's Company-wide compliance programme covers further regulations which apply across the Group (> **Table 4**). These include its primarily internally-focused KION policies on a range of specialist topics, the KION Group Principles of Supplier Conduct, and KION Compliance Principles for external business partners.

Among other things, the Group HSE policy requires as a minimum that every company in the KION Group observes all relevant national laws, codes of conduct and industry standards. In addition, they are to ensure safe working conditions and that employees are trained accordingly. Furthermore, environmental impacts must be avoided as far as possible (see also the section **Environment**).

Additionally, sustainability aspects are embedded in the KION Group **Principles of Supplier Conduct** and Purchasing Terms, which its suppliers and service providers are required to observe. Sustainability aspects, particularly in relation to environmental and resource protection as well as occupational safety, also play a major role when the Company develops new or enhances existing products. For further information, see the sections **Products** and **Employees** in this report.

At Group level, minimum employment standards apply based on the fundamental conventions drawn up by the International Labour Organization (ILO). These include freedom of association, the right to collective bargaining, the elimination of child and forced labour, and a ban on discrimination in respect of employment and occupation. The Group currently monitors its units' compliance with its minimum employment standards by means of a self-assessment as part of annual internal sustainability reporting activities. In the reporting period the KION Group was not notified of any significant incidents or violations of minimum employment standards. Furthermore, the KION Group is committed to ensuring health and safety standards in the workplace and to paying its employees in line with the industry average in their respective country, and at the very least providing them with a living wage. It devoted the **Employees** section of this report to the KION Group's responsibility as an employer.

To ensure that the minimum standards are also complied with by external partners or in joint ventures, contracts typically include a clause based on the KION Group Code of Compliance which, among other things, requires the contracting parties to observe human rights.

Group-wide sustainability principles and guidelines

TABLE 4

Principle/guideline	Scope
Compliance Principles for Independent Partners in KION's sales and service organisation	Commits its sales and service partners to uphold the KION Group's compliance principles
Principles of Supplier Conduct	Set out the principles with which the KION Group expects its suppliers to comply
KION Group Code of Compliance	Its Code of Conduct sets the guidelines for all employees across the KION Group to act lawfully and ethically
HSE policy	Health, safety and environment policy relating to employees, customers and the community at large
Policy on international minimum employment standards	Explanation of the underlying social rights and principles; excludes child and forced labour
Guideline on avoiding conflicts of interest	Describes the principles governing KION's business relationships
Donations Policy	The principles of social involvement set out the focus and requirements for donation and sponsorship activities

In its sustainability communication activities the KION Group strives to meet the requirements of transparent reporting in accordance with the internationally recognised guidelines of the Global Reporting Initiative (GRI). It plans to participate in the Carbon Disclosure Project (CDP), and it is currently reviewing whether to sign up to the UN Global Compact.

Other sustainability reporting commitments mainly exist for individual subsidiaries. In terms of customer benefit, the assessment by EcoVadis is particularly noteworthy. This assessment is performed regularly for key units (e.g. STILL EMEA and Linde Ma-

terial Handling EMEA), and it plans to implement it for others. Furthermore, the KION Group is involved in local programmes through its units. Among them, STILL EMEA is actively involved as part of its Umweltpartnerschaft Hamburg (Environmental Partnership) activities and its membership of the German Environmental Management Association and B.A.U.M.; Linde Material Handling EMEA is active in the Umweltpakt Bayern (Environmental Pact of Bavaria) and in the Blue Competence initiative of the German Mechanical Engineering Industry Association (VDMA).

COMPLIANCE

G4-58, G4-HR2

Embedding compliance principles comprehensively in its daily business is a constant challenge for the management of the KION Group. In this regard, communication activities are particularly important to raise awareness of compliance and to keep employees up to date with regulations. In the reporting year, the KION Group expanded its face-to-face training sessions within the compliance organisation globally, and ramped-up its compliance risk analysis activities at a national level.

The KION Group is also increasingly requiring its business partners to comply with its compliance principles. Current focus areas of the KION Group's compliance activities include anti-corruption, anti-money laundering and anti-terrorist financing, liability of board members and the responsibility of managers, data protection and IT security, as well as foreign trade and export controls.

In fiscal year 2017 its strategic priorities in the area of compliance will be its systematic Group-wide compliance risk analysis, the integration of Dematic together with the establishment of a uniform Code of Conduct, the implementation of the IT-based Business Partner Check tool, and the development of its compliance activities to tackle money laundering.

Compliance organisation

The Executive Board of the KION Group bears overall responsibility for the compliance management system in the Group. The Compliance department reports directly to the CEO of the Group and is headed up by the Chief Compliance Officer. He and his team further develop the compliance management system, provide advice and information on compliance topics and ensure compliance training. The Compliance department supports the operating unit heads in implementing the compliance programme.

At a local level within the units, local and regional compliance representatives are appointed who ensure that operations within the Group company or region comply with statutory and regulatory requirements. Consequently, they serve as the first port of call

for questions or the reporting of possible instances of non-compliance. Together they form the Group-wide compliance team, and their work is managed by the central Compliance department.

Actual or suspected incidents of non-compliance can be reported by telephone, post, e-mail or fax. Furthermore, any employee can also report violations of compliance via a whistleblowing hotline, anonymously if preferred, no matter where in the world they are located. The local compliance representatives report to the Compliance department on a monthly basis – and on an ad-hoc basis in serious cases. The Chief Compliance Officer reports significant incidents and developments directly to the CEO of the KION Group as well as to the Audit Committee of the Supervisory Board.

As part of its work, the KION Group Compliance department works closely with the Legal, Internal Audit and Human Resources departments. The KION Compliance Committee is staffed by the heads of these departments, operating as a cross-functional committee that primarily advises on, examines and, if appropriate, punishes incidents of non-compliance that are reported.

The KION Group compliance management system is based on the IDW PS 980 auditing standard, which focuses on preventing compliance violations. Within the framework of its regular audits as well as through ad-hoc audits, its Group Audit department checks compliance in the subsidiaries with the KION Group's compliance requirements. If its audits confirm cases of non-compliance, it is the task of the Human Resources or Legal department to remedy the violations and sanction those responsible.

In the reporting period, various reports were submitted to the Compliance Committee, including suspected conflicts of interest, misconduct towards employees, unauthorised payments and invitations to events, the sharing of company data, and fraudulent job ads and e-mails. Each individual report was followed up without exception, and notices on the fraudulent job ads were published on the corporate website and sanctions were imposed in case of confirmed wrong conduct.

Since 2016 the KION Group has been expanding its analysis of compliance risks across the Group using a standardised system according to which these risks are assessed and recorded in

all Group entities. This will remain one of the main focus areas of its work next year.

It is currently developing an IT-based Business Partner Check tool to screen its business partners for potential compliance risks (see the [Compliance management system](#) section in the Annual Report 2016).

Extensive training

To the KION Group, employee training is the cornerstone of a good compliance management system. Through this, its employees learn which rules apply to their field of work, which stance the Company and its representatives take on certain business practices, and what behaviour is expected of its employees. It communicates its Company's culture in great detail through its training measures; every new employee at the KION Group is obliged to complete an e-learning course which covers all aspects of the KION Group Code of Compliance. In 2016 it expanded its compliance e-learning course to all Group companies, which resulted in a considerable increase in training compared to the previous year. For employees without a PC, it provides face-to-face training. Those employees who are exposed to particular compliance risks owing to their activities, such as those in the area of pur-

chasing, receive special face-to-face training. The KION Group aims to train all employees regularly on the most critical topics (anti-corruption, competition law, anti-money laundering, data protection, IT security and human rights). Besides findings from its compliance management system, changes to legislation or jurisprudence are also incorporated into its face-to-face training courses.

STAKEHOLDER DIALOGUE

G4-16, G4-24, G4-25, G4-26, G4-27

The KION Group is in regular dialogue with a wide range of stakeholder groups, either directly, via surveys, or at events. This enables it to identify their requirements on the Company at an early stage and incorporate them in decisions.

The KION Group's key stakeholders are customers, employees, investors, shareholders and suppliers. In addition, the KION Group and its operating units are members of numerous industry associations and international institutions. > **Table 5** includes a selection of sustainability-related association activities:

Sustainability-related association activities of the KION Group

TABLE 5

Organisation	Function performed
AFNOR – French Standardisation Association	Chair of the committee UNM85: Chariots de Manutention (industrial trucks)
CEN – European Committee for Standardisation	Chair of assorted committees of the Industrial Trucks – Safety technical committee, including the Sustainability committee
DIN – German Standards Institute	Chair of assorted committees such as Industrial Truck Safety
FEM – European Federation of Material Handling	Executive Board/chairmanship
FGMA – Expert Consortium of German Mechanical Engineering Businesses	Member of the Executive Board
Hertie Foundation	Member of the Executive Board
ISO – International Organization for Standardization	Chair of assorted technical committees, including the Sustainability of Industrial Trucks
VDMA – German Mechanical Engineering Industry Association	Chair of industrial trucks Member of the Blue Competence initiative

As part of implementing its sustainability management system the KION Group also identified its relevant stakeholders. Its Sustainability steering committee is continuing the development of this analysis. As part of the planned expansion of its materiality analysis, the list will be supplemented by its operating units' specific analyses.

The KION Group is in regular dialogue with its stakeholders on a range of topics (> [Table 6](#)). Of particular significance is the dialogue with customers, as understanding their requirements is

the central factor in the Company's success. To help in this regard, numerous tools along the supply chain ensure active dialogue, which often provides important stimuli for the Company (see the section [Products and Solutions](#)).

The KION Group Code of Compliance contains clear and stringent regulations on how to deal with political parties and elected officials. Consequently, the KION Group does not maintain any political relationships beyond its association work.

Stakeholder dialogue

TABLE 6

Stakeholders	Format	Selected content
General public	Journal articles, social media, campaign days, the section on sustainability in the KION Group Annual Report 2016	Sustainability management, social aspects, environmental protection, transparent reporting on sustainability
(Industry) associations	Participation in symposiums and working groups, membership of numerous associations such as ISO, DIN, VDMA, FEM	Energy efficiency, product specifications, product safety, product lifecycle sustainability
Financial market	Section on Sustainability in the KION Group Annual Report 2016, answering questions in the context of investor discussions	Sustainability management, social aspects, environmental protection, transparent reporting on sustainability
Legislative bodies/policy makers	Dialogue with authorities, association work	Approvals, inspections
Distributors	Distributors' Board, regular plenary sessions (annual kick-off and year-end events)	Zero Accident Philosophy at Linde Material Handling
Customers	Regular customer visits, service helpdesk, complaints management, customer events, trade fairs and in-house exhibitions, consulting, customer magazines, Internet, LMH Product Clinic, brochures and one-pagers for key account customers	Product features, e.g. efficiency and safety, service offering, ergonomic design of vehicles and systems
Suppliers	Supplier negotiations, supplier audits	KION Group Principles of Supplier Conduct
Local communities	Local events such as the ForkliftCup state preliminary decisions, Training Day, regular exchange with local authorities at the locations	Social and cultural engagement, products, safety standards, LMH as a good employer
Media	Section on Sustainability in the KION Group Annual Report 2016, press events	Sustainability management, social aspects, environmental protection, transparent reporting on sustainability, efficient energy systems, safety technology, sustainability activities
Employees	Management survey, KEEP employee participation programme, suggestion scheme, employee magazine, intranet	Company development

Non-governmental organisations	Dialogue forums with NGOs (e.g. Linde China)	Environmental education
Science and research	Collaborations with education institutions, research projects, information days	Alternative drive technologies, etc.

To enhance dialogue with stakeholders, and to involve non-governmental organisations (NGOs) more closely, since the start of 2017 the KION Group has also supported new, innovative approaches. Among them, it is involved in a feasibility study on SUSTAINLOG, a planned platform designed to strengthen contact between companies and NGOs. It got involved as an increasing number of companies want to integrate NGOs more closely in their stakeholder dialogue activities – in some cases, they are even required to do so by law. However, NGOs do not receive any financial consideration or support in this process, which means further dialogue is often not possible. SUSTAINLOG is intended as a neutral forum for companies and NGOs, ensuring that structured, institutionalised dialogue can take place between these parties.

INTERVIEW WITH HEAD OF SUSTAINABILITY MANAGEMENT

Interview with Dr. Holger Hoppe, Head of Sustainability Management at KION Group, on the Company's mission and objectives in establishing a Group-wide sustainability management system

Dr. Hoppe, KION has set its sights high regarding sustainability. What makes you so confident that you can implement your strategy?

Dr. Hoppe: We have a long tradition of structuring our business activities in line with sustainability principles. In light of this, we recently launched a Group-wide sustainability management system to systematically develop our Company's sustainable focus further. This began with the formulation of our sustainability strategy, the definition of the corresponding action fields, the derivation of initial objectives and benchmarks, and continued right through to the appointment of people responsible for each action field. Our Company's expertise and values provided an excellent starting point.

The speed and manner in which we implemented these steps fill me with confidence. After all, both of these show that sustainability is already firmly embedded in our Company – that is, in the minds of our employees, who are clearly willing to take responsibility in their work. This starts with the Executive Board, which is responsible for the sustainability strategy and sets transparent objectives, and continues via the managers right down to every individual in the Company.

What are these contributions, specifically? What can the individual achieve?

Dr. Hoppe: It is especially important to integrate sustainability at all levels directly into our business processes. To achieve this, we need leaders who are responsible for these processes. We give them the necessary structures and tools to be able to take sustainability aspects into account in their decisions. We also want to raise the awareness of each individual employee of the overall topic area. After all, the individual can often achieve a great deal! Take the topic of occupational health and safety, for example. Here, Linde Material Handling has established a fundamental



Dr. Holger Hoppe

Head of Sustainability Management at KION Group

measure – the Linde Safety Contact, which precedes every meeting. As part of this, participants can address safety aspects that they notice – from the unchecked ladder in their work area, through to positive experiences on work safety which are worth replicating. The high level of acceptance shows that employees consider this measure to be effective. This is just one of many examples of how sustainability – in this case the topic of safety – originates from the individual employee and has a positive impact. The suggestion scheme also plays an important role here too, as good ideas are usually also ideas that move us forward in terms of sustainability.

What role do the operating units play in your work?

Dr. Hoppe: KION is a young company – but our brands have enjoyed market success for almost 100 years in some cases. In terms of sustainability too, our operating units are already ahead of the Group in many respects. For example, we have already established a sustainability management system at Linde Material Handling EMEA in recent years. Ultimately, sustainability management is about fulfilling our own requirements and considering those of our stakeholders. On the side of the KION Group this includes, for example, our shareholders, our employees in all units, and at our operating units naturally our customers too. We aim to generate added value right across all our business activities.

Linde Material Handling has already reported on this since 2015 in its own sustainability report...

Dr. Hoppe: That's right. This is a pilot project, if you will. We are now harnessing the benefit of these experiences at KION. This is a further reason why we have already achieved a lot in such a short space of time. And Linde Material Handling is not alone. At STILL and our other operating units too, numerous measures are currently running worldwide, which are moving us forward at both a brand and Group level. It is now important to establish uniform standards across the Group to manage our sustainability activities systematically. At the same time, our operating units can implement individual measures, such as to provide targeted support to their customers.

With Dematic joining the family KION has started a new chapter in its history, and has become a full-service supplier of intralogistics solutions for its customers. What does this mean for the sustainability management of the KION Group?

Dr. Hoppe: Firstly, as in all other areas, it is also important to involve Dematic in our activities. Together we are stronger – so we want to drive forward our activities in close collaboration right from the very outset, including in terms of sustainability. Dematic is another important brand in our portfolio – and I'm confident that our colleagues there will provide a many important stimuli.

What do you want KION to have achieved in terms of sustainability with presence of the next report?

Dr. Hoppe: Firstly I am delighted that we are already beginning to create transparency on our activities with this current report. As a Group, we are only at the start of our journey with our sustainability management system. But I believe that it is clear just how seriously we take our commitment to greater sustainability. And if the publication of the next report is due soon owing to EU reporting obligations, we already intend to provide firm evidence of our aspirations in our next report – with the deepening and broadening of our sustainability programme, and reporting on the achievement of our initial targets.

PRODUCTS AND SOLUTIONS

38	Management approach to products and solutions
43	Energy- and resource-efficient products
48	Product responsibility
51	Innovative solutions and customer benefit
54	Sustainable procurement

Products and solutions

The KION Group's products are renowned world-wide for their safety, reliability and efficiency. The promise to deliver these benefits is interpreted by each of the Group's brands to suit their customers, thereby helping them to increase their efficiency and sustainability performance. The result is a perfectly coordinated portfolio for each customer and market, which benefits the Company, customers and environment in equal measure.

MANAGEMENT APPROACH TO PRODUCTS AND SOLUTIONS

To be able to fully meet the needs of its customers worldwide, the KION Group business model covers all areas of intralogistics with high-performance products and tailored services. These range from product development, manufacturing, sales and logistics, the spare parts business, truck rental and used trucks, fleet management, system and software solutions, through to financial services. This enables KION to offer its customers solutions that are always an outstanding match for their specific intralogistic requirements. The key components of this portfolio are illustrated in > Figure 9.

KION Group portfolio

FIGURE 9



¹ e.g. AS/RS (Automated Storage & Retrieval Systems)
² Internal combustion forklifts
³ WH = Warehouse
⁴ SW = Software
⁵ Automated Guided Vehicle (AGV)
⁶ Electric forklifts

Within the scope of the KION sustainability strategy, three action fields address the Company's product-related sustainability aspects.

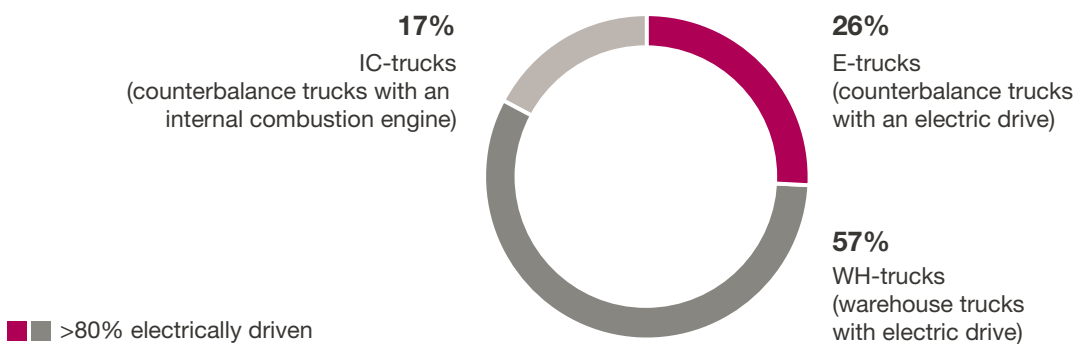
One separate action field is dedicated entirely to the topic of energy- and resource-efficient products. This is to encourage the development of alternative drives and technologies based on Li-ion batteries or fuel cells. Today over 80 percent of the industrial trucks in the KION product mix are already powered purely by

electricity (> Figure 10). Another of the core topics of product development activities within the KION Group concerns reducing the fuel consumption of forklifts powered by internal combustion engines.

Besides the safe use of products, the 'Product responsibility' action field also focuses on compliance with legal provisions and standards as well as requirements surrounding servicing and (dis)assembly.

KION Group product mix by truck type (order intake 2016)

FIGURE 10



Last but not least, the 'Innovative solutions and customer benefit' action field is aimed at the customer-focused further development of the KION product portfolio, in which sustainability aspects are playing an increasingly important role. In close discussion with customers and other stakeholders, including universities and research institutes, KION aims to produce innovative solutions tailored to each target group's requirements. At the same time, the focus is on process optimisation as well as on new or additional services, such as in the area of fleet management. The objective is to continually improve efficiency and resource conservation, which benefits customers and the environment in equal measure (see the action fields table in the Corporate Governance section).

Product strategy – platform strategies deliver efficiency

The further development of the KION Group's multi-brand strategy goes hand-in-hand with the comprehensive management of the Company's product portfolio based on a global platform and modular strategy. To this end, the technical functions of R&D, procurement, quality assurance and the production system have been brought together in a central KION organisation headed by the Chief Technology Officer (CTO). Dematic is also included in this organisation following its acquisition in November.

This reduces product complexity and diversity, and shortens development times. Based on the centrally coordinated and prioritised activities, specialised product-development teams at KION's global development locations produce customer-specific solutions for the individual operating units. To leverage synergy effects and to consolidate knowledge Group-wide, a cross-brand and -region development approach is increasingly being adopted.

Beyond Western Europe, in the Industrial Trucks & Services segment the KION Group adopts a cross-brand approach using cost-effective product development and manufacturing platforms which also offer a strong regional differentiation regarding industrial trucks. In 2016 new platforms for internal combustion and electric forklifts as well as for warehouse technology were created, and products brought to market. For the volume and economy segment, the ongoing further development of the Baoli platform and its localisation to suit different regional markets is of particular importance. In western Europe the brands Linde and STILL will continue to use fundamentally different platforms to maintain the defining characteristics of their brands, but they will increasingly deploy shared modules and common parts.

In close collaboration with its Industrial Trucks & Services and Supply Chain Solutions segments, KION is currently focusing on synchronising its various automated guided vehicle (AGV) offerings on one technology platform. In this regard, cross-segment software integration supported by Dematic iQ will be particularly significant. This proprietary, open software platform can be integrated easily into the customer's existing application environment, and is used for data-driven optimisation of all processes for smooth order processing.

Product development – from requirement to finished product

R&D (research & development) at the KION Group essentially works on a cross-segment, cross-brand and cross-region basis, which ensures that research findings and technological know-how are shared across the KION Group. The CTO organisation plays a crucial role in this respect, as it coordinates and brings together the development projects which the operating units' project management teams define based on the requirements in their respective markets. These requirements are determined based on findings from customer discussions, market research and competitor analyses. The development programmes are discussed and agreed in Product Strategy Councils (PSCs), and then submitted for decision to the Group Executive Committee (GEC), which comprises members of the KION Group Executive Board

and the Presidents of the operating units – with the KION product strategy providing the necessary guidance from a Group perspective. Twice a year a check is carried out to establish whether the development team's proposals correspond to the Group's strategic objectives and budgets. The approved development projects are then further planned and implemented in the CTO organisation.

The projects are evaluated and prioritised based on a clearly structured process, which is applied in the same form for all organisational units. The goal is the Group-wide harmonisation of objectives relevant to product development according to their scope and format. Based on comparable information, this produces an agreed requirements profile for a KION Group portfolio that meets the needs of the market and objective.

The overarching goal spanning all activities is to increase customer benefit in all market segments and sales regions. Specifically, this means being able to offer high quality and superior product performance at a competitive price through the consistent use of module and platform strategies.

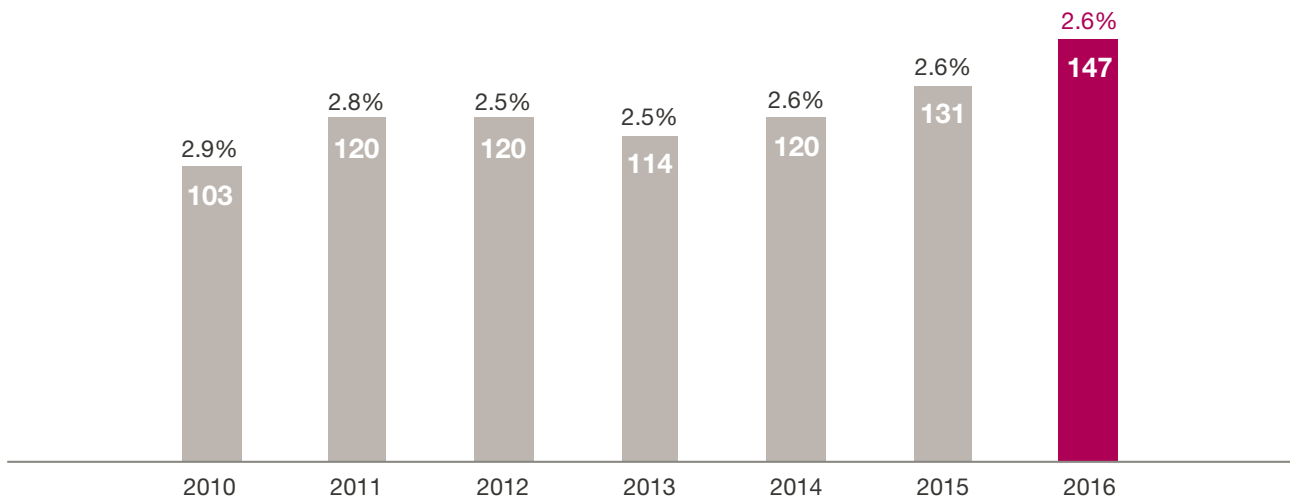
Sustainability aspects are taken into account in various ways in the KION Group's product development activities across all the different objectives and development focus areas. Efforts to achieve the lowest possible TCO (Total Cost of Ownership) for all products in the Industrial Trucks & Services segment are inextricably linked to the development of the most environmentally friendly and efficient drive technologies. KION's Supply Chain Solutions segment also focuses on solutions that are as energy and space saving as possible, thus maximising cost efficiency and minimising the environmental impact.

The KION Group places the highest requirements on product safety and ergonomic design, which means customers can also offer their employees maximum safety and optimise occupational health protection through ergonomic workflows. This also brings long-term cost and competitive advantages for customers. Last but not least, statutory provisions such as those relating to environmental protection, occupational health and safety as well as ergonomics also mean that sustainability aspects are continually being integrated into the development process.

The KION Group's expenditure on R&D in fiscal year 2016 totalled €147.1 million (previous year: €130.5 million), equivalent to 2.6 percent of the Group's revenues (> **Figure 11**).

R&D expenditure¹ (in € million and % of revenue)

FIGURE 11



¹ R&D expenditures (P&L) - amortisation expense + capitalised development costs = total R&D spend

The KION Group protects its product developments fully and comprehensively against imitation, and follows a rigorous patent strategy. In 2016 the KION Group including Dematic, registered 93 patents (previous year: 70). At the end of 2016, the KION Group had 2,689 (end of 2015: 1,641) patent applications and granted patents. This sharp increase is primarily due to the inclusion of Dematic for the first time.

At the end of the reporting year, the KION Group employed 1,477 staff in the various R&D departments. This corresponds to a year-on-year increase of 39.8 percent, which is attributable mainly to the acquisition of Dematic (see the section **Research and development in the Annual Report 2016**).

Learning from customers

The close and active way the Company involves customers in the product development process is characteristic of the way the KION Group and its operating units manage innovation and develop products. After all, tailored and cost-effective products are only made possible through precise knowledge of each industry and market's requirements. This is why the KION Group and its subsidiaries have for many years taken a wide range of approaches to engaging in dialogue with customers and stakeholders, such as universities and scientific research institutes.

For example, the Linde TruckClinic format was developed a few years ago to integrate customers into the product development process in an even more targeted way. Now, the TruckClinic is an integral part of Linde Material Handling EMEA's stakeholder dialogue activities. The process takes several months and starts with market analyses and discussions with in-house industrial

truck operators as well as sales agents and suppliers. Alongside Linde trucks, customers then test vehicles from various competing manufacturers in a neutral environment for several hours before completing questionnaires. During this time, they can also express specific needs and wishes. The main focus of the feedback is on truck ergonomics, efficiency and safety.

STILL EMEA has also been using a comprehensive customer feedback system for many years now. It is based mainly on two instruments: the Customer Satisfaction Index serves as a daily benchmark of customer satisfaction, while the Net Promoter Score, which is a calculated globally, shows how likely customers are to recommend STILL. An average of 2,300 customers are surveyed each month on their experiences of using STILL products and services.

Supported by competitor analyses and market and trend research, the feedback gathered also flows into product development activities. Newly developed products are also trialed by customers to gain key insights into how well they received them. Further customer feedback is gathered through regular visits, the Service Helpdesk and the complaints management procedure. Events, such as Linde Material Handling EMEA's World of Material Handling customer event which spans several weeks, and STILL EMEA's customer days, also help with information-sharing.

At Dematic, systems often take many years to implement, during which customer surveys are carried out continuously; their results are integrated in the processes as far as possible. This transparency allows optimisation potentials to be identified at an early stage, and enables customer requirements to be met. Dematic also attaches particular importance to regular market research surveys in individual regions of the world. It uses these surveys to regularly assess its customers' needs and compare them with its portfolio.

Quality management spans the entire value chain

Quality is a key component of the promise to deliver the benefits offered by all KION Group products. Quality assurance therefore plays an important role right from the very start of the value chain, reducing potential quality risks in service provision.

The quality management systems of the KION Group and its operating units have held ISO 9001 certification for many years. The STILL EMEA production plant in Hamburg has been ISO 9001 certified since 1995, and Linde Material Handling EMEA's production plants in Aschaffenburg have been certified since 1996. The Dematic quality management system has also been ISO 9001 certified since 2008.

When selecting suppliers, the Company attaches great importance to quality and reliability. The KION Group expects suppliers to have an established, recognised quality management system, and to document and archive proof of their quality performance. If suppliers fail to maintain their management system, the business relationship with them is usually ended.

The KION Group can confine quality risks to a considerable degree through demanding quality standards in development, rigorous checks across the entire process chain, and close customer and supplier contact. Alongside this, the KION Group pursues the ambitious goal of further optimising quality failure statistics over the long term, minimising truck downtimes and introducing standardised quality assurance processes around the world. To achieve this, and to minimise the failure rate in the field, the KQCO (KION Quality Cost Optimization) initiative was launched in 2017.

Customers, suppliers and partners are also involved as far as possible in the quality assurance system at Dematic through transparent, robust and traceable processes. These focus on product safety and product-related environmental protection, whereby all process levels are planned, monitored and documented according to customer and product-specific criteria.

ENERGY- AND RESOURCE-EFFICIENT PRODUCTS

G4-EN7, G4-EN27

The KION Group has always focused on delivering efficient products that conserve resources.

This clear and consistent focus is reflected in the Company's individual products, especially in the trucks in the Industrial Trucks & Services segment. KION works constantly to improve the environmental performance of its industrial trucks, attaching great importance to reducing the emissions of its internal combustion forklifts and to developing efficient trucks and alternative drives. In addition, the Company's established range of forklifts with electric drives is continuously developed further, particularly in respect of their energy efficiency. On top of this, comprehensive fleet management and truck control systems are there to support customers, which result in evenly distributed equipment utilisation, the shortest vehicle routes and a lower accident risk among other benefits.

Save energy, reduce emissions

With their gearless power transmissions, Linde forklifts require significantly fewer components than conventional forklift trucks, need less frequent oil changes and stand out from sector competitors thanks to their particularly low fuel consumption.

In addition, Linde industrial trucks do not require any brakes thanks to their hydrostatic drive, which eliminates the fine dust generated by brake pads. STILL already started 15 years ago to equip its counterbalance forklift trucks with maintenance-free, wet-running multi-disc brakes, so no fine dust is generated here either.

In the area of diesel forklifts, the EU Euro V emission standard is currently being implemented. This standard will apply from 2019 onward and affects all trucks between 19 and 56 kW. Compared to the current Euro III A standard, which is still permitted, the new standard reduces pollutant limits by 98 percent in some cases.

Today, Linde and STILL diesel forklifts are already among the lowest-emission trucks on the market in all load capacity classes. Here is an example: the particle mass (PT) of pollutant emissions of a Linde H25 to H35 EVO diesel forklift are 83 percent lower than the statutory limit. In terms of hydrocarbons (HC) and nitrogen oxides (NO_x) they are 26 percent lower than the limit, and for carbon monoxide (CO), they are even 99 percent lower. STILL model series RX70 diesel forklifts achieve similar outstanding results. Customers and the environment benefit in equal measure, with achievable fuel savings of up to 17 percent versus the competition according to the work cycle defined in VDI Guideline 2198.

In the area of electric forklifts, Linde products have the industry's highest handling capacity with the lowest consumption figures – as proven in a certified test conducted by the German technical inspection association TÜV NORD to assess the performance of forklift trucks. The procedure is based on defined workflows which are completed three times under the same conditions by different trucks, whereby the actual consumption and the time required are measured.

To meet the requirements of the special operating workflows of warehouse technology equipment – especially high lift-heights and often very narrow aisles – Linde Material Handling EMEA also developed a performance test specifically for warehouse technology. The feasibility study also includes the costs per work cycle as a benchmark.

In the reporting period the Industrial Trucks & Services segment once again achieved key milestones in improving truck efficiency. Among them, Linde expanded its EVO series with the addition of new forklifts with an internal combustion engine in the load capacity range of five to eight tonnes. Trucks bearing the new EVO suffix promise drivers greater energy efficiency as well as increased ergonomic comfort and safety for the driver in addition to offering the latest engine technology. These new forklifts consume up to 20 percent less fuel compared to their predecessors and feature extensive exhaust aftertreatment.

Ever since 2009, STILL has offered its customers the possibility to achieve energy savings of up to 20 percent despite high output requirements, in the form of its Blue Q energy-saving programme. Similar to car drivers who adapt their driving style to suit the traffic when in urban environments, the system responds to

various company-internal application profiles. The CO₂ emissions produced while in internal combustion-engine operation or in generating electricity (e.g. at the power station) are reduced significantly as a result. In addition, the system reduces wear, extends battery life and improves the usage time per battery charge. It is clear that protecting the environment has a positive impact on the bottom line. The 'blue button' is available as standard across all STILL model series. Existing STILL model series RX20 and TX60 electric forklifts can also be retrofitted with the energy-saving programme, which is available as an upgrade set.

Development work at Baoli focused on upgrading its diesel engine trucks, which also meet the new China 3 emissions standard while remaining very affordable. In parallel, Baoli is working on new electric counterbalance trucks and warehouse trucks to expand these product lines.

The sales and service companies also play an important role in environmental protection. The trucks are transported to customers in an environmentally friendly manner without packaging. They take back the used trucks and either refurbish them for resale as approved used trucks or dispose of them correctly.

In addition to cost efficiency and environmental aspects, Dematic's intralogistic solutions always focus on exploiting efficiency potentials too. Among its many benefits, the AMCAP system solution developed by Dematic for the automatic palletising of mixed products makes considerable process optimisations achievable, allowing optimised use of space and a noticeable reduction in the environmental footprint. In principle, all Dematic solutions must always meet the highest standards of efficiency, cost-efficient operation, and profitability. The second generation of Dematic multishuttle warehouse system for the storage and retrieval of items allows for much higher storage densities and, thanks to a higher utilisation ratio, a resource reduction of up to 50 percent compared to the preceding generation. The unladen-weight to load-capacity ratio for these multishuttles is around 1:1, offering maximum efficiency. Measurements performed by TÜV SÜD confirm the high energy-saving potential of the Dematic multishuttle solution. The development of the latest generation of Dematic miniload storage and retrieval systems also focused on energy efficiency. Their lightweight construction and energy recovery capability, plus use of state-of-the-art control software, enable operators to achieve savings of around 30 percent com-

pared to systems without these features. Dematic also sets standards in conveying and sorting systems: modular conveyor systems offer maximum flexibility and the opportunity to achieve further energy savings via a run-on-demand system control mechanism and the use of synchronous motors. In the area of sorting technology, further energy savings are tapped through the systematic use of lightweight construction platforms and linear synchronous motors.

As part of its energy policy, Dematic has also committed itself to constantly reducing its CO₂ emissions. To achieve this, the management sets annual binding energy targets, which are also monitored constantly. This ensures the energy targets are met, and that energy management action plans are implemented. An Energy Team is responsible for ensuring that the corresponding processes are adopted proactively. In recognition of its achievements, in 2017 Dematic was ISO 50001 certified.

Innovative drive technologies

The development of new drive technologies in KION's Industrial Trucks & Services segment centres around Li-ion batteries. The STILL and Linde brands are utilising technologies developed by the CTO organisation to set the standard for various electric forklifts and warehouse technology products, thereby creating an important competitive advantage in this market of the future.

Li-ion batteries offer a host of benefits over conventional lead-acid batteries. In addition to significantly faster charging times, as well as a three- to four-times longer service life, the energy density of Li-ion batteries is considerably higher, with an efficiency of over 90 percent. This allows customers to achieve savings of around 30 percent both in terms of their energy consumption and associated greenhouse gas emissions compared to a conventional battery-charger combination. Set-up and maintenance costs are also reduced, and the faster charging times open up completely new and more flexible operating models. And because there is no outgassing during charging, special charging areas are no longer required.

The KION Group is adopting a systematic approach to developing Li-ion technology. The customer benefit is clear: as batteries are designed specifically for the trucks and the battery and truck communicate with each other via a smart energy-manage-

ment system, virtually 100 percent of the available energy can be utilised. At the same time, the truck's battery status indicator always displays an estimate of how many operating hours remain.

The KION Group launched the first Li-ion battery in the warehouse technology market back in 2015. In 2016 Linde Material Handling EMEA and STILL EMEA presented the first counterbalance trucks with Li-ion batteries – a milestone in implementing the new technology to customers' specific advantage. Both operating units now have numerous Li-ion warehouse-technology models and tow tractors in their portfolio. The first Linde forklifts with Li-ion technology in the load capacity range of 1.4 to 1.8 tonnes are already on sale. As at 2017 Linde offers Li-ion versions of all forklift model series with a load capacity of up to five tonnes, and is expanding its portfolio to include high-lift, low-lift and double-deck loader models. By the end of 2019, 90 percent of all of STILL's trucks are to be equipped with this new, environmentally friendly technology.

At the customer's request, fuel cells are integrated into Linde Material Handling EMEA and STILL EMEA's industrial trucks. The fuel-cell technology generates directly on board the truck – virtually emissions-free – the electrical energy required by the electric drives for propulsion, hydraulics and auxiliary units. Fuel-cell stacks lie at the heart of this system, in which electrical energy is generated through the reaction of hydrogen and oxygen. This is implemented directly in the drives, with any remaining surplus stored temporarily in a battery. The hydrogen required for this reaction is kept under high pressure in gas tanks, with the oxygen simply drawn from the air. The only 'waste gas' produced is pure water. All the components of this mobile power plant, including the tanks containing the hydrogen required for the reaction, fit into the smallest of spaces, taking up hardly any more room than a conventional battery box. As the fuel cell supplies the electrical energy directly, the tried-and-tested electric drive systems can be used.

Dematic is also one of the true pioneers of innovative drive technology. Since as long ago as 1995 Dematic storage and retrieval systems have been equipped with energy-recovery systems as standard. At the same time, Dematic always uses state-of-the-art technology. In the latest generation of systems, a technology is used which supplies the drive's braking energy directly to the lifting motor in the system. Excess energy can be fed back

to the power grid and used for other purposes. Thanks to the lightweight construction and energy recovery system, energy savings of up to 30 percent are achievable.

Fuel-cell trucks in constant use – Danish builders' merchant Stark tests STILL hydrogen-powered industrial trucks

In a pilot project, four STILL fuel-cell forklifts are currently in operation at the central delivery warehouse of the Danish builders' merchant Stark in Copenhagen's south harbour area. The model series RX 60 forklift trucks are equipped with powerful H₂ Logic fuel cells, and are hard at work around the clock. The Danish manufacturer H₂ Logic produces fuel cells for tow trucks and electric forklifts. The industrial trucks are available around the clock, as they can be refuelled with hydrogen within a few minutes at the company's own fuelling station.

The industrial trucks are used as part of the Hylift demo project, which promotes the use and testing of fuel-cell forklifts across Europe at well-known retail and industrial companies. The aim is to prepare for the commercial launch of fuel-cell technology.

Turnkey solution with CE marking using the example of Linde Material Handling EMEA

A small, yet subtle difference: Linde Material Handling does not just replace the battery in its Li-ion systems; it has developed a dedicated turnkey solution for each model together with a renowned partner. Christophe Lauray, Chief Sales Officer: "The battery and truck are matched perfectly to one another, and have undergone extensive testing and checking before their market launch. This establishes trust and sets our solution apart from other suppliers." This is why the entire truck, including the battery, is CE marked – unlike other manufacturers' trucks.

The Linde systems are highly efficient and offer maximum safety: if there are ever any battery problems, the truck switches off automatically, minimising the risk of accidents. In the case of Linde Li-ion battery systems, the batteries cannot be overcharged either by the returned energy. Tobias Zierhut, Head of Product Management Warehouse Trucks at Linde Material Handling EMEA: "Our trucks represent a turnkey package which offer customers complete peace of mind."

In practical terms, this means Linde Material Handling not only offers a guarantee and warranty on the truck, it also covers the battery and battery management system. "Our service network with 8,500 service engineers and contract partners in all regions of the world is unique in the industry", says Andreas Schneider, Head of Central Service. He adds: "As soon as a battery question arises, all it takes is one call and a specially trained engineer is on hand."

Long-term test passed – Linde fuel cell technology at BMW's plant in Leipzig

For two years, Linde hydrogen-powered fuel-cell industrial trucks were tested under normal conditions at the BMW plant in Leipzig. The 11 trucks, comprising five Linde E25/35 HL 2.5 to 3.5-tonne forklifts and six Linde P30 C electric stand-on tow tractors, were used in the H₂IntraDrive research project to supply parts in body construction at BMW. The joint project between BMW, Linde and the Technical University of Munich aimed to test the hydrogen drive for industrial trucks under actual production conditions and develop it ready for mass-manufacture. To achieve this aim, Germany's first indoor hydrogen filling station was constructed at BMW's Leipzig plant, where BMW's i-model vehicles are built.

The result of the project shows that under specific conditions, fuel-cell powered industrial trucks can also be operated cost-effectively in Germany today. Such conditions include very intense operating conditions with 2-shift or 3-shift patterns as well as ones where high demands are placed on truck availability – typical strengths of the fuel-cell trucks.

Life Cycle Assessments – an overview of the entire product lifecycle

Linde Material Handling EMEA customers who want to assess and improve their environmental performance have received robust data ever since 2014, which was updated in 2016. Together with the Fraunhofer Institute for Building Physics (IBP) and certified by TÜV Rheinland (> **Figure 12**), Linde has developed its own methodology to assess the environmental impact of its trucks over their entire lifecycle – from the extraction of raw materials, production of each individual component, use by the customer, through to utilisation at the end of the product lifecycle.

The LCA methodology is based on the requirements of ISO 14040 and 14044, which ensure a uniform approach is taken and provide the corresponding transparency in terms of environmental impact.

The corresponding Life Cycle Assessments (LCAs) – which are also certified by TÜV Rheinland (> **Figure 13**) – are produced based on the methodology developed for seven product groups covering the main truck range:

- Forklifts with an internal combustion engine
- Electric forklifts
- Reach trucks
- Low lift pallet trucks
- Pallet stackers
- Order pickers
- Tow tractors

Approval seals for Life Cycle Assessment methodology certification

FIGURE 12 Approval seals for product Life Cycle Assessment certification



A reference model was selected and assessed in detail in each product group. Typically, the model chosen was the best-selling in Europe.

LCAs for product subgroups as well as for new models are already being prepared.

It is clear across all product groups that most of environmental impacts are caused while the trucks are being used. In the case of electric trucks, the battery system also plays a key role. The production and maintenance of industrial trucks is almost equally as important.

The findings of the investigations are incorporated into the development process of future products, helping to further lessen the trucks' environmental impact. Through the newly devised platform strategies, the KION Group's other operating units will also benefit from the methodology.

Truck rental and used truck schemes: reducing costs, conserving resources

Any equipment that can be bought from STILL and Linde can also be hired, from hand pallet trucks to massive container handlers – for days, weeks or even months. This enables customers to respond quickly and flexibly at times when workloads are particularly high or if an item of equipment fails. There has been an increase in demand for environmentally friendly trucks, particularly in recent years. Both new and used trucks are used in rental fleets.

For a number of years, KION's operating units have offered cost-effective equipment suitable for any application – from diesel, LPG or electric forklifts to warehouse technology, tow tractors, system trucks and heavy trucks – to customers who want to purchase a used industrial truck. In 2016 one in five forklifts sold in the Company's Industrial Trucks & Services segment was an item of used equipment. Typically, these are former fleet trucks which were maintained under a maintenance agreement right from the outset according to the manufacturer's recommendation. These trucks go through a standardised process to check

them thoroughly when they are returned and, depending on their condition, made ready for reuse.

In the case of forklifts with an internal combustion engine, the engine is tested to ensure applicable emissions standards are met. In the case of forklift trucks with an electric drive, battery performance is tested, and the battery cells are either replaced or new batteries installed as required. Damaged truck components are repaired or exchanged, and only original spare parts are fitted – ensuring that even used trucks meet KION's high standards at all times.

After all the work is completed, a warranty is issued for each refurbished truck, which guarantees the high quality and safety standard. Linde's 'Approved Trucks' seal and STILL's used equipment classification in gold, silver or bronze make it clear that trucks meet this standard.

As a result, the buyer purchases a reliable, high-performance truck – and makes a significant contribution to conserving resources by extending the truck's service life.

PRODUCT RESPONSIBILITY

G4-PR1, G4-PR9

Safe, ergonomic operation of all KION Group products has always been a focus of KION's product development activities, especially in the Industrial Trucks & Services segment. The operator is always the focus of these considerations, with all operating elements adapted to suit his requirements – with active and passive safety systems offering maximum safety and helping to prevent accident risks. It is a commitment with a tradition: as long ago as 1980 Linde developed the first forklift truck with the Protector Frame, setting new standards in terms of safety. The protective overhead guard and frame form a completely enclosed, strong protection zone. Since then, trucks' safety level has been continuously increased, with all KION Group products checked for their health and safety impacts. In the reporting year the Company was not notified of any significant fines owing to non-compliance with laws and regulations concerning the supply and use of products and services, or their impact on health and safety.

Safety on board

Numerous tests and trials with KION Group trucks are designed to ensure maximum safety for operators and the environment. Besides standardised procedures, such as the simulation of different driving conditions or load tests in which weights are dropped onto the roof of the truck, KION also employs in-house-developed test methods. In some cases these go far beyond the requirements set out in the relevant standards. For example, Li-ion battery tests at Linde Material Handling are tested for their mechanical load-bearing capacity in a crash test using an 8-tonne forklift, whereby they also have to prove their fire resistance to open fires.

Another focus of the KION Group's and its operating units' safety activities is providing operator support through the use of assistance systems. In this regard, another milestone was achieved in the reporting year with the further development of the Linde Safety Pilot (LSP) system. This driver assistance system largely prevents the tipping of counterbalanced forklift trucks, thereby reducing human error during operation to the greatest extent possible. The LSP acts as a smart passenger and is available in two versions: LSP Select, which provides key information and warning notifications in critical situations via a display, and LSP Active, which automatically intervenes in the forklift's driving and lifting functions, preventing driving and operating errors. In this respect, the fact that all Linde industrial trucks are fly-by-wire is hugely beneficial. The signal generators and control systems are designed redundantly to avoid machine errors. Linde launched a similar system at the start of 2017 for its pallet stackers, called Linde Load Management.

Greater visibility

A better overview of traffic and conditions – something that not only most drivers want, but also anyone who has ever operated a forklift. Until now, the A-pillar has literally stood in the way of this wish. With its new truck model Linde has now started a mini revolution, doing away with the need for A-pillars in its E20 to E35 electric trucks. This has all been made possible thanks to a unique design-engineering aspect of Linde trucks: overhead tilt cylinders. They absorb the forces acting on the mast during operation and direct them backwards via the overhead guard frame, eliminating the need for an A-pillar.

The A-pillar-free truck construction and the optional overhead guard frame made of armoured glass provide the driver with a unique view of the driving conditions, further increasing passive safety. This is because the absence of the A-pillar significantly increases visibility – and people or objects located in the near or far distance can be spotted early on, enabling the driver to take the necessary action.

The new Linde Roadster promises to bring benefits to virtually all applications, especially in logistics centres and industrial plants with a high level of foot traffic, where maximum visibility is critical for the driver. To make full use of the model's advantages, the new trucks are suitable for indoor applications in particular, as the cab, doors or heating can be dispensed with. Many convenience features which require mounting, such as the LSP display, mobile phone holder or clipboard, are available to the driver in a different position. Linde also offers further equipment options, including a frameless windshield, also made from armoured glass, as well as a frameless rear window. For all counterbalanced forklift trucks, the option is also available to have the overhead guard frame made from armoured glass – for a clear view of what is going on above the driver's head.

Flying high

Huge warehouses with high shelves – this is the main area of application for reach trucks, which frequently work at lift heights of over 8 metres, with heights of even 13 metres not being uncommon. These entail risks, as the mast begins to sway when loaded trucks are used to access greater heights. This makes collisions with the shelving and damage to the load and equipment difficult to avoid. Up to now, in such cases only patience and waiting for the oscillation to subside were the only remedies, resulting in precious time being lost.

Innovative driver assistance systems such as Active Load Stabilisation (ALS) on the STILL FM-X reach truck or Dynamic Mast Control (DMC) from Linde Material Handling solve this issue. An electric, highly responsive reach system compensates for mast movements with specific counter-movements. The system ensures that handling processes involving large lift heights are significantly quicker and safer to perform. No action is required on the part of the driver as the components work completely automatically in the background.

This increase in safety is made possible thanks to the recently developed electric reach system, which can be controlled more precisely and delicately than a hydraulic system, as is used in conventional reach trucks.

This results in a significantly steadier mast that makes handling much more efficient. Here is an example: the individual loading process is 17 seconds faster with the Linde DMC – with a reduction in consequential costs thanks to the reduced risk of accidents.

At STILL EMEA, active and passive truck safety also take top priority. By selecting various safety packages, trucks can be adapted to suit specific customer requirements. The equipment range covers everything from warning lights, panoramic mirrors and additional headlights, to load protection grilles, overhead guard frame grilles and assistance system for steering angle-dependent

speed restriction. The latest example is the STILL Aura truck. A blue laser projects a spot of light on the floor in front of the truck, signalling that the truck is approaching. A similar system has been available for some time now from Linde Material Handling under the name BlueSpot.

The STILL assistance system OPTISPEED 4.0 and OPTISAFE assist the driver in certain driving situations. OPTISPEED 4.0 is a navigational aid for close quarters and provides the driver with a precise, semi-automated approach to the desired position. The system simplifies and optimises the approach by stopping the truck and forks automatically when the desired horizontal and vertical positions are reached. Transportation mistakes are avoided and efficiency increases thanks to reduced strain on the driver.

With OPTISAFE, special conditions such as height limits or the need for braking can be individually programmed for each separate aisle. Each individual aisle is recognized during the approach and the specific conditions taken into account as required. Truck positions are determined by means of an integrated vehicle distance measurement system using RFID transponders or barcode labels in the warehouse. This allows the operator to concentrate on the actual job at hand, be it storage or picking.

When developing Dematic's innovative logistics solutions, the specialists also take into account core safety aspects. Whether palletising or storage and retrieval systems, the operators' safety concerns are always in focus. Process optimisations and safety considerations go hand-in-hand, with smart control software not only increasing efficiency but also helping to minimise risks – such as through optimised coordination and control, and therefore through avoiding hazardous situations. All products are checked right from the development phase, and are inspected by Dematic's Safety Committee. Following completion, a new check is performed to guarantee maximum user safety and even after installation of the supply-chain solution, Dematic supports customers if they have any safety optimisation concerns.

Ergonomic operation – centring on the person

Anyone who drives an industrial truck the whole day appreciates good ergonomic controls that minimise the stresses and strain of operation on the driver. This is another area where the KION Group sets standards with its products.

The ergonomic design of industrial trucks, and in particular driver cabs, is a core element of both brands' philosophy, which is underscored by a long tradition. Linde developed the hydrostatic drive over 50 years ago. It allows intuitive control of the truck, and among other things offers gentle acceleration and braking. Linde industrial trucks still use this technology, which is also the basis for the brand's distinctive twin drive pedals that offer nimble, responsive and safe control of Linde trucks. The same applies to STILL trucks, in which the driver can adjust the driving behaviour individually depending on the task at hand.

Thus, the guiding principle of ergonomics shapes the development of both brands. Trucks, safety equipment, fleet-management software and service solutions – everything is focused on the perfect interaction between man and machine.

This is especially apparent in a forklift's cockpit. The ergonomic design of the driver's cab is the key to safe, comfortable and efficient operation. After all, the less stressed a driver is, the further accident risks decline, sick-leave drops and performance improves.

All controls are arranged in such a way in all truck types so that they are easy to access. Armrests with a joystick for mast operation are standard at Linde, with all functions controllable electronically. The driver's seat rotates 90 degrees, which not only improves visibility significantly, but also reduces health risks as it causes less physical strain. This is why it is recommended by the DGUV (the German Social Accident Insurance Association) – the leading association of professional trade associations and public accident insurance companies.

Depending on the model, the driver's seat is optimised for the respective intended purpose, or can be modified to suit it. The new Linde model series T20/T25 SP platform pallet trucks are one example: thanks to Linde's e-Driver technology, they can be comfortably operated single-handedly. The driver stands relaxed at a 45-degree angle to the direction of travel, and has the perfect all-round view of the route and load.

STILL EMEA takes ergonomics into account by offering a wide range of options, especially in terms of hydraulic controls where it offers six different controls depending on the customer's requirements.

The operating units place special emphasis on reducing human body vibration – mechanical oscillations and vibrations to which the drivers and operators of forklift trucks and warehouse technology are exposed during the course of their everyday work. Even when some individual vibrations are hardly noticeable, in sum they are a considerable burden on operators. This is why Linde Material Handling has worked hard for over 20 years now on researching and developing technologies to deliver effective protection against these impacts on operators. And it has done so with great success: Linde products not only fall well within legal limits, Linde trucks also regularly outperform the competition in independent tests.

STILL EMEA developed its own rigorous test methods to put new ergonomic comfort technologies through their paces on special test tracks. The vibration load on the driver can be optimally reduced by means of a floating cab mounted on the truck frame or longitudinal horizontal damping under the seat.

Dematic intralogistic solutions also help to reduce workflow activities which have a particularly adverse ergonomic impact while making the working day safer and healthier – through process optimisations that reduce the number of steps required to perform a task and therefore reduce the number of manual processes required. Dematic's RapidPick System, for example, combines efficiency and speed with optimised ergonomic design. The work platform is individually adjustable so that it can be operated in the best physical position in the 'golden zone', without needing to raise the arms above the shoulders and with maximum relief for the neck region. In addition, there is no more need for the staff to move heavy loads, as these are delivered and removed automatically.

INNOVATIVE SOLUTIONS AND CUSTOMER BENEFIT

The overarching commitment to deliver efficiency, safety and ergonomic comfort also influences the KION Group and its operating units' approach to innovation management. The main focus is on the possibilities and opportunities of increasing digitisation, frequently referred to as Intralogistics 4.0, which arise for the KION Group, its brands and above all its customers. Once again, there are many examples of the strength of the Company's ability to innovate in the current reporting period too.

Innovations for greater safety and ergonomic comfort

The Linde Load Management safety system was launched recently. Above a nominal load of above 50 percent, the Linde Load Assist (LLA) function actively intervenes in the front tilt angle and the lifting speed of the industrial truck as soon as the second mast is reached. In addition, overload protection and load-dependent speed restriction provide even greater safety during operation.

Linde Speed Assist recently entered mass production. The system adapts the truck's speed to suit different environments by means of a ceiling or radar sensor. For instance, when the truck enters a hall it slows down; outside the building, full speed is available again. The next generation of the system is currently in development, which will operate on a zone basis.

When revising the Linde T20 P, particular emphasis was placed on ergonomic comfort. The entire driver platform has been decoupled to substantially reduce human body vibration on the driver. Similarly, reducing human body vibration was right at the top of the list of requirements for the product development of various warehouse technology solutions for loading and unloading, such as the T20 R. They now have a fully sprung platform, and are particularly ergonomic to control via a joystick.

At Linde Material Handling EMEA, work is continuing on the next generation of the Linde BlueSpot, where a graphic warning symbol will be projected on the ground instead of the current blue spot. And because even small measures can have a big impact,

additional lighting elements will make the Linde and STILL brand products even safer in future.

Automation and networking

With the inclusion of Dematic in the KION Group now provides the full range of Intralogistics 4.0 solutions. These range from smart industrial trucks to fully integrated, automated intralogistics systems that can integrate autonomous industrial trucks as components. Strengthened by the Dematic and Dematic Egemin R&D teams, the KION Group is in an excellent position to support its customers with tailored turnkey solutions. In terms of sustainability, the new solutions increase safety and support accident-free operator-machine interaction.

In the reporting period, Dematic further developed its multi-shuttle warehouse system and also completely revised its automated guided vehicles. In the past three years, the automated very narrow aisle trucks (VNAs) and the Flexfork 900, 1800 and 2500 counterbalance trucks have been completely redesigned and switched over to the FlexTruck universal mobile platform. The new FlexTruck can include a robot arm, pallet lifter or conveyor, enabling it to pick the correct units from a pallet containing a single type of item to load up a stable, mixed-order pallet. This new Dematic model series also comprises several modular, interchangeable components, such as cable harnesses and Li-ion/hydrogen fuel cell options, as well as all of the new reflector-less navigation features. In doing so, the systems take account of both environmental aspects and safety requirements.

In the reporting year, STILL EMEA brought to market the first self-driving order picker, the iGO neo CX 20. The truck interacts with its operator and automatically follows him during the picking process. This can result in time savings of up to 30 percent and a faster pick rate because the operator does not have to keep getting in and out of the truck. This enables the picker to focus on the task at hand, and reduces physical strain. For safety, sensors track his movements – they can even differentiate between the operator, other people and obstacles. In the case of obstacles, they are either bypassed or the device is stopped if the path is completely blocked. If a slower vehicle is travelling ahead or if there is a traffic jam, the speed is adjusted to suit the situation. Once the path is free, the iGO neo CX 20 catches up automati-

cally. Intersections are crossed automatically only with the operator's approval.

Since early 2017 Linde Material Handling EMEA has also offered a semi-automatic picking solution, the N20 OptiPick. It enables employees to focus fully on their picking activities, avoid unnecessary routes between the truck and rack, and thus work more productively and ergonomically overall. A smart bracelet serves as a remote control for this purpose. Using this device, the operator can programme individually adjustable travel commands, whereupon the vehicle moves autonomously at a predetermined distance parallel to the rack and stops when it has reached the defined distance. Smaller obstacles are bypassed. The low-level order picker will stop automatically when it reaches the end of the aisle. A comprehensive safety system is provided by smart sensors, a circumferential foot protector, an emergency stop switch, and a multi-colour lighting column which indicates different vehicle conditions to the operator.

In the reporting year, STILL EMEA also presented an automated forklift-free solution for on-site materials transportation in the form of its LiftRunner tigger train system. Besides improved efficiency thanks to a lower number of vehicles and operations, the environment also benefits thanks to the lower energy consumption.

In addition, the KION Group and its operating units expanded the Company's range of fleet management solutions. STILL introduced the new neXXt fleet software, which intelligently merges datasets from different applications and areas so that customers can analyse their fleets accurately and comprehensively – also in terms of environmental aspects such as energy consumption. Linde Material Handling EMEA added the 'pre-op check' app to its 'connect:' fleet management system. A smartphone or tablet can now be very easily used to carry out the check that is required each time before a truck is used, as stipulated by the rules of the DGUV (German Social Accident Insurance Association). In addition, it developed a new localisation technology that pinpoints the location of trucks and transport containers to within centimetres in real time.

Stocktaking by drone coming soon


The use of drones will radically simplify the process of stock-taking inventories. Just how this will be taken care of in future was showcased by Linde Material Handling EMEA in March 2017 at the LogiMAT trade fair in Stuttgart, Germany.

The Flybox drone measures around 50 centimetres wide and is equipped with six rotors, a camera, barcode scanner and telemeter. But what is unique is that by coupling the drone with an automated Linde pallet stacker – the L-MATIC – continuous power supply and precise tracking in the warehouse are guaranteed. The drone and vehicle are connected to each other via a voltage converter and a self-adjusting cable.

The drone presented at LogiMAT is still a prototype, which Linde Material Handling developed together with the French automation expert Balyo. The market launch of the Flybox is scheduled for 2018 at the earliest. The Flybox will then be able to radically simplify statutory inventory processes, thereby saving companies time and money. According to experts, companies in Germany are currently spending up to eight percent of their inventoried stock value on paying temporary staff or their own employees, obtaining the necessary forms or providing auxiliary equipment. At the same time, the manual counting process interferes with operations and errors, accidents or damage to goods and equipment occur time and again.

These problems could soon be a thing of the past with the Flybox, as the drone is designed to work completely autonomously and carry out stocktaking outside regular working hours – at night, at the weekend or during the Christmas holidays, for example.

SUSTAINABLE PROCUREMENT


G4-12, G4-56, G4-EC9, G4-EN32, G4-LA14, G4-HR4, G4-HR5, G4-HR6, G4-HR10

The KION Group understands sustainability as covering the entire value chain and including both suppliers and business partners. In 2016 the KION Group and its operating units' global purchasing volume (including the two months in which Dematic was part of the Group) amounted to €3.7 billion. KION Group companies have around 45,000 suppliers in total, and source parts and components through well in excess of 200,000 part numbers.

Around half of the KION Group's purchasing volume is attributable to direct production materials, with just under a quarter accounted for by auxiliary materials and operating supplies. The remaining quarter includes insurance policies, services and expenditure on IT, for instance.

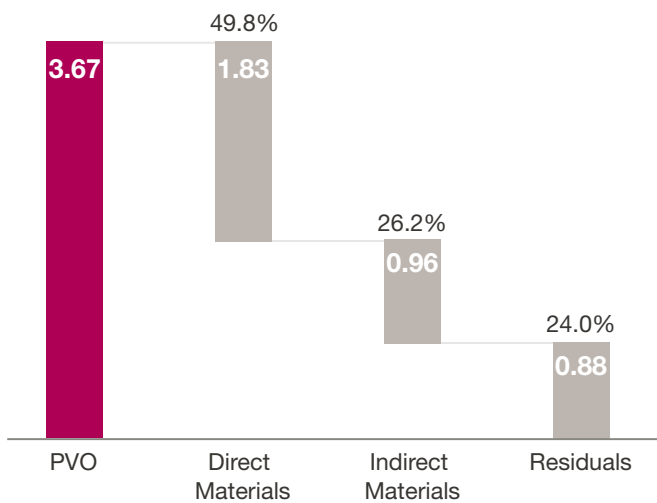
Depending on the production plant, the KION Group procures 15 to 100 percent of its required materials and components locally from the respective domestic market. Around 80 percent of the KION Group's purchasing volume is from suppliers in Europe, around 15 percent in North America, and 3 percent in Asia, with the remaining 2 percent sourced from other regions of the world (> **Figure 14**).

Distribution of purchasing volume (PVO) of the KION Group

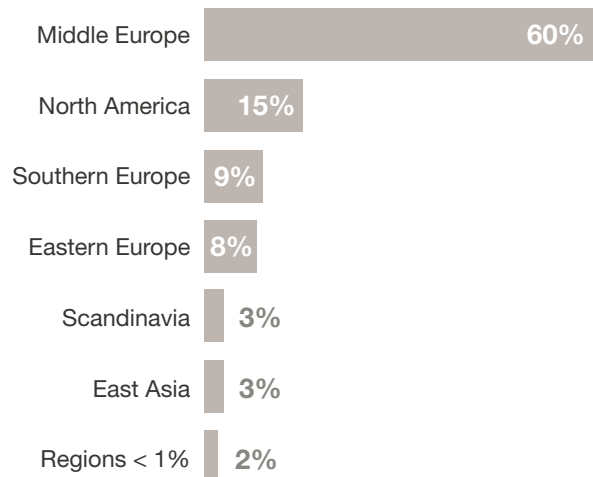
FIGURE 14

Spend structure

PVO 2016 per category (in € bn)



PVO per region



For the KION Group's Purchasing departments, steel sheets and scrap metal account for the largest types of material in terms of quantity. Around 80 percent of the Company's net purchasing volume is sourced from 1,109 key suppliers. The key components of KION forklift truck and warehouse technology equipment in the Industrial Trucks & Services segment is manufactured by

the Company itself, particularly the lift masts, axles, counterweights and chassis. As a result, customers can expect high quality, prompt supply and dependable availability of spare parts. Further components, such as electronic components, rechargeable batteries, engine components and industrial tyres, are purchased through a global procurement system.

In the Supply Chain Solutions segment, the precisely specified system components for each customer project – such as automated guided vehicles, palletisers or storage and picking equipment – are primarily manufactured in-Company but also partly by quality-audited third-party suppliers.

The KION Group's specific specifications and regulations also set out the Company's sustainability requirements on its suppliers. The framework for this is the KION Group's Principles of Supplier Conduct, approved in 2015 by the Executive Board, which sets out clear environmental and ethical guidelines for KION's supplier management activities. This also includes the expectation on all suppliers that they will respect human rights and uphold international social standards. These include the ban on child and forced labour in accordance with International Labour Organization (ILO) conventions, as well as minimum health and safety standards (see KION Group Principles of Supplier Conduct).

The KION Group was not notified of any significant violations of these principles in the reporting year. Furthermore, the Company has no evidence that its individual suppliers may have infringed human rights, in particular the right to freedom of association or collective bargaining, as well as the ban on child and forced labour. If the KION Group becomes aware of violations of these principles, such as through audits or complaints, this can lead to the barring of the supplier concerned.

The KION Group Code of Compliance contains a section with specific rules of conduct for the area of purchasing and procurement. According to this, purchasing decisions must be strictly aligned with the Company's interests, which exclusively concern objective criteria such as quality, technology, price, production requirements or logistics. Purchasing employees are explicitly banned from seeking personal benefits in return for preferential treatment, with the acceptance of gifts and invitations also restricted to an absolute minimum.

General Purchasing Terms at Group and brand level supplement the principles and provide detailed guidelines such as on how to meet transparency requirements under the European REACh chemicals regulation as well as the EU Restriction of Hazardous Substances Directive (RoHS). Compliance with the respective regulations and laws is an integral part of supplier framework agreements.

The respective Purchasing department is responsible for monitoring compliance with guidelines. Going forward, dedicated Commodity Managers for each product group will play a key role in helping to integrate sustainability factors even more deeply, and devise specific solutions in the event of deviating standards among suppliers.

To avoid delivery bottlenecks due to raw-material shortages or economic difficulties with key suppliers, the KION Group ensures it has an adequately diversified pool of suppliers. A Group-wide categorisation is currently underway, which is also intended to provide clarity on how suppliers can comply with their obligations under the KION Group Principles of Supplier Conduct with respect to their work practices, environmental criteria and the upholding of human rights. The objective is also to evaluate existing risks, and take targeted steps to counter these through a corresponding supplier assessment. Furthermore, the Supplier Development department within KION Group Purchasing assists suppliers in improving their production processes and ensuring they have efficient and capable structures.

ENVIRONMENT

57	Management approach to the environment
61	Environmental protection
63	Climate protection
66	Resource efficiency and use of materials

Environment and environmental protection

Protecting the environment is one of the key concerns of the KION Group. To achieve this objective a range of measures are available that also make practical economic sense. Consequently, taking a responsible approach brings immediate economic benefits. Five out of the 14 action fields in the KION Group's sustainability management system therefore focus on environmental aspects, with three targeting environmental protection directly.

MANAGEMENT APPROACH TO THE ENVIRONMENT

G4-14, G4-EN24, G4-EN29

Environmental responsibility comprises two aspects for the KION Group and its operating units. On the one hand, it intends to help its customers save energy, reduce emissions as well as improve efficiency and performance (see the section [Products and Solutions](#)). On the other hand, within the Company the KION Group aims to reduce its environmental impact, and create environmental and economic benefits through the responsible use of resources. Furthermore, it is the Company's intention to have safe working processes across the entire KION Group that do not have a negative impact on its employees' health. In this regard, its activities focus on its plants around the world as well as its sales and service companies. Also when installing supply chain solutions at customers' locations, it places great emphasis on ensuring on-site occupational health and safety (for further information on occupational health and safety see the section [Employees](#)).

The KION Group Code of Compliance (KGCC) and the HSE policy derived from it provide the frameworks for its activities, particularly in terms of complying with national regulations and standards. Furthermore, it pledges to:

- use energy and raw materials efficiently,
- utilise materials, products and procedures which meet the best environmental practices in each case,

- minimise the amount of waste it produces by improving raw material use and utilising recyclable materials,
- establish safe working conditions and ensure they remain so, as well as train its employees accordingly (see the sections [Employees/Occupational Safety](#)).

The underlying approach and cornerstone of its health, safety and environment (HSE) activities have been embedded since as long ago as 2013 in the KION Group HSE policy. It was updated in 2017 alongside the implementation of the KION sustainability strategy. Now, its next milestone is to introduce a Group-wide minimum HSE standard by the end of 2017.

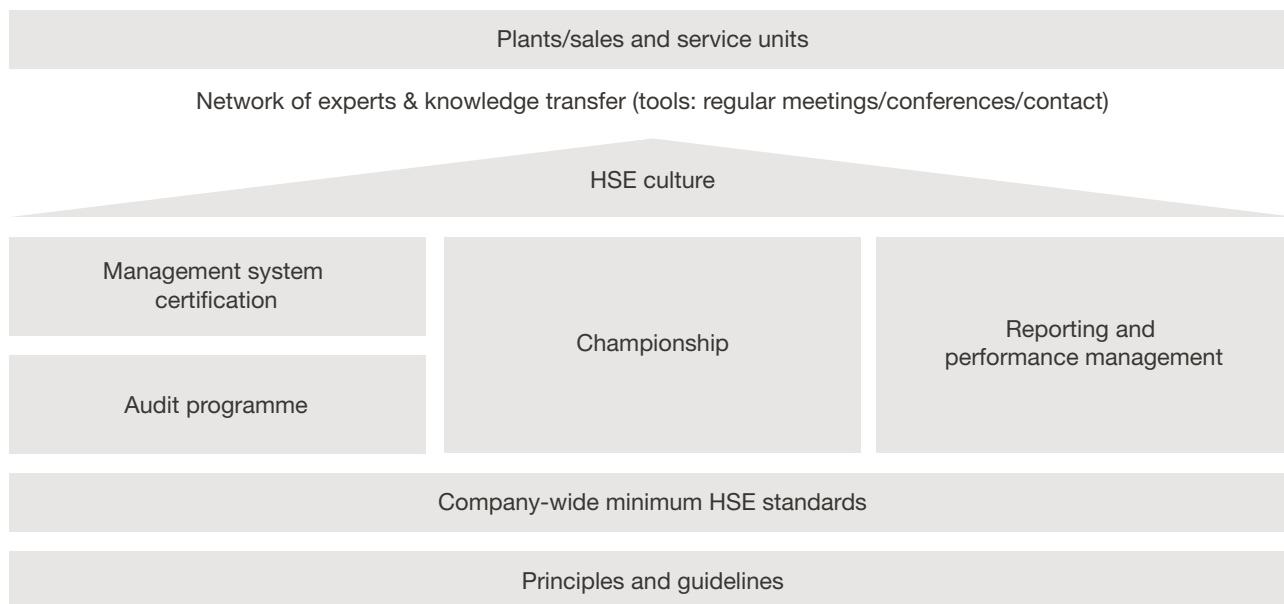
It has also set out HSE regulations at an operating unit level as well as at a sales and service company level. While these are based on the Group standard, they set specific strategic priorities based on local considerations.

Within the framework of its sustainability strategy, the KION Group is increasingly incorporating environmental aspects in a [range of action fields](#) from environmental and climate protection, resource efficiency, social and environmental standards in the supply chain, through to energy- and resource-efficient products (see the section [Products and Solutions](#)). The KION Group sets specific objectives in the individual action fields, and defines measures to improve its environmental performance, which it will further expand upon and set out in more detail in its first steering committee meeting in autumn 2017.

> **Figure 15** provides an overview of the key elements of HSE management at the KION Group. Internal regulations form the basis of the Group's activities in this area with certification processes and audits, extensive reporting with ongoing performance checks and also internal competition within the Company helping to ensure that it meets the objectives it sets itself. This creates a stronger awareness of environmental protection in the individual entities, supported by powerful instruments and processes. The goal is to achieve a proactive corporate structure geared towards environmental protection, as has already been established – particularly in the area of occupational safety.

Key elements of HSE management

FIGURE 15



Instruments and processes

It employs a range of processes and tools to help it manage HSE at the KION Group. The KION audit programme, which monitors compliance with laws as well as internal HSE standards through regular audits, is of central importance. In 2016 nine audits were performed by the HSE Group function within the KION Group, in addition to numerous additional audits at operating unit level.

So far, the audits have focused on the KION Group's production plants. It is now also systematically integrating its sales and service companies into its HSE audit programme at Group level, in addition to the existing audit processes at individual operating unit level.

Results of KION Group environmental protection audits 2012-2017

TABLE 7

	Current audit Basis: 13 plants, and initial audit for 4 plants	Current audit Basis: 13 plants	Previous audit Basis: 13 plants
Average result:			
Level of fulfilment of the defined audit criteria (max. 100 percent)	81%	83%	75%

April 2017

Another important tool for HSE management is the central management report, which is produced annually by the operating unit and plant HSE departments. In it, those responsible report on their activities, describe the current situation as well as their goals, and produce specific action plans with KPIs. The individual measures and KPIs are scrutinised and recorded as part of the audit programme to ensure implementation.

This structured approach serves to ensure the set objectives are implemented and the necessary standards are met. One proof of the success of this methodology is the fact that there were no significant pollution incidents in the reporting year. Furthermore, no significant fines or penalties for non-compliance with environmental standards were imposed either.

Internal communication and corporate culture as critical success factors

In the field of HSE in particular, internal communication and employee motivation are crucial to success. The objective is to establish a culture in which sustainable practices become part of the everyday work of each individual employee. Here too, the KION Group has numerous initiatives – ranging from the regular meeting of experts in the HSE network, through to its Group-wide Safety Championship (see also [KION Safety Championship](#)), which is soon to be expanded to include environmental aspects.

An intranet site raises employee awareness about the topic of HSE, encouraging them to use resources responsibly. In the reporting year, it updated the site and made it more user-friendly. Accessible by all employees, it includes all relevant regulations and also serves as a platform to exchange information at a local level as well as to share best practices between individual locations. Regular meetings and conferences involving those responsible for HSE together with routine reporting in internal media round off the package of internal HSE communication measures.

From Measurement to Control – KPI Management Established

The KION Group has had an internal HSE reporting system ever since the KION Group was established over a decade ago. To allow targeted control of KPIs, and to establish a basis for internal and external reporting, in 2016 the KION Group centralised data management of all sustainability performance indicators in a Group-wide software solution which is accessible across the Group.

118 reporting entities, comprising 34 plants and 84 sales and service units, report monthly or annually on a host of aspects, ensuring that regular, up-to-date input is provided to manage activities (as at: June 2017).

In 2016 it also started assessing all locations in relation to their HSE risks. The starting point was a questionnaire which it developed in the reporting year that throws light on the risk situation at each location. The first assessment will be completed in 2017, with initial findings already showing that the KION Group has an average cross-sector HSE risk ranking. For the Group, environmental risks are posed by a variety of factors including its foundries and paint shops. In addition, the topic of environmental protection is also of relevance when working on customers' sites owing to the very different areas of deployment. To meet these demands, Linde Material Handling EMEA, for instance, has a comprehensive policy which governs service-related activities from maintenance to waste disposal (see also the section [Employees](#)).

Group-wide certification is the objective

Certified management systems establish clear, reproducible processes and require documentation of achieved standards; in doing so they lay the basis for systematic further development in central action fields. The KION Group aims to gradually establish a certified HSE system – and where practical, also an energy management system at all of its locations. To achieve this objective it certified additional locations in 2016, with the Indaiatuba production plant in Brazil, among others, receiving certification for all three topic areas.

Since 2016 the KION Group has employed the ISO certification system at all of its plants, as well as at sales and service lo-

cations globally. > **Table 8** shows the current level of certification. By 2019 all plants as well as sales and service locations are to be ISO 14001 (environmental management) certified. In the same year, it also aims to have rolled out an ISO 50001 compliant energy management system at its 25 reporting entities with the greatest energy use. Other equivalent certification systems such as Sicher mit System ('Systematic Safety') in Germany or EMAS are also permitted.

In the reporting year, 492 internal and 53 external environmental-management audits were performed at its operating units in addition to its central HSE Group audits*.

Environmental management system certification status

TABLE 8

	ISO 14001*	
	Percentage certified	Percentage of employees covered
Plants	65%	88%
Sales and service locations	35%	34%
Total	38%	56%

June 2017; 299 locations considered; excluding Dematic

* or equivalent standard

Focus areas and challenges

Active environmental and climate protection as well as responsible use of resources are of top priority to the KION Group. The Company takes into consideration environmental and economic aspects, as a constant reduction in the amount of energy it uses improves both its production cost structure as well as the Group's CO₂ footprint. A lower volume of waste, achieved by preventing waste, and a higher recycling rate also have direct impact on the bottom line.

In the area of the environment, the KION Group has identified a host of key objectives, including ensuring that it meets environmental laws around the world – an ongoing task at a company with hundreds of locations in over 30 countries with ever-changing environmental frameworks.

But the KION Group intends to go further. The heart of its self-commitment is to continuously improve – an aspiration that drives the Company and its employees. This is why the KION Group intends to go beyond statutory regulations in terms of climate protection and resource efficiency, and is currently setting itself ambitious targets to reduce its CO₂ footprint across the entire value chain. To ensure it uses resources as efficiently as possible, it considers a product's entire lifecycle. In doing so, a clear hierarchy applies, where avoidance takes priority over reduction, reuse and recycling.

* 2016; 90 consolidated reporting entities; excluding Dematic

ENVIRONMENTAL PROTECTION

G4-EN8, G4-EN22, G4-EN23

In the 'Environmental protection' action field, the KION Group aims to minimise the ecological impacts of its activities through active management. Core areas include taking an environmentally friendly approach to waste and water as well as using land responsibly and minimising the sealing of land surfaces.

To additionally involve distributors in its environmental protection activities going forward, the KION Group is currently establishing minimum standards.

Hazardous substances in production

Hazardous substances in production pose a constant risk to employees and the environment. This is why the KION Group has set itself the objective of banning hazardous and critical substances from its production processes. To achieve this, it is working on a blacklist which identifies the particular substances. In 2018 it will have completed its work to produce an inventory of critical substances used in production. It will have also planned the phase-out process by then, so that it can give its programme the green light as soon as possible after that. The KION Group already took an initial step in 2016 when it committed itself to achieving the mid-term objective of eliminating components that are manufactured using chromium VI in all of its products.

Water use and waste water

Using water sparingly comes naturally to the KION Group, not least for cost reasons. As its business activities only have a relatively low impact on water quality, the KION Group does not need to carry out its own pretreatment prior to discharge, except for the use of light fluid separators.

In 2016 the KION Group used 455,099 m³ of water Group-wide* (> **Table 9**). The majority of this came from communal supplies, and was also returned to the water system via the public sewage system (> **Table 10**).

To further reduce its water consumption, 20 of the entities covered in the reporting process have set specific water-savings targets. In this regard, the measures are just as diverse as the processes in the Company. For example, at one production plant high-pressure nozzles are used in the wash halls. At a number of locations, the integration of water-saving appliances is reducing water consumption, and water-consumption costs are monitored continuously. Last but not least, it raises awareness among its employees about using water sparingly through internal communication measures.

Water withdrawal G4-EN8

TABLE 9

in m ³	
Water withdrawal	455,099
Municipal water supply	434,968
Ground water	16,978
Other sources (surface, rainwater, waste water etc.)	3,153

2016; 90 consolidated reporting entities; excluding Dematic

* 2016; 90 consolidated reporting entities; excluding Dematic

Waste water G4-EN22

TABLE 10

in m ³	
Water discharge	462,129
Sewage	441,808
Surface water bodies	19,449
Other destinations	872

2016; 90 consolidated reporting entities; excluding Dematic

Waste and recycling

The KION Group's production plants in particular generate a wide variety of waste (> **Table 11**). In 2016 this amounted to 51,042 tonnes globally within the KION Group*. The waste is separated locally into its constituent parts and, if it cannot be reused or recycled, disposed of in accordance with local regulations.

41,864 tonnes (82 percent) of the total waste volume was classified as non-hazardous, whereas 9,179 tonnes (18 percent) was hazardous. At the KION Group, this hazardous waste mainly comprises waste lead-acid batteries, waste paint, solvents and waste oil.

Waste G4-EN23

TABLE 11

in t	non-hazardous	hazardous	Total
Total amount of waste	41,864	9,179	51,042
Waste recovered	35,902	5,881	41,783
Recycled	21,962	5,126	27,089
Prepared for reuse	13,748	489	14,237
Other recovery method	192	265	458
Waste disposed	5,962	3,298	9,259
Incineration	284	462	746
Landfill	1,684	233	1,917
Other disposal method	3,993	2,602	6,596

2016; 90 consolidated reporting entities; excluding Dematic

* 2016; 90 consolidated reporting entities; excluding Dematic

The KION Group's fundamental aim is to continuously reduce the amount of waste it generates. In this regard, systematic reuse is a key driver to further increase environmental friendliness in waste management. Across the KION Group* 81.9 percent of waste is already recycled, of which materials account for the majority. By 2018 it intends to set a specific reuse and recycling rate target in the 'Environmental protection' action field. This will then be used as the basis to set and implement waste management programmes at a Group and local level.

38 reporting entities already pursue specific targets to reduce their waste volume, of which 14 are plants and 24 are sales and service locations. Measures including the reuse of packaging materials, improved waste separation and raising of employees' awareness regarding the separation and avoidance of waste help it to achieve its targets.

KION North America recycling initiative

In the reporting year, KION North America launched a comprehensive recycling initiative with the aim of achieving a noticeable reduction in waste sent to landfill. During 2016 this company had already achieved a 35 percent reduction, with the next step being to send 80 percent less waste to landfill compared to at the start of the initiative.

Further environmental impacts

Wherever the KION Group is active, it tries to minimise the impact its activities have on the environment and its immediate neighbours. Filter and exhaust-extraction systems such as at welding workshops and paint shops make a major contribution to preserving the quality of air and water. Effective monitoring systems ensure that it responds quickly in an emergency, and prevents environmental damage to the greatest extent possible.

When procuring company vehicles, their CO₂ and particulate emissions are key criteria in its decision-making process. It takes protective measures to minimise noise emissions wherever possible, particularly at its production plants.

As at the end of the reporting year the KION Group's* locations covered an area of 2,904,642 m², of which 1,804,655 m² is sealed.

CLIMATE PROTECTION

 **G4-EN3, G4-EN15, G4-EN16, G4-EN17, G4-EN21, G4-EN30**

The KION Group intends to minimise its role in global warming, so it has committed itself in its 'Climate protection' action field to set a specific target by 2018 to reduce greenhouse gas emissions and establish the programme required to achieve that. The KION Group is currently also working on analysing its overall corporate carbon footprint (Scope 1 to 3).

The introduction of the HSE network of experts and a KION Climate Championship are additional measures to achieve further progress through increased internal communication and the raising of employee awareness.

All measures follow this priority ranking: it will constantly strive to achieve a reduction in its CO₂ emissions. If it cannot go any further, it will endeavour to substitute fuels with lower-emission fuels. And once this measure does not deliver further reductions either, it will then counter the impact of its CO₂ emissions through offsetting measures.

* 2016; 90 consolidated reporting entities; excluding Dematic

Energy use

Reducing the amount of energy it uses is the KION Group's key lever for minimising its impact on climate change – and also one of the key environmental cost factors.

In 2016 the KION Group* used 2,013 terajoules of energy (> **Table 12**), whereby direct energy consumption accounted for

1,350 terajoules, and 688 terajoules was accounted for by transportation. In the same year, Group-wide it used 663 terajoules of energy indirectly, in other words primarily through purchased electricity.

Energy use G4-EN3

TABLE 12

in GJ	
Total energy consumption (direct+indirect)	2,013,045
Direct	1,349,957
Non-transport (buildings, production etc.)	662,289
Natural gas	458,605
Coaking coal	138,240
Diesel	28,044
Oil for heating	21,914
Others (gasoline, ethanol, LPG, coal, woodchips, hydrogen, CNG, LNG)	15,486
Transport (fleet etc.)	687,668
Diesel	637,016
Gasoline / Petrol	38,718
Others (ethanol, LPG, hydrogen, CNG, LNG)	11,934
Indirect energy consumption	663,088
Electricity	505,736
Heating	139,335
Steam	18,017

2016; 90 consolidated reporting entities; excluding Dematic

To further reduce its energy consumption it rolled out a range of measures across the Group in 2016. 36 reporting entities follow specific energy reduction targets, comprising twelve plants and 24 sales and service entities. Besides the use of energy saving lighting and sensors, it is also promoting the use of a photovoltaic system at one of its production plants. 17 entities currently use renewable forms of energy, and 19 units have implemented green IT measures to reduce their energy consumption.

42 reporting entities are working on specific measures to improve their transportation activities, including by optimising route planning and using GPS to avoid multiple trips.

The KION Group intends to establish Group-wide minimum energy standards for all units. To achieve this aim it intends to expand the scope of its HSE minimum standard and also supplement its HSE manual with corresponding organisational principles, documents and forms. With this in mind, the KION Group intends to roll out an ISO 50001-compliant energy management system at its 25 reporting entities with the greatest energy use. Last but not least, it will attach greater importance to climate protection aspects – which also means reducing its energy consumption – within the framework of its KION HSE audit process.

* 2016; 90 consolidated reporting entities; excluding Dematic

Emissions

The KION Group generates greenhouse gas (GHG) emissions almost exclusively from its use of energy (> **Table 13**). It has presented these emissions in accordance with the internationally recognised rules of the Greenhouse Gas Protocol. Its consumption data is converted using emissions factors taken from the DE-

FRA (Department for Environment, Food and Rural Affairs, UK, as at 2012) database. Around 47 percent of the KION Group's* GHG emissions are direct, with 53 percent accounted for by indirect emissions. Volatile organic compounds (VOCs) are released particularly at its paint shops.

GHG emissions G4-EN15 - 17

TABLE 13

in kg CO _{2e}	
Total greenhouse gas emissions (Scope 1,2,3)	206,256,611
Direct (Scope 1)	96,044,021
Diesel (Scope 1)	49,436,154
Natural gas (Scope 1)	26,107,364
Coaking coal (Scope 1)	14,863,896
Gasoline / petrol (Scope 1)	2,732,457
Oil for heating (Scope 1)	1,579,899
Others Scope 1 (ethanol, LPG, coal, woodchips, hydrogen, CNG, LNG)	1,324,253
Indirect (Scope 2)	76,472,781
Electricity purchased	65,303,064
Heating purchased	7,403,884
Steam purchased	3,765,833
Other indirect GHG emissions from direct and indirect energy use (Scope 3)	33,739,809
Scope 3 emissions from direct energy use	17,377,292
Scope 3 emissions from energy purchased	16,362,517

2016; 90 consolidated reporting entities; excluding Dematic

Other significant air emissions G4-EN21

TABLE 14

in kg	
Other significant air emissions	248,868
Volatile organic compounds (VOC)	229,787
Nitrogen oxides (NOx)	2,724
Particulate matter (PM)	503
Others (SOx, phosphates, etc.)	15,853

2016; 90 consolidated reporting entities; excluding Dematic

* 2016; 90 consolidated reporting entities; excluding Dematic

Clear targets and comprehensive measures are intended to help further reduce the KION Group's emissions. 15 of its reporting entities have set specific GHG emissions reduction targets, 24 aim to make specific process optimisations to reduce energy and GHG emissions, and 18 already use technologies to reduce GHG emissions. The Company's* comprehensive awareness-raising programmes on energy consumption and emissions have already reached around 30 percent of employees, particularly those at its production plants.

RESOURCE EFFICIENCY AND USE OF MATERIALS

G4-EN1

For a production company such as the KION Group, the efficient use of resources is both a key aspect of taking environmental responsibility and an operational necessity.

As it is still undertaking an accurate assessment, it has used information available as part of its Life Cycle Assessment activities to present its material use. Its Life Cycle Assessments, which were produced in 2014 at Linde Material Handling EMEA and updated in 2016, show clearly that reducing energy use in the product utilisation phase is the greatest lever in reducing the Company's environmental impact. This is why the KION Group and its operating units pay great attention to this aspect including as part of their product development activities. However, environmental considerations also play a role in terms of material selection, whereby the KION Group always considers the overall environmental impact of a certain material or substance. In this regard its approach follows the same hierarchy as in waste management: prevent (the cheapest material is the one that is not used), reduce, reuse, recycle.

As part of the KION Group's internal sustainability reporting process, 21 reporting entities stated that they have specific material consumption targets, ranging from increasing the recycling rate of waste batteries to reusing waste components – all without affecting quality in any way whatsoever.

Material use pilot project

To establish a Group-wide methodology to calculate its material use, it is currently running a pilot project at the German plants of Linde Material Handling EMEA. Preliminary results show a total material use of direct materials of 109.57 million tonnes (75 percent of all materials covered based on mass). This is broken down as follows into the key materials: iron 57 percent, steel 33 percent, plastic 7 percent and other materials 3 percent. The scale of these results is also confirmed by the Life Cycle Assessment of Linde Material Handling EMEA's product range. The pilot project aims to provide a comprehensive assessment of the Group's material footprint, which will also enable it to derive corresponding targets and measures. At the same time it will also assess the environmental impacts associated with the use of materials in the supply chain.

* 2016; 90 consolidated reporting entities; excluding Dematic

These measures form the basis for it to set a Group-wide target in 2018 to improve its resource consumption and start a corresponding Group-wide programme in 2019, which it will expand in 2020 to include local programmes.

Continuous Resource Efficiency Optimisation

Continuous improvement – this principle shapes the KION Group and its brands. This aspiration becomes particularly clear in relation to the Company's resource efficiency. To give just one example, the KION plant near the Czech city of Střibro near Pilsen employs a smart factory approach utilising digitally networked systems. The factory is based on a material handling process which is ideally suited to the KION Group. Processes are transparent, and are controlled, monitored and documented using IT systems. The plant additionally takes a high-tech, eco-friendly approach: at the paint shop in Střibro, two lacquering robots have been in use since 2016 which have reduced paint consumption per vehicle produced by around 20 percent.

EMPLOYEES

69	Management approach to employees
72	Balanced workforce structure
76	Good employer
78	Health and safety

Employees

People make the difference, which is why the KION Group's success depends above all on the success of its employees. They make the Company strong, and lay the basis for ensuring its Strategy 2020 is a success – through their knowledge, expertise, motivation, willingness, enthusiasm and passion. The KION Group HR strategy is based on this conviction.

MANAGEMENT APPROACH TO EMPLOYEES

The primary objective of all HR measures within the KION Group is to support its Strategy 2020 and ensure its targeted implementation. To this end, it aims to employ a sufficient number of very highly qualified and highly motivated employees at all times in every area of its Company and at every operating level. To secure and retain such employees, the KION Group and its operating units position themselves as attractive employers that offer their employees interesting development opportunities. The KION Group is constantly enhancing its employer brands – something that is repeatedly recognised outside the Company too.

HR challenges

In 2016 the KION Group started a new chapter in its Company's history which was opened mainly through its acquisition of Dematic. As a result, it offers a unique portfolio of material handling and intralogistics products and solutions. The Company is always developing further. With the breadth of its offering and the number of Group companies and brands, both the international make-up and complexity of the Company is increasing. Above all, the transformation of its organisational structure, which on the one hand takes into account the special aspects of its operating units while also promoting Group-internal cooperation on the other, was a major challenge in the area of HR in 2016.

On top of this, the Company faces varying challenges, ranging from demographic change in the individual regions, to the digital transformation – frequently referred to as Industry 4.0. It is therefore essential in an increasingly competitive world to attract and retain qualified new talent with expertise especially in the fields of software development and IT.

As a strong and successful company with a clear positioning, the KION Group is well-equipped for this battle for young talents and can offer them great employment conditions and development opportunities from an international perspective. At the same time, the KION Group is faced with the challenges of demographic change.

Top Employer

In 2016 STILL was announced 'Top Employer Germany', marking the fifth time in a row it had received one of the world's most renowned awards for its HR strategy and employee focus from the Top Employers Institute certification company. This certification is further boosted by the 'Germany's best employer' employer ranking. Based on over 100,000 employee ratings, the German magazine FOCUS in collaboration with the business network XING and the employer rating portal kununu, determines which are Germany's top 1,000 employers. The critical factors here are recommendation of the company by its own employees as well as other employees' perception of the company within the industry.

HR strategy further developed

To counter these challenges, at the start of 2016 the KION Group developed an HR strategy which addresses the key aspects of HR work in 16 topic areas (> **Figure 16**). It launched initiatives for the continued development of HR tools for the topic areas. While it succeeded in implementing some of the initiatives in early 2017, it is still working on others.

The KION HR strategy

FIGURE 16



The core indicator for developing the KION Group organisation further is the Organisational Health Index (OHI). It is repeatedly calculated and serves as the indicator for the organisation's performance while also showing areas of action for possible improvement. A characteristic of this method is the benchmarking of its results against other companies. The KION Group performed its first measurements in the summer of 2015, in which it surveyed 1,800 executives and shared the results widely across the Company. At 88 percent, the participation rate was well above the average for the comparison group – and with around 1,350 comments and suggestions to open questions, it proves that the respondents supported the process enthusiastically. Compared to the global benchmark, KION GROUP AG achieved a mid-level ranking (3rd quartile). One of the key survey findings was that there was a need for improvement in terms of clear responsibilities and overarching processes.

Accompanied by its 'Lift up' change initiative, it then defined and implemented a package of measures based on the survey results to firmly embed the new Company organisation and establish greater clarity. In addition, a large number of team workshops helped to further improve collaboration within the Company.

In 2016 the KION Group established clear organisational principles and defined responsibilities with its new Group-wide governance model. Examples of this step include its new Group segmentation based on operating units as well as the launch of its Group-wide CTO organisation. Furthermore, it worked hard on integrating Dematic quickly and comprehensively into the Group.

For a Group that is still as young as the KION Group, with its different and, to some degree, very traditional brands, the definition and embedding of core values shared by all employees is a critical success factor. Consequently, in 2016 a moderated discussion with workshops was prepared within the Company which will result in establishing binding values at Group level in 2017. Every KION Group executive is involved in the process, and workshops will also be held at employee level. In parallel to the value process, it will continue developing the corresponding management guidelines and uniform core competencies for the KION Group.

BALANCED WORKFORCE STRUCTURE

G4-9, G4-10, G4-EC1, G4-LA1

In 2016 the KION Group's average headcount stood at 24,957 (previous year 23,129; in each case including apprentices). As at

the end of 2016 its full-time headcount stood at 30,544¹ across the KION Group (> **Table 15**), an increase of 7,038¹ over the previous year. This is due mainly to the acquisition of Dematic on 1 November 2016.

Employees per region G4-10

TABLE 15

Employees (full-time equivalents)¹

31/12/2016	Industrial Trucks & Services			Corporate Services	Total
	Supply Chain Solutions				
Western Europe	16,005	1,931	670	18,606	
Eastern Europe	2,103	52	0	2,155	
Middle East and Africa	241	0	0	241	
North America	187	2,910	0	3,097	
Central and South America	442	944	0	1,386	
Asia-Pacific	4,086	973	0	5,059	
Total	23,064	6,810	670	30,544	
31/12/2015					
Western Europe	15,707	262	545	16,515	
Eastern Europe	1,921	0	0	1,921	
Middle East and Africa	229	0	0	229	
North America	154	54	0	208	
Central and South America	485	0	0	485	
Asia-Pacific	4,141	7	0	4,148	
Total	22,637	323	545	23,506	

¹ Number of employees (full-time equivalents) as at balance sheet date; allocation according to the contractual relationship 31/12/2016; including Dematic

Personnel expenses

TABLE 16

in € million	2016	2015	Change
Wages and salaries	1,198.3	1,058.1	13.3%
Social security contributions	258.4	237.8	8.7%
Post-employment benefit costs and other benefits	63.6	55.9	13.8%
Total	1,520.3	1,351.7	12.5%

year 2016; including Dematic

Personnel expenses were higher – mainly as a result of the higher average number of employees over the year owing to the acquisition of Dematic (including Dematic for two months) and modifications to collective bargaining agreements – at €1,520.3 million, which is a 12.5 percent increase over the previous year (> Table 16).

Overall, the KION Group employee structure is balanced and stable. On average they are 41.3 years old and have been employed at the Company for over 10.1 years.

Age structure G4-10

TABLE 17

Employees per age group	100%
<20 years	1.4%
20-29	17.4%
30-39	28.9%
40-49	25.3%
50-59	22.5%
60 years and over	4.5%
Age group not available	0.1%

31/12/2016; 90 consolidated reporting entities; based on headcount; excluding Dematic

Contract type full time/part time G4-10

TABLE 18

Contract type full time/part time	100%
Full time	96.7%
Part time	3.3%

31/12/2016; 90 consolidated reporting entities; based on full time equivalents; excluding Dematic

Contract type indefinite/fixed term G4-10

TABLE 19

Contract type indefinite/fixed term	100%
Indefinite	97.4%
Fixed term	2.6%

31/12/2016; 90 consolidated reporting entities; based on full time equivalents; excluding Dematic

Length of service G4-10

TABLE 20

Employees per length of service	100%
<5 years	37.5%
5-9	21.1%
10-19	23.1%
20-29	12.3%
30-39	5.1%
40 years and more	0.9%
Length of service not available	0.0%

31/12/2016; 90 consolidated reporting entities; based on headcount; excluding Dematic

In the reporting year, 2,984 employees (> **Table 21**) joined the KION Group*. 2,671 employees (> **Tables 22 & 23**) exited the Company* in 2016.

New employees per region G4-LA1

TABLE 21

New employees	100%
Western Europe	55.6%
Eastern Europe	17.0%
Middle East and Africa	5.0%
North America	3.7%
Central and South America	2.0%
Asia-Pacific	16.7%

31/12/2016; 90 consolidated reporting entities; based on headcount; excluding Dematic

* 2016; 90 consolidated reporting entities; excluding Dematic

Employee exits by type G4-LA1

TABLE 22

Employee exits	100%
Termination by employer	15.8%
Resignation of employee	41.8%
Mutual agreement	10.2%
Expired contract	18.2%
Retirement	8.5%
Other reasons for employee exits	5.4%

31/12/2016; 90 consolidated reporting entities; based on headcount; excluding Dematic

Employee exits per region G4-LA1

TABLE 23

Employee exits	100%
Western Europe	58.8%
Eastern Europe	10.8%
Middle East and Africa	3.4%
North America	2.5%
Central and South America	4.2%
Asia-Pacific	20.3%

31/12/2016; 90 consolidated reporting entities; based on headcount; excluding Dematic

Across the KION Group, minimum employment standards have applied since 2014 based on the fundamental conventions drawn up by the International Labour Organization (ILO). These include freedom of association, the right to collective bargaining, the elimination of child and forced labour, and a ban on discrimination in respect of employment and occupation. Furthermore, the KION Group is committed to ensuring health and safety stan-

dards in the workplace and to paying its employees in line with the industry average in their respective particular country, and at the very least providing them with a living wage. The respective management teams and those responsible in the operating units ensure compliance with statutory standards. Instances of non-compliance can be reported at any time, including anonymously via a compliance hotline.

GOOD EMPLOYER

G4-LA3, G4-LA10, G4-LA11, G4-LA12, G4-HR3

Attractive employment conditions and opportunities for personal and professional development are the key factors for making a company attractive for employees. The Company places particular emphasis on forward-looking human resource development.

Human resource development

Human resource development is an important anchor point of the KION Group's new HR strategy, which it completed in February 2016. Its core aim is to make even better use of the expertise of all employees, but also to promote high-potential employees in an even more targeted way. In principle, all employees can access human resource development measures. Furthermore, the KION Group attaches great importance to succession planning for key positions. To achieve this aim, in 2016 it also began to develop a process which it plans to implement from October 2017 onwards.

Critical to the KION Group's success is its ability to always fill specialist and management positions with qualified employees. This is why securing and developing new talent remained a major focus of its Group-wide HR work in 2016. In the reporting year, it began to develop a range of Group-wide talent-management measures which it already started to implement in 2017. By the summer of 2017, existing competence models will have been consolidated into a uniform Group-wide competence model. In addition, with its new executive-level leadership programme it will produce a systematic development programme which it will use from the end of 2017 onwards.

In terms of talent management and its training and development programmes, the Group companies work together closely. This enables it to systematically identify and develop employees requiring training, high-potential employees, high-performers, and experts in key functions. The individual operating units and Group companies also offer comprehensive training programmes. For many years now, the STILL Academy has offered subject-specific and interdisciplinary training courses. At Linde Material Handling,

an academy also promotes the targeted development of expertise, particularly in sales and service.

The strategic aim of Dematic's talent-promotion activities – and this also applies to the other operating units – is to increase employee involvement by equipping them with functional knowledge and complementary skills. This is achieved through a clearly communicated, coordinated and integrated approach. Dematic trains its management personnel to lead and to make use of available technologies to offer its global workforce relevant training in a timely manner, to assess potentials, further develop skills and in doing so to prepare these employees for the company's future.

Leadership and promotion

In a company, commitment and motivation are primarily the result of clear leadership based on the company's values. The understanding of leadership in the KION Group is clearly set out both at Group and operating unit level. In 2017 it will communicate how it has consolidated and updated this understanding into a uniform Group-wide management guideline and will accompany it with training courses. Powerful tools such as 360° feedback and targeted projects support executives in performing their duties. In particular, the recently updated talent management system is now closely interlinked with the Company's performance management system, and plays a key role in this respect.

Around a third of the workforce* (65.8 percent; excluding Dematic) receive regular performance and career-development reviews.

* 2016; 90 consolidated reporting entities; excluding Dematic

Training

As at the end of 2016, Group-wide 580 apprentices¹ (end of 2015: 571) were preparing for their professional future at the KION Group. The share of apprentices in Germany has remained virtually unchanged for many years now at over 4.5 percent¹. Depending on respective personnel requirements, a wide range of opportunities are open to apprentices once they complete their training.

Training is organised at a local level to suit local requirements. In Germany alone, the KION Group currently offers apprenticeships in 22 occupations such as production, industrial and construction mechanics, mechatronics engineers or technical model builders or industrial managers. Besides traditional vocational training, it offers programmes combining vocational training with a degree course in partnership with various universities.

Other Group companies at various locations in Europe and beyond also train young people. Among them, over 20 years ago Linde Forklift Truck Corp. Ltd. in Xiamen, China, opened a training and development centre where young people complete a dual vocational training course based on the German model.

¹ incl. Dematic

Remuneration

All KION Group employees are remunerated in a fair, market-driven and performance-based way, irrespective of gender or nationality. Each national company reviews the remuneration of its individual employees annually and, if necessary, it adjusts it to take into account the individual's performance, level of qualification or change in circumstances.

As remuneration models and other benefits are closely aligned with local labour market and statutory – especially tax and social insurance – regulations, they vary across the Company depending on the region. In many countries, particularly in Europe, wage and salary levels for many employee groups are regulated by collective bargaining agreements. At all of the KION Group's

locations worldwide, it complies with statutory or, where applicable, collectively bargained minimum wage requirements. Owing to its employees' often very high level of qualification, remuneration is usually well above the minimum wage level. Depending on local conditions, additional benefits such as an occupational pension, insurance cover and healthcare may supplement employees' compensation.

Following the KION Group's successful stock market listing in 2013, in 2014 it launched the KION Employee Equity Programme (KEEP). It initially covered Germany, and was expanded in 2015 and 2016 to include further countries. In fiscal year 2016 around 1,100 employees took part in the programme, which is equivalent to around six percent of the eligible workforce. The total participation rate since KEEP was launched is around 17 percent. Over 75 percent of employees had access to the programme as at the end of the reporting year. In 2017 it plans to give employees in other countries the opportunity to participate in the Company's development through this programme.

Diversity and equal opportunities

At the KION Group every employee is valued and treated equally irrespective of their ethnic background, skin colour, gender, beliefs, political opinion, origin or social background. These principles are laid down in the KION Group's minimum employment standards, which apply globally and across all of its locations. In the reporting period it was not notified of discriminatory behaviour nor any other instances of non-compliance with its employment standards.

The KION Group is meeting the challenges of demographic change in a way that satisfies local requirements and organisational possibilities. To encourage a healthy work-life balance, the KION Group offers flexible working time models. Its employees in Germany also have access to its parental leave option. In the reporting year, 435 female employees and 544 male employees globally* (> Table 24) made use of this and similar options.

* 2016; 90 consolidated reporting entities; excluding Dematic

Employees who took parental leave G4-LA3

TABLE 24

Employees in parental leave	100%
Male	55.5%
Female	44.4%
Gender not available	0.1%

31/12/2016; 90 consolidated reporting entities; based on headcount; excluding Dematic

Globally, in 2016 the KION Group* employed 568 people with a disability – over two percent of its workforce. The KION Group's companies also provide these employees with a working environment that offers them suitable employment opportunities.

As is typical for a mechanical engineering company such as the KION Group, the share of women in terms of its overall workforce, particularly in management positions, is still relatively low. The share of female employees in the KION Group remained virtually unchanged in 2016 at 16.3 percent (previous year: 16.1 percent).

In Germany, the law requires the **Executive and Supervisory Boards** of publicly listed companies to set targets for the share of women in the Executive Board as well as in the two management levels below that. For the respective targets and further details, see the **Corporate governance section of the Annual Report 2016**. Furthermore, binding **targets are set for the share of women** in the management levels of Linde Material Handling GmbH and STILL GmbH. In principle, the KION Group aims to increase the share of women in management positions. A challenge arises for the KION Group as a technology company from the fact that it has often failed to hire female engineers owing to the lack of female graduates in technical professions. However, it will address the topic beyond gender-specific issues with its upcoming development of a diversity strategy designed to eliminate potential diversity-specific barriers to career development.

The KION Group sees itself as a global supplier with intercultural expertise. This is proven by the fact that as at the end of 2016, people from 83 different countries were working for the Company. The international nature of the Group is also evident in the appointment of the Executive Board, the management committees and the national companies. The KION Group staffs local management positions predominantly with executives from the

particular local area. It also encourages international collaboration between employees through its KION Expat Programme, which allows employees to change to another country where the KION Group is represented.

HEALTH AND SAFETY

G4-LA6

As an employer, the KION Group is responsible for the health and safety of its employees. A dedicated action field in the KION sustainability strategy underscores the significance of occupational health and safety to the Company. It focuses on preventing accidents and work-related illnesses as far as possible, as well as safeguarding each individual's long-term capacity to work. The activities address practically all of its employees. Over 90 percent of the Group's* employees are represented by health and safety employee committees. Virtually all* (over 98 percent) of KION employees are trained on occupational health and safety topics. And it also involves its business partners, suppliers and guests in its measures.

The KION health, safety and environment (HSE) policy sets out the framework conditions. Based on this Group policy, in the area of health, safety and environment the KION Group commits, among other things, to provide and maintain a safe working environment and safeguard employees from risks and accidents. The Group policy is supplemented by the operating units' and Group companies' additional guidelines. Among them, the Linde Service Guide contains detailed regulations for employees in the sales and service organisation.

* 2016; 90 consolidated reporting entities; excluding Dematic

The Group-wide HSE network of experts ensures knowledge is shared within the KION HSE organisation. Once a year, those responsible for HSE at its plants and sales and service units meet, discuss their projects and share experiences and best practices.

As at the end of the reporting year* 84 percent of employees had access to a works doctor. Over 91 percent* of employees were able to take advantage of occupational health examinations. Voluntary health measures were available to 77 percent* of employees, with health training courses offered to over 64 percent* of employees. Besides its range of health protection seminars, the KION Group also encourages employees to engage in sporting activities. Currently, 17 reporting entities* offer their employees use of a fitness facility.

As with the topic of environmental protection, internal communication is a critical success factor for embedding the topic of HSE within the Company and in making it part of the corporate culture. This is why it also raises its employees' awareness of occupational health and safety topics via the HSE site on its Group-wide intranet, which gives them practical online tips including on

how to go about their work safely (see also the section [Internal communication and corporate culture as critical success factors](#)).

Minimum HSE standards for all organisational units

In 2016 the development of the KION Group's entire HSE organisation was continued. On the basis of this, it is developing Company-wide minimum HSE standards for all plants and its sales and service organisation – a process it will complete during the course of 2017. Each unit's management systems are to be fully certified in accordance with OHSAS 18001 or an equivalent standard (> [Table 25](#)).

In the reporting year, it performed nine central HSE audits (> [Table 26](#)). This was in addition to 901 local* internal audits and 63 external audits in the field of occupational health and safety. Furthermore, it also started assessing all locations in relation to their potential HSE risks.

Occupational health & safety management system certification status

TABLE 25

	OHSAS 18001*	
	Percentage certified	Percentage of employees covered
Plants	29%	76%
Sales and service locations	34%	31%
Total	33%	49%

June 2017; 299 locations considered; excluding Dematic

* or equivalent standard

* 2016; 90 consolidated reporting entities; excluding Dematic

Results of KION Group occupational health and safety audits 2012-2017

TABLE 26

	Current Audit Basis: 14 plants, and initial audit for 4 plants	Current Audit Basis: 14 plants	Previous Audit Basis: 14 plants
Average result:			
Level of fulfilment of the defined audit criteria (max. 100 percent)	82%	87%	81%

April 2017

Clear benchmarks defined

The KION Group gathers all occupational health and safety KPIs and measures as part of its monthly reporting activities. As of the end of 2016, it further developed the scope of its reporting. The core benchmarks for measuring the success of its efforts in the area of occupational health and safety are its health rate (as at 2016*: 96.2 percent¹) and its LTIFR (Lost Time Injury Frequency Rate – as at 2016*: 14.8).

In the reporting year, the KION Group* registered 622 Lost Time Injuries, i.e. occupational accidents with a lost time of more than one working day. In addition, it recorded 1,386 minor injuries* and 243 commuting accidents*. It registered no fatal accidents. In the reporting year, 12,913 working days were lost within the KION Group* owing to accidents. It sets clear targets based on these KPIs.

¹ Based on revised definitions, there is a difference to the values presented in the Annual Report 2016.

KION Safety Championship

The KION Safety Championship is a further way in which it encourages continual engagement with HSE topics. Ever since 2014, each year a jury crowns its greatest HSE achievements in this internal competition. The assessment covers the number and frequency of occupational accidents resulting in the loss of over one working day, the health rate and location-specific initiatives to promote health and safety at work. In future, environmental aspects will also be included in this assessment. In the reporting period Linde Material Handling EMEA's Shipping and Logistics department in Aschaffenburg was crowned champion for 2015. Over 40 teams from around the world took part once again in 2016.

With a constant increase in the number of contributions, it is proof that this format is effective. In 2016 alone, 966 HSE improvement measures were reported and implemented as part of the competition. These range from preventative measures such as the occupational health and safety week at KION South America, additional safety measures such as at its plant in Xiamen, through to motivational measures like its '100 days accident-free' at STILL EMEA at Luzzara, Italy.

* 2016; 90 consolidated reporting entities; excluding Dematic

CORPORATE CITIZENSHIP

82	Management approach to corporate citizenship
82	Worldwide engagement

Community engagement

As a good corporate citizen, the KION Group wants to contribute to the positive and sustainable development of society. This is why it supports social and humanitarian projects, and promotes education, science and environmental protection. The KION Group gets involved at all of its locations and wherever its customers and employees live.

MANAGEMENT APPROACH TO CORPORATE CITIZENSHIP

A company like the KION Group has roots in many locations worldwide. The requirements and frameworks relating to its Company's activities differ just as greatly as the KION Group's numerous and varied locations. This is why it pursues a decentralised approach to implementing its activities. This is because decisions are best taken on specific local projects where they will actually be implemented.

Its community engagement activities are focused in their own action field within the KION Group's sustainability strategy. The KION Group Donations Policy provides clear guidelines and, above all, the necessary transparency regarding its various individual measures around the world. This lays the basis for bundling and structuring activities as and when necessary to enable it to leverage synergies across a Group-wide network.

The Donations Policy establishes the principles and priorities for its community engagement and sets out the responsibilities and decision-making processes. This allows it to take quick and pragmatic decisions at a local level on its potential involvement, and provide rapid assistance – such as in the event of natural disasters.

The regulations set out in the **KION Group Code of Compliance** also provide legal certainty for managers at a local level. its Code makes a clear distinction between donations and sponsorship measures.

Donations are voluntary monetary or in-kind contributions to non-profit organisations that are not affiliated with the KION Group; these donations are made without expecting anything in return. By contrast, sponsorship measures always involve a reciprocal service, such as in the form of advertising or marketing opportunities. They are therefore part of the marketing mix, and not part of its Company's sustainability activities.

In accordance with its Donations Policy and Code of Compliance, the KION Group can make monetary and in-kind contributions for social and humanitarian purposes, science and education, art and culture, and environmental-protection and resource-conservation projects. It must always be transparent and documented who the recipient is of the donation and for what purpose it is to be used.

The KION Group does not donate to individuals or profit-driven organisations. Political donations are also barred, as are donations to private accounts and those which could damage its Company's reputation. Furthermore, there must be no conflict between the beneficiary's objectives and the KION Group's corporate principles.

WORLDWIDE ENGAGEMENT

The KION Group is active around the world in a very wide variety of ways, with its employees often also providing active support – a commitment which the KION Group welcomes wholeheartedly as an employer. Here are some outstanding examples.

KION Americas: working together with the Red Cross

October 2016: Hurricane Matthew causes power cuts and leaves a trail of devastation in its wake in the Caribbean and south east of the USA, killing many people. As a precaution, work was also stopped for three days at KION North America. Following the storm, urgent assistance was called for to clear the damage left by it. KION North America supplied a Baoli KBG25 forklift truck to the American Red Cross to load urgently needed relief supplies and get them to those affected as quickly as possible.

KION APAC: tackling the reconstruction together

Typhoon Meranti caused serious damage in September 2016 in the Chinese province of Fujian, felling trees, ripping off roofs and causing water and power cuts. Besides many buildings in the city, its plant in Xiamen was also severely affected.

It was the worst hurricane since local records began in 1949, hitting the province of Fujian right in the middle of the holiday season marking the Chinese lunar festival. Despite this, many employees came to work after the storm had abated to help their colleagues with the clean-up. Together, they repaired the damage and managed to shift trees and branches using the forklifts.

The Chinese KION Group company also lent a hand with the clean-up efforts in the city, providing many forklift trucks to clear the roads. Colleagues also worked closely with local relief organisations.

Linde Material Handling Fenwick: helpers with a heart

Many people are dependent on the willingness of the community to provide help and support, especially in the cold winter months. This is why the French initiative 'Restaurants du Coeur' (Restaurants with a Heart) has been distributing food and essentials to the needy in France since 1985. Every year they are helped by 'Volunteers for the Day' who talk to supermarket customers outside stores, encouraging them to donate some of the items they have purchased such as food or hygiene products.

The Linde subsidiary Fenwick has been a partner of this initiative since 2014, actively supporting the collection campaigns. This includes giving Fenwick employees the opportunity to take half a working day off each year to assist the initiative – an offer that 367 employees took up in 2016.

To ensure the donations are also transported to as well as distributed and stored at the correct distribution centres, Fenwick also provides technical equipment. In addition, this company has audited the overall way in which goods are organised at one of the initiative's warehouses in Lucé to identify solutions, including ways to optimise transportation, warehouse management and staff safety. After all, the logistical effort involved in this national

initiative is quite considerable. On the two campaign days in March 2016 some 71,000 volunteers gathered 7.3 tonnes of food and hygiene products at over 6,600 supermarkets – enough for over 7 million extra meals for the needy.

On the 30th anniversary of the Fenwick Group in 2016 a solidarity run was also organised at every company location in France. The principle behind it was as simple as it was effective: for each kilometre run, one euro was donated for food. In the end over €12,000 was collected thanks to the huge sign-up. Going forward, Fenwick aims to further expand its community engagement by helping the needy reintegrate into working life.

Linde Material Handling EMEA: StaplerCup hilft e.V.

Competing for the ForkliftCup, which was initiated by employees of Linde Material Handling, has long since become an institution among forklift truck drivers. Forklift drivers gather from all four corners of the globe to show off their skills in regional and national competitions – on the hunt for the best of the best! For them, the supreme goal is the unofficial 'world championship' in forklift truck driving. Over the past 12 years over 20,000 people have participated in the national and international competitions, with each one drawing up to 15,000 spectators.

Alongside the competition, since 2008 community engagement has also been a focus area. The StaplerCup hilft e.V. association aims to support regional social institutions in particular. Since it was founded, it has already donated over €250,000 to organisations involved in looking after sick or disadvantaged children, as well as young people and the elderly in need. Alongside numerous prominent backers of the association, apprentices of Linde Material Handling's PiA (Project-integrated Training) team collect donations every year, for instance through their charity raffle. This saw the donation of a further €8,000 to three relief organisations after the ForkliftCup 2016.

Linde Material Handling EMEA: a decade helping the needy

Linde Solidaria, the corporate volunteering programme of Linde Material Handling Ibérica, celebrated its tenth anniversary in January 2017. What began in the Madrid and Barcelona branches now includes other areas of Spain and even Portugal, with the programme supporting over 5,000 socially disadvantaged people.

The original idea is as simple as it is effective: instead of giving Christmas presents to customers, Linde Ibérica makes donations to selected non-profit organisations. Employees and their family members are also actively involved. During the annual Fiestas Solidarias campaign days at the Barcelona, Madrid, Seville and Lisbon branches, they help people with physical or mental disabilities, accompany them on activities and turn the day into a shared experience. The company contributes to the campaign with monetary and in-kind donations to the organisations.

And whenever special assistance is needed, Linde Solidaria is ready to lend a helping hand, such as with forklifts for surplus food collection and distribution projects, social grocery stores or the Red Cross. Other forms of help include food and hygiene products for people who are threatened by social exclusion, or food allowances for children suffering from rare diseases and who therefore need extended hospital stays.

Many of Linde Material Handling EMEA's official distributors in Spain and Portugal have now also developed their own voluntary programmes and work regularly with a range of institutions. What started out as a local initiative became an international movement that brings together the involvement of employees, companies and customers – and has a real impact!

STILL EMEA: giving youngsters a chance – seizing opportunities

Giving young people a chance who really deserve one – at STILL EMEA, social responsibility also includes providing young people from difficult backgrounds with good vocational training. Every year, one or two training places are reserved for candidates seen as weaker. When awarding these places, the company works with the Nordchance project, an initiative of the German Nordmetall association. Nordchance supports young people who are difficult to place on professional devel-

opment schemes, and smoothes the way for them into vocational training. A further programme was launched recently to support young refugees: it is called Norchance Plus and is also supported by STILL.

STILL EMEA: helping others to help

Supporting humanitarian relief organisations is an important cornerstone of STILL EMEA's community engagement. The company's Dortmund branch has now donated an EGV-S pedestrian high-lift pallet truck to the German doctors for children in need foundation ARCHEMED – Ärzte für Kinder in Not e.V. – to simplify warehouse management. ARCHIMED operates a modern surgical centre in Eritrea, and the foundation stores all the necessary equipment and materials close to Dortmund. The new truck makes warehouse organisation more efficient and faster, lightening the burden on the foundation's work day in, day out.

STILL EMEA: long-standing integration assistance

STILL EMEA has pursued the ambitious aim for over a decade now of integrating people with disabilities into the workplace. To help with this, the company is assisted by the German association Elbe-Werkstätten, whose work focuses on helping people with disabilities to find a job and training placements. Both partners have worked together since the 1980s. And it has done so with great success: at STILL, people with disabilities are now fully integrated into working processes. In short, this long period of collaboration has proven successful for both parties: STILL receives hard-working and highly motivated employees, while Elbe-Werkstätten has achieved its objective of seeing both those with disabilities and those without working together an integrated way as a matter of course.

GRI Content Index

 G4-32



General Standard Disclosures

GRI Aspects and Indicators	Comment	Link
G4-1	Statement from the most senior decision-maker of the organization	Foreword (p. 6)
Organisational Profile		
G4-3	Name of the organisation	Company profile (p. 9)
G4-4	Primary brands, products, and services	Company profile (p. 9) Business model and organisation (p. 10) AR 2016: Business model
G4-5	Location of headquarters	Wiesbaden, Germany
G4-6	Number of countries where the organization operates, and the names of countries where it has significant operations and/or that are relevant to the topics covered in the report.	AR 2016: List of shareholdings
G4-7	Nature of ownership and legal form	Business model and organisation (p. 10) AR 2016: Company profile
G4-8	Markets served	Business model and organisation (p. 10) AR 2016: Organisational structure
G4-9	Scale of the organization	Company profile (p. 9) Balanced workforce structure (p. 72) AR 2016: Financial Statements
G4-10	Total number of employees by employment contract and gender	Balanced workforce structure (p. 72)
G4-11	Percentage of total employees covered by collective bargaining agreements	We do not currently report on the percentage of total employees covered by collective bargaining agreements. The KION Group is planning to gather company-wide data on this indicator for the 2017 fiscal year and is currently working out the required company-specific definition for this.
G4-12	Organization's supply chain	Sustainable procurement (p. 54)
G4-13	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	Business model and organisation (p. 10) AR 2016: Acquisitions
G4-14	Whether and how the precautionary approach or principle is addressed by the organization	The KION Group is committed to the precautionary principle and this is specified by our HSE Policy. Management approach to the environment (p. 57)

General Standard Disclosures

GRI Aspects and Indicators	Comment	Link
G4-15	Externally developed economic, environmental and social charters, principles, or other initiatives	Principles and guidelines (p. 28)
G4-16	List memberships of associations	Stakeholder dialogue (p. 31)
Identified Material Aspects and Boundaries		
G4-17	All entities included in the organization's consolidated financial statements or equivalent documents	Scope and reporting period (p. 3) AR 2016: List of shareholdings
G4-18	Process for defining the report content and the Aspect Boundaries	Report content (p. 3) Key challenges for the KION Group (p. 21)
G4-19	All the material Aspects identified in the process for defining report content	Key challenges for the KION Group (p. 21)
G4-20	Material Aspects within the organisation	Key challenges for the KION Group (p. 21)
G4-21	Material Aspects outside the organisation	Key challenges for the KION Group (p. 21)
G4-22	Effect of any restatements of information provided in previous reports, and the reasons for such restatements	This report is the KION Group's first sustainability report.
G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	This report is the KION Group's first sustainability report.
Stakeholder Engagement		
G4-24	List of stakeholder groups engaged by the organization	Stakeholder dialogue (p. 31)
G4-25	Basis for identification and selection of stakeholders with whom to engage	Stakeholder dialogue (p. 31)
G4-26	The organization's approach to stakeholder engagement	Stakeholder dialogue (p. 31)
G4-27	Key topics and concerns that have been raised through stakeholder engagement	Stakeholder dialogue (p. 31)
Report Profile		
G4-28	Reporting period	Scope and reporting period (p. 3)
G4-29	Date of most recent previous report (if any)	This report is the KION Group's first sustainability report.
G4-30	Reporting cycle (such as annual, biennial)	Additional remarks (p. 4)
G4-31	Contact point for questions regarding the report or its contents	Contact (p. 95)

General Standard Disclosures

GRI Aspects and Indicators	Comment	Link
G4-32 GRI Content Index		Report content (p. 3) GRI Content Index (p. 85)
G4-33 Assurance		Report content (p. 3)
Governance and Ethics		
G4-34 Governance structure of the organization		Organisation and management (p. 26) AR 2016: Corporate governance report KION Group Website: Organisational Structure
G4-35 Process for delegating authority for economic, environmental and social topics		Sustainability organisation (p. 26)
G4-36 Whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics		Sustainability organisation (p. 26)
Ethics and Integrity		
G4-56 The organization's values, principles, standards and norms of behavior		Principles and guidelines (p. 28) Sustainable procurement (p. 54)
G4-58 Internal and external mechanisms for reporting concerns about unethical or unlawful behavior		Compliance organisation (p. 30)

Specific Standard Disclosures

DMA* and indicators	Comment	Link
Economic Performance Indicators		
Aspect: Economic Performance Indicators		
G4-DMA Management approach		Sustainability strategy (p. 19) Financial data 2016 (p. 14) AR 2016: Strategy of the KION Group
G4-EC1 Direct economic value generated and distributed		Financial data 2016 (p. 14) Balanced workforce structure (p. 72) AR 2016: Consolidated income statement AR 2016: Consolidated statement of cash flows
Aspect: Procurement Practices		
G4-DMA Management approach		Sustainable procurement (p. 54)

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Specific Standard Disclosures

DMA* and indicators	Comment	Link
G4-EC9 Proportion of spending on local suppliers at significant locations of operation		Sustainable procurement (p. 54)
Environmental Performance Indicators		
Aspect: Materials		
G4-DMA Management approach		Management approach to the environment (p. 57) Resource efficiency and use of materials (p. 66)
G4-EN1 Materials used		Resource efficiency and use of materials (p. 66)
Aspect: Energy		
G4-DMA Management approach	KION Group companies are subject to various statutory requirements regarding energy, for instance: <ul style="list-style-type: none"> — in Germany (Energieeinsparverordnung (EnEV), Spitzenausgleich-Effizienzsystemverordnung (SpaEfV)), — in France (Code de l'énergie), — and in the Czech Republic (Zákon č. 406/2000 Sb., Vyhláška č. 480/2012 Sb.). 	Management approach to the environment (p. 57) Climate protection (p. 63)
G4-EN3 Energy consumption within the organisation		Energy use (p. 64)
G4-EN7 Reductions in energy requirements of products and services		Save energy, reduce emissions (p. 43) Innovative drive technologies (p. 44)
Aspect: Water		
G4-DMA Management approach		Management approach to the environment (p. 57) Environmental protection (p. 61)
G4-EN8 Total water withdrawal by source		Water use and waste water (p. 61)

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DMA* and indicators	Comment	Link
Aspect: Emissions		
G4-DMA Management approach	KION Group companies are subject to various statutory requirements regarding emissions, for instance: <ul style="list-style-type: none"> — in Germany (Bundes-Immissionsschutzgesetz (BImSchG), 1. Bundes-Immissionsschutzverordnung (BImSchV)), — in France (Code de l'environnement), — in China (中华人民共和国大气污染防治法, 大气污染物综合排放标准), — and in the USA (Conditional Major Operating Permit e.g. based on Pollution Control Act). 	Management approach to the environment (p. 57) Climate protection (p. 63)
G4-EN15 Direct greenhouse gas emissions (Scope 1)		Emissions (p. 65)
G4-EN16 Indirect energy-related greenhouse gas emissions (Scope 2)		Emissions (p. 65)
G4-EN17 Other indirect energy-related greenhouse gas emissions		Emissions (p. 65)
G4-EN21 NO _x , SO _x and other significant air emissions		Emissions (p. 65)
Aspect: Effuents and Waste		
G4-DMA Management approach		Management approach to the environment (p. 57) Environmental protection (p. 61) Water use and waste water (p. 61)
G4-EN22 Total water discharge by quality and destination		Water use and waste water (p. 61)
G4-EN23 Total weight of waste by type and disposal method		Waste and recycling (p. 62)
G4-EN24 Total number and volume of significant spills		Instruments and processes (p. 58)
Aspect: Products and Services		
G4-DMA Management approach		Management approach to products and solutions (p. 38) Energy- and resource-efficient products (p. 43)
G4-EN27 Extent of impact mitigation of environmental impacts of products and services		Energy- and resource-efficient products (p. 43)

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Specific Standard Disclosures

DMA* and indicators	Comment	Link
Aspect: Compliance		
G4-DMA Management approach		Management approach to the environment (p. 57) Instruments and processes (p. 58) Focus areas and challenges (p. 60)
G4-EN29 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations		Instruments and processes (p. 58)
Aspect: Transport		
G4-DMA Management approach		Management approach to products and solutions (p. 38) Energy use (p. 64)
G4-EN30 Significant environmental impacts of transporting products		Energy use (p. 64)
Aspect: Supplier Environmental Assessment		
G4-DMA Management approach		Sustainable procurement (p. 54)
G4-EN32 Percentage of new suppliers that were screened using environmental criteria	These data are not currently gathered by KION. We currently carry out a Group-wide categorisation of suppliers which amongst other things is intended to make clear how these suppliers fulfil their obligations under the KION Group Principles of Supplier Conduct concerning work practices, environmental criteria and upholding human rights. We intend to establish a corresponding screening process in a subsequent step.	Sustainable procurement (p. 54)
Social Performance Indicators		
Labor Practices and Decent Work		
Aspect: Employment		
G4-DMA Management approach		Management approach to employees (p. 69)
G4-LA1 Total number and rates of new employee hires and employee turnover by age group, gender and region		Balanced workforce structure (p. 72)
G4-LA3 Return to work and retention rates after parental leave, by gender		Diversity and equal opportunities (p. 77)

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DMA* and indicators	Comment	Link
Aspect: Occupational Health and Safety		
G4-DMA	Management approach	Health and safety (p. 78)
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	Clear benchmarks defined (p. 80)
Aspect: Training and Education		
G4-DMA	Management approach	Management approach to employees (p. 69) Good employer (p. 76)
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	Human resource development (p. 76)
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	Leadership and promotion (p. 76)
Aspect: Diversity and Equal Opportunity		
G4-DMA	Management approach	Diversity and equal opportunities (p. 77)
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	Diversity and equal opportunities (p. 77) AR 2016: Declaration pursuant to section 289a German Commercial Code (HGB) KION Group Website: Organisational Structure
Aspect: Supplier Assessment for Labor Practices		
G4-DMA	Management approach	Sustainable procurement (p. 54)
G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	Sustainable procurement (p. 54)
	These data are not currently gathered by KION. We currently carry out a Group-wide categorisation of suppliers which amongst other things is intended to make clear how these suppliers fulfil their obligations under the KION Group Principles of Supplier Conduct concerning work practices, environmental criteria and upholding human rights. We intend to establish a corresponding screening process in a subsequent step.	

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DMA* and indicators		Comment	Link
Human Rights			
Aspect: Investment			
G4-DMA	Management approach		Compliance (p. 30)
G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	KION is striving to gather this data Group-wide in time for publication in the 2017 sustainability report.	Extensive training (p. 31)
Aspect: Non-Discrimination			
G4-DMA	Management approach		Principles and guidelines (p. 28) Diversity and equal opportunities (p. 77)
G4-HR3	Total number of incidents of discrimination and corrective actions taken		Diversity and equal opportunities (p. 77)
Aspect: Freedom of Association and Collective Bargaining			
G4-DMA	Management approach		Principles and guidelines (p. 28) Sustainable procurement (p. 54)
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights		Principles and guidelines (p. 28) Sustainable procurement (p. 54)
Aspect: Child Labor			
G4-DMA	Management approach		Principles and guidelines (p. 28) Sustainable procurement (p. 54)
G4-HR5	Business locations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor		Principles and guidelines (p. 28) Sustainable procurement (p. 54)
Aspect: Forced or Compulsory Labor			
G4-DMA	Management approach		Principles and guidelines (p. 28) Sustainable procurement (p. 54)
G4-HR6	Business locations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor		Principles and guidelines (p. 28) Sustainable procurement (p. 54)
Aspect: Assessment			
G4-DMA	Management approach		Principles and guidelines (p. 28)

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DMA* and indicators	Comment	Link
G4-HR9 Total number and percentage of business locations that have been subject to human rights reviews or human rights impact assessments		Principles and guidelines (p. 28)
Aspect: Supplier Human Rights Assessment		
G4-DMA Management approach		Sustainable procurement (p. 54)
G4-HR10 Percentage of new suppliers that were screened using human rights criteria	These data are not currently gathered by KION. We currently carry out a Group-wide categorisation of suppliers which amongst other things is intended to make clear how these suppliers fulfil their obligations under the KION Group Principles of Supplier Conduct concerning work practices, environmental criteria and upholding human rights. We intend to establish a corresponding screening process in a subsequent step.	Sustainable procurement (p. 54)
Product Responsibility		
Aspect: Customer Health and Safety		
G4-DMA Management approach		Management approach to products and solutions (p. 38) Product responsibility (p. 48) Innovative solutions and customer benefit (p. 51)
G4-PR1 Percentage of significant product and service categories for which health and safety impacts are assessed for improvement		Product responsibility (p. 48)
G4-PR2 Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services, by type of outcomes	KION carries out internal safety analyses in accordance with the Machinery Directive 2006/42/EC, which applies to the CE marking. During the reporting period, a potential risk was identified in systems installed by a business previous to its acquisition by Dematic (Dematic, itself, was acquired by KION in November 2016). Due to KION's risk identification, a comprehensive plan is in place and the affected systems are being remediated accordingly. We are not aware of any impairment to the health and safety of personnel.	

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DMA* and indicators	Comment	Link
Aspect: Compliance		
G4-DMA Management approach		Compliance (p. 30) Product responsibility (p. 48)
G4-PR9 Total monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services		Product responsibility (p. 48)
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