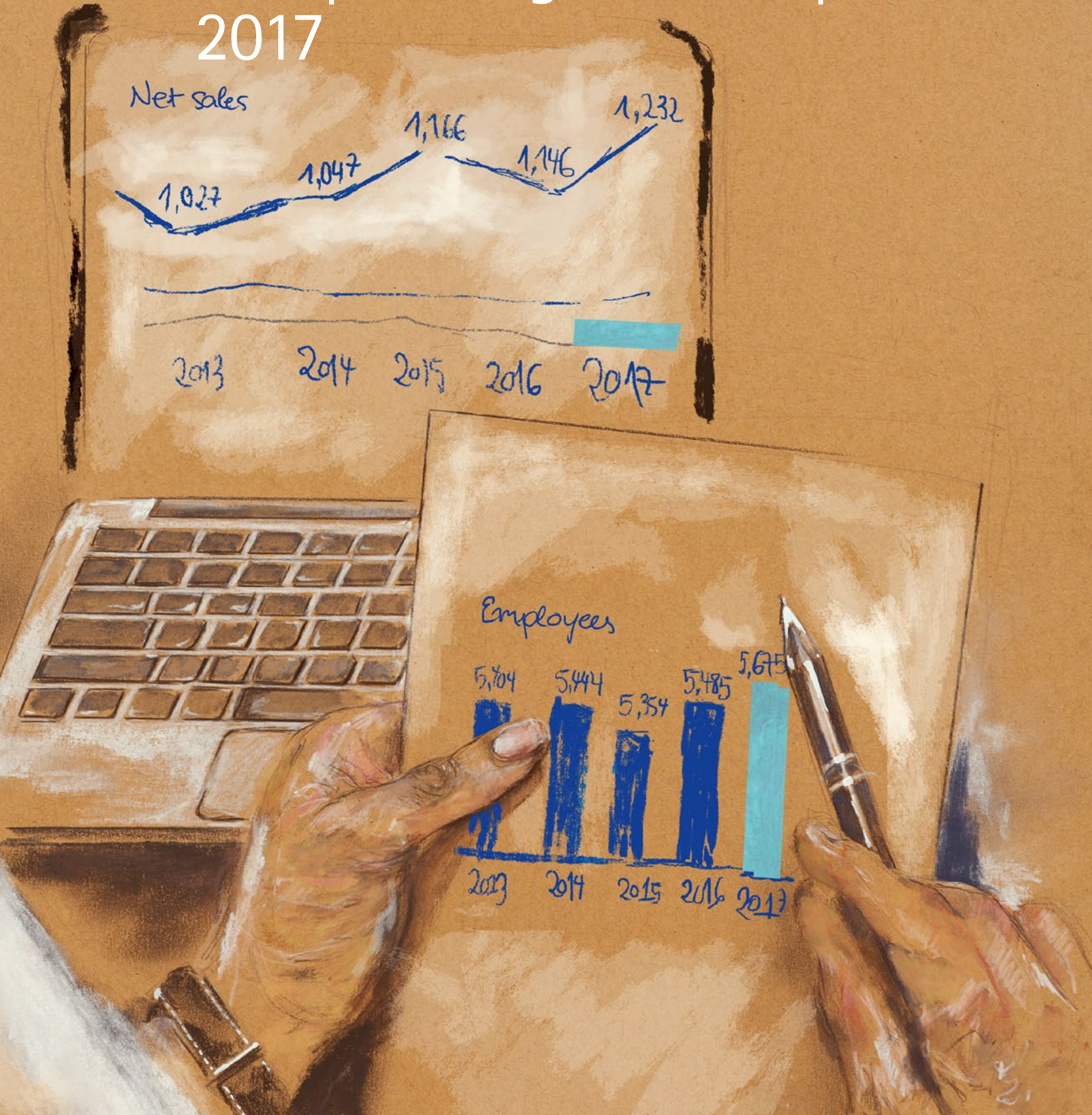
MESSER
Gases for Life

Group Management Report 2017



General Information on the Group

Overview of the activities of the Messer Group

Messer Group GmbH ("the Company"), an industrial gases manufacturer, has its registered office in Sulzbach/Taunus near Frankfurt am Main and its postal address in Bad Soden am Taunus. It acts as management holding company and, together with its subsidiaries and affiliated companies, forms the Messer Group ("the Group"). G4-3 G4-5

From acetylene to xenon, the Messer Group offers a product portfolio that must surely count as one of the most diverse in the market – the Company produces industrial gases such as oxygen, nitrogen, argon, carbon dioxide, hydrogen, helium, shielding gases for welding, specialty gases, medical gases and a wide variety of mixed gases. G4-4

In state-of-the-art competence centers, the Messer Group develops application technologies for the use of gases in almost all branches of industry, in foodstuffs technology, medicine and research and science. G4-6

The Group has its own operating facilities in 40 countries. Messer is therefore represented in each of the main markets in Europe (with the exception of the United Kingdom and Scandinavia) as well as in Asia and Algeria.

In Krefeld, Germany, Messer operates a highly specialized technical center for testing in the areas of cold grinding and recycling. In the area of welding and cutting, the Messer Group's specialized technical centers in Germany, Hungary and China develop new technologies, mixed gases and applications. Our prime focus is on a future-oriented approach to our products, tailored to the needs of our customers. Gumpoldskirchen, near Vienna, Austria, is the hub for ongoing development of high-temperature processes, with customers, cooperation partners and research institutes. Numerous tests for the food-processing, pharmaceuticals and chemicals/environment sectors were performed at our Technical Center in Mitry-Mory, near Paris, France. In 2018, the Technical Center for food-processing, pharmaceuticals and chemicals/environment in Mitry-Mory will be relocated to Krefeld, Germany.

Changes in the group reporting entity in the fiscal year 2017 G4-13, G4-23, G4-28

The group reporting entity changed as follows during the year under report:

First-time consolidations

The following entities were founded or acquired and commenced operations in 2017:

- Messer (Thailand) Co. Ltd, Thailand, 79 %
- PT. Chemindo Inti Usaha, Indonesia, 56 %

In accordance with a purchase agreement dated December 16, 2016, Messer Group GmbH acquired 60% of the shares of Universal Industrial Gas Sdn. Bhd, Malaysia. Smart-Gas Pte. Ltd., Singapore, in which Messer Group GmbH already had a 30 % investment, acquired a further 15 % of the company's shares. Following the closing of the contract on February 28, 2017, the definitive purchase consideration amounted to K'MYR 9,251 (= K€ 1,985). In addition to the payment on account of K'MYR 800 (= K€ 174), a further portion of the purchase price amounting to K'MYR 8,222 (= K€ 1,763) was paid on February 28, 2017, and the remaining K'MYR 230 (= K€ 48) on June 15, 2017.

The acquisition is part of the strategic business expansion in South-East Asia. The Messer Group plans to invest and further optimize production processes, including both safety and quality aspects, in order to ensure its competitiveness on the rapidly growing Malaysian market. The acquisition of shares in Universal Industrial Gas Sdn. Bhd enables Messer to contribute its application know-how to support production at the level of Smart-Gas Pte. Ltd, and thus to participate in Malaysia's economic growth.

Other

Effective January 1, 2017, Remco AG, Switzerland, was merged with ASCO Kohlensäure AG, Switzerland. Also effective January 1, 2017, Messer Iparigáz Kft., Hungary, was merged with Messer Hungarogáz Kft., Hungary. Neither of these mergers had a significant impact on the consolidated financial statements.

Effective January 30, 2017, the liquidation of Argos Ltd., Ukraine, became valid in law and the company – previously consolidated as an associated company – ceased to be part of the group reporting entity. The liquidation of this entity did not have any significant impact on the consolidated financial statements.

Chengdu Chenggang Messer Gas Products Co., Ltd., China, operates a customer supply pipeline in the Qingbaijiang industrial estate, which was laid across the property of the largest on-site customer. In 2015, the customer discontinued steel production permanently. During the year under report, our subsidiary was informed that the pipeline is required to be removed. It is therefore extremely doubtful whether Chengdu Chenggang Messer Gas Products Co., Ltd. will continue as a going concern. For this reason, the subsidiary's financial statements were no longer drawn up on a going concern basis. All the company's assets were measured on the basis of liquidation values.

With a view to optimizing the regional structure and focusing on our core markets in Europe and Asia, Messer Group GmbH sold all its shares (99.83 %) in Messer Gases del Peru SA on December 22, 2017. The company will cease to be part of the Messer Group reporting entity on completion of the transaction, effective February 1, 2018.

Financial performance indicators

The Messer Group uses parameters based on operating performance indicators to manage its business. The principal indicators are sales, EBITDA, investments, net debt and ROCE. Further explanations and the make-up of the indicators are provided in the sections on earnings performance and financial position.

Non-financial performance indicators

Safety, health, environmental protection and quality ("SHEQ") have been firmly embedded in Messer's guiding principles since its foundation in 1898 and continue to have the utmost priority in the operations of the family-owned company. Messer is aware that well-organized safety and quality guidelines form the basis for dealing safely with operational risks and improving operational performance. For this reason, the health and safety of our workforce and the protection of the environment are firmly embedded in total quality management systems and are reflected in various Messer Group Standards.

To take account of the growing importance of ensuring a healthy environment, social justice and effective business management, the Messer Group has embarked on the introduction of Corporate Responsibility Management ("CSRM"). CSRM follows a long-term approach and will contribute to the sustainable development of Messer. To this end, the Messer Group has also enhanced its SHEQ performance indicator system.

During the past fiscal year, 990 (2016: 946) SHEQ-related inspections and checks were carried out throughout the Messer Group (of which 859 in Europe), resulting in numerous improvement measures.

In addition, 192 ideas and suggestions for improvements were submitted by our staff members throughout the Messer Group (of which 85 in Europe). The suggestion rate within the Messer Group therefore stood at 0.03 ideas per employee.

Occupational safety

Occupational safety is of the utmost importance for all Messer companies. The Messer safety guidelines clearly reflect our position: "All industrial illnesses, injuries and accidents are avoidable". G4-PR1, G4-PR3

Messer uses its global management system to identify and control potential operational risks. The principles of this system are carefully documented in its SHEQ manual and cover all safety-relevant areas such as risk management, safety training, safety inspections, personal protective equipment, communication safety and accident investigations. The SHEQ Manual is a constituent part of the Messer Group's Compliance Management system and is regularly updated and improved.

In 2017, additional safety guidelines were drawn up especially for work in acetylene plants and made available to staff and customers.

In addition, a new brochure for the series "Safety Pocket Guides" was written and distributed to staff and customers. The fourth guide in the series focused on the safety of customers in connection with the transportation of dry ice.

During the fiscal year 2017, 19 safety audits were conducted to underline and ensure compliance with the SHEQ standards in all of the Messer Group's operational activities. The success of the safety measures and initiatives is assessed by means of the following annual performance indicators: working accidents causing lost days and accident frequency (number of working accidents causing lost days per million hours worked) and accident severity (days lost per million hours worked).

G4-LA6 In 2017, 15 working accidents causing lost days were reported. Accident frequency therefore decreased sharply year-on-year (25 accidents or 2.4 accidents per million hours worked). The level of accident severity fell to 45.4 days lost per million hours worked.

	2013	2014	2015	2016	2017
Working accidents causing lost days	38	18	22	25	15
Accident frequency	3.6	1.7	2.2	2.4	1.4
Accident severity	61.3	47.6	65.1	77.9	45.4

As a specialist in industrial gases, Messer is aware of its duty in relation to its staff and customers to efficiently identify and avoid potential work-related risks. With campaigns such as our "Safety Day", we highlight potential hazards and endeavor to raise safety-at-work consciousness.

Unfortunately, one fatal accident occurred in 2017: during inspection of paintwork on a storage tank, a worker fell from five-meter high scaffolding and died of his injuries.

Messer is an active member of the European Industrial Gases Association (EIGA) and of the Industrial Gases Association (AIGA) in China. Our experts actively exchange experience, knowledge and lessons to learn from incidents in the industrial gases sector. In addition, some Messer Group entities cooperate with local research institutes and universities to enhance safety in production processes.

G4-EN30

Transport safety

The transportation of gases and equipment on the road and customer deliveries are activities which involve the most risks in the gas industry. For this reason, the Messer Group has put its signature to the European Road Safety Charter, thus undertaking to place particular emphasis on transport safety. As well as complying with applicable laws and regulations for operating a vehicle fleet, the Messer Group's own transport safety plan has proved invaluable.

A large proportion of the drivers working for Messer are employed by external transport firms, which are responsible for training the drivers in accordance with the ADR (European Agreement concerning the international carriage of dangerous goods by road). Messer has also drawn up its own modular driver training package, which is used to train drivers. The main themes covered by the training are:

- Laws and regulations (ADR and national provisions)
- Technical aspects (hazards arising from product, vehicle and tank technology, vehicle checks, safety technology)
- Accident avoidance
- Defensive, economical driving

In addition, all drivers receive a driver manual specific to their work (bulk, cylinders or service vehicles). This ensures that drivers have immediate access to all important information relating to their activities.

Furthermore, Messer specialists are actively involved in all relevant EIGA bodies and to a large extent too in the national associations. The findings from the activities conducted within these bodies are incorporated in the driver manual and the driver training scheme on an ongoing basis, with a view to enhancing transport safety. In this way, the Messer Group is making its contribution to a steady reduction in the number of transport incidents.

Employees and corporate culture

Worldwide workforce

The Messer Group had an average worldwide workforce in 2017 of 5,633 employees (2016: 5,487 employees), each contributing to the success of the business with his or her extensive knowledge, ideas, know-how, motivation, attitude to work, active commitment and in many cases longstanding experience. G4-DMA employment, G4-10

The average number of employees per region was as follows:

	Jan. 1 – Dec. 31, 2017	Jan. 1 – Dec. 31, 2016
Western Europe	1,108	1,083
Central Europe	752	749
South-Eastern Europe	1,354	1,346
China, ASEAN and Peru	2,419	2,309
Total number of employees	5,633	5,487

As at December 31, 2017 approximately 88 % of our employees were working in non-German speaking countries.

Training and the Messer Group Academy

The expertise and experience of our workforce of well-motivated and well-qualified employees provides the foundation for the Messer Group's success. They are constantly being required to rise to the practical challenge of highly demanding tasks and projects, at which stage they can also draw on the knowledge gained through attendance at internal and external training courses, specifically designed to meet their needs. This combined approach gives them the wherewithal to master the vast array of constantly changing work requirements, while at the same time enhancing the professional manner with which they go about their work. A transparent leadership style, based on an "open door" principle, allows for open communication and remains a core element of our management culture.

We endeavor to make school pupils and students aware of the potential of the fascinating world of gases, also with an eye to winning well-trained staff in the future. It is considered to be a crucial aspect of business to develop employee skills from an early stage. The Messer Group is committed to providing educational and vocational training opportunities to young people, based on the tenet that vocational training for the next generation is essential for the future competitiveness and underlying strength of our business. In Germany we offer vocational training to ambitious school and college leavers in the areas of industrial business studies, mechatronics, IT data processing and IT support. Training takes place at various sites, in some cases supplemented by several weeks spent at international locations.

The Messer Group Academy expands the range of systematic development programs available to employees, including a range of training courses and lectures as well as the annual autumn lectures for our managers and junior executives. A further series of seminars was held in 2017 for the Junior Circle, our program for the next generation of managers, with participants from various national companies and specialist areas. In July 2017, the second group successfully completed the Junior Circle with their "BioKryo" project work. Cryo-preservation is a procedure to preserve cells or complete tissue by cooling to very low temperatures. These low temperatures render biological activity impossible, including biological reactions which would cause cell death. The results of the project work will be implemented under a cooperative agreement with BioKryo GmbH.

Following the Junior Circle II, the third Junior Circle group was launched in July 2017. It will be addressing the topic "Digitalization in the Messer World" over the coming two years.

The focus of the Junior Circle is on the dissemination of knowledge by our own experts from various functions within the organization. Aspiring managers will attend five one-week modules covering various fields of focus, including inter-cultural training. The principal objective of the Messer Academy will be to provide an insight into our products, technical solutions, structures and specific internal issues based on a comprehensive and practice-oriented approach. Effective networking of the participants is also a primary concern. Training in the Junior Circle is organized over a two-year period, with candidates being selected and invited directly by the management under an internal application procedure.

At the Messer Group Academy, the transnational training course for cylinder salesmen "Focus on Cylinder" was continued in 2017, with training provided in the Messer companies in Switzerland, France, Spain, Belgium, Poland and the Baltic region. Staff from eight European companies participated in the training program.

This international, standardized sales training course consists of six modules, is offered to a maximum of 14 participants and takes place in the respective national language. In addition to internal and external speakers, the respective sales manager and deputy are trained as co-trainers who are then able to provide support for future training courses. Throughout, country-specific needs are taken into account in terms of training content.

The training needs of Messer Group staff are discussed on the occasion of annual employee performance reviews with the local HR departments responsible for drawing up specific training plans.

An "English offensive" has been in progress worldwide since 2014 to increase knowledge of English in the Group. In each company, employees, split into three groups according to their language skills, have the opportunity to improve their language qualifications. Some employees have already taken the opportunity to acquire a Cambridge certificate, which is recognized worldwide.

Furthermore, 2017 saw the first-time successful launch of the online e-learning training platform for pharmacovigilance.

Digitalization

The Messer Group has also responded to the changing market requirements in the field of digitalization. On September 1, 2017, a newly created position of Group Digital Officer (GDO) was filled. The GDO's remit is to support central functions and national companies in the design and development of digitalization projects and to ensure that projects are making progress. On January 1, 2018, a newly created position of Group Security Officer (GSO) was also filled. The GSO is responsible for advising central functions and national companies on IT security issues.

During the annual worldwide HR-Meeting in September 2017, the HR managers of the national companies also addressed the topic of "digitalization". During a workshop, development and application possibilities were worked out (video interviews–recruitment platforms, Wade and Wendy online training platform for job-seekers and recruiters, review of the performance review, etc.). The exchange of information and knowledge served, in a first step, to identify the needs, expectations and requirements of different interest groups with a view to subsequent gradual implementation of the necessary digitalization measures.

Uniform employer branding

The Messer Group's Employer Branding project is an international program aimed at depicting a corporate culture that is easy to recognize and understand. On the one hand, it is seen as a way of tying in new and current employees more closely to the business, but also as a means of getting potential employees to be enthusiastic about us, our products and our solutions, achieving the anticipated result of receiving fewer, but qualified applicants. As a flanking measure, image promotion films and posters have been completed and the Group's website optimized, including a redesigned career page. An in-house job applications portal has been created and made available to the national companies for adaptation. In 2017, the job applications portal was also used in Austria. In this way, the Messer Group, via uniform employer branding, will be able to showcase itself as an international, versatile, attractive employer.

Messer invests in vocational training for young employees. This human resources strategy, in combination with the know-how of our workforce and our high-quality products, ensures that we enjoy an excellent reputation among customers, partners and job-seekers alike.

Environmental management

The environment must be protected at all times and in all places. As a company, Messer takes this obligation very seriously and employs its global management system to further the protection of the environment. Internal environmental protection guidelines are documented in the Messer Group's SHEQ manual. These and the environmental management systems in place at all the subsidiaries follow international standard ISO 14001 and recommendations of the European Industrial Gases Association EIGA (for example, EIGA IGC Doc. 107 — Guidelines on Environmental Management Systems). In 2017, 21 of our subsidiaries obtained external certification of their environmental management systems, the same number as in 2016.

Efficient use of energy goes without saying at Messer and is clearly in the Group's own interests. With the main aims of cost-cutting and economic use of resources, energy management is an ongoing process which also makes a contribution to reducing our CO_2 emissions. Our energy management system has been certified in accordance with ISO 50001 at all Messer production facilities in Germany and Spain. A total of nine Messer companies are thus now certified in accordance with ISO 50001.

Messer uses atmospheric air and electrical power at its production sites as the main raw materials to produce the air gases nitrogen, oxygen and argon. Production by means of air separation plants accounts for over 75 % of total energy consumption. Particular emphasis is therefore placed on the ongoing improvement of energy efficiency. Accordingly, Messer has assigned the specific task to a Global Energy Officer ("GEO") to increase the energy efficiency of the Group's air separation plants.

Continuous monitoring of plant efficiency brings to light any energy variations and enables potential for improvement to be identified. Working together with local managers, projects are continuously initiated in order to improve energy efficiency.

The key environmental data of Messer's production activities during the past year are as follows:

G4-EN6, G4-EN7 The volumes of gases produced rose by 11 % compared to the previous year, as a result of which the electricity consumption of the Group's air separation plants also rose. On the other hand, energy efficiency, measured in terms of energy consumption per cubic meter of gas sold, improved by 1.7 % compared to the previous year.

New on-site plants were commissioned again in 2016 with a view to bringing about a reduction both in transport costs for the delivery of liquefied gases and at the same time in CO_2 emissions. These plants are used for on-site gas production and save approximately 2,300 truck journeys and 420 tons of CO_2. As a result, local customers benefit from flexibility and security of supply.

In Hungary, a new production line was commissioned for the manufacture of CO_2 for the food industry, with an annual capacity of 45,000 tons. An optimized plant design enabled the energy consumption to be reduced by more than 20 MWh per month compared to the existing production line.

In addition to new construction projects, there are also a large number of smaller-scale activities that contribute to improving energy efficiency.

At a major air separation plant in South America, control of product compressors was optimized through installation of new equipment, allowing savings up to 400 MWh of electricity per month.

In an Asian plant, the visualization of customer purchases was significantly improved by installing new measuring equipment. This equipment enables the operator to react considerably more quickly and effectively to the changing pattern of customer purchases. Discharges of unused product were nearly halved, leading to reductions in annual electricity consumption of more than 3,000 MWh.

All national companies have replaced old light bulbs in production halls and administrative buildings with low-energy LED bulbs. The absolute saving for each individual measure is admittedly small, but the total results in a significant energy saving.

G4-LA2

Health management

Messer is aware of its social responsibility and its impact on employees, as employees play a decisive role in all work processes. Messer therefore aims to ensure the health and well-being of the individual through its working standards. For instance, Messer introduced various health programs, such as free access to fitness and wellness centers for employees and their families. Measures of this kind are designed to promote a healthy lifestyle among employees.

Furthermore, a comprehensive training program for handling gas cylinders was initiated, with a view not only to reducing accidents associated with this, but also to improving the prevention of industrial diseases such as musculoskeletal disorders.

Customer satisfaction

G4-PR5

Customer satisfaction is a key factor in the success of the Messer Group. Measuring customer satisfaction allows the services provided to be monitored and the effectiveness of measures implemented to be verified, thereby increasing customer satisfaction and, in the long term, enabling the Messer Group to improve performance continually. In 2017, more than 14,000 Messer Group customers in six countries were asked whether they were satisfied with the services received. This number represents a 57 % increase on the previous year. The percentage of customers completing the questionnaire in full fell compared to the previous year (10.9 %) to 6.4 %. Overall, 879 customers responded. The number of customers completing the questionnaire in part also fell from 478 to 447. On a scale of 1 for very dissatisfied to 10 for very satisfied, the overall performance of the Messer Group in Europe as a whole achieved a rating of 8.49, similar to the previous year's rating of 8.51 %.

The online questionnaire on general customer satisfaction consists of between 9 and 21 questions. To measure satisfaction, an analysis is carried out of whether the customers were satisfied with the services in general, whether customers consider it advantageous to be supplied by Messer and whether they are prepared to recommend Messer. The questionnaire focuses on 15 services provided by Messer and assessed by customers.

The results of the customer satisfaction analyses in individual national companies are not always comparable, owing to differences in mentality in the individual countries when it comes to assessing levels of satisfaction. Carrying out the customer satisfaction analyses regularly ensures that satisfaction within a country can be compared. The customer satisfaction analyses should be repeated for each national company every two years.

In 2017, the survey was repeated for Messer companies in France, Austria, Bulgaria, Romania, the Netherlands and Slovakia,. With the exception of France, where the general satisfaction fell from 7.7 to 7.4, it proved possible to maintain general satisfaction at a high level or even to improve it in all of the other countries. In Austria, a score of 9.1 was received for general satisfaction, in line with the previous survey's high level. In Bulgaria too, customers are very satisfied, with the overall performance in 2017 rated at 9.4 in 2017, the highest level achieved by the Messer Group. In 2015, the score for general satisfaction was 8.9. In Romania, customer satisfaction rose from 8.8 to 8.9. A slight improvement in satisfaction was also achieved by the services in the Netherlands. In the last survey, in 2014, an assessment of 7.7 had been achieved. This rose in 2017 to 8.1. In Slovakia, overall performance was again assessed at a very high level of satisfaction of 8.9, which represented a further improvement compared to the assessment of 2015 (8.3).

In addition to customer satisfaction, the satisfaction of the gas centers was also surveyed. Gas centers are external distribution partners which sell industrial gases to our customers on our behalf in defined regions. Cooperation with the gas centers is very important, since they maintain direct contact with our customers in their region. This was the first time that we had assessed satisfaction regarding our collaboration with gas centers in France. In Spain, this survey has already been carried out for several years. In total, 229 gas centers were contacted, of which 43 completed the questionnaire in full and 13 in part.

The online questionnaire consists of a total of nine questions, which, in addition to general satisfaction, also cover the gas centers' assessment of the service quality of the various Messer departments.

The general satisfaction of the gas centers in France in 2017 resulting from this first survey stood at 7.0. In Spain, the general satisfaction increased from 6.6 in 2016 to 7.6 in 2017.

The survey results are evaluated at regular intervals and are taken as an opportunity to make improvements to the relevant areas.

Financial Report

General economic conditions and sector environment

The various products made from industrial gases and related services and technologies are used in almost all branches of industry, but also in the foodstuffs technology, medicine and research and science sectors. For this reason, gross domestic product (GDP) is a highly relevant indicator for the Messer Group's performance.

In 2017, expectations for global economic growth were well exceeded. According to analyses of the International Monetary Fund (IMF)[1] and the World Bank[2], the pace of growth accelerated significantly year-on-year. According to the World Bank, real global GDP is estimated to have increased by 3.0 % in 2017, whereas an increase of 2.4 % was recorded in 2016. The growth trend was virtually synchronous worldwide. The GDP-growth rate picked up in both the emerging and developing countries and the developed industrialized countries. However, in 2017 too, there were still two-speed GDP growth rates, although both at a generally higher level, currently estimated at 4.3 % (2016: 3.7 %) for the emerging and developing countries and 2.3 % (2016: 1.6 %) for the developed industrialized countries.[1]

Economic development in Europe, in line with the global economic acceleration, improved appreciably in 2017. According to the figures of the Organization for Economic Cooperation and Development (OECD)[3] GDP in the euro area rose by an estimated 2.4 % in 2017. If this figure turns out to be correct, the growth rate in the region would have accelerated by a further 0.6 percentage points compared to the previous year. As far as the larger economic areas are concerned, a corresponding acceleration in GDP-growth was recorded in Germany, France and Italy. Only Spain experienced a slight slowdown in

[1] World Economic Outlook, Update January 22, 2018

[2] Global Economic Prospects, January 2018

[3] OECD Economic Outlook – No.102, Update November 2017

GDP-growth. That said, with an estimated growth rate of 3.1 %, Spain remained the faster-growing of the larger economic areas in Europe. Estimated GDP-growth in Europe outside the euro area was again stronger in 2017 than in the euro area, as illustrated by the examples of Slovenia (4.9 %), Poland and the Czech Republic (both 4.3 %) and Hungary (3.9 %).

In China, GDP-growth in 2017, contrary to expectations, did not fall off further but, according to World Bank estimates, even increased from 6.7 % in 2016 to 6.8 %. The Chinese Government is continuing in its endeavor to reduce the Chinese economy's dependence on exports by boosting domestic demand, with a corresponding focus on consumption and services. So far, however, this has not caused China to lose its top spot in the world's GDP-growth table.

Review of operations

General economic conditions in the fiscal year 2017 were more or less ideal. Especially in China, the Messer Group encountered unexpectedly dynamic economic activity, which was particularly evident in the steel production sector, where business levels picked up sharply, and in the generally strong demand for liquefied gases. This development came at the same time as an economic recovery in Europe, with nearly all countries recording a perceptible upturn. These favorable economic conditions helped the Messer Group in 2017, contrary to our forecast at this stage last year, to achieve a significant year-on-year sales growth in 2017. In the final analysis, sales went up by 7.5 %. Similar to the sales performance, the Messer Group's EBITDA turned out considerably better than our original forecast for the year. Instead of the sharp decline in EBITDA forecasted for 2017, EBITDA actually increased by more than 16% compared to the previous year. Positive developments in China, which far exceeded expectations, made the decisive contribution to this outcome.

Including the impact of the USPP currency hedge and contrary to the prediction made in the previous year's management report, the Messer Group again managed to reduce net debt during the reporting period from K€ 379,335 to K€ 290,139 at December 31, 2017.

Overall situation

Results of operations

Messer Group generated worldwide sales of K€ 1,231,847 in 2017 (2016: K€ 1,145,790) which can be analyzed by region as follows:

Sales	Jan. 1 – Dec. 31, 2017	Jan. 1 – Dec. 31, 2016	Change in 2017
China, Vietnam, ASEAN and Peru	472,273	402,049	
Western Europe	360,744	368,622	
South-Eastern Europe	202,973	188,183	
Central Europe	195,857	186,936	
	1,231,847	1,145,790	7.5%

The Messer Group's sales in the financial year 2017 were 7.5 % up on the previous year's figure. Business developed in the various regions as follows:

China, Vietnam, ASEAN and Peru

In local currency terms, sales in China rose by 22 % year-on-year. Here, the partly unexpectedly strong economic growth rate recorded in China had a positive impact on the industrial gases sector. Our companies benefited mainly from the renewed upturn in steel production and in particular from very high demand for liquefied gases, accompanied by rising market prices.

Sales in Vietnam fell by 15 % compared to the previous year. Excluding the one-time contribution to sales resulting from the accounting treatment applied for plants in accordance with IAS 17 (in conjunction with IFRIC 4) in the previous year, sales were 2 % down on the previous year. However, this decline was exclusively attributable to the depreciation of the Vietnamese currency compared to the previous year. In local currency terms, sales grew by a solid 3 % in 2017, driven in part by increased demand from our on-site customer, Hoa Phat, and the utilization of further production capacity for liquefied gases in the north of the country.

Our companies in the ASEAN region made a € 2.5 million contribution to overall sales.

Western Europe

Sales in this region fell 2 % year-on-year, whereby lower sales of our central Engineering Department in the Corporate Office and the generally weaker economic environment in Switzerland played a disproportionately significant role. In all other countries in the region, however, recorded sales growth, with Spain and the Benelux countries posting the biggest growth rates.

South-Eastern Europe

Sales of the Messer Group in South-Eastern Europe rose sharply by 8 % or (7 % excluding exchange rate factors). With the exception of our business activities in Albania and Romania, all countries posted strong sales growth. The highest rates of increase occurred in Hungary at 13 %, followed by Serbia and Croatia, with growth in each case of around 8 %. Strong sales growth in Hungary was also bolstered by the acquisition of the industrial gases activities of Air Liquide in Hungary with effect from June 1, 2016.

Central Europe

Compared to the previous year, sales recorded for the Central Europe region were up by just under 5 % (or 3 % excluding exchange rate factors). In particular the excellent business climate in Poland, from which Messer's local activities benefited, and a good performance in Slovakia contributed to the increase.

The Group recorded an EBITDA of K€ 289,827 for the fiscal year 2017 (2016: K€ 249,057).

EBITDA	Jan. 1 – Dec. 31, 2017	Jan. 1 – Dec. 31, 2016
EBIT	139,080	107,026
Depreciation, amortization and impairment losses on intangible assets and property, plant and equipment	150,704	141,977
Dividend income[1]	43	54
EBITDA	**289,827**	**249,057**
Sales	1,231,847	1,145,790
Margin:	23.5 %	21.7 %

[1] Dividend income from non-consolidated companies

Contrary to our previous year's prediction, the Messer Group's EBITDA rose by 16 % year-on-year.

Overall the Messer Group recorded a group net profit (including profit attributable to minority interests) of K€ 83,663 for the fiscal year 2017 (2016: K€ 67,238). The gross profit amounted to K€ 557,510 (45.3 % of sales) and the operating profit amounted to K€ 139,080 (11.3 % of sales). Compared to the previous year, the operating profit increased by K€ 32,054.

The operating result includes a positive effect of K€ 5,113 from the reversal of impairment losses on property, plant and equipment and a negative effect of K€ 2,745 from the write-down of the ASCO brand. In addition, an impairment loss of K€ 15,339 was recorded in 2017 on goodwill.

In the previous year, the operating result was influenced by two offsetting factors. On the one hand, application of IFRIC 4 had a one-time positive impact on sales of € 6 million for newly commissioned plants, while on the other, impairment losses and reversals of impairment losses on property, plant and equipment had a net negative impact of K€ 4,400.

Profit before tax and minority interests is stated after a net interest expense of K€ 18,647, which represented an improvement of K€ 2,563 on the previous year due to the lower level of debt during the year. Other financial result for the year 2017 deteriorated by K€ 6,258 compared to the previous year, mainly reflecting negative changes in the fair value measurement of derivatives with income statement effect.

Taking into account all of the above factors, the group profit attributable to equity holders of the parent company totaled K€ 59,864 and was therefore K€ 8,186 higher than in the previous year.

Financial position

G4-9

Group Treasury is responsible for overall liquidity, interest rate and currency management. The most important objective of Group Treasury is to ensure that a minimum level of liquidity is always available to ensure solvency at all times. High levels of liquid funds help to improve our flexibility, security and independence. If necessary, we can call on additional liquidity potential under further various available credit lines amounting to € 54.3 million.

Financing

Net debt as of December 31, 2017 stood at K€ 290,139 (2016: K€ 379,335) and is broken down as follows:

Net debt	Dec. 31, 2017	Dec. 31, 2016	Change in 2017
Financial debt Currency hedge USPP	481,463 (15,310)	526,661 (33,342)	
Gross financial debt	**466,153**	493,319	
Cash and cash equivalents	(176,014)	(113,984)	
	290,139	379,335	23.5 %

The Messer Group reduced net debt in 2017 by K€ 89,196 compared to the previous year. Based on financial liabilities of K€ 481,463 at the end of the reporting period, the ratio of financial debt to the balance sheet total was 21.8 %.

Cash flow statement

Abridged version in K€	Jan. 1. – Dec. 31, 2017	Jan. 1. – Dec. 31, 2016
Profit before taxes	**113,145**	89,093
Cash flows from operating activities	281,234	229,328
Cash flows from investing activities	(137,460)	(137,653)
Cash flows from financing activities	(78,235)	(127,457)
Changes in cash and cash equivalents	**(65,539)**	(35,782)
Cash and cash equivalents at the beginning of the period	**113,984**	144,504
Currency translation impact on cash and cash equivalents	(2,465)	5,262
Cash, change in group reporting entity	–	–
Cash classified as held for sale	(1,044)	–
at the end of the period	**176,014**	113,984

At K€ 281,234 the total of cash flows from operating activities was K€ 51,906 higher than in the previous year. In addition to the higher net profit for the year, this trend is also largely attributable to a decrease finance lease receivables. These receivables fall within the scope of application of IAS 17 (in conjunction with IFRIC 4) and are reduced in line with customer payments.

The change in cash flows from investing activities again reflected the continued high level of investments by the Messer Group. The bulk of the outflows related to investments in property, plant and equipment. In addition, the acquisition of the shares in Universal Industrial Gas Sdn. Bhd, Malaysia, resulted in cash outflows relating to intangible assets.

Cash flows from financing activities amounting to K€ 78,235 were K€ 49,222 lower than for the previous fiscal year. After a scheduled increase in financial debt repayment in the previous year, outflows for repayments were somewhat lower in 2017. At the same time, cash holdings went up.

Liquid funds held by the Messer Group at December 31, 2017 totaled K€ 176,014, compared to K€ 113,984 one year earlier.

In 2018, the Messer Group will require further capital to fund its expanding business operations and scheduled capital expenditure and to repay loans and interest as they fall due, even though our focus in the medium term will be to consolidate net debt levels relating to operations outside China. These funds will be generated out of cash flows from operating activities, existing funds and credit lines available to the Group. The Messer Group's strong position in the various markets in which it already operates, combined with expansion into new markets, will enable us to maintain our robust financial position.

The Group has committed to purchase or to invest in the construction and maintenance of various production facilities. Obligations under these agreements represent commitments to purchase plant and equipment at market prices in the future. The Group is also party to long-term contracts which give rise to obligations. As of December 31, 2017, purchase and capital expenditure commitments and long-term contracts amounted to K€ 128,378 (2016: K€ 73,655).

Capital expenditure

Capital expenditure continues to be focused on safeguarding existing business and opening up opportunities for growth. In accordance with normal business principles, the Messer Group invests primarily in projects which will secure supply capabilities and/or which create opportunities for profitable growth. Furthermore regular investments are made in the modernization of production plants and distribution channels.

The Messer Group's capital expenditure on property, plant and equipment and financial investments totaled € 144 million. The capital expenditure ratio corresponds to 11.7 % of sales. The principal investments during the fiscal year in property, plant and equipment were the construction of air separation plants in Vietnam, Slovenia and Hungary and production plants in China.

Overall, capital expenditure on property, plant and equipment totaled € 143 million in 2016, compared to € 119 million in 2016. Investments in financial assets related to the payment of the full purchase price for the acquisition of 60 % of the shares in Universal Industrial Gas Sdn. Bhd. in Malaysia (K€ 1,985). Furthermore the companies Messer (Thailand) Co., Ltd, Thailand, and Pt. Chemindo Inti Usaha, Indonesia, were established as part of our planned entry to the ASEAN region.

Capital expenditure by region was as follows:

Capital expenditure in K€	Jan. 1. – Dec. 31, 2017	Jan. 1. – Dec. 31, 2016
China, Vietnam, ASEAN and Peru	47,017	39,972
Western Europe	40,465	41,563
South-Eastern Europe	38,459	44,528
Central Europe	18,291	17,473
	144,232	143,536

In China, Messer's investment projects are focused on pushing ahead with the strategy of customer diversification compared to the existing business model. This includes a gas supply system for high-purity industrial gases for an on-site customer from the electronics industry in Sichuan province, the pipeline connection of customers in a chemical industrial park in Chongqing province and a semi-automated filling plant in Hunan province.

In Vietnam, construction work started on the fourth air separation plant for on-site customer Hoa Phat at its production site to the east of Hanoi and two further air separation plants for its new steelworks in the center of the country in Dung Quat.

Capital expenditure in Europe remains focused on investment in distribution channels and selected growth projects. The selected growth projects include the completion of the project to expand the existing air gas and CO_2 production capacities in Hungary, the construction of the first air separation plant in Slovenia, which ensures future supply independence of our industrial gas activities there, the construction of a first CO_2 production plant in Bulgaria and the expansion of the CO_2 production capacities in Bosnia. In addition, we invested in the selective expansion and/or modernization of filling plants in Germany, Poland and the Netherlands, and the takeover of an industrial gas trading business in Warsaw, Poland.

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Net assets

The balance sheet total at December 31, 2017 amounted to K€ 2,206,026, of which the largest proportion (76.8 %) related to non-current assets (2016: 79.2 %). Tangible and intangible assets represented the largest combined item on the assets side of the balance sheet (67.3 %). The carrying amount of these two items together increased by K€ 40,688. Non-current lease receivables and cash at banks account for 6.2 % and 8.0 % respectively of total assets.

Currency factors (including amounts attributable to minority interests) had the effect of decreasing the balance sheet total by K€ 33,875 and were attributable mainly to our Chinese and Serbian companies.

The equity ratio (including minority interests) increased to 61.0 % (2016: 59.3 %). Gross debt accounted for 21.8 % of the balance sheet total and decreased by K€ 45,198 compared to one year earlier. The refinancing concluded in 2015 and debt repayment in 2017 led to further improvement of the financing structure in terms of the long-term financing of assets.

Cost of capital percentage for employed capital

The ROCE for the past year was 10.71 %, calculated as follows:

ROCE	Jan. 1. – Dec. 31, 2017	Jan. 1. – Dec. 31, 2016
EBIT	139,080	**107,026**
+ Amortization of goodwill	15,339	–
EBIT adjusted	**154,419**	107,026
: Capital employed	1,441,300	1,481,264
ROCE in %	**10.71 %**	7.23 %
Derivation of capital employed from the balance sheet		
Other intangible assets and property, plant and equipment	1,185,421	**1,207,758**
Finance lease receivables	151,447	173,509
Net working capital	104,432	99,997
Capital Employed	**1,441,300**	1,481,264

Operating assets

Net working capital stood at K€ 104,432 at the end of the reporting period (2016: K€ 99,997) and comprised the following:

Net working capital	Dec. 31, 2017	Dec. 31, 2016
Inventories	58,939	54,158
Trade accounts receivable	191,809	206,561
Trade accounts payables	(130,165)	(145,706)
Advance payments received	(16,151)	(15,016)
	104,432	99,997

The increase in net working capital compared to the previous year is largely attributable to the higher level of inventories. The K€ 4,781 increase in inventories was mainly in the area of work in progress in conjunction with customer projects involving our companies in Germany.

The ratio of inventories less advance payments from customers plus receivables on the one hand and trade payables on the other was, as in the previous year, approximately 2:1; the ratio of net working capital to sales went down from 8.7 % to 8.4 %.

DSO (Days Sales Outstanding) decreased by nine days from 65 to 56 days. The decrease in DSO related in particular to China and Switzerland and was attributable to improvements in the management of receivables and the conduct of our customers with regard to payments.

Overall statement on the Group's financial condition

Benefiting from an almost ideal economic climate, sales of the Messer Group rose by 7.5 % year-on-year. Our business activities in Asia – and first and foremost in China – made a strong contribution to this result.

The EBITDA margin improved sharply to 23.5 %, while EBITDA surged from approximately € 249 million to € 290 million.

The Messer Group's return on capital employed (ROCE) improved to 10.71 % (2016: 7.23 %). Instead of the sharp decline in ROCE forecasted for 2017, ROCE actually increased significantly, which was attributable to the unexpectedly and extraordinarily favorable economic trend for our business in China.

Good progress was also made in consolidating net debt levels relating to our operations outside China, which forms the focus of our medium-term planning. In 2017, for instance, net debt relating to our operations outside China relevant for the net debt covenants was reduced year-on-year by a further € 23.8 million to € 306.7 million. This trend is also reflected in the total net debt figure of approximately € 290 million for the Messer Group, which was down by a further € 89 million compared to the end of the previous year.

These overall very favorable developments represent good progress and are testimony to the stability and sustainability of the Group's business model. The Messer Group, operating in the two principal regions of Europe and China, has a global presence and good regional diversification in a number of countries or provinces within the two principal regions, so that falling demand in individual markets or downturns in specific sectors can often be offset.

Outlook

Macroeconomic and sector-specific risks

Economic growth in 2017 significantly exceeded predictions in many areas and was virtually synchronous worldwide. As a result of these developments, some leading economic institutes now believe that the global economy has reached its growth potential and that it will now enter a phase of stabilization. For example, the World Bank[1] is only predicting a marginal acceleration in the global GDP rate from 3.0 % in 2017 to 3.1 % in 2018. The OECD[2] prediction for global economic growth is similar, with GDP now expected to grow at 3.7 % in 2018 compared to 3.6 % in 2017. This relatively stable global economic development, which is expected to last until 2019/20, is based mainly on the favorable financing conditions worldwide which, together with evenly-balanced and stable commodities prices, ultimately promotes investment and raises the underlying sentiment of most businesses. At the same time, it is becoming clear that assumptions also need to take account of a potential slowdown of the world economy due to factors such the ageing global population and declining productivity gains. For 2018, both the World Bank and the IWF[3] forecast that the developed industrialized countries will continue to grow at a similar rate to the previous year and that the emerging and developing countries will achieve another slight increase. The IMF forecasts GDP-growth of 2.3 % in 2018 (2017: 2.3 %) for the developed industrialized countries as a whole. However, a general slowdown in economic growth is already expected within the individual industrialized countries, which will be offset only by a further significant increase in US GDP-growth to 2.7 % in 2018 compared to 2.3 % in 2017. For the emerging and developing countries, with GDP-growth forecast to rise to 4.9 % in 2018 (2017: 4.7 %), economic growth is gradually expected to peak. In China, on the other hand, the ongoing process of change embarked upon with a view to strengthening domestic demand on the basis of consumption and services is expected to result in a return to the trend towards a decelerating growth rate. The IMF and World Bank forecast GDP growth rates for 2018 of between 6.6 % and 6.4 %.

The World Bank and the IWF again point out clear forecasting risks in their pronouncements for 2018, which arise primarily from a sudden change in the favorable financing conditions and disruptions on the global financial markets.

Outlook for the Messer Group

The Messer Group's net financial debt to EBITDA ratio stood at 1.0 at December 31, 2017, whilst the corresponding ratio for our operations excluding China was 1.8. The medium-term forecast for the Messer Group continues to show lower net debt levels for our business activities outside China. By investing on a sound basis, we also intend to raise sales at a pace appropriate for the prevailing economic conditions and to take advantage of selected opportunities in order to stabilize or improve the profitability of the Messer Group.

[1] Global Economic Prospects, January 2018

[2] OECD Economic Outlook – No. 102, Update November 2017

[3] World Economic Outlook, Update January 22, 2018

We continue to view economic prospects in Europe with cautious optimism, although regional pressure on prices and intense competition and a re-emergence of the crisis in the steel industry or a potential financial crisis could hold down growth. The main focus of our business performance in Europe is on exploiting new production capacities created in recent years (in particular in Germany, France, Austria, Poland and Spain) to the maximum extent, and successfully creating new production capacities and customer projects at selected locations (e.g. in Serbia, Slovenia and Hungary). Future investment decisions will be taken in line with the stated strategy of consolidating net debt levels in the medium term.

The China region accounted for approximately a third of sales and more than 40 % of the EBITDA of the Messer Group in 2017. The net debt/ EBITDA ratio for the China region was negative 0.15. This means that cash funds exceeded financial debt by € 17.6 million, underlining the continuing importance of Chinese operations for sales, profitability and internal financing of the Messer Group.

We remain confident in our prediction that the market in which we intend to participate on a broad basis will continue to grow at an above-average rate. Accordingly, the process of diversifying the sales profile in China will be continued. In this respect, we have reached an advanced stage in the implementation of a comprehensive package of measures. These measures include concentrating on new business in non-steel sectors, the development of applications technology for the liquefied gases business and the expansion of the specialty gases and CO_2 business.

According to the current estimates of the various economic research institutes, we expect energy costs, which are all-important for our industry, not to rise disproportionately for the time being.

The main financial performance indicators for the Messer Group are forecast to develop as follows in the coming year:

	2018 compared to 2017
Sales	Moderately decreasing
EBITDA	Sharply decreasing
Investments	Sharply rising
Net debt	Sharply rising
ROCE	Sharply decreasing

Overall assessment by management

In view of the inherent uncertainties, the Messer Group draws up its forecasts on a prudent basis. The budget for 2018 was prepared before the fourth quarter 2017, which was highly successful due to a strong performance, particularly in China. With the benefit of hindsight, the expectations built in the budget for 2018 are therefore cautious in terms of forecast sales, EBITDA and ROCE. On the basis of the results for the first two months of the fiscal year 2018, we now expect the positive trend of 2017 to continue in China in the fiscal year 2018 too.

We drew up the budget on the assumption that the new financial year 2018 would reflect a continuation of the economic recovery phase across Europe, albeit at a decelerating pace. In China, the growth rate is likely to return to decelerating trend. Global economic conditions are currently positive despite the continued existence of some significant risks which create major challenges in accurately assessing future economic developments. Risks and uncertainties which may impact on economic conditions that are relevant for the Messer Group's business are seen primarily in possible upheavals in the wake of expected changes in monetary policies, the uncertain outcome of the continued transformation of the Chinese economy, the still incalculable impact of "Brexit" and a potential trade war. This will continue to be accompanied by the unforeseeable stresses and strains from the trouble spots, especially in the North African and Arabian region.

The Messer Group considers that it is well placed to meet the forthcoming challenges – although it continues to deem it wise to adopt a prudent stance with regard to short-term expectations. The budgeted decrease in sales is mainly attributable to the assumption that the growth rate in China will normalize again compared with 2017 and that the euro will become stronger as a currency for transactions. The predicted deterioration in EBITDA and ROCE reflects the expected decline in sales, compounded by a less favorable forecast of other operating items.

Future investment decisions will be taken in line with the stated strategy of consolidating net debt levels for existing operations in the medium term. A commensurate level of Investments appropriate to this objective is planned for 2018 to take advantage of opportunities arising in China, Vietnam and ASEAN. A solid earnings performance is expected to successfully counteract any sustained increase in net debt at the Messer Group.

Forward-looking assertions

The Outlook Report contains forward-looking assertions which are based on the management's current appraisal of future developments. These assertions are not to be interpreted as a guarantee that these expectations will in fact be met. Future business performance and earnings of the Messer Group are dependent upon a number of risks and uncertainties and may therefore diverge significantly from the forward-looking assertions made here.

Opportunities report

As an international supplier of industrial gases, opportunities basically arise for the Messer Group from the multifarious usages of industrial gases to produce products needed in all fields of life and in all countries of the world. Through investment, we are able to exploit available opportunities to realize the full potential of the business and to maintain/ strengthen our market position. We are also taking advantage of the opportunities arising from internationalization – in particular in the light of positive developments on the emerging economies – by expanding our facilities in these regions. This also enables us to engage in new markets with long-term growth potential. We encourage the identification of new opportunities by embedding employee motivation in the Group's corporate values and by fostering ideas management.

The main opportunities which could be significant for the net assets, financial and earnings position of the Messer Group are as follows:

Macroeconomic opportunities

The general economic environment plays an important role for our operations, our financial and earnings position and our cash flows. Our forecast for 2018 is based on the expectation that future macroeconomic conditions correspond to the description provided in the Outlook Report section of the management report. If the world economy as a whole or in regions or countries of relevance for our business performs better than described, our sales and earnings could exceed the forecasted amounts.

Market opportunities

Our forecasts continue to incorporate continued significant market growth, particularly in China, but, for the purposes of the outlook for 2018, have not assumed any further increase in the growth rate. A sharp economic upswing could have a positive impact on the Group's sales and earnings.

We forecast a modest economic recovery in Europe. A faster economic recovery, especially in the southern European countries of the euro area, could have a positive impact on our sales and earnings.

Opportunities arising from industrial gases applications

Our products are used worldwide in a variety of production processes. In the field of application technology, the Messer Group continuously analyzes multifarious processes in order to facilitate more efficient production processes for our customers through the use of industrial gases. New applications identified in this way may open up new business opportunities which could have a positive impact on our sales and earnings.

Opportunities arising from optimization measures

Where necessary, the Messer Group implements appropriate optimization measures to support business performance. If the various measures are implemented more quickly or more successfully than expected, this could have a positive impact on our sales and earnings.

Opportunities created by our employees

The Messer Group promotes „ideas management" throughout the group and employees are encouraged to submit improvement proposals with local and/or international relevance. Furthermore, human resources development programs and other training offers are available to encourage the systematic development and exploitation of our employees' potential. If we achieve better progress with these measures and methods than currently expected, this could have a positive impact on our sales and earnings.

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Risk report

As an international supplier of industrial gases, the Messer Group is exposed to opportunities and risks which inevitably arise in connection with entrepreneurial activities. Moreover, future earnings will depend both on the operating performance of the gases business and on the state of the economies in individual countries, a factor over which the Messer Group has no influence. It is the task of all concerned to take advantage of opportunities when they arise, whilst at the same time ensuring that risk is kept to a minimum and pro-actively managed.

The main risks which could be significant for the net assets, financial and earnings position of the Messer Group are as follows:

Macroeconomic risks

The industrial gases business is subject to intense competition. The level of competition is increasing in conjunction with the process of globalization. This highly competitive environment could reduce Messer's earnings and cash flows in the future. The Messer Group operates globally, making it susceptible to local political, social and economic conditions and to the resulting risks arising in each market.

Market risks

We supply a cross-selection of industries and sectors (including steel, metal processing, chemicals, petro-chemicals, food and beverages, healthcare and glass) on the basis of long-term contracts over periods of up to 15 years in Europe and up to 30 years in Asia. A significant reduction in market demand in any one of these key industries or sectors – particularly given the prevailing critical situation in the steel industry which is suffering from worldwide over-capacity – could adversely affect future earnings. Our strong position in China also means that this region makes an above-average contribution to earnings, and conversely, that any economic downturn on this market cannot be fully compensated by improved performance in other markets.

Cost risks

Regulatory or government amendments or interventions in the energy sector may lead to rising energy prices in some countries. The re-occurrence of crisis situations within oil-producing countries, the growing demand for energy in emerging economies, particularly in China and India, give reason to believe that oil and energy prices will rise again in the long term with a corresponding impact on supplies and primary products necessary for the Messer Group’s business. Purchase prices of some important bought-in products, such as helium, fluctuate considerably. Although Messer is often able to pass on cost increases partially to its customers via price escalation clauses in supply contracts (in particular for electricity price increases) or reduce the risk by entering into long-term purchase agreements, it is possible that price increases for energy and bought-in items could adversely affect the profitability of the Messer Group.

Selling price risks

The intense competition may lead in certain countries to disproportionate downward price trends, which could have a negative impact on future sales and earnings. The integration of member states which have only recently joined the EU entails risk in that many previously state-run businesses will need to be privatized and restructured in accordance with EU and International Monetary Fund requirements. The number and scale of state grants could be drastically reduced, culminating in numerous closures and mergers in these countries, and an adverse impact on the Group’s sales. In these circumstances, the downward pressure on selling prices would probably increase.

Operational risk

An operational interruption at one of our production facilities can result in loss of supplies to customers. We endeavor to avoid this situation by regularly maintaining and monitoring our equipment. In the event of breakdowns or defects, emergency plans and instruments are in place to reduce the financial consequences of a business interruption at one of our customers. The Messer Group is currently expanding its supply structure and maximizing flexibility in order to ensure that supplies to customers are safeguarded even in emergency situations. The range and quality of our products depend on the availability of bought-in hardware and on the production equipment used (e.g. cylinders and tanks) on the one hand and on the quality of service/products of our suppliers and business partners on the other.

Acquisition risks

The Messer Group is continually developing new strategies. As well as expanding and strengthening our existing business and continually optimizing our sourcing and logistics processes, we are intent on achieving growth both organically and through other means such as acquisitions and joint ventures. Our aim is to consolidate operations on existing markets and to divest non-core business operations. The sale of entities or business activities can, however, result in retrospective risks for the Group. Appropriate provision is recognized if a risk is probable. When deciding to make acquisitions or entering into new partnerships there is always a risk that future market potential and the feasibility of projects being put into action may have been wrongly predicted. The Messer Group therefore has internal committees which highlight the development potential of a project prior to its approval and analyze any information which has a bearing on decisions which need to be made. In order to be as certain as possible that M&A projects have future development potential, due diligence investigations are carried out by experienced staff in specialist departments before any acquisitions are made in connection with M&A projects. Risk is also reduced by including relevant terms of agreement in sales contracts.

IT risks

The use of state-of-the-art information technology plays a decisive role in handling and securing business processes within the Messer Group. Our IT center in Germany provides the scope to create a modern and efficient infrastructure and to improve our business processes where necessary. This concentration does, however, mean that there is a greater risk of business interruption, cyber criminality and sabotage, caused by natural hazards or human error. In order to avoid this risk, our IT center applies its own IT risk management system, including ongoing testing of the system architecture. Particular attention is paid to the provision of IT infrastructure and services and especially to guaranteeing fail-safe and interference-free operations. The integrity and reliability of the data and important information are ensured by means of appropriate measures, services and systems. Most of the business processes of the Messer Group are provided by internal or external IT services. The security and compliance of the information systems are set out in the IT strategy objectives, on the basis of which the Messer Group designs, implements and reviews measures to ensure protection of data, applications, systems and networks on an ongoing basis. Both preventive and corrective measures are considered in this process.

Financing risks

We require funding to finance our growth and ambitious capital expenditure program. We are therefore dependent on the financial sector remaining stable and liquid. The Messer Group is reliant on cash flows from operating activities to repay debt. This is dependent to a large extent on the ability to generate positive cash flows from operating activities.

The Group has recognized goodwill in the consolidated balance sheet. The application of IAS 36 (i.e. the performance of impairment tests) could result in the requirement to recognize impairment losses on goodwill, if the business and market prospects of a group subsidiary or cash-generating unit deteriorate compared to the original date of measurement. Impairment losses could have a significant adverse impact on earnings and on balance sheet/ performance ratios. In China, the steel industry is in a State-run restructuring process which may lead to the closure of individual production sites. The resulting uncertainties were taken into account in the forecast through corresponding allowances on receivables and scaled-back business assumptions.

There is always a risk that financial and debt crises could result in global economic downturns or slowdowns. The Messer Group will continue to observe developments very closely. Cost reduction measures and capital expenditure programs initiated and implemented in recent years have helped to counter the negative impact of previous financial and economic crises. Many of these programs remain in place. A potential deterioration in the creditworthiness of our customers increases the risk of bad debts and delays in joint projects.

It is essential that we ensure compliance with the covenants attached to the USPP and RFA financing arrangements. Particularly worthy of mention is the net debt (i.e. gross debt less liquid funds)/EBITDA covenant which is required to be complied with for the Messer Group as a whole and for the Messer Group excluding its subsidiaries in China. Financial risks can also arise for the Messer Group from changes in exchange and interest rates. The management of interest rate, currency and liquidity risks is handled by Group Treasury in compliance with guidelines approved by executive management. Group Treasury identifies, measures and hedges financial risks. The Messer Group currently employs marketable forward currency contracts, interest rate swaps and cross-currency interest rate swaps as hedging instruments. Treasury guidelines contain general risk management principles and specific rules for defined areas such as the exchange rate risk, interest rate risk, the use of derivative financial instruments and the investment of surplus cash. The related risks are observed continuously and the scope of hedging adjusted where considered necessary.

Currency risks

Transaction risks arising in conjunction with the export of products are generally hedged as soon as the order is received. At an operating level, for the most part the individual Group entities transact their business locally in their functional currency. For this reason, the currency risk element of transaction risks is generally considered to be low. However, some Group entities are exposed to foreign currency risks that arise on transactions that are not denominated in their functional currency. These transactions relate mainly to payments for imported products or services and are hedged to the maximum extent possible. Like any other market participant, we may be confronted with the unexpected appreciation of a functional currency which weakens the international competitiveness of the country concerned and hence the ability of our local business to export its products. Translation risks which may arise when converting foreign currency exposures into euro are classified as customary for the business. Assets and liabilities denominated in non-euro currencies can give rise to exchange losses when converted into euros, thereby reducing Group equity.

Legal and contractual risks

Enterprises are confronted from time to time with allegations that they have infringed industrial rights or legal obligations, that defective products have been supplied or that environmental protection laws have not been adhered to. Regardless of their prospects of success, this type of claim can result in very high defense costs. In cases like these, the Messer Group defends itself energetically with the support of both in-house and external experts.

Our international operations are subject to a wide range of country-specific environmental legislation and regulations in areas such as gas emissions, groundwater pollution, the use and treatment of dangerous substances as well as ground surveys and decontamination. This can give rise to liability risks in conjunction with either past or current operations. New environmental requirements, partially resulting from the adoption of EU directives in the new EU Member States, necessitate that our existing environmental standards (which are already at a very high level) are brought into line with the new requirements. This may result in higher production costs and modifications to the production process. That said, the recent past shows that the implementation of stricter environmental regulations often results in a more efficient production process and a higher quality product.

Overall assessment by management

The above-mentioned opportunities show that both internal and external potential are involved. We endeavor to develop in-house potential on a targeted basis and will put external potential to good use whenever the opportunity arises. The risks presented above are not the only ones to which the Messer Group is exposed. Some risks, which have not yet been identified or which are not considered to be significant from today’s perspective could have an adverse impact on the Messer Group if general business or economic conditions were to change. However, no risks were identified in 2017, either individually or in aggregate, which could have a material adverse impact on the going-concern status of the Messer Group. From today’s perspective, no such risks are pending in the foreseeable future. The principal risks during the period under report encompassed market developments, with at times intensive competition and price pressure, as currently in China, and production processes. Organizational measures are in place to identify potential risks at an early stage. Our vigil risk management system (described below) and pro-active management of risks enable us to reduce risk.

Risk management

The principles that dictate our approach to risk management are stipulated by the Executive Management. Risk management is directed at safeguarding the going-concern status of group entities and increasing the value of the business; for this reason it plays a crucial role in all decision-making and business processes. The existing management structure and the reporting processes which are in place ensure that not only developments that could jeopardize its going-concern status are reported regularly and in good time to the relevant levels, but also that other developments which pose a threat to the achievement of short-term performance targets (such as EBITDA or cash flow) are reported. This allows management to initiate measures at an early stage to mitigate any business and/or financial risks. Risk managers have been designated at each of the subsidiaries with responsibility for ensuring the proper functioning of local reporting systems. Working together with local risk managers, the group risk manager prepares a risk report for the Messer Group as a whole at the start of each year which is discussed by the Executive Management and communicated to the Supervisory Board of the Messer Group in good time. The risks recorded in the risk report are categorized by nature and classified by probability of occurrence. Risk perception in the current selling environment has exacerbated the risk profile of Messer Group entities in the fiscal year 2017 compared to the previous year.

Messer is adequately insured against potential claims or liability risks, to which it is exposed; these policies ensure that the financial impact can be kept within defined limits or completely avoided. The scale of insurance coverage is continuously optimized in response to the specific situation of group companies.

The Messer Group's internal audit department carried out twelve status audits (all follow-up audits) at European Messer Group companies during 2017. In China, the local central organization carried out internal audits during the year (most of them relating to tax matters) and some status audits. The regular follow-up audits (in total eleven audits), which check at appropriate intervals that the previous findings and recommendations have been implemented effectively, are still considered to be a core aspect of the internal audit department's activities. The audits by the internal audit department at the same time include advisory activities in the sense that information on best practice is passed on and cross-border assistance is organized; this takes account of the respective current standards of the entities in the various countries. In addition, a regular exchange of information takes place with the external auditors in order to make the best use of available know-how, on a results-oriented basis, during the respective audits. Where necessary, other central functions are also called upon in an advisory capacity (including SHEQ, Corporate Logistics, Central Sales Functions). Compliance with corporate guidelines is tested and sample testing of voucher/document controls performed within the various business processes, in order to check the effectiveness and commercial sense of processes as well as the accuracy and reliability of financial reporting. Findings were clarified and recommendations made to improve the transparency of business processes. The Supervisory Board of the Messer Group regularly reviews the quality and appropriate intensity of the audits.

The Group's Safety, Health, Environment, Quality (SHEQ) department continues to carry out audits and risk analyses in order to reduce the accident ratio even further.

State-of-the-art technologies are employed in the IT area in order to keep the risk from electronic data processing to a minimum. Unauthorized access to data and systems and a significant loss of data are ruled out to the greatest extent possible. The efficiency, operational availability and reliability of systems are constantly being monitored and improved. Messer's security concept also includes a detailed emergency plan. In order to minimize risks, the various technologies employed by the Messer Group are regularly tested to ensure that IT-based business processes are safe.

Tax laws and competition regulations can also give rise to business risks. In order to mitigate these risks, the Company relies upon the advice of both in-house and external experts.

Income and operating cash flows are, to a large extent, unrelated to market interest rates, since the Group does not hold any significant interest-bearing assets. Loans or credits subject to variable interest rates are hedged partly with the aid of interest rate swaps (cash flow hedges of future interest payments). Under these arrangements, loans with variable interest rates are converted in substance to ones with fixed or maximum rates. In conjunction with the interest rate swaps, the difference between fixed contract interest rates and variable interest rates is settled at specified intervals (computed by reference to an agreed amount). At the balance sheet date, derivative financial instruments had only been entered into with renowned international financial institutions.

Corporate Governance within the Messer Group includes a whole range of in-house rules and measures aimed at preventing the occurrence of risks. The first stage of the risk management system is to assess risks throughout the organization. This risk assessment is conducted by the Group's corporate departments for the respective areas of responsibility and by each consolidated subsidiary for its own business. The assessment of risks is updated each year. All information relating to risks is collated centrally by the Corporate Compliance Officer (CCO). Training is organized and carried out as appropriate to cover identified risk areas and to highlight best practice for avoiding the occurrence of a risk as far as possible. Mandatory compliance guidelines are in place for all Messer Group entities, including in particular the „Code of Conduct" and „Group Guidelines". All first and second-tier managers of the Messer Group and its consolidated subsidiaries have confirmed that they have received these guidelines, examined their content and comply with the regulations contained therein. Furthermore, all employees have been informed of the content of compliance guidelines of relevance to them and have also confirmed compliance with them. Management and staff are regularly informed about, and receive training on, the content of these guidelines, other policies and code of conduct rules.

On the basis of a matrix structure, the Compliance department cooperates closely with the SHEQ, Medical, IT, Audit, Legal and Insurance departments. Internal audits are carried out to check that compliance guidelines – in particular the Group Guidelines – have been appropriately implemented, thus ensuring good risk management procedures throughout the organization, including conduct and reporting rules, the requirement for approval at the appropriate level as well as application of the dual control principle for legally binding agreements with third parties. Incidences of non-compliance are followed up and the appropriate actions taken where necessary. At the same time, any such incidences are used to reflect on how additional preventive measures could reduce the risk of non-compliance in the future.

Bad Soden am Taunus, March 1, 2018

Messer Group GmbH

Consolidated Balance Sheet

of Messer Group GmbH, Sulzbach/Taunus, as at December 31, 2017 (in K€)

		Dec. 31, 2017	Dec. 31, 2016
Assets	Intangible assets	386,491	411,727
	Property, plant and equipment	1,099,201	1,114,653
	Investments accounted for using the equity method	50,124	53,280
	Investments in other companies and financial investments	4,150	6,186
	Deferred tax assets	16,310	14,830
	Other non-current receivables and assets	138,147	160,123
	Non-current assets	**1,694,423**	**1,760,799**
	Inventories	58,939	54,158
	Trade receivables	191,809	206,561
	Income tax assets	1,992	4,833
	Other receivables and other assets	69,004	83,212
	Cash and cash equivalents	176,014	113,984
	Current assets	**497,758**	**462,748**
	Non-current assets held for sale	**13,845**	–
	Total assets	**2,206,026**	**2,223,547**
Equity and Liabilities	Share capital	100,000	100,000
	Capital reserve	536,937	541,937
	Other reserves	45	45
	Revenue reserves	537,561	476,316
	Other components of equity	17,637	43,097
	Equity attributable to shareholders of the parent company	**1,192,180**	**1,161,395**
	Non-controlling interests	**152,734**	**156,515**
	Equity	**1,344,914**	**1,317,910**
	Provisions for employee benefits	55,758	56,857
	Other provisions	7,091	5,017
	Non-current financial debt	419,634	467,174
	Deferred tax liabilities	30,780	33,164
	Non-current liabilities	**513,263**	**562,212**
	Other provisions	30,943	24,824
	Current financial debt	61,829	59,487
	Trade payables	130,165	145,706
	Income tax liabilities	14,176	7,518
	Other current liabilities	107,947	105,890
	Current liabilities	**345,060**	**343,425**
	Non-current liabilities held for sale	**2,789**	–
	Total equity and liabilities	**2,206,026**	**2,223,547**

Consolidated Income Statement

of Messer Group GmbH, Sulzbach/Taunus, for the Year Ended December 31, 2017 (in K€)

	Jan. 1 – Dec. 31, 2017	Jan. 1 – Dec. 31, 2016
Net sales	1,231,847	1,145,790
Cost of sales	(674,337)	(667,354)
Gross profit	**557,510**	**478,436**
Distribution and selling expenses	(310,123)	(287,363)
General administrative expenses	(106,599)	(98,782)
Other operating income	20,714	20,280
Other operating expenses	(7,083)	(5,545)
Impairment losses on goodwill	(15,339)	–
Operating profit	**139,080**	**107,026**
Income from investments accounted for using the equity method	(2,774)	1,479
Other investment results, net	(19)	35
Interest income	1,198	1,163
Interest expense	(19,845)	(22,373)
Other financial result, net	(4,495)	1,763
Financial result, net	**(25,935)**	**(17,933)**
Group profit before tax	**113,145**	**89,093**
Income taxes	(29,482)	(21,855)
Group net profit for the year	**83,663**	**67,238**
Of which attributable to:		
shareholders of the parent company	59,864	51,678
minority shareholders	23,799	15,560

Consolidated Cash Flow Statement

of Messer Group GmbH, Sulzbach/Taunus, for the Financial Year 2017 (in K€)

	Jan. 1 – Dec. 31, 2017	Jan. 1 – Dec. 31, 2016
Group profit before tax	**113,145**	**89,093**
Income taxes paid	(24,121)	(24,086)
Depreciation and amortization of property, plant and equipment and intangible assets	150,704	141,977
Impairment losses on non-current financial assets	18	–
Loss / (gains) on disposals of fixed assets	(57)	(1,450)
Changes in investments in associated companies	2,773	(1,479)
Interest result, net	18,647	21,210
Other non-cash financial result	9,664	(1,763)
Changes in assets resulting from finance lease arrangements (IFRIC 4)	22,062	14,453
Changes in inventories	(7,664)	1,767
Changes in receivables and other assets	(7,827)	(26,750)
Changes in provisions	9,475	841
Changes in trade payables and other liabilities	(5,585)	15,515
Cash flows from operating activities	**281,234**	**229,328**
Purchase of property, plant and equipment and intangible assets	(142,264)	(118,798)
Purchase of investments and other non-current assets	(46)	(3,919)
Sale/(acquisition) of shares of other shareholders	–	–
Capital reductions at the level of associated companies	449	2,000
Disbursements for the acquisition of subsidiaries	(1,566)	(21,703)
Proceeds from disposals of property, plant and equipment and intangible assets	2,944	2,960
Proceeds from disposals of subsidiaries and loans	1,817	650
Interest received	1,206	1,157
Cash flows from investing activities	**(137,460)**	**(137,653)**
Changes in capital by shareholders of Messer Group GmbH	(5,000)	(11,958)
Proceeds from non-current financial debt	18,712	4,065
Proceeds from current financial debt	15,791	6,207
Repayments of non-current financial debt	(4,158)	(4,915)
Repayments of current financial debt	(53,133)	(65,650)
Dividends paid to minority shareholders	(20,759)	(23,974)
Acquisition of shares of other shareholders	–	(2,833)
Interest paid	(19,509)	(22,823)
Other financial result, net	(10,179)	(5,576)
Cash flows from financing activities	**(78,235)**	**(127,457)**
Changes in cash and cash equivalents	**65,539**	**(35,782)**
Cash and cash equivalents at the beginning of the period	**113,984**	**144,504**
Exchange rate impact on cash and cash equivalents	(2,465)	5,262
Cash classified as held for sale	(1,044)	–
at the end of the period	**176,014**	**113,984**