CLAAS

Inter-faces

2018 Annual Report

CLAAS Group Overview

Financial indicators (IFRS)

in € million	2018	2017	Change in %
Financial performance			
Net sales	3,889.2	3,761.0	3.4
Research and development costs[1]	233.4	217.6	7.3
EBITDA	372.7	335.7	11.0
EBIT	256.8	215.2	19.3
Income before taxes	225.7	184.5	22.3
Net income	152.0	115.4	31.7
Free cash flow	-83.9	209.6	-140.0
Financial position			
Equity	1,395.5	1,293.8	7.9
Capital expenditure[2]	160.3	130.7	22.6
Total assets	3,384.7	3,232.8	4.7
Employees			
Number of employees as of the balance sheet date[3]	11,132	10,961	1.6
Personnel expenses	693.0	673.5	2.9

[1] Before capitalized and amortized development costs.
[2] Including development costs recognized as an asset, excluding goodwill.
[3] Including apprentices.

2018 Annual Report

“Because the demand for food is huge, farmers around the world are becoming increasingly professional. Helping them do so is our strength.”

Hermann Lohbeck

The 2018 Annual Report is now also available online at www.claas-group.com / investor / annual-report along with an interactive KPI calculator.

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Executive Bodies

Foreword by the Executive Board

Hermann Lohbeck
Speaker of the CLAAS Group Executive Board and responsible for the Forage Harvesting Division

Dear Business Partners,

After several years of significant declines, the global agricultural equipment market returned to stability and achieved the highest volume since 2013, according to estimates by industry associations. Key European sales markets such as Germany, France, and Poland saw solid income and investment development. Growth in Eastern Europe, which had been strong in the recent past, lost momentum slightly over the course of the fiscal year. While American markets posted positive performance overall, development in Asia varied.

CLAAS was able to take advantage of these overwhelmingly positive indicators and boost its sales to a new record level of €3.9 billion.

Our sales improved palpably in Germany, France, and the United Kingdom. In Eastern Europe, we recorded a slight decline in sales, albeit at a high level. Outside Europe, the situation was mixed. While North American sales increased in local currency, China saw a decline due to market uncertainty.

The Company's profitability developed very favorably. Our earnings before taxes and return on sales continued to improve, allowing us to make substantial investments in people, machines, and ideas. At €233 million, spending on research and development reached a new high, with capital expenditure for property, plant, and equipment rising appreciably to €113 million.

In Le Mans, we are currently modernizing the main assembly line for our tractors, where we plan to grow. In Hamm, a new high-bay warehouse is under construction, which will allow us to double the number of pallet bays to 58,000. As this would suggest, we are further expanding our successful spare parts business. We are also continuing to invest in our main production facility in Harsewinkel and recently had the pleasure of completing our new test center for machine components.

The high level of spending on research and development is making a significant contribution to the success of the Company, as indicated once again by the impressive number of product innovations. Thanks to the JAGUAR 960 TERRA TRAC, we have become the first manufacturer to launch a forage harvester with an integrated track solution. The new concept provides best-in-class soil conservation under all conditions. The JAGUAR is rounded out by the new ORBIS 600 SD and ORBIS 750 corn headers, which ensure optimum crop flow.

With an expanded range of models, we launched the next generation of the TUCANO combine harvester. For the first time, this series offers models that are capable of operating on slopes of up to 18%. The new operating terminal enables the driver to intuitively operate all main functions – without prior training on the machine.

With the CONVIO and CONVIO FLEX, CLAAS launched all-new draper cutterbars for the LEXION combine harvester. Their multicrop capabilities make it possible to use them worldwide for any threshed crops under all harvesting conditions. Important innovations also came from the forage harvesting division, where we launched the newly engineered ROLLANT 540 round baler and the DISCO MOVE, a front mower with outstanding ground-contour following.

In light of the growing global population, the task for us is to make agricultural equipment even more efficient and capable of conserving resources. The role that software, electronics, and digital solutions play in this process will continue to increase significantly. Early this year, CLAAS opened the Greenhouse, a special space for digitalization. Just a few months later, a well-known business magazine ranked our innovation lab number 15 in Germany.

Structural change is leading to rising demand for professional agricultural equipment. For fiscal year 2019, we expect stable development in global agricultural equipment markets. Global trade conflicts, which also affect agricultural goods, pose a general risk. Given this market assessment, we expect a slight year-on-year rise in sales in the current fiscal year.

For over 100 years, CLAAS – a family-owned company – has drawn its strength from a shared power of innovation and a passion for agriculture. Our committed employees continued to make a decisive contribution to this strength in 2018. In close cooperation with the Supervisory Board and the Shareholders' Committee, we developed positively in the past year and look confidently toward the future.

On behalf of the entire CLAAS Group Executive Board, I would like to convey my sincerest thanks for a constructive partnership!

Yours sincerely,

Hermann Lohbeck
Speaker of the CLAAS Group Executive Board
and responsible for the Forage Harvesting Division

Report of the Supervisory Board of CLAAS Kommanditgesellschaft auf Aktien mbH

Cathrina Claas-Mühlhäuser and Helmut Claas

Dear Business Partners,

The Supervisory Board of CLAAS KGaA mbH monitored and analyzed the Group's business situation and risk position at its regular meetings during fiscal year 2018. The Supervisory Board's assessments were based on reports by the Executive Board on the Group's strategic orientation, its financial position and financial performance, deviations from the plans made throughout the course of business, and operating decisions. The reports were received in two sessions and used in the decisions made by the Supervisory Board.

The Supervisory Board's deliberations focused on the sales and earnings outlook, the development of business in comparison to budgets, the acceptance of the auditor's report, the auditing of the annual financial statements of CLAAS KGaA mbH and the CLAAS Group, as well as the plans for the year 2019 and for the medium term.

Furthermore, the Supervisory Board discussed the impact of the period of drought in summer 2018, the impact of African swine fever, potential Brexit scenarios, and supply bottlenecks at OEM partners. The Supervisory Board also studied a report regarding risk management at the CLAAS Group.

The shareholder representatives on the Supervisory Board are: Cathrina Claas-Mühlhäuser (Chairwoman), Helmut Claas, Dr. Patrick Claas, Reinhold Claas, Christian Boehringer, and Gerd Peskes. The employee representatives on the Supervisory Board are: Heinrich Strotjohann, Michael Köhler, Jürgen Schmidt (Deputy Chairman), Carmelo Zanghi, Rainer Straube, and Kai Gieselmann (until 08/2018).

The financial statements of CLAAS KGaA mbH and the consolidated financial statements of the CLAAS Group as of September 30, 2018, as well as the management reports for CLAAS KGaA mbH and the CLAAS Group, were audited by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Hanover, Germany, the auditors elected at the annual general meeting on January 11, 2018, and appointed by the Supervisory Board. The statements and reports received an unqualified audit opinion on November 26, 2018.

The financial statements of CLAAS KGaA mbH, the consolidated financial statements and management reports, as well as the proposal for the appropriation of profit were presented to the Supervisory Board upon their completion. These documents, as well as the auditor's reports, were available to the members of the Supervisory Board and were discussed in detail at the Supervisory Board meeting on December 6, 2018, in the presence of the auditor.

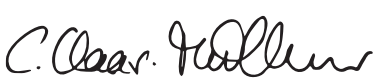
The Supervisory Board then passed the following resolution:

Having examined the financial statements of CLAAS KGaA mbH, the consolidated financial statements and management reports, as well as the proposal for the appropriation of profit, the Supervisory Board confirmed the results of the audit. No objections were raised. The Supervisory Board therefore approves the consolidated financial statements. It recommends to the shareholders that the annual financial statements of CLAAS KGaA mbH for fiscal year 2017/2018 be adopted and agrees with the proposal for the appropriation of profits made by the Executive Board of the personally liable partner.

The Supervisory Board would like to thank the Executive Board and all employees for their high level of personal commitment during fiscal year 2018.

The task at hand for the new fiscal year will be to further expand the market position through an attractive product range and services that benefit customers.

Harsewinkel, December 6, 2018



The Supervisory Board
Cathrina Claas-Mühlhäuser
(Chairwoman)

Dipl.-Ing. Dr. h.c.
Helmut Claas
(Member of the Supervisory Board)

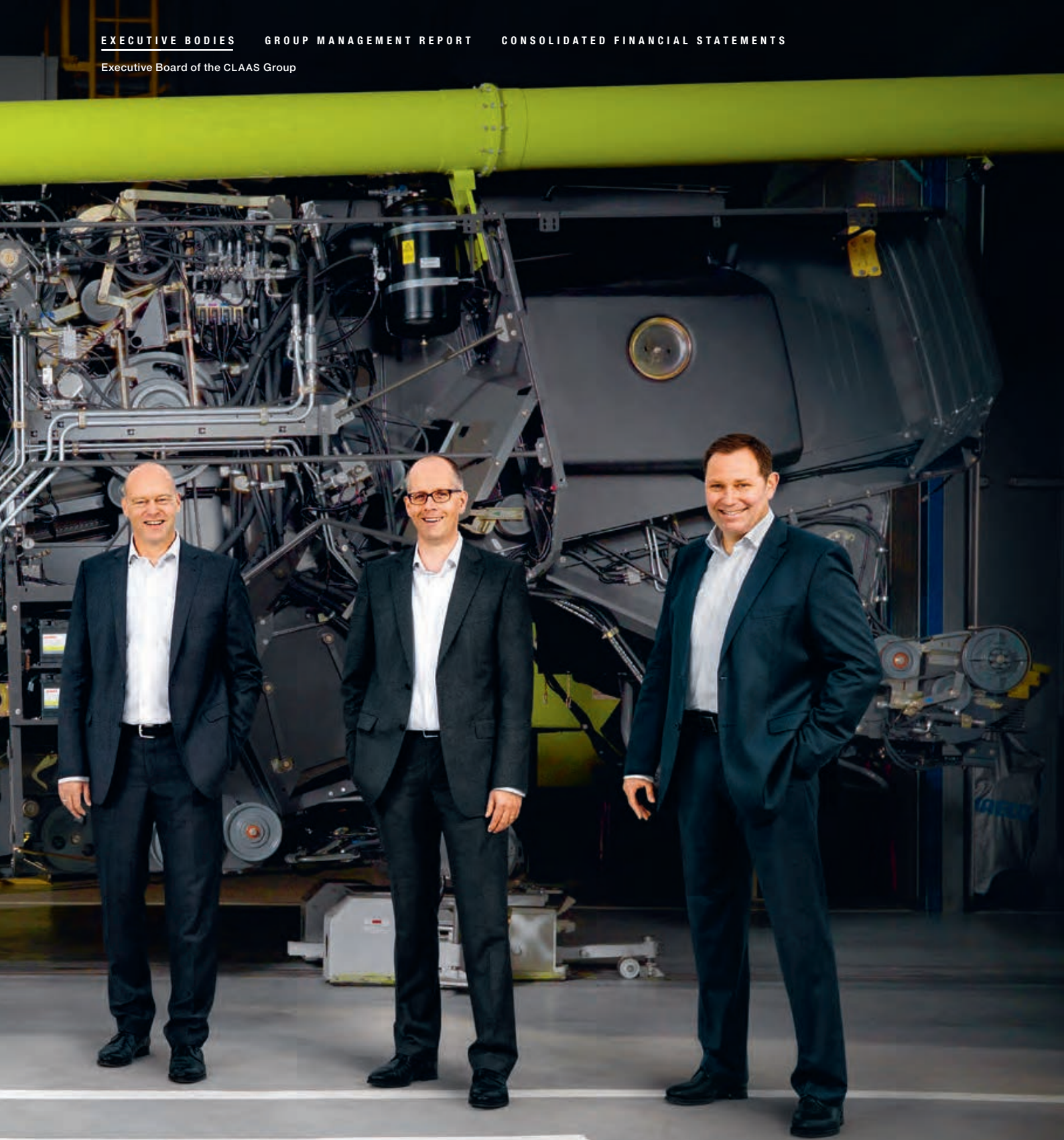
Executive Board of the CLAAS Group

Bernd Ludewig
Sales and Service

Hans Lampert
Finance and Controlling

Hermann Lohbeck
Speaker of the CLAAS Group Executive Board, Forage Harvesting

Executive Board of the CLAAS Group



Thomas Böck
Technology
and Systems

Dr. Jens Foerst
Tractor Division

Jan-Hendrik Mohr
Grain Harvest

Structure of CLAAS KGaA mbH

Personally Liable Partner

Helmut Claas GmbH

KGaA Shareholders

Family Helmut Claas

Family Günther Claas

Family Reinhold Claas

Shareholders' Committee

Helmut Claas, Chairman

Cathrina Claas-Mühlhäuser, Deputy Chairwoman

Structure of CLAAS KGaA mbH

Supervisory Board

Cathrina Claas-Mühlhäuser, Chairwoman
Jürgen Schmidt, Deputy Chairman*
Christian Ernst Boehringer
Helmut Claas
Dr. Patrick Claas
Reinhold Claas
Kai Gieselmann* (until August 2018)
Michael Köhler*
Gerd Peskes
Dr. Alexander Pfohl* (from November 2018)
Rainer Straube*
Heinrich Strotjohann*
Carmelo Zanghi*

* Employee representatives.

Group Executive Board**

Hermann Lohbeck
Thomas Böck
Dr. Jens Foerst
Hans Lampert
Bernd Ludewig
Jan-Hendrik Mohr

** Executive Board of Helmut Claas GmbH.

Authorized Company Representatives

Stefan Belda
Gerd Hartwig (until March 2018)
Dr. Emmanuel Siregar (from April 2018)

02

Group Management Report

Group Management Report

Our Strategy

The agricultural equipment sector continues to be strongly influenced by the development of the factors driving the agricultural industry: global population growth coupled with rising demand for higher-quality food and for raw materials in both nutrition and energy generation. Taken together, these trends call for an increase in agricultural production. Highly efficient agricultural equipment can help to enhance productivity and thereby generate higher yields from less arable land and water. Additional drivers of our industry are globalization and digitalization, which are driving new business models.

As a harvesting specialist, CLAAS has always understood agricultural processes and knows what is needed out in the field. CLAAS machinery, systems, and services help professional agricultural operations worldwide to manage the tasks they face. This provides CLAAS with the blueprint for the following five strategic directions.

Outperform in the European home market
Europe remains the most important market for CLAAS. CLAAS has expanded its technological position in this central region and is a market leader in harvesting technology. The tractor product group has also developed positively for CLAAS. As high-tech machines for implements, large tractors from CLAAS are increasingly forming the intelligent link that helps ensure optimized process control in the field. With ever more extensive services that are based on connected products, CLAAS is enabling customers to leverage their potential for efficiency. The establishment of various online portals under the umbrella of the common platform CLAAS connect also provides customers with advanced access to sales and services.

Generate international growth
Around the world, farmers are provided with machines that have been tailored to their needs with the quality standards of a premium manufacturer. In North America, for instance, combines are produced that meet the specific requirements of U.S. farmers. In Russia, CLAAS manufactures the TUCANO combine, which has been recognized as a Russian product. In China, a new series of machinery has been developed jointly within the global CLAAS network.

Enhance differentiation power
As a premium manufacturer, CLAAS is investing extensively in research and development. The product range, which has been expanded significantly in recent years, focuses on the needs of crop farming, dairy, and livestock operations, as well as those of contractors. CLAAS products stand out thanks to their power, quality, and efficiency. In addition to technology, CLAAS is investing heavily in the expansion of innovative digital solutions. Through its involvement in launching 365FarmNet, a manufacturer-independent farm management information system, CLAAS is also demonstrating that the future of the agricultural industry – as part of "Farming 4.0" – lies in connected approaches that transcend the boundaries of competition.

Drive top-performing efficiency
CLAAS is well aware of the markets' volatility and has successfully coped with it in the past. The target is to maintain a high level of profitability even in a difficult environment, thereby setting the stage for future growth. Improving manufacturing and production costs, enhancing efficiency in research and development, as well as optimizing administrative and selling expenses remain ongoing management tasks.

Enlarge CLAAS capabilities
A highly dynamic environment, coupled with the growing digitalization of business and internationalization activities, is resulting in a constant string of new challenges for specialists and management executives. Their task is to provide customers with the best possible advice and support them while advancing innovation and progress. With this aim in mind, the Company offers a wide range of continuous employee training measures in key areas of competence to make the implementation of strategic and operating measures and targets reality.

Industry Trends

Economic frameworks

Despite some significant regional differences, the global economy has seen positive development and growth of 3.7% in the 2018 calendar year, according to International Monetary Fund (IMF) estimates. The U.S. economy has registered high domestic demand and low unemployment, resulting in expectations of 2.9% growth for 2018 following 2.2% in the prior year (as of October 2018). Moreover, the Chinese economy still appears healthy overall, with slightly lower growth of 6.6% (prior year: 6.9%). For the European Union, the IMF expects the growth rate to decline to 2.2% (prior year: 2.7%). In Eastern Europe, the main focus is on Russia. Supported by rising oil prices, the IMF forecasts a moderate increase of 1.7% in Russia, despite the current sanctions, following 1.5% in the prior year.

In 2017, the global agricultural equipment industry (including municipal, forestry, and garden equipment) achieved the highest market volume since 2013 – approximately €104 billion – according to estimates from the Mechanical Engineering Industry Association (VDMA). This year, the VDMA expects a 2% increase in sales in real terms.

In crop year 2017/18, which, in contrast to the CLAAS fiscal year, ended on June 30, global grain production (including rice) fell by 1.7% year on year to 2,566 million tons, according to the U.S. Department of Agriculture (USDA) (as of October 2018). This development was mainly due to lower global production of corn (-4.1%), whereas wheat production reached a new record of 759 million tons (+0.9%). As in the three years prior, global wheat consumption lagged behind production. Consequently, global wheat stocks are at a new record level. In the past year, this situation led to a price level that was below the five-year average range.

On average, agricultural incomes in the EU developed well over the course of 2017, with dairy and meat production acting as the main driving factors.

The price of milk initially fell from a high level at the start of the fiscal year before stabilizing in early 2018. Throughout the summer, it remained at a good level that was nevertheless lower than the one seen in 2017.

Regional industry developments

In 2018, the market volume for professional agricultural equipment in Europe is set to improve year on year, according to the VDMA's forecast. The positive performance of milk prices in 2017 and the resulting improvement in liquidity has enabled investments, with the key markets Germany, France, and Poland seeing solid income and investment development.

The growth of agricultural equipment markets in Eastern Europe has slowed down on a high absolute level. In Russia, sound harvests led to a 17% increase in wheat production. Ukraine saw market declines for tractors and combine harvesters, some of them significant, despite good harvests. However, the region is still characterized by a huge need to catch up with regard to professional agricultural equipment.

The North American agricultural machinery market continues to develop positively. After years of weakness, the markets for combines and larger tractors saw recovery. The willingness to invest was higher following the general increase in agricultural incomes in 2017.

The markets in Latin America once again turned in a positive performance. In Argentina, the difficult harvesting conditions and the currency crisis had a negative impact on agriculture.

The Asian agricultural equipment market varied heavily at local level. In India, favorable climatic conditions led to stable harvest yields for rice and higher agricultural equipment sales. Despite good yields, the agricultural equipment market in China continued to decline in 2018 due to overcapacity and uncertainty regarding the anticipated tightening of engine emission standards. However, the trend toward the professionalization of agriculture is set to continue in China in the long term.

Financial Performance

Net sales by region ↗ 1

The CLAAS Group generated net sales of €3,889.2 million in fiscal year 2018. The increase of 3.4% compared to the prior year exceeded our expectations. The moderate rise in sales reflects the signs of stabilization on the global markets for professional agricultural equipment following several years of significant market declines. Sales developments on markets relevant to CLAAS varied and partially offset each other. Overall, the change in important exchange rates, such as U.S. dollars or Russian rubles, had no significant impact on sales. The share of sales generated outside Germany amounted to 78.5% (prior year: 79.1%).

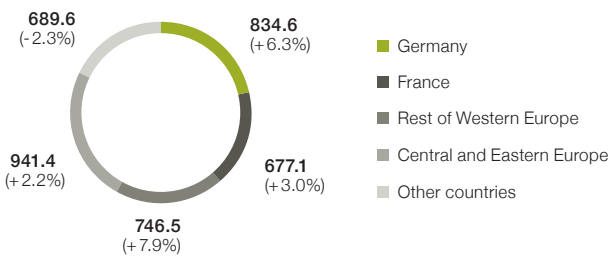
Net sales in Germany totaled €834.6 million (prior year: €785.0 million). The increase was mainly the result of successful new machinery sales, particularly tractors, combine harvesters, and forage harvesting machinery. CLAAS managed to defend its good market position for these product groups. The used machinery, service, spare parts, and accessory components business posted a slight increase at a high level.

After last year's significant drop, business in France stabilized, albeit at a comparatively low level. Sales in this market rose to €677.1 million in the fiscal year following €657.2 million in the prior year. Primarily, the high number of used machines in dealers' inventories negatively impacted new machinery sales. Nevertheless, CLAAS maintained its market position with regard to combine harvesters and tractors.

Sales generated in the Rest of Western Europe increased to €746.5 million (prior year: €691.7 million). As in the prior year, the United Kingdom, Italy, and Spain, as well as Denmark, recorded the highest sales figures. In the United Kingdom in particular, demand for CLAAS products was very positive in comparison to the prior year.

1 _ Net Sales by Region

in € million / in % compared to prior year



At €941.4 million, net sales in Central and Eastern Europe were up 2.2% from the prior-year level. Demand for professional agricultural equipment – and, in particular, for CLAAS products such as combine harvesters, tractors, and forage harvesters – remains high. CLAAS again recorded double-digit growth rates in new machine sales for combine harvesters. CLAAS was able to further expand its market position with regard to combine harvesters and tractors. The Russian Federation, Poland, Turkmenistan, and Romania contributed the highest sales volume within this region. In Central Asia, the positive sales development was strongly influenced by large-scale tender transactions.

Totaling €689.6 million, net sales generated outside Europe were down slightly year on year (prior year: €705.6 million), although contributions varied from country to country. Once again, combine harvester sales increased in North America. In Argentina, the willingness to invest in agricultural equipment was significantly hampered by difficult economic conditions. Therefore, sales were down substantially year on year. Sales in North America were up on a U.S. dollar basis. In China, uncertainty over subsidization policies and the exhaust emissions regulations for agricultural machinery also hampered the willingness of customers to invest. As in the prior year, the U.S., Canada, Argentina, and China contributed the highest sales figures.

2 _ Income Statement (Summary)

in € million	2018	2017	Change
Net sales	3,889.2	3,761.0	128.2
Cost of sales	-3,043.1	-2,944.4	-98.7
Gross profit on sales	**846.1**	**816.6**	**29.5**
Selling, general and administrative expenses	-411.0	-408.3	-2.7
Research and development expenses	-225.7	-211.2	-14.5
Other operating income, net	44.3	15.2	29.1
Operating income	**253.7**	**212.3**	**41.4**
Income from investments, net	18.9	14.2	4.7
Financial result	-46.9	-42.0	-4.9
Income before taxes	**225.7**	**184.5**	**41.2**
Net income	**152.0**	**115.4**	**36.6**

Income ↗ 2

The increase in the cost of sales was mainly due to higher net sales. At 21.8%, the gross profit margin was on par with the prior year. Gross profit reflects various, partially opposing effects related to price realization, the product and country mix, capacity utilization at production sites, and developments in the after-sales business. Overall, it was possible to compensate for higher commodity prices and personnel expenses.

In absolute terms, general selling and administrative expenses were on par with the prior year. Costs therefore developed again more slowly compared to sales. This very favorable development of costs was – among other factors – the result of various measures aimed at increasing efficiency and reducing costs.

Research and development expenses reached a new high level in the history of CLAAS. They included the development and renewal of harvesting machinery and tractors, investments in electronics architecture for machine control and connectivity, and expenses for the digitalization of agricultural processes. Please refer to the section on “Research and Development” for more information.

The increase in other operating income was largely due to lower expenses from the measurement of receivables and provisions no longer needed in their entirety.

Income from investments, net, mainly includes the respective share of income from the financing and leasing business of the CLAAS Financial Services companies.

The change in the financial result is mainly due to the development of foreign exchange gains and losses. The significant devaluation of the Argentine peso and the weakening of the Russian ruble resulted in negative valuation effects.

Income before taxes improved again significantly year on year, thereby exceeding our expectations at the start of the fiscal year. The favorable development was due not least to the improved profitability of a number of foreign subsidiaries, which is reflected in the change in the Group tax rate. The return on sales amounted to 5.8% (prior year: 4.9%).

Cash Position

Liquid assets ↗ 3
As of the reporting date, the CLAAS Group's liquidity amounted to €803.4 million (prior year: €937.6 million). The development of liquid assets primarily reflects the change in working capital. Liquid assets are mainly held as fixed-term deposits, funds, and short-term securities.

3_Net Liquidity

in € million	Sept. 30, 2018	Sept. 30, 2017	Change
Cash and cash equivalents	609.7	226.6	383.1
Securities	193.7	711.0	-517.3
Liquid assets	**803.4**	**937.6**	**-134.2**
Financial liabilities*	605.5	617.3	-11.8
Net liquidity	**197.9**	**320.3**	**-122.4**

* Excluding derivative financial instruments.

Financial liabilities and credit facilities
The U.S. private placement and the Schuldscheindarlehen (German Private Placement) are the largest individual financial liabilities items. The decline in financial liabilities was mainly driven by short-term liabilities to banks.

On the balance sheet date, the CLAAS Group had access to credit facilities from banks as well as a flexible syndicated loan totaling €704.6 million for general financing purposes, €653.5 million of which was unutilized.

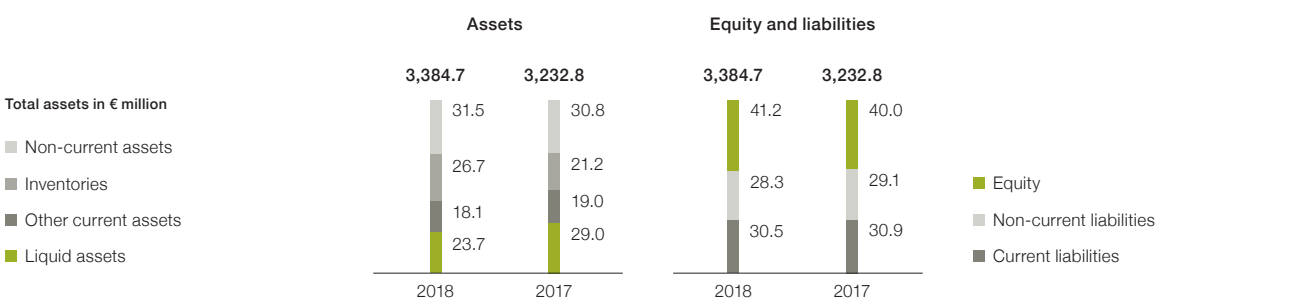
For more information on the financial liabilities, please see Note 24 in the notes to the consolidated financial statements. Financial management duties and targets are presented in Note 34 in the notes to the consolidated financial statements.

Off-balance-sheet measures
CLAAS uses the asset-backed securitization program (ABS program) to sell trade receivables to a structured entity on a revolving basis. Due to the seasonal nature of sales realization in the agricultural equipment industry, substantial financing is needed during the course of the year. By contrast, at the end of the fiscal year, the relatively lower level of capital tied up in working capital generally leads to a high liquidity level. The ABS program helps to effectively reduce seasonal liquidity fluctuations. The volume of receivables transferred amounted to €213.5 million as of September 30, 2018 (prior year: €237.4 million).

Future payment obligations from operating leases amounted to €134.6 million (prior year: €124.3 million). Operating leases are mainly used to finance real estate, as well as vehicle fleets and IT equipment.

Asset and capital structure ↗ 4
Non-current assets were covered by long-term financing, consisting of equity and non-current liabilities, at a ratio of 220.7% as of the balance sheet date (prior year: 224.2%). Non-current assets plus 50.0% of inventories were funded by long-term financing at a ratio of 155.0% (prior year: 166.9%). These figures testify to the CLAAS Group's sound capital structure.

4_Balance Sheet Structure
in %



Cashflows ↗ 5

5_Statement of Cash Flows (Summary)

in € million	2018	2017	Change
Cash and cash equivalents at beginning of year	**226.6**	**512.5**	**-285.9**
Cash flows from operating activities	85.0	345.0	-260.0
Cash flows from investing activities	345.0	-511.7	856.7
Cash flows from financing activities	-46.6	-116.5	69.9
Effect of foreign exchange rate changes on cash and cash equivalents	-0.3	-2.7	2.4
Change in cash and cash equivalents	**383.1**	**-285.9**	**669.0**
Cash and cash equivalents at end of year	**609.7**	**226.6**	**383.1**

The decrease in cash inflows from operating activities was mainly due to the creation of current provisions, which was significantly lower year on year, and the higher level of funds tied up in working capital resulting from the increase in inventories. The cash inflows from higher net income were only able to partially compensate for these effects.

The change in the cash inflows from investing activities mainly includes the net inflow from the purchases and sales of securities in the context of liquidity management of €513.9 million (prior year: cash outflow of €376.3 million). Increased capital expenditure reduced this effect.

The cash outflow from financing activities mainly resulted from the change in liabilities to banks and from dividend payments. The prior year's cash outflow contained the partial repayment of the Schuldscheindarlehen (German Private Placement). There were no comparable events in the reporting year.

The development of the free cash flow due to the influences described is as follows: ↗ 6

6_Free Cash Flow

in € million	2018	2017	Change
Cash flows from operating activities	**85.0**	**345.0**	**-260.0**
Net capital expenditure in intangible assets, property, plant and equipment, borrowings, and investments	-168.9	-135.4	-33.5
Free cash flow	**-83.9**	**209.6**	**-293.5**

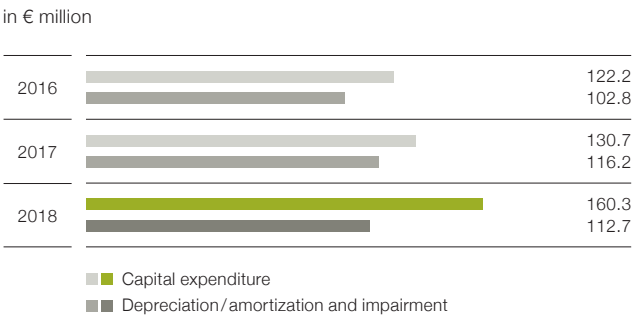
Capital expenditure ↗ 7

Capital expenditure in the reporting year amounted to €160.3 million. The additions mainly relate to investments in the construction, expansion, and modernization of production and sales sites, in new technologies, and in innovative products. The ratio of capital expenditure to sales stood at 4.1% (prior year: 3.5%).

Investments in the construction, expansion, and modernization of production and sales sites were mainly made in Germany, the United Kingdom, and France.

The new test center at headquarters in Harsewinkel, Germany, is expected to be completed in the 2018 calendar year. The new test center will focus on testing the functions and durability of combine harvester, forage harvester, and tractor components. The sophistication of modern agricultural machinery is growing more and more, yet it also has to fulfill significantly stricter legal requirements.

7_Capital Expenditure, Depreciation/Amortization, and Impairment



The CLAAS Service and Parts GmbH logistics center in Hamm, Germany, is being expanded. The plans call for the construction of a completely new 4,400 m² high-bay warehouse that will more than double the number of pallet bays so as to ensure storage capacity for the further growth of the parts business.

In October 2017, the new CLAAS Academy was opened as part of the efforts to redesign and reorganize the headquarters of CLAAS U.K. Ltd. in Saxham, United Kingdom. Completion of the new sales building is scheduled for 2020.

The important project aimed at optimizing production layout at the tractor site in Le Mans, France, continues.

A new sales center that will pool activities in France is also being built at the location in Ymeray, France. The site measures 15 hectares and will also contain the spare parts warehouse and CLAAS Academy France.

In addition, CLAAS is investing in the expansion and digitalization of business processes at all levels of the sales structure. New systems and applications are set to make it even easier for dealers and customers to communicate with each other.

Investments in the testing and production of new products made within the scope of the extensive development program accounted for a major share of capital expenditure.

At the end of the fiscal year, CLAAS had financial obligations totaling €17.1 million relating to future capital expenditure.

Financial Position ↗ 8

8_Balance Sheet (Summary)

in € million	Sept. 30, 2018	Sept. 30, 2017	Change
Assets			
Intangible assets	235.4	223.7	11.7
Property, plant and equipment	501.5	476.2	25.3
Investments accounted for using the equity method	135.5	115.3	20.2
Inventories	903.0	683.9	219.1
Trade receivables	340.1	332.6	7.5
Liquid assets	803.4	937.6	- 134.2
Other assets	465.8	463.5	2.3
Total assets	**3,384.7**	**3,232.8**	**151.9**
Equity and liabilities			
Equity	1,395.5	1,293.8	101.7
Financial liabilities	605.5	617.3	- 11.8
Provisions	910.3	900.1	10.2
Trade payables	243.6	205.4	38.2
Other liabilities	229.8	216.2	13.6
Total equity and liabilities	**3,384.7**	**3,232.8**	**151.9**

Total Group assets rose by €151.9 million year on year to €3,384.7 million. The change primarily reflects the positive development of business and the increase in working capital.

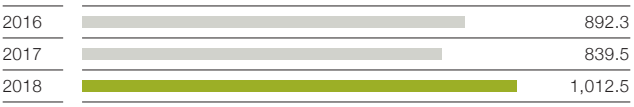
At €235.4 million, intangible assets were up year on year, primarily due to the €11.1 million increase in capitalized development costs to €194.3 million.

The rise in investments accounted for using the equity method was mainly the result of the acquisition of 42% of the shares in the newly founded SM3 CLAAS S.A.S., Fleury, France, as well as the earnings contributions of the CLAAS Financial Services companies. SM3 CLAAS S.A.S. pools the sales activities in Normandy.

The increase in inventories played a key role in the rise in working capital. The factors behind this development included the bunkering of engines due to new emissions regulations and measures aimed at ensuring the supply of raw materials, consumables, and supplies. The increasing regulatory heterogeneity in national markets when it comes to factors such as emission standards or customs regulations makes it more challenging to transfer products from one market to another and makes it harder to respond quickly to weather-related changes in demand, for example. Trade receivables and liabilities developed in opposite directions and ultimately led to a net reduction in working capital. The share of working capital to total assets rose to 29.9%. Working capital developed as follows: ↗ **9**

9_Working Capital

in € million



Other assets increased by €2.3 million to €465.8 million and comprise deferred taxes, receivables from investments, and assets from ABS transactions.

The change in the equity of the CLAAS Group was due to a number of partially opposing effects. Net income of €152.0 million, corresponding to return on equity of 10.9%, had a positive effect. However, equity was decreased by the payments of the dividend for fiscal year 2018 and negative effects from currency translation. The equity-to-assets ratio, that is, the share of equity in total assets, amounted to 41.2% (prior year: 40.0%).

The decline in financial liabilities was mainly due to the reduction of liabilities to banks.

The slight rise in provisions was due to various effects, some of which sent opposing signals. Whereas tax provisions and sales obligations rose for business-related reasons, obligations to employees declined. Pension obligations were on par with the prior year.

In addition to the silent partnership, other liabilities mainly include prepaid expenses, other taxes, liabilities to investments, as well as bills payable.

Research and Development

Research and development investments rose by 7.3% in the reporting year to €233.4 million ↗ **10**. The activities focused on new models as well as developments in the area of tractors and harvesting equipment. Investments in electronics architecture for machine control and connectivity, as well as in the digitalization of agricultural processes, also continue to account for a significant share of the CLAAS Group's total research and development costs.

Innovative products and developments

Thanks to the JAGUAR 900 and 800 series, CLAAS offers a comprehensive program of extremely powerful and efficient forage harvesters. Since AGRITECHNICA 2017, CLAAS has been incorporating innovative functions such as the new load detection feature that makes it easy to avoid overloading trailers, thereby helping ensure better road safety.

10_Research and Development

		2018	2017
Research and development costs (total)	in € million	233.4	217.6
Research and development cost ratio	in %	6.0	5.8
Development costs recognized as an asset	in € million	43.7	40.9
R&D capitalization ratio	in %	18.7	18.8
Amortization/impairment of development costs recognized as an asset	in € million	36.0	34.4
Share of workforce involved in research and development at the CLAAS Group	in %	12.2	11.7
Active patents	Number	4,000	3,700

CLAAS has launched the next generation of TUCANO with a new CEBIS terminal and an expanded model range. For the first time, the TUCANO series offers five MONTANA models with slope leveling. Depending on the particular model, machines with this feature are capable of up to 18% side-slope leveling. The new CEBIS terminal, in combination with the redesigned armrest, enables the driver to intuitively operate all main functions – without prior training on the machine. In addition, the CEBIS can be operated as usual, using the control panel, or by gaining direct access through the touch screen.

The ARION 400 tractor series has enabled CLAAS to successfully position itself in the segment of compact 4-cylinder tractors with 90 to 140 hp. Along with the wide range of models and optional features, customers primarily appreciate the ease and convenience of operation as well as innovations such as the PANORAMIC cab for working with front loaders. CLAAS has now unveiled the latest generation of the ARION 400 series, with new features such as an additional cab option with a transparent sunroof, a low-profile version for all models, and an automatic compressed air dryer for the braking system.

In cooperation with its partner Liebherr, CLAAS used AGRITECHNICA 2017 to unveil the TORION, the first wheel loader series for all agricultural applications. The TORION is a part of the Group's efforts to meet the growing need for efficient and powerful machines for professional transport and materials handling in agriculture.

The proven SCORPION models from CLAAS have been raising the bar in terms of telehandler technology for many years. CLAAS has now unveiled a completely new SCORPION series, which has been developed in cooperation with Liebherr. The new SCORPION models offer greater handling performance thanks to increased lifting capacity and new advanced driver-assistance systems, improved driver comfort and efficiency, as well as improved safety and reliability.

The newly developed ROLLANT 540 fixed-chamber round baler features new rollers and a stronger chassis. The serrated profile of the 15 rollers maintains optimum bale rotation even under moist conditions. There is a choice of net or film wrapping. Changing the wrapping mode is a tool-free operation.

With the latest generation of front loaders, CLAAS has underscored its expertise in the field of materials handling. In addition to the entry-level FL E series, the established FL and FL C series offer a wide range of options and features for greater comfort and efficiency, including mechanical self-leveling linkage and the FITLOCK system for easy fitting and removal of the lift arms.

Having taken over the tire pressure control technology developed by R&M Landtechniksysteme (R&M), CLAAS Industrietechnik GmbH in Paderborn, Germany, will manage and develop R&M's systems. The R&M technology adds one-stop solutions for tractors, trailers, and other agricultural vehicles to the portfolio. The control technology enables users to switch the tractor and trailer quickly from field to road pressure, making the systems ideal for uses involving a frequent change in tire pressure, including the transport of silage or manure.

Awards

CLAAS won three silver medals at this year's AGROSALON exhibition in Moscow, Russia. The judges honored the new CONVIO FLEX cutterbar, the automatic CROP FLOW control system for the TUCANO combine harvester, and the REMOTE SERVICE diagnostics system.

The CONVIO FLEX cutterbar delivers maximum performance on crops such as soy, peas, and grass thanks to its flexible knife bar. The automatic CROP FLOW control system won the judges over with its continuous threshing system speed monitoring, residual grain separation system, straw chopper, and engine designed to help avoid blockage and overloading.

By enabling remote access to CLAAS harvest machinery and tractors, the new CLAAS REMOTE SERVICE function makes it possible to provide direct service and maintenance support while also allowing CLAAS sales partners to make repairs.

The MAX CUT mower bar won second place in the category honoring products made from steel at the 2018 Stahl-Innovationspreis (Steel Innovation Prize). The mower bar is produced on a state-of-the-art assembly line at the CLAAS plant in Bad Saulgau and is used in the DISCO mowers. The mower bed structure of the MAX CUT is stamped from a single piece, making it possible to achieve an optimum wave-shaped design with maximum stability. The wave shape makes it possible to put the mowing discs in a forward position, increasing the cut surface area. Unlike with the conventional technology, the mower bars are screwed in rather than welded. The lack of weld seams makes it possible to utilize the full strength potential of the steel used.

Purchasing

Fiscal year 2018 was characterized by high prices, primarily for steel, non-ferrous metals, and plastics. Following the significant rise in fiscal years 2016 and 2017, the price of steel is nearly as high as it was in 2010. In addition, the free capacities at many suppliers continued to decrease in fiscal year 2018, necessitating extensive additional procurement efforts to safeguard supplies. This market situation enabled suppliers to demand increasingly high prices.

To counteract the resulting effects, a focus was placed on stepping up activities aimed at optimizing product costs and global sourcing. Global sourcing has seen sharply rising volume from China and a doubling of purchasing volumes from India over the past two years.

The area of logistics was characterized by rising transport rates in fiscal year 2018. This increase was due to a tense situation with regard to human resources capacity. It was possible to limit the increase in inbound rates. The contracts are valid for a two-year term. It was possible to attract additional logistics providers for transports of CLAAS machines. The completion of tender contracts in Central Asia demonstrated the high performance of the logistics organization. In cooperation with our partners, the logistics organization succeeded in finding forward-looking solutions to logistics bottlenecks on distances of over 7,000 km, significantly shortening the transport time of urgent shipments.

Activities also focused on optimizing purchasing processes. This entails the systematic development of catalog solutions and the semi-automation of low-complexity orders.

Employees

HR indicators ↗ 11

At €693.0 million, personnel expenses were up by around 2.9% year on year (prior year: €673.5 million). As of September 30, 2018, the CLAAS Group employed a total of 11,132 people (prior year: 10,961) worldwide, approximately 52.4% of which outside of Germany ↗ **12**. This reflects the current global economic development of the agricultural industry.

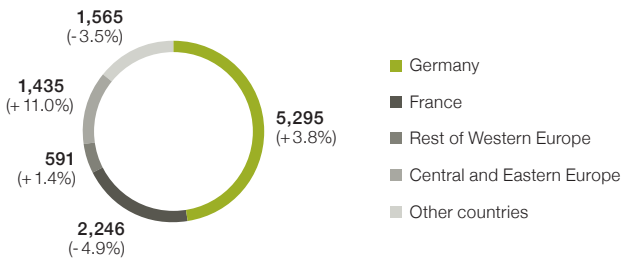
11 _ HR indicators

		2018	2017
Employees as of the balance sheet date[1]	Number	11,132	10,961
Male employees	in %	86.7	86.8
Female employees	in %	13.3	13.2
Average age	in years	39.8	40.0
Length of service	in years	11.9	12.3
Fluctuation	in %	8.4	7.7
Personnel expenses	in € million	693.0	673.5
Vocational and further training costs	in € million	18.2	17.8

[1] Including apprentices.

12 _ Employees by Region

Employees / in % compared to prior year



Training

As of September 30, 2018, the CLAAS Group employed 714 apprentices (prior year: 677), 407 (prior year: 405) of which in Germany. CLAAS trains young people in Germany in various technical and business professions, and as part of the German “dual study” system. The same applies to the other countries in which CLAAS has operations, such as France, Hungary, the United Kingdom, and India.

Personnel development

At CLAAS, strategic corporate objectives are directly connected with targeted investments in its employees. During the course of their careers, employees are offered qualification and further education opportunities. Vocational qualifications include a range of measures, such as workplace learning, seminars, workshops, or attending conferences.

Junior staff development

CLAAS cooperates closely with schools and institutions of higher education, and exercises a wide range of vocational training and orientation initiatives. Fairs, training days, and internships enable young people to establish early contact with the potential employer. School graduates may also apply to complete technical or commercial vocational training at any of our sites in Germany or enter into a bachelor's program at the Duale Hochschule Baden-Württemberg. Maintaining contact with apprentices, students participating in the "dual study" system, and interns even after their time at the Company is very important to CLAAS. The CLAAS Next Generation alumni program is used in a targeted manner to ensure the loyalty of talented young people in the long term. After finishing their studies, direct entry positions or the international trainee program offer a great opportunity for graduates to start their careers at CLAAS. The award-winning trainee program focuses on engineering, finance / controlling, and sales.

Employer rankings and employer branding

CLAAS has successfully positioned itself as an attractive company among its target groups so as to continue securing talent for CLAAS in the future. CLAAS is regarded as being a popular employer among both German and international students, a fact that is confirmed every year by the top positions that CLAAS secures in the employer rankings. In recognition of its successful personnel marketing activities, the Trendence Institute has nominated CLAAS as having the best employer branding for students in Germany. Moreover, CLAAS is one of the top three employers in the field of mechanical engineering. CLAAS is also actively and systematically encouraging young women to enter technical professions.

Performance-based pay

As a responsible employer, we offer our employees competitive, performance-based pay that is aligned to the long-term requirements of CLAAS. Systematic job evaluation ensures that our remuneration structures are both sound and commensurate. All domestic employees may become silent partners of CLAAS through CMG Claas-Mitarbeiterbeteiligungs-Gesellschaft mbH. We aim to create a balance between business interests of the CLAAS Group and employees' professional, personal, and family needs. This includes offering employees the option to have flexible working hours, learn more about the need for a work-life balance, and to take advantage of home office regulations.

Women in leadership positions

Young women are actively encouraged early on in their vocational training or studies. The measures in place include, among others a mentoring program for women studying science, technology, engineering, and mathematics (STEM). As a result, the share of women applying for our apprenticeship and trainee programs is high.

In July 2017, CLAAS approved targets related to the German law on the equal participation of women and men in leadership positions that are valid through June 30, 2022, and aim to keep the number of women in leadership positions at least stable or, if possible, to increase it. The target for the Supervisory Board stands at 8.3%. The target for the first management level stands at 7.7%, with the target for the second management level at 4.0%. In setting these targets, CLAAS took into account industry-specific circumstances and the current percentage of women on staff.

Risks and Opportunities

Internal control and risk management system

As a globally active corporate group, CLAAS is subject to various types of risk. Taking preventive measures to counter possible risks, as well as identifying, measuring, and adequately responding to these risks at an early stage, are key components of the CLAAS risk management system. At CLAAS, taking entrepreneurial action also means deliberately entering into calculable risk to allow the Company to take advantage of the related opportunities.

Within the CLAAS Group, a uniform, Group-wide risk management system is an integral part of corporate management and control. This serves to take advantage of opportunities, identify any significant risk that could endanger the ability of the Company to continue as a going concern, and ensure appropriate risk handling. The risk management system and implemented risk controlling utilize a wide variety of information for ongoing identification, evaluation, and control of risks. The existing system, which is continually being developed further, complies with all statutory early warning requirements in full.

The Group's reporting system represents an essential element in the continuous monitoring of economic risks. In addition to the external data supplied for external reporting, detailed internal reports and evaluations are provided to decision makers on a monthly basis. Budgets are monitored for deviations, earnings projections for feasibility, and any new risks are identified, evaluated, and documented on an ongoing basis. Assessment takes place over a period of at least two years; however, some risks are identified and monitored that extend over a longer time frame. The management report usually covers a period of twelve months. Risks are assessed on the basis of the probability of occurrence of an estimated maximum liability risk before the implementation of counter-measures.

Within existing organizational structures, the risk management system is accounted for and supported by the operating and administrative areas of responsibility. In addition to the regular information provided, an obligation to prepare ad hoc risk reports ensures prompt management action at all times. The Internal Auditing department of CLAAS is responsible for monitoring the adequacy of the risk management system and conformity with regulations.

The aim of the internal control and risk management system for the financial reporting process and the Group financial reporting process is to ensure the effectiveness of the accounting system and its adherence to generally accepted accounting principles and guarantee compliance with statutory norms, financial reporting standards, and intragroup accounting policies, which are binding for all companies included in the consolidated financial statements. The key information on this is available to the entire Group via the CLAAS intranet. CLAAS ensures that all information is up to date by conducting continuous analyses of any changes to determine their relevance and their impact on the financial statements. The Group Accounting department is primarily responsible for this task. CLAAS prepares its financial statements using a Group-wide reporting system that is also used for preparation of the budget, medium-term planning, and estimates during the fiscal year. The reporting system incorporates principles, processes, and controls to ensure that the financial statements comply with all requirements and are submitted on time. The following examples are representative of the principles, processes, and control mechanisms:

- Group-wide specifications for accounting, measurement, and account coding of key items that are updated and communicated to the responsible departments within the scope of training courses on an ongoing basis;
- Organizational measures in combination with access authorizations for accounting systems, separation of tasks, and rights of disposal;
- Dual control of financial reporting processes and in connection with the preparation of the financial statements;
- Internal audit procedures;
- Activities of external service providers.

The Internal Auditing department conducts regular reviews as well as reviews on a case-by-case basis of key business processes at companies in Germany and abroad. It determines whether legal requirements and internal instructions are being adhered to, and whether the internal control system is effective and functional. As part of the reviews, the Internal Auditing department agrees on suitable measures with the respective company management team, which are then implemented by the company. The Internal Auditing department also monitors

their implementation. All audit results are reported as well. Internal audit activities, such as annual and audit planning, documentation of audit activities and results, reporting, and follow-up measures, are set forth in rules for the Internal Auditing department and an audit manual. The tasks and activities are based on the rules of the Institute of Internal Auditors and of Deutsches Institut für Interne Revision, and they are supported by audit software. In the most recent financial year, an audit of the internal audit system in accordance with IDW PS 983 demonstrated full compliance with the quality assessment requirements.

More details on the main risks and opportunities are provided below.

Market risk
The risk landscape of CLAAS is affected by variations in harvest yields, decisions on agricultural policies, farmers' incomes, as well as intense competition in the industry. In view of demand trends for agricultural equipment, markets in Asia, especially China and India, as well as in Central and Eastern Europe, above all Russia, are of particular importance for the CLAAS Group. These markets have huge potential; however, CLAAS sales activities are hampered in some countries in these regions on account of the prevailing market conditions there. These include customs barriers, minimum requirements relating to the share of local manufacturing, payment and convertibility restrictions, or political and economic insecurity. At the same time, there are opportunities that go above and beyond current planning that can emerge from quicker growth in markets with a comparatively low level of mechanization. Risks and opportunities are managed centrally by monitoring and evaluating market-related indicators in conjunction with the specific country risks.

Markets and their early warning indicators are carefully observed on an ongoing basis in order to identify any fluctuations in demand or changing buying behavior in sales regions at an early stage. This ensures that product strategies are kept up to date and are adapted in response to changing customer requirements and reactions from competitors.

Research and development risk
Along with controlled risk-taking, acting entrepreneurially at CLAAS involves dealing in depth with all risks along the value-added chain. With innovation cycles becoming increasingly shorter, research and development play a pivotal role. The aim is to ensure that innovative and technically mature products are created and brought to market for the benefit of customers. Risks from possible mistakes in development, increased start-up costs for new products, or delays to product launches are counteracted through the systematic expansion and ongoing monitoring of research and development activities. At the same time, these activities safeguard the technological edge of CLAAS and therefore its key competitive advantages. For further information, please see the "Research and Development" section for a comprehensive description of these activities. CLAAS counteracts the risk that products may not be developed within the planned time frame, at targeted levels of quality, or at the specified costs by continuously and systematically monitoring the progress of all projects using a clearly defined process.

Purchasing risk
On the procurement market, risks arise from potential supplier defaults and quality issues. Risks related to the price development of commodities such as steel have materialized in some cases in the past years.

Due to the generally favorable economic situation, supply risks are currently a key focus. The careful selection of suppliers is crucial here as well. It requires systematically following the defined supplier strategies, along with continuous technical and financing auditing.

Production risk
In the CLAAS production area, all equipment is serviced regularly, and any potential sources of risk are eliminated by modifying the equipment in order to reduce the risk of production downtime. In addition, advantageous insurance contracts protect CLAAS from the effects of production outages. Flexible working time models ensure that the required human resources can be adjusted to meet the degree of capacity utilization. To reduce quality risk, a central quality management department guarantees adherence to and fulfillment of predefined standards.

Personnel risk
CLAAS has a constant need for highly qualified specialists and management executives. At the moment, CLAAS does not see itself exposed to risks arising from a shortage of certain types of employees on the labor market and resulting delays in finding successors for critical positions. With its personnel strategy, CLAAS focuses above all on in-house junior staff advancement as well as systematic training and personnel development. Aside from dual study programs, the international trainee program ensures that highly qualified employees can be trained within the Company. In addition, CLAAS also offers measures

to promote and maintain employee health. For a comprehensive description of personnel activities, please see the "Employees" section.

IT risk

Business processes at CLAAS are supported by powerful, state-of-the-art IT systems. The Group's uniform global IT strategy allows systems as well as security strategies and concepts to be effectively and continuously adapted to reflect current requirements and developments. Cybersecurity threats are actively and continuously monitored. Based on its insights from the monitoring activities, the Group prepares related organizational and technological measures for enhancing IT security, which are then permanently carried out.

In order to avoid disruption, CLAAS places particular importance on standardized hardware and software environments, the integrity and safety of data, and on permissions management. Reliable data backup systems are complemented by systematic and varied employee training.

Legal risk

CLAAS is exposed to risks relating to international and national tax, competition, patent, trade, and liability law. Decisions at the CLAAS Group are made after intensive legal review and consultation so as to avoid these risks. Selected risks are transferred to insurance companies by means of global master policies and national framework agreements on a uniform basis across the Group.

Financial risk

Due to its business activity, the CLAAS Group is exposed to risks and opportunities from exchange rate and interest rate volatility. On the procurement side, the CLAAS Group is exposed to commodity and supply security risks. Credit risks that could result from payment default or delayed payments are minimized through effective receivables management, close cooperation with banks, and credit insurance. Liquidity risk can result from a significant decline in operating business performance, restriction of the free movement of capital, or as a result of the risk categories mentioned above. These risks are identified for the entire CLAAS Group and measured, monitored, and managed centrally by Group Treasury. The hedging instruments primarily used are foreign exchange outrights and options, as well as interest rate swaps. The risk management software in use enables independent valuations, performance measurement, and forward-looking scenario simulations of the utilized financial instruments. CLAAS is fully compliant with the risk management requirements that the European Market Infrastructure Regulation (EMIR) of the European Parliament and the European Council imposes on non-financial counterparties below the clearing threshold.

CLAAS measures liquidity development on an ongoing basis in the form of daily, weekly, and monthly reports with an increasing level of detail. Potential liquidity risks are countered by maintaining sufficient financing commitments and cash and cash equivalents, as well as through the ABS program and the international cash management strategy.

Risk management in relation to financial instruments, as well as the quantifying of concluded hedging instruments, is explained in Notes 33 and 34 of the consolidated financial statements.

Strategic refinancing risks are managed at CLAAS by a relatively long duration target for drawn borrowings.

Risks related to payment security have become increasingly important in recent years. CLAAS is responding to this constantly growing challenge through Group-wide information and training for employees in affected areas, the monitoring of payment transactions as part of the scope of the cash management process, clear responsibility structures and process definitions, and the systematic implementation of dual control at all process levels, especially payment execution, among other measures.

In the area of dealer and sales financing, the CLAAS policy of following a traditional captive financing model only to a limited extent has paid off. The risk mix has remained sustainable thanks to the close integration of CLAAS Financial Services companies into the risk reporting system of a major European commercial bank known for its conservative approach, and the practice of concentrating primarily on business with retail customers.

Overall risk assessment

Following the continuous analysis of the information provided by risk management and risk controlling in fiscal year 2018, all quantified risks were deemed to be not material. For information on the existing financial risks, please see the notes to the financial statements. There are currently no identifiable risks for 2019 that could endanger the existence of the CLAAS Group or any of its major subsidiaries as going concerns, either individually or in conjunction with other risks.

Outlook

Economic frameworks

The IMF estimates that global economic output measured according to gross domestic product will rise by 3.7% in 2019 and thereby match the development seen in 2018 and 2017 (as of October 2018). In the U.S., growth is expected to slow down to 2.5% (prior year: 2.9%). The situation is similar in the EU, where the forecast calls for growth of 2.0% following 2.2% in 2018. China is expected to see growth of 6.2% (prior year: 6.6%), as global trade conflicts, among other factors, are putting the brakes on growth.

The U.S. Department of Agriculture (USDA) expects to see stable global grain production (including rice) for the current crop year (2018/19). At 731 million tons, the USDA estimates that the wheat harvest will fall short of the record level set in the prior year (759 million tons) due to the dry weather conditions. Global wheat consumption is expected to increase slightly. Following several years of overproduction, consumption will exceed production for the first time in quite a while. As a result, prices will rise slightly year on year on an annual average. At 1,068 million tons, the new corn harvest will significantly exceed last year's result (1,034 million tons). Global inventories will nevertheless decrease, as in crop year 2017/18, due to the stronger rise in global consumption. Consequently, corn prices stand to develop positively as well.

The situation on the global milk market is currently characterized again by an expansion of production. The Food and Agriculture Organization of the United Nations expects global dairy volume to increase by 2.1% in 2018. Growth will primarily come from Europe, Asia, and North America. High forage costs could negatively impact operating revenue in the parts of Europe affected by dry conditions.

In total, the development of farms' incomes will vary substantially from region to region in the EU and the U.S. Following recovery in 2017, farms in the U.S. in particular will again face declines. However, the government-led Market Facilitation Program may be able to partially compensate for any losses.

Against this background, the global professional agricultural equipment market is expected to continue experiencing stable development.

Regional industry developments

The market in Western Europe will be characterized by stability. Following positive development in the past year, extensive regional crop failures could weaken the profitability of agricultural operations in Northeastern Europe due to the drought in that part of the world. In total, European grain production will be down roughly 7% year on year. The higher price levels mean opportunities for farmers, especially in regions with good or average yields. Higher forage costs in regions affected by dry conditions are having a negative impact on dairy farms. However, this effect is being offset by stable prices. In addition, the expanding structural change will continue to support demand for professional agricultural equipment.

The market development in Eastern Europe will continue to be characterized by uncertainty in grain year 2018/19. A decline in wheat production from the high level seen in the prior year is having a negative impact on agricultural incomes in Russia, which is also being counteracted by positive price development. With the significant need to catch up with regard to professional agricultural equipment remaining a key driver in the industry, the general expectation is for stable development. Tenders for agricultural modernization efforts will also continue to impact the market.

The North American professional agricultural machinery market will be characterized by uncertainty due to trade conflicts. Farmers' incomes are expected to decrease year on year, resulting in the risk of negative development.

Market expectations in Latin America remain stable to positive. Good harvest prospects for corn and soy, coupled with rising exports due to the trade conflict between the U.S. and China, point to growth opportunities in agriculture, especially in Brazil. However, the currently instable economic conditions in some countries in the region, particularly in Argentina, make the outcome more difficult to forecast.

Asia's agricultural equipment markets will see positive development overall. According to current forecasts, rice production will not entirely match the high level seen in the prior year. The biggest driving forces for Asia's markets remain the increasing demand for meat and dairy products, the lower degree of mechanization compared to farming practices in Western countries, and subsidization policies.

Global trade conflicts, which also affect agricultural goods, pose a general risk. Unforeseen climatic influences, political unrest, general stability risks within the European Union, and the impact of the Brexit negotiations must also be taken into account. Risks also arise from the volatility of procurement prices for energy, steel, and other commodities – especially against the backdrop of trade conflicts – as well as from the development of currencies significant to CLAAS, such as the U.S. dollar, the British pound, and the Russian ruble. In addition, revised agricultural policy in key markets such as the U.S., China, and the EU will affect the overall conditions. Moreover, African swine fever poses a risk to agriculture in Asia and Europe. We are monitoring these risks carefully and taking appropriate measures where necessary.

General statement on the development of business and outlook

Against the backdrop of the economic conditions and the development of the industry, the development of business in 2018 was encouraging. Overall, the business performance met our expectations and even exceeded them with regard to sales and income. Given the current market assessment, we expect moderate sales growth for the CLAAS Group in fiscal year 2019. In light of simmering international trade conflicts and the trade, financial, and other sanctions imposed against the Russian Federation by the European Union, the U.S., and other countries, as well as countermeasures taken by the Russian Federation, negative effects on the sales and income of the CLAAS Group cannot be ruled out. We will nonetheless continue to systematically pursue our strategy and strengthen the position of our products in the growth markets Eastern Europe and Asia. The capital expenditures in the current year will be higher than in 2018. If market conditions change, the volume can be flexibly adapted. The development of innovative products and intelligent technologies will continue apace in the current fiscal year. However, it will take some time for the expenses associated with such development work to be reflected in corresponding revenues. Efforts to enhance efficiency and sustainable cost reductions will also continue in the current year. We anticipate earnings before taxes to remain stable year on year in the current fiscal year 2019.

03

Consolidated Financial Statements

Consolidated Income Statement

of the CLAAS Group for the fiscal year from October 1, 2017 to September 30, 2018

in € '000	Note	2018	2017
Net sales	(7)	3,889,178	3,760,985
Cost of sales		-3,043,124	-2,944,390
Gross profit on sales		**846,054**	**816,595**
Selling expenses		-244,192	-241,655
General and administrative expenses		-166,818	-166,657
Research and development expenses	(8)	-225,682	-211,144
Other operating income	(10)	98,116	81,946
Other operating expenses	(10)	-53,745	-66,754
Operating income		**253,733**	**212,331**
Income from investments accounted for using the equity method, net	(11)	17,417	12,814
Income from other investments, net	(11)	1,448	1,324
Financial result	(12)	-46,914	-41,987
thereof: interest and similar expenses		(-31,084)	(-30,739)
Income before taxes		**225,684**	**184,482**
Income taxes	(13)	-73,712	-69,035
Net income		**151,972**	**115,447**
thereof: attributable to shareholders of CLAAS KGaA mbH		151,665	114,774
thereof: attributable to minority interests		307	673

Consolidated Statement of Comprehensive Income

of the CLAAS Group for the fiscal year from October 1, 2017 to September 30, 2018

in € '000	Note	2018	2017
Net income		**151,972**	**115,447**
Items to be reclassified subsequently to profit or loss			
Net unrealized gains/losses from currency translation		-9,259	-5,454
Net unrealized gains/losses from securities		-2,334	2,690
Net unrealized gains/losses from derivative financial instruments	(33)	-4,906	194
Items never to be reclassified to profit or loss			
Remeasurements of defined benefit pension plans	(28)	832	51,507
Other comprehensive income, after taxes		**-15,667**	**48,937**
Comprehensive income		**136,305**	**164,384**
thereof: attributable to shareholders of CLAAS KGaA mbH		135,998	163,711
thereof: attributable to minority interests		307	673

Consolidated Balance Sheet

of the CLAAS Group as of September 30, 2018

in € '000	Note	Sept. 30, 2018	Sept. 30, 2017
Assets			
Intangible assets	(14)	235,438	223,670
Property, plant and equipment	(15)	501,504	476,239
Investments accounted for using the equity method	(16)	135,508	115,346
Other investments		2,934	3,640
Deferred tax assets	(13)	140,287	136,401
Tax assets		2,465	-
Other financial assets	(19)	9,946	5,855
Other non-financial assets	(20)	38,750	34,491
Non-current assets		**1,066,832**	**995,642**
Inventories	(17)	903,006	683,851
Trade receivables	(18)	340,147	332,620
Tax assets		8,883	10,079
Other financial assets	(19)	190,996	208,229
Other non-financial assets	(20)	71,380	64,737
Securities	(21)	193,706	711,053
Cash and cash equivalents	(22)	609,727	226,555
Current assets		**2,317,845**	**2,237,124**
Total assets		**3,384,677**	**3,232,766**
Equity and liabilities			
Subscribed capital		78,000	78,000
Capital reserves		38,347	38,347
Other reserves		1,274,799	1,172,230
Equity before minority interests		**1,391,146**	**1,288,577**
Minority interests		4,336	5,175
Equity	(23)	**1,395,482**	**1,293,752**
Financial liabilities	(24)	551,204	546,693
Silent partnership	(25)	48,270	45,209
Deferred tax liabilities	(13)	2,891	2,256
Other financial liabilities	(26)	8,292	6,689
Pension provisions	(28)	300,738	298,119
Other provisions	(29)	47,014	39,848
Non-current liabilities		**958,409**	**938,814**
Financial liabilities	(24)	54,317	70,576
Trade payables		243,620	205,372
Other financial liabilities	(26)	77,142	76,538
Other non-financial liabilities	(27)	93,202	85,583
Income tax provisions	(29)	38,467	31,788
Other provisions	(29)	524,038	530,343
Current liabilities		**1,030,786**	**1,000,200**
Total equity and liabilities		**3,384,677**	**3,232,766**

Consolidated Statement of Cash Flows

of the CLAAS Group for the fiscal year from October 1, 2017 to September 30, 2018

in € '000	Note	2018	2017
Net income		**151,972**	**115,447**
Amortization/impairment of intangible assets and depreciation/impairment of property, plant and equipment	(14), (15)	112,692	116,173
Income from investments accounted for using the equity method, net, if non-cash	(16)	-17,417	-12,814
Change in non-current provisions		8,397	10,318
Change in deferred taxes		-1,456	-2,804
Other non-cash expenses (+)/income (-)		9,436	27,790
Cash earnings		**263,624**	**254,110**
Change in current provisions		2,446	72,801
Income from the disposal of non-current assets and securities		-1,697	-1,440
Change in working capital		-196,482	35,199
thereof: inventories		(-240,089)	(37,222)
thereof: trade receivables		(-15,644)	(-33,316)
thereof: trade payables		(42,911)	(35,075)
Other change in assets/equity and liabilities, if not investing or financing activities		17,165	-15,696
Cash flows from operating activities	(35)	**85,056**	**344,974**
Payments for investments in			
Intangible assets and property, plant and equipment (net of development costs recognized as an asset)		- 113,337	-87,901
Shares of fully consolidated companies and investments		-477	-18,918
Borrowings		-57,289	-36,714
Receipts from disposals/divestments			
Intangible assets and property, plant and equipment		3,388	2,969
Shares of fully consolidated companies and investments		1,628	2,581
Borrowings		44,140	38,922
Repayment of financial receivables of deconsolidated companies		-	6,491
Additions to development costs recognized as an asset	(14)	-46,983	-42,837
Change in securities		513,898	-376,328
Cash flows from investing activities		**344,968**	**-511,735**
Proceeds from the increase in loans and the issuance of bonds		236,433	221,345
Repayment of bonds and loans		-251,790	-306,782
Repayment of lease liabilities		-	-225
Proceeds from silent partnership		3,061	2,768
Change in liabilities to shareholders		325	-328
Payment to minority shareholders		-1,522	-154
Dividend payments	(23)	-33,072	-33,072
Cash flows from financing activities		**-46,565**	**-116,448**
Effect of foreign exchange rate changes on cash and cash equivalents		-287	-2,726
Net change in cash and cash equivalents		**383,172**	**-285,935**
Cash and cash equivalents at beginning of year	(22)	226,555	512,490
Cash and cash equivalents at end of year	(22)	**609,727**	**226,555**

Consolidated Statement of Changes in Equity

of the CLAAS Group as of September 30, 2018

			Other reserves							
			Retained earnings		Accumulated other comprehensive income					
in € '000	Subscribed capital	Capital reserves	Accumulated profit	Remeasurements of defined benefit pensions plans	Foreign currency translation	Securities	Derivative financial instruments	Equity before minority interests	Minority interests	Equity
Balance as of Oct. 1, 2016	**78,000**	**38,347**	**1,227,173**	**-107,753**	**-67,169**	**-753**	**-11,753**	**1,156,092**	**4,656**	**1,160,748**
Net income	-	-	114,774	-	-	-	-	114,774	673	115,447
Other comprehensive income	-	-	-	51,507	-5,454	2,690	194	48,937	-	48,937
Comprehensive income	**-**	**-**	**114,774**	**51,507**	**-5,454**	**2,690**	**194**	**163,711**	**673**	**164,384**
Dividend payments	-	-	-33,072	-	-	-	-	-33,072	-154	-33,226
Consolidation adjustments	-	-	1,846	-	-	-	-	1,846	-	1,846
Balance as of Sept. 30, 2017	**78,000**	**38,347**	**1,310,721**	**-56,246**	**-72,623**	**1,937**	**-11,559**	**1,288,577**	**5,175**	**1,293,752**
Net income	-	-	151,665	-	-	-	-	151,665	307	151,972
Other comprehensive income	-	-	-	832	-9,259	-2,334	-4,906	-15,667	-	-15,667
Comprehensive income	**-**	**-**	**151,665**	**832**	**-9,259**	**-2,334**	**-4,906**	**135,998**	**307**	**136,305**
Dividend payments	-	-	-33,072	-	-	-	-	-33,072	-257	-33,329
Consolidation adjustments	-	-	-357	-	-	-	-	-357	-889	-1,246
Balance as of Sept. 30, 2018	**78,000**	**38,347**	**1,428,957**	**-55,414**	**-81,882**	**-397**	**-16,465**	**1,391,146**	**4,336**	**1,395,482**

Notes to the Consolidated Financial Statements

Notes to Consolidation and Accounting

1. Basis of Presentation

CLAAS KGaA mbH, with registered office in Harsewinkel, Germany, is the parent company of the CLAAS Group (in the following, "CLAAS" or the "CLAAS Group"). The Company is registered in the commercial register of Gütersloh, Germany, District Court under the number HRB 3027. CLAAS, a family-owned company, is a global producer and vendor of agricultural equipment and software solutions for farming applications.

These consolidated financial statements of the CLAAS Group were prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union (EU) and the additional requirements of German commercial law pursuant to Section 315e of the German Commercial Code (HGB). Prior-year figures were determined in accordance with the same principles.

The consolidated financial statements consist of the consolidated income statement, the consolidated statement of comprehensive income, the consolidated balance sheet, the consolidated statement of cash flows, the consolidated statement of changes in equity, as well as the notes to the consolidated financial statements. To improve the clarity of presentation, individual items within the consolidated balance sheet and the consolidated income statement have been combined. These items are presented separately and explained in the notes to the consolidated financial statements. The consolidated income statement was prepared using the cost of sales method of accounting.

Please refer to Note 5 for details on the accounting and valuation policies.

The consolidated financial statements have been presented in euros (€). Unless stated otherwise, amounts are stated in thousands of euros (€ '000).

These consolidated financial statements relate to the fiscal year from October 1, 2017 to September 30, 2018.

The consolidated financial statements were prepared on November 26, 2018 by the Executive Board of CLAAS KGaA mbH. Approval of the consolidated financial statements by the Supervisory Board is planned for December 6, 2018 at the scheduled Supervisory Board meeting.

2. Scope of Consolidation

The companies included in the scope of consolidation are all significant companies, including the structured entities that are directly or indirectly controlled by CLAAS KGaA mbH. Control exists if CLAAS KGaA mbH has power over the investee on the basis of voting rights or other rights, it has rights to variable returns from its involvement with the investee, and has the ability to affect those returns through its power over the investee.

Structured entities are entities that have been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity. Within the CLAAS Group, this applies to the investment fund CHW Fonds as well as the financing company Mercator Purchasing S.A., both registered in Luxembourg; these companies are included in the consolidated financial statements as structured entities. CLAAS uses the financing company to settle the revolving sale of receivables.

Associates are entities over which CLAAS has significant influence but does not have control or joint control of the entities' financial and operating policies. Associates are accounted for using the equity method.

Where CLAAS shares control of an entity together with a partner, it must be specified whether the entity is a joint operation or a joint venture. In a joint venture, the parties that have joint control have rights to the net assets of the arrangement. As a rule, joint ventures are accounted for using the equity method. A joint operation exists when the parties that have joint control have direct rights to the assets and obligations for the liabilities. In this case, the prorated assets and liabilities, as well as the prorated income and expenses, are to be recognized as a rule. The joint operations included in the consolidated financial statements as of the reporting date have no material impact on the consolidated financial statements and are accounted for using the equity method.

Investments in subsidiaries, in joint ventures, or in associates considered to be immaterial from the point of view of the Group are accounted in accordance with IAS 39.

A breakdown of the scope of consolidation is presented in the following table:

	Sept. 30, 2018	Sept. 30, 2017
Consolidated subsidiaries	**66**	**66**
thereof: domestic companies	(21)	(21)
thereof: foreign companies	(45)	(45)
Investments accounted for using the equity method	**12**	**11**
thereof: domestic companies	(4)	(4)
thereof: foreign companies	(8)	(7)

Please see Note 40 for a complete list of the shareholdings of the CLAAS Group.

Newly Established Companies, Investments in Companies, and Divestments

There were no material newly established companies, investments in companies, and divestments in fiscal year 2018.

3. Consolidation Principles

The financial statements have been prepared using the uniform accounting policies relevant for the CLAAS Group. As a rule, the financial statements are prepared as of the balance sheet date of the consolidated financial statements. Where country-specific laws demand otherwise, subsidiaries whose fiscal years do not end on September 30 prepare interim financial statements as of this date.

Business combinations are accounted for using the acquisition method when the Group obtains control. If the purchase price exceeds the revalued prorated net assets of the acquired subsidiary, the difference is capitalized as goodwill and subject to an annual impairment test. Any differences arising on the liabilities side are reported as other operating income.

First-time consolidation and deconsolidation are generally undertaken on the date of transfer of control.

All receivables and payables, income and expenses, as well as intercompany gains and losses between the consolidated entities are eliminated within the scope of the consolidation.

Investments in associates and joint ventures are accounted for using the equity method. The interests are initially recognized at cost. Possibly acquired goodwill is not reported separately, but is instead included in the value of the investment. After initial measure, the consolidated financial statements include the share of the income until such time as the significant influence or joint control ends.

4. Foreign Currency Translation

Transactions in foreign currency are recognized at the relevant exchange rates on the transaction date. In subsequent periods, financial assets and liabilities denominated in foreign currencies are translated at the exchange rates on the balance sheet date. The exchange rate gains and losses incurred until the balance sheet date from the measurement of financial assets and liabilities are recognized as profit or loss in the income statement.

The assets and liabilities of foreign companies with functional currencies that do not match the Group currency are translated into euros at the daily closing price on the balance sheet date. Equity items are translated using historic rates. The expenses and income of foreign companies are translated into euros at the corresponding average exchange rate for the fiscal year. Differences resulting from currency translations are recognized directly in equity as other comprehensive income.

The following exchange rates were used for the currencies significant to the CLAAS Group:

		Average rate/€		Closing rate/€	
		2018	**2017**	**Sept. 30, 2018**	**Sept. 30, 2017**
British pound	GBP	0.88	0.87	0.89	0.88
Chinese renminbi	CNY	7.79	7.56	8.00	7.85
Indian rupee	INR	79.46	73.01	84.24	77.14
Polish zloty	PLN	4.24	4.29	4.28	4.31
Russian ruble	RUB	72.10	65.95	76.02	67.98
Hungarian forint	HUF	316.99	309.15	323.44	310.75
U.S. dollar	USD	1.19	1.11	1.16	1.18

5. Accounting Policies

Intangible Assets
Intangible assets with finite useful lives are capitalized at cost and, dependent on their expected useful lives, amortized over a period of generally three to ten years on a straight-line basis. Useful lives are assessed each year.

The amortization of concessions, industrial and similar rights and assets, and licenses in such rights is reported under cost of sales. Amortization and impairments of capitalized development costs are recognized as research and development expenses.

Goodwill is accounted for at cost less any accumulated impairment losses and is tested for impairment annually, as well as when there are indications of a possible impairment. Impairment losses are recognized as other operating expenses.

Property, Plant and Equipment
Property, plant and equipment is measured at cost less accumulated depreciation and accumulated impairment losses. Borrowing costs are capitalized if conditions are met and are depreciated over the expected useful lives of the property, plant and equipment once these have been completed. Property plant and equipment – with the exception of land and similar rights – is generally depreciated over its useful life on a straight-line basis. The useful lives of buildings are between 20 and 50 years, while other property, plant and equipment have useful lives of between three and 25 years. Depreciation and impairment losses are generally recognized as expenses for the period.

Borrowing Costs
Any borrowing costs directly attributable to the acquisition, construction, or production of a qualifying asset are capitalized as a part of the cost of that asset. CLAAS defines qualifying assets as development or construction projects or other assets that will require at least twelve months to complete to a point at which they will be ready for their intended use or sale. If borrowings can be directly allocated to one project, the actual borrowing costs are capitalized. If there is no direct relation, the average capitalization rate of the CLAAS Group is applied. The borrowing cost rate for the reporting period is 2.9% p.a. (prior year: 2.7% p.a.).

Impairment
Goodwill as well as assets that are not available for use are not amortized, but are instead tested for impairment annually as of the balance sheet date. Assets subject to amortization are tested for impairment if there are indications that the carrying amount of the asset is lower than its recoverable amount. The recoverable amount of an asset is the higher of its value in use and the fair value less costs to sell. The recoverable amount is determined for each individual asset unless assets have been combined into a cash generating unit. The value in use is based on the present value of the expected future cash flows. If the value in use is less than the carrying amount, an impairment loss is immediately recognized as profit or loss. Any subsequent increases in value are accounted for by attributing the value to the cash generating unit or asset, except in the case of goodwill impairment. There were no reversals of impairment losses in fiscal year 2018. When conducting the impairment test, the value in use is determined on the basis of the management's medium-term forecast data covering a period of five years. The planning assumptions were adjusted in line with actual circumstances. Assumptions are taken into appropriate account in consideration of macroeconomic trends and historical developments. Cash flow projections are estimated by extrapolation based on the growth rate of the relevant market segment. The growth rate remains unchanged year on year at between 0.1% and 1.0% p.a. The value in use is determined on the basis of discounting rates ranging from 6.9% p.a. to 9.7% p.a. (prior year: 7.2% p.a. to 10.6% p.a.) and corresponding to the risk-adjusted minimum yield on the capital market.

Investments Accounted for Using the Equity Method and Other Investments
Investments in associates and joint ventures accounted for using the equity method are initially recognized at cost and then in subsequent periods in the amount of the adjusted prorated share in equity. The carrying amounts of the investments are increased or reduced each year to reflect the share of earnings, dividends distributed, and other changes in equity. Goodwill is included in the carrying amount of the companies accounted for using the equity method. Impairment occurs when the recoverable amount of the investment accounted for using the equity method is lower than its carrying amount.

At the time of addition and in subsequent periods, other investments are generally carried at fair value, provided that these amounts can be determined reliably. No fair value could be determined for the other investments as of the reporting date; as a result, these were measured at cost less accumulated impairment losses. An impairment loss will be recognized as profit or loss on other investments if there are indicators for impairment.

Impairment losses or reversals of impairment losses on investments accounted for using the equity method and other investments are recognized as profit or loss in income from investments, net.

Deferred Taxes
Deferred taxes are recognized on temporary differences between the IFRS and tax balance sheets of the individual companies, including differences arising from consolidation processes and related to yet unused tax losses and tax credits.

Deferred taxes are measured in accordance with the tax rates and tax regulations that are in force as of the balance sheet date or have been passed in principle and whose validity is expected as of the date of settlement. Deferred tax assets will only be recognized if it is probable that the entity will have taxable income against which the temporary differences can be utilized. A tax rate of 29.0% (prior year: 29.0%) was used to calculate deferred taxes in Germany. This tax rate consists of the domestic corporate income tax, the solidarity surcharge on corporate income tax, as well as trade tax. Country-specific tax rates are used to calculate the deferred taxes of the foreign companies.

Deferred tax liabilities for temporary differences related to investments in subsidiaries and investments accounted for using the equity method are not recognized.

Deferred tax assets and liabilities are offset if they pertain to the same tax subject, are from or to the same tax authority, and relate to the same period.

Financial Instruments
A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Financial instruments are recognized as soon as CLAAS becomes a party to the contractual provisions for the financial instrument. As a rule, the day on which the financial instrument is concluded is key to how it is reported. Financial instruments recognized as financial assets or financial liabilities are generally not netted, and are only netted when a legal right to offset exists at that time and there is an intention to settle on a net basis.

CLAAS classifies non-derivative financial assets and liabilities using the four measurement categories provided for in IAS 39: financial assets or financial liabilities at fair value through profit or loss, loans and receivables, available-for-sale financial assets, and financial liabilities measured at amortized cost. The classification of the financial instruments is dependent on the purpose for which they were acquired.

The categories generally do not include derivative financial instruments designated as hedging instruments. However, derivatives with hedging relationships are classified as "financial assets and financial liabilities at fair value through profit or loss" in order to improve presentation.

Financial instruments are recognized at amortized cost or at fair value. The amortized cost is calculated using the effective interest method. The fair value of a financial instrument in accordance with IFRS is the amount for which the instrument could be exchanged between knowledgeable, willing parties in an arm's length transaction other than a forced transaction, involuntary liquidation, or distress sale. The fair value generally corresponds to the market value or the stock market price. If the market for a financial instrument is not active, fair value is established using a valuation technique (for example, a discounted cash flow analysis, which applies a discount rate equal to the current market rate of return).

The fair value of derivative financial instruments is calculated by discounting the estimated future cash flows at the current market rate of return or by using other common valuation techniques such as option pricing models.

Financial instruments for which the fair value cannot be reliably measured are carried at amortized cost.

The fair value option provided for in IAS 39 permits an entity to designate financial assets not held for trading on initial recognition as financial assets measured at fair value, with changes in fair value recognized as profit or loss. At CLAAS, the fair value option is applied, provided a financial instrument contains one or more embedded derivatives. Changes in the value of such items are included in the financial result shown on the income statement.

The carrying amounts of financial assets not recognized at fair value through profit or loss are assessed as of each balance sheet date for objective evidence of impairment. At CLAAS, the Group-wide specifications state that objective indications of impairment may be substantial financial difficulties on the part of the issuer or obligor or the lack of an active market on which the financial instrument is traded. If any such evidence exists, the resulting impairment loss is recognized as profit or loss. Any impairment loss of an available-for-sale financial asset that was previously recognized directly in equity must be removed from equity and recognized as profit or loss.

As in the prior year, no impairment was recognized for financial assets, excluding trade receivables.

Inventories
Inventories are recognized at the lower of cost and net realizable value. The net realizable value is derived from the expected disposal income less costs still to be incurred. The cost of raw materials, consumables, and supplies, as well as merchandise, is calculated using the average cost method. The cost of internally generated work in progress and finished goods includes direct materials and labor as well as production-related overheads and production-related administrative expenses based on normal capacity utilization. Borrowing costs are not included in the cost.

Receivables and Other Financial Assets
Receivables and other financial assets are recognized at fair value, which, in the case of current receivables and other financial assets, corresponds to the nominal value.

Adequate allowances are made for anticipated default risks.

In some cases, impairment of trade receivables is recorded in separate allowance accounts. Impairment losses are recognized for trade receivables anytime there is objective evidence of impairment as a result of financial difficulty on the part of the obligor, impending losses, or delinquency in payments or payment concessions granted by CLAAS. The decision as to whether the carrying amount of a receivable at risk of default should be reduced directly or through the use of an allowance account depends on the degree of reliability of the risk assessment.

Non-interest-bearing receivables that are not expected to be collected within the normal payment cycle are discounted at the market interest rate in accordance with the maturity of the receivables.

CLAAS sells selected trade receivables to a structured company of the CLAAS Group or other financial institutions on a revolving or non-recurring basis. The structured company is an asset-backed securitization (ABS) company that refinances itself in the capital market. Receivables are derecognized when the risks and rewards associated with the receivables are transferred to a third party and the cash inflow from the sale is ensured. These receivables will continue to be carried on the balance sheet, provided that the risks and rewards associated with the receivables – particularly credit risks and default risks – remain in the CLAAS Group.

Securities
Current securities primarily include pension and money market funds as well as variable and fixed-interest bonds that generally have remaining terms of between three months and one year at the time of acquisition. At CLAAS, securities designated as financial assets are generally classified as "available for sale." In exceptional circumstances, the fair value option may be applied to securities. This means that financial assets may, on initial recognition, be measured at fair value through profit or loss, if doing so would significantly reduce or eliminate an accounting mismatch.

They are recognized at fair value or market price.

In the case of securities classified as "available for sale," unrealized gains or losses on the measurement are recognized directly in equity as other comprehensive income until the securities are disposed of, taking into account deferred taxes. When exercising the fair value option, gains and losses from the valuation are recognized as profit or loss in the income statement.

Cash and Cash Equivalents
Cash and cash equivalents comprise checks, cash in hand, and bank balances. Cash and cash equivalents as reported in the statement of cash flows correspond to the same item in the balance sheet.

Derivative Financial Instruments and Hedge Accounting
CLAAS uses derivative financial instruments to hedge financial risks from the operating business and the resulting refinancing requirements. These risks are generally interest rate, currency, and commodity risks. The hedging instruments primarily used are foreign exchange outrights and options.

At the time of acquisition and in subsequent periods, derivative financial instruments are recognized at fair value. Changes in present value are recognized as profit or loss in other financial result for the period, unless the derivative financial instruments are in a hedging relationship. Depending on the type of hedging relationship, changes in present value are either recognized as profit or loss in the income statement or directly in equity as other comprehensive income.

The criteria of IAS 39 must be fulfilled for hedges to be accounted for (hedge accounting). If this is the case, CLAAS documents the hedging relationship either as a fair value hedge or a cash flow hedge from this time. Only cash flow hedges existed in the past fiscal year.

The fair values of the derivative financial instruments used for hedging purposes are presented in Note 33.

Cash flow hedges are used to hedge against the risks of fluctuations in cash flows. Gains and losses from changes in the fair value of the effective portion of the hedge are initially taken into account in other comprehensive income as equity. These

are reclassified into the income statement if the hedged transaction is recognized as profit or loss. The ineffective portion of such changes in value is recognized directly as profit or loss in other financial result for the period.

If the hedge accounting criteria are no longer met, the derivative financial instruments that were part of the hedging relationship are then measured at fair value as profit or loss.

Leases
In the case of finance leases, the leased assets are capitalized and the payment obligations resulting from future lease payments are recognized as a liability on a discounted basis. If CLAAS companies act as lessees in operating leases, the lease payments are recognized as an expense.

Pension Provisions
Pension provisions are recorded for defined benefit obligations from vested rights and current benefits on behalf of eligible active and former employees and their surviving dependents. Obligations relate primarily to retirement pensions, which are paid in part as basic and in part as supplementary benefits. Pension obligations are normally based on the employees' length of service and remuneration levels.

Provisions for defined benefit plans are based on the actuarial present value of the respective obligation; this is measured using the projected unit credit method. This method takes into account not only pensions and accrued vested rights known as of the balance sheet date, but also anticipated future salary and pension increases. The valuation assumptions vary according to the economic conditions of the country in which the pension plans are administered. In Germany, the life expectancy used to calculate the obligation is based on the 2018 G K. Heubeck mortality tables (as at June 2018). Comparable bases are used in the other countries.

Pension provisions are derived from the balance of the actuarial present value of the defined benefit obligations and the fair value of the plan assets available to cover the pension obligation. The service cost is included in the functional costs in the consolidated income statement. Net interest is included in the financial result.

Actuarial gains and losses on the remeasurement of the net pension liability or net assets are fully recognized in the fiscal year in which they occur. They are recognized directly in equity in other reserves. They will not be recognized as profit or loss in subsequent periods.

The interest rates used for discounting purposes are determined annually as of the balance sheet date on the basis of high-quality, fixed-rate corporate bonds matching the pension payments.

Other Provisions
Other provisions are recognized for the present legal or constructive obligations of the CLAAS Group that have arisen from a past event and are expected to result in an outflow of future economic benefits, and whose amount can be measured reliably.

Provisions for obligations arising from sales largely include warranty obligations. Provisions for warranties are recognized at the time of sale of the products in question or the rendering of the corresponding services. Assumptions must be made as to the type and scope of future warranty and policy cases as well as possible special inspections in order to determine the amount of the provisions. These estimates are largely based on historic expectations. Provisions are regularly adjusted in line with new information.

Provisions are measured at the best estimate of the amount required to settle the present obligation at the balance sheet date. Significant, non-current other provisions are discounted. Increases in provisions resulting from a pure addition of accrued interest are recognized as profit or loss in interest expenses for the period.

Liabilities
Liabilities are initially carried at their fair value less transaction costs and subsequently measured at amortized cost; liabilities denominated in foreign currencies are translated at the closing rate.

Recognition of Revenues and Earnings
The ordinary business operations of the CLAAS Group involve the sale of agricultural equipment products and services. All income relating to the ordinary business operations, less sales deductions such as cash discounts and price reductions, are presented as net sales. All other income is classified as other operating income or interest income. Net sales, other operating income, and interest income are generally recognized upon completion of delivery or service and transfer of risk to the customer.

Cost of Sales
Cost of sales comprises the cost of goods sold, the cost of the sold merchandise, as well as the expenses for commission, outgoing freight and packaging, insurance, and production-related logistics costs.

Research and Development Costs
Development costs for internally generated future serial products are recognized as an asset, provided manufacture of the products will generate probable future economic benefits for CLAAS and the other criteria for the recognition of internally generated intangible assets are fulfilled.

The cost comprises all costs directly attributable to the development process plus the relevant development-related overheads. Borrowing costs are capitalized as a part of the cost if conditions are met. Amortization is undertaken on a straight-line basis as of the start of production over the expected useful life of the product, usually between six and ten years.

Research costs, amortization and impairments of capitalized development costs, and development costs that cannot be capitalized are expensed as incurred in the income statement under research and development costs.

Government Grants
Government grants are only recognized when there is reasonable assurance that the entity will comply with the conditions attached to it, and that the grant will be received. Government grants not related to assets are recognized as profit or loss as other operating income over the periods necessary to match them with the related costs that they are intended to compensate. Grants related to assets are deducted in arriving at the carrying amount of the asset, and the grant is recognized as income over the life of a depreciable asset by way of a reduced depreciation charge.

Estimates and Management Judgments
In preparing the consolidated financial statements, it is to some extent necessary to make assumptions and estimates that affect the amount and presentation of assets and liabilities, income and expenses, as well as any contingent liabilities in the reporting period. These estimates and assumptions primarily relate to assessing the recoverability of assets; defining a uniform Group standard for the economic lives of property, plant and equipment; and recognizing and measuring provisions based on the current state of knowledge. In particular, assumptions regarding expected business development are based on circumstances at the time of preparation of the consolidated financial statements as well as the probable development of global markets and industries. The actual amounts may differ from the original estimates if outside developments over which management has no control should cause these parameters to change.

At the time the consolidated financial statements were prepared, it was not assumed that the underlying assumptions and estimates would be subject to material changes.

6. New Financial Reporting Standards

Among other things, the IASB has published the following standards, which do not need to be applied in the EU yet and which CLAAS has not applied early. Standards that are not listed below are insignificant for CLAAS.

Standard / Interpretation		Effective date IASB	Effective date EU	Impact on CLAAS
IFRS 7 / IFRS 9	Financial Instruments: Disclosures (Mandatory Effective Date and Transition Disclosures)	Jan. 1, 2018	Yes	Immaterial
IFRS 9	Financial Instruments: Revision and Replacement of All Existing Standards (Classification and Measurement)	Jan. 1, 2018	Yes	May change classification and measurement of financial instruments
IFRS 15	Revenue from Contracts with Customers: New Revenue Recognition Standard	Jan. 1, 2018	Yes	Immaterial
IFRS 16	Leases	Jan. 1, 2019	Yes	Material

CLAAS will apply IFRS 9 for the first time in the fiscal year beginning on October 1, 2018. Prior-year figures are not likely to be adjusted, and any transition effects will be reported cumulatively in retained earnings. An impact assessment of the application of IFRS on the consolidated financial statements does not suggest that there will be any significant effect on the classification and measurement or presentation of hedge accounting as a result of the transition to IFRS 9. However, there may be fluctuations in net interest expense and income from securities.

CLAAS will apply IFRS 15 for the first time in the fiscal year beginning on October 1, 2018. This initial application will take place with retroactive effect, resulting in any transition effects being recognized directly in retained earnings at the beginning of the comparison period. However, the assessment of the effects of applying IFRS 15 to the consolidated financial statements found that there will be no change in retained earnings. That being said, there will be additional quantitative and qualitative disclosures in the notes to the consolidated financial statements.

In cases where CLAAS is the lessee, the new IFRS 16 requires that the Company adopt a completely new approach to the presentation of leases. In the future, every lease should be presented on the lessee's balance sheet as a financial transaction. This will increase total assets. The regulations relating to lessors remain more or less unchanged compared to the regulations of IAS 17.

CLAAS will likely apply the standard in modified form for the fiscal year beginning on October 1, 2019; in other words, prior-year figures will not be adjusted. The effects of applying IFRS 16 on the consolidated financial statements are currently under review.

Notes to the Consolidated Income Statement

7. Net Sales

Net sales pertained almost exclusively to the delivery of goods.
Sales by region can be broken down as follows:

in € '000	2018	2017
Germany	834,628	785,027
France	677,130	657,185
Rest of Western Europe	746,434	691,722
Central and Eastern Europe	941,370	921,509
Other countries	689,616	705,542
Net sales	**3,889,178**	**3,760,985**

8. Research and Development Expenses

in € '000	2018	2017
Research and development costs (total)	-233,369	-217,576
Development costs recognized as an asset	43,669	40,851
Amortization/impairment of development costs recognized as an asset	-35,982	-34,419
Research and development expenses recognized in the income statement	**-225,682**	**-211,144**
R&D capitalization ratio (in %)	18.7	18.8

9. Personnel Expenses and Employees

The personnel expenses reported under functional costs are composed as follows:

in € '000	2018	2017
Direct and indirect remuneration	- 562,996	-544,877
Social security contributions and employee benefit expenses	- 119,880	-115,681
Pension expenses	-10,144	-12,907
Personnel expenses	**- 693,020**	**-673,465**

The average number of employees during the year was as follows:

	2018	2017
Direct employees	4,238	4,210
Indirect employees	6,204	6,223
Apprentices	610	619
Average number of employees	**11,052**	**11,052**

Direct employees are directly involved in the production process, whereas indirect employees support production, organizational, and administrative processes.

10. Other Operating Income and Expenses

Other Operating Income

in € '000	2018	2017
Reversal of provisions	57,619	46,995
Measurement of receivables	5,079	3,776
Grants and subsidies	4,620	3,536
Disposal of intangible assets and property, plant and equipment	2,721	1,482
Insurance compensation	2,161	1,245
Pass-through costs	1,278	541
Rental and leases	584	433
Miscellaneous income	24,054	23,938
Other operating income	**98,116**	**81,946**

Other Operating Expenses

in € '000	2018	2017
Measurement of receivables	-11,103	-15,302
Personnel expenses	-6,716	-11,648
Fees, charges, and insurance premiums	-2,157	-2,478
Disposal of intangible assets and property, plant and equipment	-1,972	-2,138
Miscellaneous expenses	-31,797	-35,188
Other operating expenses	**-53,745**	**-66,754**

11. Income from Investments, Net

in € '000	2018	2017
Income from investments accounted for using the equity method, net	17,417	12,814
thereof: impairment losses on investments accounted for using the equity method	(-2,212)	(-3,323)
Income from other investments, net	1,448	1,324
Income from investments, net	**18,865**	**14,138**

12. Financial Result

in € '000	2018	2017
Interest expense	-29,909	-29,662
thereof: profits transferred under a partial profit transfer agreement (CMG)	(-4,131)	(-3,929)
Non-current provisions	-4,816	-3,432
Capitalization of borrowing costs	3,641	2,355
Interest and similar expenses	**-31,084**	**-30,739**
Interest income	9,829	9,102
Income from other securities and loans, net	-19	591
Interest expense and income from securities, net	**-21,274**	**-21,046**
Other financial result	-25,640	-20,941
Financial result	**-46,914**	**-41,987**

Payments based on the performance of the CLAAS Group with respect to the silent partnership of CMG Claas-Mitarbeiter-beteiligungs-Gesellschaft mbH (CMG) are included in "profits transferred under a partial profit transfer agreement (CMG)".

Interest expenses and income are the result of financial assets and liabilities allocated to the following measurement categories:

in € '000	2018	2017
Loans and receivables	6,517	6,575
Available-for-sale financial assets	3,263	2,509
Financial liabilities measured at amortized cost	-29,860	-29,644
Interest expenses and income	**-20,080**	**-20,560**

The other financial result can be broken down as follows:

in € '000	2018	2017
Foreign exchange gains and losses, net	-19,448	-13,130
Miscellaneous financial income and expenses, net	-6,192	-7,811
Other financial result	**-25,640**	**-20,941**

13. Income Taxes

in € '000	2018	2017
Current income taxes	-75,669	-73,838
Deferred income taxes	1,957	4,803
Income taxes	**-73,712**	**-69,035**

As in the prior year, the underlying income tax rates for foreign companies were between 9.0% and 35.0% (prior year: 9.0% and 39.0%).

Income taxes in the reporting period were €8.3 million higher than the theoretical tax expense that would have resulted from the application of the domestic Group tax rate of 29.0% on income before taxes.

The following table shows the reconciliation from theoretical to actual tax expense:

	2018		2017	
	in € '000	in %	in € '000	in %
Income before taxes	225,684		184,482	
Theoretical tax expense	**-65,448**	**29.0**	**-53,500**	**29.0**
Differences in foreign tax rates	4,610	-2.0	2,593	-1.4
Tax effects from prior years	1,182	-0.5	2,337	-1.3
Non-taxable income and non-deductible expenses	-5,088	2.3	-4,000	2.2
Accounting for investments accounted for using the equity method	5,051	-2.3	3,716	-2.0
Effects from changes in tax rates	-13,553	6.0	-1,046	0.5
Impact of tax losses	-2,519	1.1	-18,665	10.1
Other consolidation effects	945	-0.4	-710	0.4
Miscellaneous	1,108	-0.5	240	-0.1
Effective tax expense	**-73,712**	**32.7**	**-69,035**	**37.4**

The most-significant effects from changes in tax rates resulted from the reduction of U.S. federal corporate tax and of the French corporate tax rate. These tax rates were taken into account in the measurement of deferred taxes as of the balance sheet date and increased tax expense.

Deferred tax assets and liabilities are split across the following balance sheet items:

	Sept. 30, 2018		Sept. 30, 2017	
in € '000	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	4,195	53,398	1,870	51,268
Property, plant and equipment	10,516	16,243	13,792	18,507
Inventories	47,261	3,399	43,048	2,834
Receivables and miscellaneous assets	13,913	7,795	6,526	9,832
Provisions	105,016	2,352	118,405	1,445
Liabilities	12,225	287	9,761	407
Loss carryforwards	81,926	-	81,796	-
Gross amount	**275,052**	**83,474**	**275,198**	**84,293**
Valuation allowances on tax loss carryforwards and similar items	-54,182	-	-56,760	-
Netting out	- 80,583	- 80,583	-82,037	-82,037
Carrying amount	**140,287**	**2,891**	**136,401**	**2,256**

The tax loss carryforwards, the majority of which are realizable without restriction, amounted to €339.2 million (prior year: €314.6 million). This includes an amount of €213.4 million (prior year: €228.0 million) on which a valuation allowance on deferred tax assets of €54.2 million (prior year: €56.8 million) has been recognized.

The utilization of tax loss carryforwards, on which deferred tax assets had not yet been recognized, did not result in a positive effect in the reporting year, as was also the case in the prior year. The following amounts are included in equity due to deferred taxes being offset:

in € '000	Sept. 30, 2018	Sept. 30, 2017
Securities	-819	-1,370
Derivative financial instruments	6,665	4,691
Currency effects	-2,765	-2,041
Deferred taxes offset in accumulated other comprehensive income	**3,081**	**1,280**
Remeasurements of defined benefit pension plans	23,777	24,183
Deferred taxes in other reserves	**26,858**	**25,463**

Notes to the Consolidated Balance Sheet

14. Intangible Assets

in € '000	Concessions, industrial and similar rights and assets, and licenses in such rights	Goodwill	Payments made on account	Development costs recognized as an asset	Total
Cost					
Balance as of Oct. 1, 2016	**53,928**	**70,569**	**3,820**	**244,560**	**372,877**
Currency translation	-342	-109	-	-49	-500
Consolidation adjustments	-36	-	-	-	-36
Additions	6,706	-	3,976	42,837	53,519
Disposals	-1,043	-3	-	-2,933	-3,979
Reclassifications	4,980	-	-3,729	-35	1,216
Balance as of Sept. 30, 2017	**64,193**	**70,457**	**4,067**	**284,380**	**423,097**
Currency translation	-146	36	-	45	-65
Additions	7,782	-	3,013	46,983	57,778
Disposals	-3,812	-	-	-42,109	-45,921
Reclassifications	3,133	-	-3,133	-	0
Balance as of Sept. 30, 2018	**71,150**	**70,493**	**3,947**	**289,299**	**434,889**
Accumulated amortization and impairment losses					
Balance as of Oct. 1, 2016	**36,036**	**55,758**	**-**	**69,657**	**161,451**
Currency translation	-68	-	-	-	-68
Consolidation adjustments	-11	-	-	-	-11
Additions (amortization)	6,093	-	-	34,419	40,512
Additions (impairment)	1,508	-	-	-	1,508
Disposals	-1,032	-	-	-2,933	-3,965
Balance as of Sept. 30, 2017	**42,526**	**55,758**	**-**	**101,143**	**199,427**
Currency translation	-87	-	-	-4	-91
Additions (amortization)	6,899	-	-	34,931	41,830
Additions (impairment)	3,062	-	-	1,051	4,113
Disposals	-3,719	-	-	-42,109	-45,828
Balance as of Sept. 30, 2018	**48,681**	**55,758**	**-**	**95,012**	**199,451**
Carrying amounts					
Balance as of Sept. 30, 2017	**21,667**	**14,699**	**4,067**	**183,237**	**223,670**
Balance as of Sept. 30, 2018	**22,469**	**14,735**	**3,947**	**194,287**	**235,438**

Development costs in the amount of €47.0 million (prior year: €42.8 million) were capitalized. This includes capitalized borrowing costs of €3.3 million (prior year: €2.0 million). The necessary impairment tests on the capitalized development costs lead to impairment losses of €1.1 million (prior year: €0.0 million). These impairment losses resulted from reduced cash flow forecasts and market-related changes in the cost of capital. The forecast assumptions were adjusted to reflect current circumstances and future market expectations, which led to correspondingly lower values in use.

15. Property, Plant and Equipment

in € '000	Land, land rights and buildings	Technical equipment and machinery	Other equipment, operating and office equipment	Payments on account and assets under construction	Finance leases	Total
Cost						
Balance as of Oct. 1, 2016	**411,860**	**507,108**	**242,608**	**40,374**	**2,458**	**1,204,408**
Currency translation	-729	-237	-903	-100	-5	-1,974
Consolidation adjustments	-2	-10	-1,186	-	-	-1,198
Additions	17,159	15,325	12,839	31,897	2	77,222
Disposals	-1,225	-8,189	-10,741	-407	-	-20,562
Reclassifications	7,943	12,482	4,240	-25,881	-	-1,216
Balance as of Sept. 30, 2017	**435,006**	**526,479**	**246,857**	**45,883**	**2,455**	**1,256,680**
Currency translation	-5,944	-5,846	-1,147	-456	-39	-13,432
Additions	17,706	25,391	16,641	42,804	-	102,542
Disposals	-6,020	-50,310	-15,383	-29	-102	-71,844
Reclassifications	11,607	20,864	4,407	-36,878	-	0
Balance as of Sept. 30, 2018	**452,355**	**516,578**	**251,375**	**51,324**	**2,314**	**1,273,946**
Accumulated depreciation and impairment losses						
Balance as of Oct. 1, 2016	**182,683**	**376,748**	**162,912**	**-**	**1,577**	**723,920**
Currency translation	405	-29	-522	-	-5	-151
Consolidation adjustments	-	-4	-526		-	-530
Additions (depreciation)	9,868	38,988	19,092	-	468	68,416
Additions (impairment)	2,474	3,263	-		-	5,737
Disposals	-511	-7,152	-9,288	-	-	-16,951
Reclassifications	-	-31	31	-	-	-
Balance as of Sept. 30, 2017	**194,919**	**411,783**	**171,699**	**-**	**2,040**	**780,441**
Currency translation	-3,691	-5,778	-826	-	-39	-10,334
Additions (depreciation)	9,839	36,797	19,116	-	413	66,165
Additions (impairment)	-	584	-	-	-	584
Disposals	-3,026	-48,788	-12,500	-	-100	-64,414
Balance as of Sept. 30, 2018	**198,041**	**394,598**	**177,489**	**-**	**2,314**	**772,442**
Carrying amounts						
Balance as of Sept. 30, 2017	**240,087**	**114,696**	**75,158**	**45,883**	**415**	**476,239**
Balance as of Sept. 30, 2018	**254,314**	**121,980**	**73,886**	**51,324**	**0**	**501,504**

Additions to the cost of assets under construction included €0.3 million (prior year: €0.4 million) in capitalized borrowing costs.

Impairment losses on property, plant and equipment amounted to €0.6 million (prior year: €5.7 million). Impairment losses are reported under cost of sales.

As in the prior year, the CLAAS Group did not pledge any property, plant and equipment as collateral for liabilities.

16. Investments Accounted for Using the Equity Method

The following table shows the summarized financial data on associates and joint ventures accounted for using the equity method that are immaterial for the CLAAS Group, both individually and in total:

	Associates		Joint ventures	
in € '000	**2018**	**2017**	**2018**	**2017**
At equity result	1,132	3,102	16,285	9,712
Carrying amount of investments accounted for using the equity method	29,181	20,931	106,327	94,415

Investments accounted for using the equity method mainly relate to investments in CLAAS Financial Services companies, which provide financing solutions for investments in CLAAS machines.

17. Inventories

in € '000	**Sept. 30, 2018**	**Sept. 30, 2017**
Raw materials, consumables, and supplies	151,343	104,691
Work in progress	80,022	68,762
Finished goods and merchandise	728,356	570,787
Payments made on account	8,335	15,015
Advanced payments received	-65,050	-75,404
Inventories	**903,006**	**683,851**

An increase in write-downs of inventories amounting to €0.4 million (prior year: reduction of €13.8 million) and was recognized in the income statement in the reporting year and recorded under expenses in the cost of sales. As in the prior year, inventories were not pledged as security for liabilities.

18. Trade Receivables

in € '000	**Sept. 30, 2018**	**Sept. 30, 2017**
Gross carrying amount	**382,695**	**371,787**
Impairment	-42,548	-39,167
Net carrying amount	**340,147**	**332,620**

The impairment of trade receivables developed as follows:

in € '000	2018	2017
Impairment at Oct. 1	**39,167**	**33,326**
Utilization	-778	-2,615
Reversal of/addition to impairment loss, net	4,280	9,688
Currency translation	-121	-1,232
Impairment at Sept. 30	**42,548**	**39,167**

The following table shows the distribution of trade receivables by the impairment and maturity criteria:

in € '000	Sept. 30, 2018	Sept. 30, 2017
Neither past due nor impaired	268,253	257,108
Not impaired but past due as per the following time frames:		
up to 30 days	35,935	40,982
31 to 60 days	8,858	13,536
61 to 90 days	7,014	5,766
more than 90 days	15,130	12,042
Trade receivables adjusted individually for impairment	4,957	3,186
Trade receivables	**340,147**	**332,620**

The amount of interest income received on impaired financial assets was insignificant. Please see Note 34 for disclosures on existing credit risks arising from trade receivables.

Asset-backed securitization

Trade receivables are sold on a revolving basis within the scope of an asset-backed securitization program (ABS program). At the end of the fiscal year, the nominal volume of the receivables sold and derecognized as a result came to €213.5 million (prior year: €237.4 million).

In some cases, the CLAAS Group retains the share of the sold receivables as part of these sales; this is balanced out under certain circumstances by future credits or netting. The resulting assets amounted to €67.2 million as of the balance sheet date (prior year: €69.6 million).

As part of these sales, the CLAAS Group recognized assets of €11.6 million (prior year: €13.8 million) as of the reporting date for the partially retained provisions for risk of default. The financial liabilities associated with the sales amounted to €17.5 million (prior year: €23.3 million).

19. Other Financial Assets

in € '000	Current	Non-current	Sept. 30, 2018	Current	Non-current	Sept. 30, 2017
Borrowings	-	3,472	3,472	-	4,260	4,260
Receivables from investments	83,794	4,300	88,094	95,898	-	95,898
Derivative financial instruments	4,205	-	4,205	9,885	-	9,885
Creditors with a debit balance	3,714	-	3,714	3,176	-	3,176
Loan receivables	1,254	-	1,254	1,250	-	1,250
Interest receivables	165	-	165	290	-	290
Miscellaneous	97,864	2,174	100,038	97,730	1,595	99,325
Other financial assets	**190,996**	**9,946**	**200,942**	**208,229**	**5,855**	**214,084**

20. Other Non-financial Assets

in € '000	Current	Non-current	Sept. 30, 2018	Current	Non-current	Sept. 30, 2017
Prepaid expenses	12,860	-	12,860	11,514	-	11,514
Other taxes	57,554	-	57,554	49,180	-	49,180
Surplus related to funded benefit obligations	-	16,576	16,576	-	13,647	13,647
Miscellaneous	966	22,174	23,140	4,043	20,844	24,887
Other non-financial assets	**71,380**	**38,750**	**110,130**	**64,737**	**34,491**	**99,228**

21. Securities

A total of €93.9 million (prior year: €622.5 million) of current securities (€193.7 million; prior year: €711.1 million) was attributable to funds.

Of the current securities held at the beginning of the fiscal year, securities with historical costs of €616.8 million were disposed of during the fiscal year (prior year: €174.1 million). As a result of these disposals, gains and losses from exchange rate changes of €1.3 million initially recognized directly in equity (prior year: €0.2 million) were recognized as profit or loss in foreign exchange gains and losses, net, for the current period. Furthermore, €-2.3 million from the changes in value of current securities were recognized directly in equity in other comprehensive income (prior year: €2.7 million).

Securities totaling €10.5 million (prior year: €7.6 million) are pledged as collateral in order to meet the legal requirements of the German Partial Retirement Act (AltTZG).

22. Cash and Cash Equivalents

There are drawing restrictions on cash and cash equivalents totaling €18.5 million, of which €17.5 million (prior year: €23.3 million) is attributable to proceeds from trade receivables transferred under the ABS program that are not freely disposable and are to be transferred to other contracting parties.

23. Equity

Amounts reported as subscribed capital and capital reserves in the consolidated financial statements correspond to the amounts in the separate financial statements of CLAAS KGaA mbH. The subscribed capital of CLAAS KGaA mbH is composed of 3 million no-par-value registered shares with voting rights. The general partner without capital contribution is Helmut Claas GmbH. The shareholders of the limited partnership, CLAAS KGaA mbH, are all direct and indirect members of the Claas family. The capital reserves exclusively contain other contributions from shareholders.

The consolidated statement of changes in equity presents the development of equity as well as detailed information as to changes in retained earnings and accumulated other comprehensive income.

The dividend distributed to shareholders in fiscal year 2017 amounted to €33.1 million.

At CLAAS, the management of capital is governed by provisions of corporate law. The capital under management corresponds to the equity recognized in the balance sheet of the CLAAS Group. The aim of capital management is to achieve an adequate equity-to-assets ratio.

Should it be necessary to comply with contractual provisions, the capital will in addition be managed in accordance with the relevant requirements.

24. Financial Liabilities

in € '000	Current	Non-current	Sept. 30, 2018	Current	Non-current	Sept. 30, 2017
Bonds	-	258,131	258,131	-	253,893	253,893
Liabilities to banks	50,072	1,082	51,154	66,656	809	67,465
Schuldscheindarlehen (German Private Placement)	-	250,000	250,000	-	250,000	250,000
Shareholder loans	4,245	41,991	46,236	3,920	41,991	45,911
Financial liabilities	**54,317**	**551,204**	**605,521**	**70,576**	**546,693**	**617,269**

The table below shows details of the privately placed bonds and the Schuldscheindarlehen (German Private Placement):

	Nominal volume	Carrying amount Sept. 30, 2018	Coupon in %	Due
Bond 2012	USD 300,000,000	€258,131,000	3.98 and 4.08	2022
Schuldscheindarlehen (German Private Placement) 2015	€250,000,000	€250,000,000	0.99 and 1.75	2020 and 2024

Interest on liabilities to banks denominated in various currencies is charged at rates of between 1.5% p.a. and 5.0% p.a. Of these liabilities, €1.1 million are secured (prior year: €0.9 million). The unsecured liabilities to banks are attributable in part to very current liabilities in connection with the ABS program.

The shareholder loans refer primarily to liabilities to shareholders of the limited partnership.

In addition, the CLAAS Group had access to credit facilities from banks as well as a flexible syndicated loan totaling €704.6 million as of the balance sheet date for general financing purposes, €653.5 million of which was unutilized.

25. Silent Partnership

The silent partnership of the employee participation company CMG is compensated on the basis of performance and is considered subordinated in the event of liability. Pursuant to IFRS, any repayable capital transferred is classified as a financial liability. With regard to the silent partnership, the fair value cannot be reliably determined, for which reason the carrying amount is reported in this case.

In return for its subordinated capital contribution, CMG receives compensation that is based on the performance of the CLAAS Group. CMG also shares in any Group losses. A total of €5.3 million of the silent partnership can be terminated without cause as of September 30, 2019; additional termination-without-cause rights for a further €17.1 million between fiscal years 2020 and 2023.

26. Other Financial Liabilities

in € '000	Current	Non-current	Sept. 30, 2018	Current	Non-current	Sept. 30, 2017
Bills payable	15,200	-	15,200	15,926	-	15,926
Liabilities to investments	34,178	-	34,178	31,769	-	31,769
Derivative financial instruments	3,434	2,627	6,061	3,122	3,700	6,822
Accrued interest	2,608	-	2,608	2,734	-	2,734
Miscellaneous	21,722	5,665	27,387	22,987	2,989	25,976
Other financial liabilities	**77,142**	**8,292**	**85,434**	**76,538**	**6,689**	**83,227**

27. Other Non-financial Liabilities

in € '000	Current	Non-current	Sept. 30, 2018	Current	Non-current	Sept. 30, 2017
Deferred income	50,389	-	50,389	43,256	-	43,256
Other taxes	35,015	-	35,015	35,508	-	35,508
Social security	7,725	-	7,725	6,800	-	6,800
Miscellaneous	73	-	73	19	-	19
Other non-financial liabilities	**93,202**	**-**	**93,202**	**85,583**	**-**	**85,583**

28. Pension Provisions

Defined Benefit Plans

The pension provisions within the CLAAS Group encompass both obligations from current pensions as well as vested rights from future retirement, disability, and surviving dependents pensions. Pension obligations are normally based on the employees' length of service and remuneration levels. As a rule, defined benefit plans within the Group vary depending on the economic, tax, and legal conditions in the respective countries. Individual agreements have been reached with the members of the Group Executive Board. The obligations from defined benefit plans for Group employees relate mainly to obligations in Germany, France, and the United Kingdom.

The pension plans have been closed in Germany since 2006, and since 2008 in the United Kingdom.

The defined benefit obligations are composed as follows:

in € '000 / Sept. 30, 2018	Defined benefit obligations (DBO)	Fair value of the plan assets	Net obligation
Germany	262,620	461	262,159
France	35,563	-	35,563
United Kingdom	60,299	76,875	- 16,576
Other countries	3,016	-	3,016
Carrying amount	**361,498**	**77,336**	**284,162**
thereof: pension provisions			300,738
thereof: other non-financial assets			16,576

in € '000 / Sept. 30, 2017	Defined benefit obligations (DBO)	Fair value of the plan assets	Net obligation
Germany	259,367	451	258,916
France	35,831	-	35,831
United Kingdom	62,522	76,169	- 13,647
Other countries	3,372	-	3,372
Carrying amount	**361,092**	**76,620**	**284,472**
thereof: pension provisions			298,119
thereof: other non-financial assets			13,647

The changes in the present value of the defined benefit obligations are composed as follows:

in € '000	2018	2017
Present value of the defined benefit obligations as of October 1	**361,092**	**429,200**
Current service cost	8,539	12,367
Interest cost	6,614	5,141
Actuarial gains and losses	- 757	- 74,372
Past service cost, curtailments and settlements	- 1,500	-
Currency translation	- 747	- 1,265
Pension payments	- 12,055	- 10,916
Other	312	937
Present value of the defined benefit obligations as of September 30	**361,498**	**361,092**

The actuarial gains and losses largely result from the changes in demographic and financial assumptions.

The change in the fair value of the plan assets is shown in the table below:

in € '000	2018	2017
Fair value of the plan assets as of October 1	**76,620**	**76,913**
Interest income	2,003	1,738
Actuarial gains and losses	498	-183
Employer contributions	745	781
Employee contributions	311	338
Currency translation	-889	-1,367
Pension payments from plan assets	-1,952	-1,600
Fair value of the plan assets as of September 30	**77,336**	**76,620**

The following amounts are recognized in comprehensive income for defined benefit plans:

in € '000	2018	2017
Current service cost	-8,539	-12,367
Past service cost	1,500	-
Interest cost	-6,614	-5,141
Interest income	2,003	1,738
Defined benefit plan components recognized in the income statement	**-11,650**	**-15,770**
Income from plan assets excluding amounts already included in interest	498	-183
Actuarial gains and losses	757	74,372
Defined benefit plan components recognized directly in equity	**1,255**	**74,189**

Interest cost and interest income are included in the financial result. The service cost and the past service cost are reported as functional costs.

Total income from plan assets amounted to €2.5 million in fiscal year 2018 (prior year: €1.5 million).

The following material assumptions (average) were used for the actuarial valuation of the defined benefit plans:

	Sept. 30, 2018		Sept. 30, 2017	
in %	Germany	Other	Germany	Other
Discount rate	1.70	2.37	1.70	2.29
Rate of salary increase	3.00	2.56	3.00	2.54
Rate of pension increase	1.75	-	1.75	-

Plan assets mainly pertain to the funded plan in the United Kingdom and are composed of the following:

	Sept. 30, 2018		Sept. 30, 2017	
	in € '000	in %	in € '000	in %
Equity instruments	27,465	35.5	30,404	39.7
Bonds	48,431	62.6	44,492	58.1
Cash and cash equivalents	979	1.3	1,273	1.6
Other	461	0.6	451	0.6
Plan assets	**77,336**	**100.0**	**76,620**	**100.0**

The equity instrument and bond items are held in the form of funds, for which redemption prices are determined on a regular basis. The equity instruments and bonds included in the fund are quoted on active markets. The market value of the plan assets is largely determined by the capital market environment. Unfavorable equity and bond developments, in particular, could impact the market value. The investment risk is limited by the broad diversification of the bonds in the funds as well as the high quality of the obligors.

Plan assets are largely managed by a trust association in the United Kingdom under a trust agreement; this trust association stipulates, among other things, the principles and strategies for the investment activities.

The focus of the investment strategy is on sufficient diversification in order to distribute investment risk over a variety of markets and asset classes. It is also important that there is sufficient congruity between the risk drivers on both the investment and obligation sides. The allocation of assets is kept within specific investment ranges with respect to the type of investment and geographical market. In the year under review and in the prior year, the main focus of investment was on United Kingdom securities.

Were the other assumptions to remain unchanged, a change in the discount rate, as the material actuarial assumption, would have the following impact on the present value of the defined benefit obligations. Actual developments will likely differ.

in € '000	Sept. 30, 2018	Sept. 30, 2017
Discount rate up 50 basis points	-31,069	-31,785
Discount rate down 50 basis points	33,858	33,662

A rise or fall of 50 basis points in the rate of pension increase would have a comparable impact on the present value of the defined benefit obligation as the discount rate, provided that the other assumptions remain unchanged. The impact of a possible change in the rate of salary increase, on the other hand, would be insignificant.

The weighted average maturity of the defined benefit obligations was 18.3 years as of September 30, 2018 (prior year: 18.5 years).

In fiscal year 2019, pension payments in the amount of €9.4 million are anticipated. The employer contributions to plan assets are expected to amount to €0.7 million.

Defined Contribution Plans

Defined contribution plans are also in place in Germany and North America in addition to the defined benefit plans. Furthermore, contributions were also made to national pension insurance institutions in Germany.

The total cost of the defined contribution plans can be broken down as follows:

in € '000	2018	2017
Defined contribution plans	3,098	2,928
National plans	26,058	24,558
Total cost of defined contribution plans	**29,156**	**27,486**

29. Income Tax Provisions and Other Provisions

		Other provisions				
in € '000	Income tax provisions	Personnel obligations	Sales obligations	Miscellaneous obligations	Total other provisions	Total
Balance as of Oct. 1, 2017	**31,788**	**155,158**	**376,861**	**38,172**	**570,191**	**601,979**
Utilization	-24,869	-121,980	-222,821	-11,549	-356,350	-381,219
Reversals	-1,230	-4,849	-50,927	-1,844	-57,620	-58,850
Additions	32,838	126,262	276,006	13,327	415,595	448,433
Interest/change in interest rate	-	153	28	24	205	205
Currency translation	-60	-308	-43	-618	-969	-1,029
Balance as of Sept. 30, 2018	**38,467**	**154,436**	**379,104**	**37,512**	**571,052**	**609,519**
thereof: non-current	-	21,706	18,000	7,308	47,014	47,014
thereof: current	38,467	132,730	361,104	30,204	524,038	562,505

Income tax provisions include current tax obligations.

Personnel obligations mainly comprise provisions for part-time retirement programs, outstanding vacation time, anniversaries, and annual bonuses. Obligations arising from sales primarily relate to provisions for warranty claims, sales bonuses and rebates, and other sales-generating measures.

Other Disclosures

30. Contingent Liabilities and Other Financial Obligations

Payments under rental and leasing agreements which qualify as operating leases recognized in profit or loss amounted to €58.0 million in fiscal year 2018 (prior year: €51.4 million).

Total minimum lease payments under non-cancelable operating lease agreements are composed as follows, sorted by due date:

in € '000	Sept. 30, 2018	Sept. 30, 2017
Due within 1 year	42,802	39,927
Due within 1 to 5 years	64,728	55,810
Due after 5 years	27,040	28,563
Minimum lease payments under operating lease agreements	**134,570**	**124,300**

Future lease payments are offset by expected income from minimum lease payments from non-cancelable sub-lease agreements for CLAAS machinery in the amount of €31.2 million. The lease payments under these agreements received on the balance sheet date amounted to €17.5 million.

In addition, the CLAAS Group had the following obligations as of the balance sheet date:

in € '000	Sept. 30, 2018	Sept. 30, 2017
Obligations to purchase items of property, plant and equipment	17,095	16,808
Bills of exchange, guarantees, etc.	14,067	17,107

31. Litigation and Damage Claims

As a result of their general business operations, CLAAS Group companies are involved in a variety of legal proceedings and official governmental proceedings, or are exposed to third-party claims, or there may be a possibility of such proceedings being instituted or asserted in the future (for instance with respect to patents, product liability, or goods supplied or services rendered). Although the outcome of individual proceedings cannot be predicted with certainty given the unforeseeable nature of events associated with legal disputes, the current assessment is that no significant adverse impact on the results of operations of the CLAAS Group will occur beyond the risks reflected in liabilities and provisions in the financial statements.

32. Additional Disclosures on Financial Instruments

Carrying Amounts of Financial Assets and Liabilities by Categories

in € '000	Sept. 30, 2018	Sept. 30, 2017
Financial assets at fair value through profit or loss	54,029	19,862
thereof: fair value option	(49,824)	(9,977)
Loans and receivables	1,146,611	763,374
Available-for-sale financial assets	146,816	704,716
Financial liabilities at fair value through profit or loss	6,061	6,822
Financial liabilities measured at amortized cost	976,784	944,256

The carrying amounts of financial assets and liabilities generally equate to their fair values.

The values differ for financial liabilities: The carrying amounts of financial liabilities total €605.5 million (prior year: €617.3 million), while the fair value is €597.6 million (prior year: €618.5 million). The entire amount was attributable to Level 2 of the fair value hierarchy.

Fair Value Hierarchy

The market values of financial assets and financial liabilities measured at fair value may be determined based on the following basic data in accordance with the fair value hierarchy, with the individual measurement levels defined as follows in IFRS 13:

- Level 1 Measurement based on quoted prices in active markets for identical financial instruments
- Level 2 Measurement based on inputs other than quoted prices included within Level 1 that are observable either directly or indirectly
- Level 3 Measurement based on models using inputs that are not based on observable market data

The following table shows the carrying amounts of the financial assets and liabilities measured at fair value by measurement level. There were no transfers between the individual categories.

	Sept. 30, 2018			Sept. 30, 2017		
in € '000	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Securities	93,876	99,830	-	711,053	-	-
Derivative financial instruments	-	4,205	-	-	9,885	-
Financial assets at fair value	**93,876**	**104,035**	**-**	**711,053**	**9,885**	**-**
Derivative financial instruments	-	6,061	-	-	6,822	-
Financial liabilities at fair value	**-**	**6,061**	**-**	**-**	**6,822**	**-**

Net Gains or Losses on Financial Instruments

The net gains or losses on the financial instruments recognized in the consolidated income statement can be categorized as follows:

in € '000	2018	2017
Financial assets or financial liabilities at fair value through profit or loss	-3,854	-3,793
Loans and receivables	-10,969	-23,137
Available-for-sale financial assets	427	656
Financial liabilities measured at amortized cost	-9,903	1,935
Net gains or losses on financial instruments	**-24,299**	**-24,339**

The net gains or losses on financial assets or financial liabilities at fair value through profit or loss arise solely from fair value changes.

For loans and receivables, the net gains or losses include foreign exchange gains and losses, impairment, write-ups, gains or losses from the sale of the loan or receivable, and gains or losses from the reversal of previously recognized impairment losses on debt instruments.

The net gains or losses of available-for-sale financial assets contain foreign exchange gains and losses, gains or losses from the disposal of the asset, impairment recognized as profit or loss, and any write-ups. The net gains or losses from available-for-sale financial assets recognized directly in equity are reported in Note 21.

The net gains or losses on financial liabilities measured at amortized cost primarily include foreign exchange gains and losses.

33. Derivative Financial Instruments and Hedge Accounting

Hedge accounting is not used for some derivative financial instruments. The changes in fair value for these derivatives are recognized as profit or loss. Where hedge accounting is applied, derivative financial instruments are used to hedge against future cash flows (cash flow hedging). There were no other hedging relationships in fiscal year 2018.

The following table provides an overview of the derivative financial instruments used and their fair values:

	Sept. 30, 2018		Sept. 30, 2017	
in € '000	Assets	Liabilities	Assets	Liabilities
Forward exchange transactions	2,566	5,255	4,887	5,561
thereof: cash flow hedges	(1,649)	(4,185)	(3,840)	(4,199)
Foreign currency options	1,639	573	4,827	1,129
thereof: cash flow hedges	(780)	(-)	(2,615)	(-)
Others	-	233	171	132
thereof: cash flow hedges	(-)	(-)	(-)	(-)
Derivative financial instruments	**4,205**	**6,061**	**9,885**	**6,822**
thereof: non-current	-	2,627	-	3,700
thereof: current	4,205	3,434	9,885	3,122

The cash flows from interest rate and currency risks from non-current financial liabilities hedged by cash flow hedges are due in 2022 and recognized in profit or loss. The underlying transactions for cash flow hedges for currency risks from the operating business are largely expected to be realized in the coming 12 to 18 months. This means that these hedges will primarily impact profit or loss in the coming fiscal year.

Changes in the measurement of derivative financial instruments with hedging relationships of €-4.9 million (prior year: €0.2 million) were recognized directly in equity as other comprehensive income in the reporting year.

The changes in value of cash flow hedges reclassified from equity to foreign exchange gains and losses, net, in the fiscal year amounted to €3.0 million (prior year: €4.9 million).

The ineffective portion from cash flow hedges, which was recognized as profit or loss in foreign exchange gains and losses, net, amounted to €-1.2 million (prior year: €-0.1 million).

34. Financial Risk Management

Principles of Risk Management

As a result of its business activities, the CLAAS Group is exposed to market price risk, particularly exchange rate and interest rate risk. On the procurement side, the CLAAS Group is exposed to commodity risk and risk related to its ability to ensure supplies. Moreover, credit risk arises from trade receivables, as well as from receivables relating to finance transactions such as investment of cash and cash equivalents or acquisition of securities. Liquidity risk can result from a significant decline in operating business performance or from the risk categories mentioned above.

All market price risks are identified for the entire CLAAS Group and measured, monitored, and managed centrally by Group Treasury. Systematic, central currency and interest rate management is undertaken in order to limit and control exchange rate and interest rate risk. In addition to operating measures to limit risk, all of the usual financial instruments, including derivatives, are used to manage risk. All transactions are concluded exclusively on the basis of existing underlying transactions or specifically planned transactions and are renewed on a rolling basis as required. All business partners are banks of very good credit quality.

Credit risk is identified, monitored, and managed for the entire CLAAS Group by the relevant decentralized units, supplemented by Group credit management. The local units focus their activities on operational monitoring and management of the respective risks in consideration of the locally adapted parameters specified by Group credit management. Group credit management establishes general guidelines, which form the basis for monitoring and managing the locally supervised transactions.

Since the management and the supervisory bodies of CLAAS attach great importance to systematic risk management, a comprehensive monitoring system that meets all legal requirements has been implemented. In this context, the efficiency of the hedging instruments used and the reliability of the internal control systems are regularly checked by means of internal and external reviews.

CLAAS pursues strict risk management. Derivative financial instruments are used exclusively for risk management purposes, i.e., to limit and govern risk related to business operations. The execution, control, and recording of transactions are strictly segregated in terms of physical function, on the one hand, and organizational function, on the other. Levels of discretion in trading in terms of both amount and content are defined in internal guidelines. In the finance area, risk positions are continuously evaluated and analyzed by means of suitable systems. The analysis includes simulations and scenario calculations. The competent executive bodies are informed regularly of risk exposure. Certain finance management transactions must be approved by the Group Executive Board and/or the Shareholders' Committee.

Credit Risk

CLAAS is exposed to credit risk resulting from its business operations and finance activities. This risk entails the danger of unexpected economic loss in the event that a counterparty does not fulfill its payment obligations. Credit risk comprises both the direct risk of default as well as the risk of a downgrade in credit rating in combination with the threat of a concentration of individual risks. The maximum risk arising from a financial asset corresponds to the carrying amount of the asset.

Effective monitoring and management of credit risk is a basic component of the risk management system at CLAAS. Group credit management has defined principles for managing credit risk across the Group. CLAAS internally reviews and rates the credit quality of all customers with credit needs exceeding certain limits. In addition to the contract documents submitted by the customer, the data for review and classification of credit quality is based on information from external credit rating agencies, previous default experience on the part of CLAAS, and experience resulting from the long-standing business partnership with the customer.

The maximum risk of default on trade receivables is derived from the carrying amounts recognized in the balance sheet. The risk of default is covered by write-downs. No single client was responsible for a material share of the total trade receivables of the CLAAS Group.

There were no indications, either during the course of the fiscal year or as of the balance sheet date, that the obligors of trade receivables that are neither impaired nor past due would not meet their payment obligations.

The collateral held for the purpose of minimizing potential credit risk consists primarily of credit insurance, guarantees from customers or banks, and, in some cases, retentions of title. There were no major losses recorded in either fiscal year 2018 or the prior year.

The CLAAS Group is exposed to credit risks in connection with investments in cash and cash equivalents and securities based on the risk of the obligor or issuer not meeting its payment obligations. In order to minimize this risk, issuers and obligors are carefully selected. These must have at least a BBB rating pursuant to the Standard & Poor's categories. Investments are widely diversified to further limit the risk of default. Default risk is continuously monitored using a market- and rating-based limit system. Each year, the competent executive bodies of the CLAAS Group approve the basic investment strategy and the limit system.

Derivative financial instruments are used exclusively for risk management purposes. The derivatives are either measured individually at fair value or included in hedge accounting. The maximum credit risk arising from derivative financial instruments corresponds to the positive market values of the instrument. The impact of counterparty risks on the market value is quantified using the credit value adjustment. Nearly all counterparties are internationally operating banks. The credit quality of the counterparties is continuously reviewed on the basis of the Standard & Poor's, Moody's, or Fitch credit ratings and the market prices for credit default insurance. Moreover, the risk of default is limited by engaging in a strategy of broad diversification.

Risks can also arise from issued financial guarantees. As of September 30, 2018, the maximum risk in the event of utilization amounted to €1.2 million (prior year: €1.1 million). The fair value was calculated as of the date of addition using the "expected value" method, taking into account credit risk reductions (liquidation proceeds) and risks that could arise on the basis of a default probability of 5% to 10% (prior year: 5% to 10%).

Liquidity Risk

The CLAAS Group employs a number of measures to effectively counter liquidity risk. In doing so, liquidity management places top priority on the absolute necessity of ensuring solvency at all times. Liquidity management also aims for a comfortable and cost-efficient liquidity position that will allow the Group to react adequately to opportunities in a dynamic market environment. To meet these goals, value is placed on maintaining sufficient financing commitments (see Note 24) and cash and cash equivalents as well as on the ABS program (see Note 18) and international cash management. Liquidity trends are monitored intensively on an ongoing basis in the form of daily, weekly, and monthly analyses and reports with an increasing level of detail; future liquidity requirements are projected on a regular basis as part of the financial planning process. This process consists of a rolling three-month forecast, an annual forecast, and a five-year forecast. In addition, the situation with regard to financing conditions for CLAAS on the financial markets is monitored on an ongoing basis to enable any refinancing risk to be countered promptly and proactively.

The following table gives an overview of undiscounted contractually agreed payment obligations from liabilities due in the coming fiscal years:

in € '000/Sept. 30, 2018	2019	2020	2021	2022	2023	From 2024	Total
Financial liabilities	68,442	213,215	11,243	174,726	97,454	111,522	676,602
Silent partnership	5,282	2,927	2,920	5,376	5,862	25,903	48,270
Trade payables	243,620	-	-	-	-	-	243,620
Bills payable	15,200	-	-	-	-	-	15,200
Liabilities to investments	34,178	-	-	-	-	-	34,178
Derivative financial instruments	3,441	37	-	1,674	991	-	6,143
Miscellaneous	21,722	5,665	-	-	-	-	27,387
Payments due	**391,885**	**221,844**	**14,163**	**181,776**	**104,307**	**137,425**	**1,051,400**

in € '000/Sept. 30, 2017	2018	2019	2020	2021	2022	From 2023	Total
Financial liabilities	86,413	13,045	213,045	11,073	171,872	207,118	702,566
Silent partnership	5,264	2,714	2,978	2,971	5,468	25,814	45,209
Trade payables	205,372	-	-	-	-	-	205,372
Bills payable	15,926	-	-	-	-	-	15,926
Liabilities to investments	31,769	-	-	-	-	-	31,769
Derivative financial instruments	3,128	-	-	-	3,833	-	6,961
Miscellaneous	22,987	2,989	-	-	-	-	25,976
Payments due	**370,859**	**18,748**	**216,023**	**14,044**	**181,173**	**232,932**	**1,033,779**

Currency Risk

The international focus of the CLAAS Group means that its operating business and financial transactions are exposed to risks of exchange rate differences, mainly arising from fluctuations in the value of the U.S. dollar, British pound, Polish złoty, Hungarian forint, Russian ruble, and Chinese renminbi against the euro. In the operating business, currency risk mainly arises when net sales are realized in a currency different from that of the associated costs (transaction risk). To effectively counter the effect of exchange rate fluctuations, CLAAS pursues central currency management under the purview of the Group Treasury department.

To calculate the total risk exposure, the estimated operating inflows and outflows are recorded centrally for each currency on a fiscal-year basis. A basic hedging strategy is developed for the resulting net exposures in consideration of risk-bearing capacity and the market situation. The hedging strategy is intended to protect the CLAAS Group from negative market developments while enabling the Group to participate in positive developments. The hedge horizon is typically between one and two years. The hedging strategy is approved by the competent executive body of the CLAAS Group and implemented by the Group Treasury department through the conclusion of financial derivative contracts. The hedging strategy

implemented is monitored continuously by the Group Treasury department and adapted as needed. Group management and the competent executive body receive regular reports informing them of the current status of the currency risk position.

Financing-related and investment-related currency risks are – insofar as possible and appropriate – integrated into the forecasts of operating exposure. Alternatively, these risks may be hedged individually on a case-by-case basis.

The following scenario analysis indicates the value of financial instruments denominated in foreign currencies in the event of a 10% increase or 10% decrease in the value of the hedging portfolio in comparison with the actual exchange rates on the balance sheet date. The figures are presented separately depending on whether the items are recognized in equity (via hedge accounting) or at fair value through profit or loss. The future underlying items that the derivative portfolio is intended to hedge are not included in the presentation pursuant to IFRS 7. Any conclusions made on the basis of the information presented here therefore relate exclusively to derivative financial instruments. The values stated are not meaningful for determining the overall future effect of exchange rate fluctuations on the cash flows or earnings of the CLAAS Group. In addition to the analysis made here of the fair value risk inherent in currency derivatives, internal risk management and the information provided regularly to the competent executive bodies are based above all on meaningful scenario analyses of the total risk position, which take account of both the underlying items and the hedge portfolio. Foreign currency loans are generally hedged using currency hedging instruments; as a result, there is no currency risk from these items.

	Sept. 30, 2018		Sept. 30, 2017	
in € '000	Equity	Profit or loss	Equity	Profit or loss
Actual fair value	**-1,478**	**128**	**5,956**	**1,478**
Fair value in the event of an exchange rate increase of 10%	**-50**	**24,055**	**28,011**	**11,334**
U.S. dollar	-19,028	20,698	10,726	6,741
British pound	10,244	3,166	10,977	3,287
Polish zloty	5,412	962	4,066	1,786
Hungarian forint	-704	-2,303	-1,080	-1,327
Other	4,026	1,532	3,322	847
Fair value in the event of an exchange rate decrease of 10%	**4,331**	**-32,777**	**-10,417**	**-14,729**
U.S. dollar	15,976	-24,095	-1,104	-5,165
British pound	-6,318	-5,016	-5,627	-5,838
Polish zloty	-4,290	-2,618	-1,772	-2,457
Hungarian forint	1,112	1,093	968	553
Other	-2,149	-2,141	-2,882	-1,822

Furthermore, the conversion of the net assets of foreign subsidiaries located outside the euro zone and their income and expenses (translation risk) also entail currency risks; these risks are not generally hedged.

Interest Rate Risk

CLAAS is generally exposed to interest rate risk on assets and liabilities. Such risk may arise on financial instruments such as bonds or liabilities to banks or due to the effects of interest rate changes on operating and strategic liquidity. Transactions relating to initial capital procurement and capital investment, as well as the subsequent management of the positions in line

with targets such as maturity date and the length of time for which interest rates are fixed, are undertaken centrally for the entire CLAAS Group by the Group Treasury department in coordination with the competent executive bodies. Interest rate derivatives are also used to manage risk. These positions are recognized at their fair values and continuously monitored on a fair value basis. The resulting risk is measured by means of value at risk analyses, among other things.

Value at risk is measured using Monte Carlo simulation, assuming a confidence level of 99.0% and a holding period of ten days. The resulting figure represents the loss in market value of the portfolio of all interest-sensitive instruments, with a probability of only 1.0% that the figure obtained will be exceeded after ten days. Currency derivatives are not included, as any interest-related changes they may be exposed to be insignificant. As of the balance sheet date, the value at risk of all interest-sensitive financial instruments amounted to €1.4 million (prior year: €1.7 million).

Commodity Price Risk

CLAAS is subject to the risk of changes in commodity prices arising from the procurement of input materials. To a minor extent, derivative financial instruments are used to hedge the risk of changes in the price of industrial metals. The resulting risk is thus insignificant.

35. Disclosures on the Consolidated Statement of Cash Flows

The consolidated statement of cash flows comprises cash flows from operating as well as investing and financing activities. Effects of changes in the scope of consolidation on cash and cash equivalents are shown separately in cash flows from investing activities. The impact of exchange rate fluctuations on cash and cash equivalents is eliminated from individual cash flows and stated separately.

The following cash flows are reported under cash flows from operating activities:

in € '000	2018	2017
Interest paid	28,850	26,048
Interest received	8,249	7,027
Dividends received	8,010	16,736
Income taxes paid	67,707	48,939

Liabilities from financial liabilities developed as follows:

in € '000	2018	2017
Financial liabilities as of Oct. 1	**617,269**	**718,449**
Cash inflows/outflows	-15,032	-85,990
Currency translation	-954	-2,179
Measurement of bonds in foreign currencies	4,238	-13,011
Financial liabilities as of Sept. 30	**605,521**	**617,269**

36. Related Party Disclosures

Related parties are associates and joint ventures accounted for using the equity method as well as persons who can exercise significant influence on the CLAAS Group. The latter includes the members of the Group Executive Board, the Supervisory Board, and the Shareholders' Committee, as well as the members of the Claas families.

The following table shows the extent of the business relationships of the CLAAS Group with related parties:

	Associates		Joint ventures	
in € '000	**2018**	**2017**	**2018**	**2017**
Income	29,045	27,163	183,665	220,865
Expenses	4,778	4,874	276,022	254,959
Receivables	3,616	2,422	58,429	77,527
Liabilities	244	0	33,453	31,642

The receivables mainly relate to interest-bearing loans issued and the liabilities primarily to trade payables.

The members of the Claas family granted loans totaling €46.2 million in the reporting year (prior year: €45.9 million); of this amount, €4.2 million (prior year: €3.9 million) is due within one year.

The CLAAS Group did not conclude any other material transactions with related parties.

All transactions with related parties were conducted on an arm's length basis.

The remuneration paid to members of the Supervisory Board and the Shareholders' Committee totaled €1.3 million in fiscal year 2018 (prior year: €1.1 million).

The following remuneration was paid to members of the Group Executive Board:

in € '000	**2018**	**2017**
Current remuneration	5,562	5,912
Provisions for retirement benefits	53	71
Total Group Executive Board remuneration	**5,615**	**5,983**

Retirement benefits were paid to former members of the Executive Board of CLAAS KGaA mbH/the Group Executive Board in the amount of €0.7 million (prior year: €0.6 million). Obligations for current pensions and vested rights of former members of the Executive Board of CLAAS KGaA mbH/the Group Executive Board totaled €14.6 million as of the balance sheet date (prior year: €12.9 million).

37. Auditor's Fees

The following fees were recognized as an expense for the services provided by the auditor of the consolidated financial statements, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft:

in € '000	**2018**	**2017**
Audit services	615	630
Other assurance services	53	40
Tax consulting services	410	32
Other services	-	7
Auditor's fees	**1,078**	**709**

Audit services include fees for auditing the financial statements of CLAAS KGaA mbH and the consolidated financial statements as well as the financial statements of the domestic subsidiaries.

Prior-year figures were audited by then-auditor Deloitte GmbH, Düsseldorf.

38. Application of Section 264 (3) and Section 264b of the German Commercial Code

The following domestic subsidiaries made partial use of the exemption option pursuant to Section 264 (3) and Section 264b of the German Commercial Code:

- 365FarmNet Group GmbH & Co KG, Harsewinkel
- CLAAS Anlagemanagement GmbH, Harsewinkel
- CLAAS E-Systems KGaA mbH & Co KG, Dissen am Teutoburger Wald
- CLAAS E-Systems Verwaltungs GmbH, Dissen am Teutoburger Wald
- CLAAS Global Sales GmbH, Harsewinkel
- CLAAS Industrietechnik GmbH, Paderborn
- CLAAS Material Handling GmbH, Harsewinkel
- CLAAS Saulgau GmbH, Bad Saulgau
- CLAAS Selbstfahrende Erntemaschinen GmbH, Harsewinkel
- CLAAS Service and Parts GmbH, Harsewinkel
- CLAAS Vertriebsgesellschaft mbH, Harsewinkel

39. Events after the Balance Sheet Date

There were no events or developments after the end of the fiscal year that could have led to material changes in the presentation or the measurement of individual assets or liabilities as of September 30, 2018 or that are subject to disclosure requirements.

40. List of Shareholdings

	Company and registered office	Shareholding in %	Held through no.
I.	**Affiliated companies included in the scope of consolidation**		
	Domestic companies		
1	CLAAS Kommanditgesellschaft auf Aktien mbH, Harsewinkel		
2	BLT Brandenburger Landtechnik GmbH, Liebenthal	50.6	17
3	CLAAS Anlagemanagement GmbH, Harsewinkel	100.0	1
4	CLAAS Bordesholm GmbH, Bordesholm	82.4	17
5	CLAAS Braunschweig GmbH, Schwülper	100.0	17
6	CLAAS Central Asia Investment GmbH, Harsewinkel	100.0	1
7	CLAAS E-Systems KGaA mbH & Co KG, Dissen am Teutoburger Wald	100.0	1/14
8	CLAAS E-Systems Verwaltungs GmbH, Dissen am Teutoburger Wald	100.0	1
9	CLAAS Global Sales GmbH, Harsewinkel	100.0	1
10	CLAAS Industrietechnik GmbH, Paderborn	100.0	1
11	CLAAS Material Handling GmbH, Harsewinkel	100.0	1
12	CLAAS Osteuropa Investitions GmbH, Harsewinkel	100.0	1
13	CLAAS Saulgau GmbH, Bad Saulgau	100.0	1
14	CLAAS Selbstfahrende Erntemaschinen GmbH, Harsewinkel	100.0	1
15	CLAAS Service and Parts GmbH, Harsewinkel	100.0	1
16	CLAAS Thüringen GmbH, Schwabhausen	90.0	17
17	CLAAS Vertriebsgesellschaft mbH, Harsewinkel	100.0	1
18	CLAAS Weser Ems GmbH, Molbergen	100.0	17
19	365FarmNet GmbH, Berlin	100.0	20
20	365FarmNet Group GmbH & Co KG, Harsewinkel	100.0	1
21	365FarmNet Verwaltungs GmbH, Gütersloh	100.0	1
	Foreign countries		
22	Canada West Harvest Centre Inc., Kelowna/Canada	90.9	30
23	CHW Fonds, Luxembourg/Luxembourg		
24	CLAAS Agricoltura S.R.L., Milan/Italy	100.0	43
25	CLAAS Agricultural Machinery (Shandong) Co, Ltd., Gaomi/China	100.0	38
26	CLAAS Agricultural Machinery Private Limited, New Delhi/India	100.0	9/15
27	CLAAS Agricultural Machinery Trading (Beijing) Co. Ltd., Beijing/China	100.0	31
28	CLAAS América Latina Representação Ltda., Porto Alegre/Brazil	100.0	1/9
29	CLAAS Argentina S.A., Sunchales/Argentina	100.0	1
30	CLAAS Canada Holdings Inc., Kelowna/Canada	100.0	1
31	CLAAS East Asia Holding Ltd., Hong Kong/China	100.0	1
32	CLAAS Eastern Ltd., Saxham/United Kingdom	100.0	58
33	CLAAS Financial Services Inc., Wilmington/Delaware/USA	100.0	48
34	CLAAS France Holding S.A.S., Fresnes/Paris/France	100.0	1
35	CLAAS France S.A.S., Fresnes/Paris/France	100.0	34
36	CLAAS Global Sales Americas Inc., Wilmington/Delaware/USA	100.0	9
37	CLAAS Global Sales Western Europe S.A.S., Fresnes/Paris/France	100.0	9
38	CLAAS Greater China Holding Ltd., Hong Kong/China	100.0	1
39	CLAAS Holdings Ltd., Saxham/United Kingdom	100.0	1
40	CLAAS Hungária Kft., Törökszentmiklós/Hungary	100.0	1
41	CLAAS Ibérica S.A., Madrid/Spain	100.0	1
42	CLAAS India Private Ltd., Faridabad/India	100.0	1
43	CLAAS Italia S.p.A., Vercelli/Italy	100.0	1
44	CLAAS Jinyee Agricultural Machinery (Heilongjiang) Co. Ltd., Daqing/China	100.0	25
45	CLAAS Manns Ltd., Saxham/United Kingdom	100.0	58
46	CLAAS Middle East – FZE, Dubai/United Arab Emirates	100.0	9
47	CLAAS North America Holdings Inc., Omaha/Nebraska/USA	100.0	1
48	CLAAS of America Inc., Omaha/Nebraska/USA	100.0	47

	Company and registered office	Shareholding in %	Held through no.
	Foreign countries		
49	CLAAS Omaha Inc., Omaha/Nebraska/USA	100.0	47
50	CLAAS Polska sp. z o.o., Poznań/Poland	100.0	1
51	CLAAS Regional Center Central Europe GmbH, Spillern/Austria	100.0	1
52	CLAAS Regional Center South East Asia Ltd., Bangkok/Thailand	100.0	1
53	CLAAS Regional Center South East Europe S.R.L., Afumați/Romania	100.0	1
54	CLAAS Réseau Agricole S.A.S., Fresnes/Paris/France	100.0	57
55	CLAAS Retail Properties Ltd., Saxham/United Kingdom	100.0	58
56	CLAAS Southern Ltd., Saxham/United Kingdom	100.0	58
57	CLAAS Tractor S.A.S., Vélizy/France	100.0	34
58	CLAAS U.K. Ltd., Saxham/United Kingdom	100.0	39
59	CLAAS Western Ltd., Saxham/United Kingdom	100.0	58
60	Mercator Purchasing S.A., Luxembourg/Luxembourg		
61	Nebraska Harvest Center Inc., Wilmington/Delaware/USA	100.0	47
62	OOO CLAAS Vostok, Moscow/Russia	100.0	1
63	OOO CLAAS, Krasnodar/Russia	99.0	12
64	S@T-INFO S.A.S., Chalon-sur-Saône/France	100.0	34
65	TOV CLAAS Ukraina, Kiev/Ukraine	100.0	1
66	Usines CLAAS France S.A.S., Metz-Woippy/France	100.0	34
	II. Associates accounted for using the equity method		
67	CLAAS Finance Ltd., Basingstoke/United Kingdom	49.0	39
68	CLAAS Financial Services LLC., San Francisco/California/USA	49.0	48/33
69	Mecklenburger Landtechnik GmbH, Prüzen/Germany	25.1	17
70	SM3 CLAAS S.A.S., Fleury/France	42.0	54
71	Worch Landtechnik GmbH, Schora/Germany	39.0	17
	III. Joint ventures and joint operations accounted for using the equity method		
72	CLAAS Financial Services Ltd., Basingstoke/United Kingdom	49.0	58
73	CLAAS Financial Services S.A.S., Puteaux/Paris/France	49.0	1
74	Fricke Landtechnik GmbH, Demmin/Germany	25.1	17
75	G.I.M.A. S.A.S., Beauvais/France	50.0	57
76	TechnikCenter Grimma GmbH, Mutzschen/Germany	30.0	17
77	Tingley Implements Inc., Lloydminster/Canada	33.3	48
78	Uz CLAAS Agro MChJ, Tashkent/Uzbekistan	49.0	6

	IV. Other significant shareholdings		Subscribed capital	Shareholding in %	Held through no.
79	AGRAVIS Technik Hessen-Pfalz GmbH, Fritzlar/Germany	EUR	700,000	10.0	17
80	BayWa AG Centre Ltd., Crossfield/Alberta/Canada	CAD	555,557	10.0	30
81	CLAAS Main-Donau GmbH & Co. KG, Gollhofen/Germany	EUR	1,200,000	10.0	17
82	CLAAS Nordostbayern GmbH & Co. KG, Altenstadt an der Waldnaab/Germany	EUR	750,000	10.0	17
83	CLAAS Südostbayern GmbH, Töging am Inn/Germany	EUR	700,000	10.0	17
84	CLAAS Württemberg GmbH, Langenau/Germany	EUR	800,000	10.0	17
85	CS Parts Logistics GmbH, Bremen/Germany	EUR	1,550,000	50.0	15
86	DESICO S.A., Florentino Ameghino/Buenos Aires/Argentina	ARS	13,333	10.0	29
87	Deutsches Forschungszentrum für Künstliche Intelligenz GmbH, Kaiserslautern/Germany	EUR	1,248,000	4.2	1
88	Landtechnik Steigra GmbH, Steigra/Germany	EUR	615,000	15.1	17
89	LTZ Chemnitz GmbH, Hartmannsdorf/Germany	EUR	750,000	10.0	17
90	MD-Betriebs-GmbH, Munich/Germany	EUR	25,000	10.0	17
91	NOB-Betriebs-GmbH, Altenstadt an der Waldnaab/Germany	EUR	25,000	10.0	17
92	Pellenc Languedoc Roussillon S.A.S., Lézignan-Corbières/France	EUR	1,000,000	35.0	54

Management Statement on the Preparation of the Consolidated Financial Statements

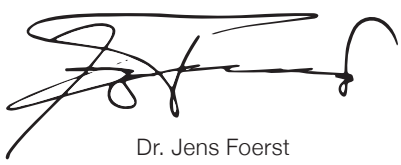
These consolidated financial statements for the fiscal year ended September 30, 2018 and the Group management report were prepared by the Executive Board of CLAAS KGaA mbH on November 26, 2018. The accuracy and completeness of the information contained in the financial statements and the Group management report are the responsibility of the Company's management. The consolidated financial statements were prepared in accordance with International Financial Reporting Standards (IFRS), as applicable in the European Union (EU). Prior-year figures were determined in accordance with the same principles. The consolidated financial statements are supplemented by the Group management report and additional disclosures in accordance with Section 315e of the German Commercial Code (HGB).

Systems of internal control, uniform Group accounting policies, and continuous employee training ensure that the consolidated financial statements and the Group management report are prepared in compliance with generally accepted accounting principles and comply with statutory requirements. Compliance with the guidelines set forth in the risk management manual, which are applicable to the Group as a whole, as well as the reliability and effectiveness of the control systems are examined by our internal auditing unit on an ongoing basis. After careful examination of the current risk position, we have discovered no specific risks that could threaten the continued existence of the CLAAS Group.

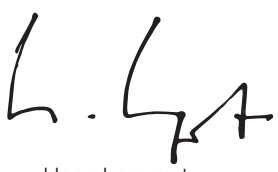
Harsewinkel, November 26, 2018
Executive Board of the CLAAS Group.

Hermann Lohbeck

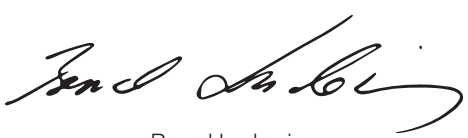
Thomas Böck



Dr. Jens Foerst



Hans Lampert



Bernd Ludewig

Jan-Hendrik Mohr

Independent Auditor's Report

To CLAAS Kommanditgesellschaft auf Aktien mbH, Harsewinkel

Report on the Audit of the Consolidated Financial Statements and the Group Management Report

Audit Opinions

We have audited the consolidated financial statements of CLAAS Kommanditgesellschaft auf Aktien mbH, Harsewinkel, and its subsidiaries (the Group), consisting of the consolidated income statement for the fiscal year from October 1, 2017, to September 30, 2018, the consolidated balance sheet as of September 30, 2018, the consolidated statement of changes in equity and the consolidated statement of comprehensive income for the fiscal year from October 1, 2017, to September 30, 2018, and the notes to the consolidated financial statements, including a summary of material accounting methods. We also audited the Group management report of CLAAS Kommanditgesellschaft auf Aktien mbH for the fiscal year from October 1, 2017, to September 30, 2018.

In our assessment in accordance with the findings obtained during the audit,

- the attached consolidated financial statements comply in all material respects with IFRS as to be applied in the EU and the additional provisions stipulated under German law pursuant to Section 315e (1) of the German Commercial Code, and give a true and fair view of the financial position of the Group as of September 30, 2018, and its financial performance for the fiscal year from October 1, 2017, to September 30, 2018, in accordance with these provisions, and
- the attached Group management report as a whole provides a suitable understanding of the Group's position. In all material respects, this Group management report is consistent with the consolidated financial statements, complies with the statutory provisions under German law, and accurately presents the risks and opportunities linked with future development.

Pursuant to Section 322 (3) Clause 1 of the German Commercial Code, we declare that our audit did not lead to any reservations against the appropriateness of the consolidated financial statements and the Group management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and the Group management report in accordance with Section 317 of the German Commercial Code and the generally accepted German standards for the audit of financial statements as promulgated by the "Institut der Wirtschaftsprüfer." Our responsibilities under these provisions and principles are defined in further detail in the section entitled "Responsibility of the Auditor in Auditing the Consolidated Financial Statements and the Group Management Report" of our Auditor's Report. We are independent of the Group companies in accordance with German commercial law and provisions governing the auditing profession, and have complied with all other professional duties valid in Germany in accordance with these requirements. We believe that the audit evidence we determined is sufficient and suitable to serve as a basis for our audit opinions on the consolidated financial statements and the Group management report.

Responsibility of the Legal Representatives and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

The legal representatives are responsible for preparing the consolidated financial statements, which comply in material respects with IFRS as to be applied in the EU and the additional statutory provisions under German law pursuant to Section 315e (1) of the German Commercial Code, and for ensuring that the consolidated financial statements give a true and fair view of the financial position and financial performance of the Group in accordance with these provisions. In addition, the legal representatives are also responsible for implementing the internal controls that they have determined to be necessary to allow the preparation of consolidated financial statements that are free of intentional and unintentional material misstatements.

In preparing the consolidated financial statements, the legal representatives are responsible for assessing the Group's ability to continue as a going concern. They are also responsible for disclosing any and all relevant matters associated with the continuation of the Group as a going concern. Furthermore, they are also responsible for accounting on the basis of the going-concern principle, unless there are plans to liquidate the Group or cease business operations, or if there is no realistic alternative to doing so.

The legal representatives are also responsible for preparing the Group management report, which provides a true and fair view of the Group's situation and also corresponds in all material respects to the consolidated financial statements, complies with statutory requirements under German law, and accurately presents the opportunities and risks associated with future development. Furthermore, legal representatives are responsible for taking precautions and introducing measures (systems) they consider necessary to ensure that a Group management report that complies with applicable statutory provisions under German law is prepared and to be able to provide sufficient evidence of the statements made in the Group management report.

The Supervisory Board is responsible for monitoring the Group's accounting process in the preparation of the consolidated financial statements and the Group management report.

Responsibility of the Auditor in Auditing the Consolidated Financial Statements and the Group Management Report

We aim to determine with a reasonable degree of assurance whether the consolidated financial statements as a whole are free of intentional and unintentional material misstatements, whether the Group management report as a whole gives a true and fair view of the Group's situation, and also corresponds in all material respects to the consolidated financial statements and the findings gathered during the audit, complies with the statutory requirements under German law, and accurately presents the opportunities and risks associated with future development, and also to issue an auditor's report that includes our audit opinions concerning the consolidated financial statements and the Group management report.

A reasonable degree of assurance is understood to be a high level of assurance but not a guarantee that an audit conducted in accordance with Section 317 of the German Commercial Code, in consideration of the German principles of proper auditing of financial statements as promulgated by the IDW will always uncover material misstatements. Misstatements can result from legal violations or inaccuracies and are considered to be material if, both individually and taken as a whole, they could reasonably be expected to impact the financial decisions of readers of the consolidated financial statements and Group management report made on the basis of said consolidated financial statements and Group management report.

We exercise professional discretion in our audit and maintain a critical approach. In addition

- we identify and assess the risks of intentional and unintentional material misstatements in the consolidated financial statements and the Group management report, plan and conduct audit activities as a response to these risks, and obtain audit evidence that is sufficient and suitable to serve as a basis for our audit opinions. The risk of material misstatements not being detected is higher in the case of legal violations than in the case of inaccuracies, as legal violations can include fraudulent conduct, forgery, intentionally incomplete disclosures, misleading statements, and the circumvention of internal controls;

- we gain an understanding of the internal control system relevant to the audit of the consolidated financial statements and the precautions and measures relevant to the audit of the Group management report in order to plan audit activities that are appropriate under the given circumstances, but are not aimed at issuing an audit opinion on the effectiveness of these systems;

- we assess the appropriateness of the accounting methods applied by the legal representatives and the acceptability of the figures estimated by the legal representatives as well as related disclosures;

- we draw conclusions about the appropriateness of the going-concern accounting principle applied by the legal representatives and, based on the audit evidence obtained, whether any material uncertainty exists in relation to events or circumstances that could cast significant doubt on the Group's ability to continue to operate as a going concern. If we conclude that material uncertainty exists, we are obliged to draw attention to the corresponding disclosures in the consolidated financial statements and the Group management report in our auditor's report or, if these disclosures are inadequate, to modify our auditor's opinion. We draw conclusions on the basis of the audit evidence gathered up to the date of our auditor's opinion. However, future events or circumstances may lead to the Group no longer being unable to operate as a going concern;

- we evaluate the overall presentation, structure, and content of the consolidated financial statements, including the notes to the consolidated financial statements, and whether the consolidated financial statements present the underlying transactions and events in a manner that gives a true and fair view of the financial position and financial performance of the Group in compliance with IFRS as applied in the EU and the statutory provisions under German law pursuant to Section 315e (1) of the German Commercial Code additionally to be applied;

- we gather sufficient and suitable audit evidence for the accounting information of the companies or business activities within the Group to issue audit opinions on the consolidated financial statements and the Group management report. We are responsible for the guidance, monitoring, and performance of the audit of the consolidated financial statements. We bear sole responsibility for our audit opinions;

- we evaluate the consistency of the Group management report with the consolidated financial statements, its conformity with German law, and the view it provides of the Group's situation;

- we conduct audit activities concerning the forward-looking statements made by the legal representatives in the Group management report. Based on the existence of sufficient and suitable audit evidence, we verify in particular the significant assumptions that underpin the forward-looking statements made by the legal representatives and assess whether the forward-looking statements have been properly derived from these assumptions. We do not issue a separate audit opinion on the forward-looking statements or the underlying assumptions. There is a substantial and unavoidable risk that future events will deviate significantly from the forward-looking statements.

Together with the individuals responsible for monitoring, we discuss the planned scope and time frame for the audit as well as significant audit findings, together with any deficiencies found in the internal control system, that we determine during our audit.

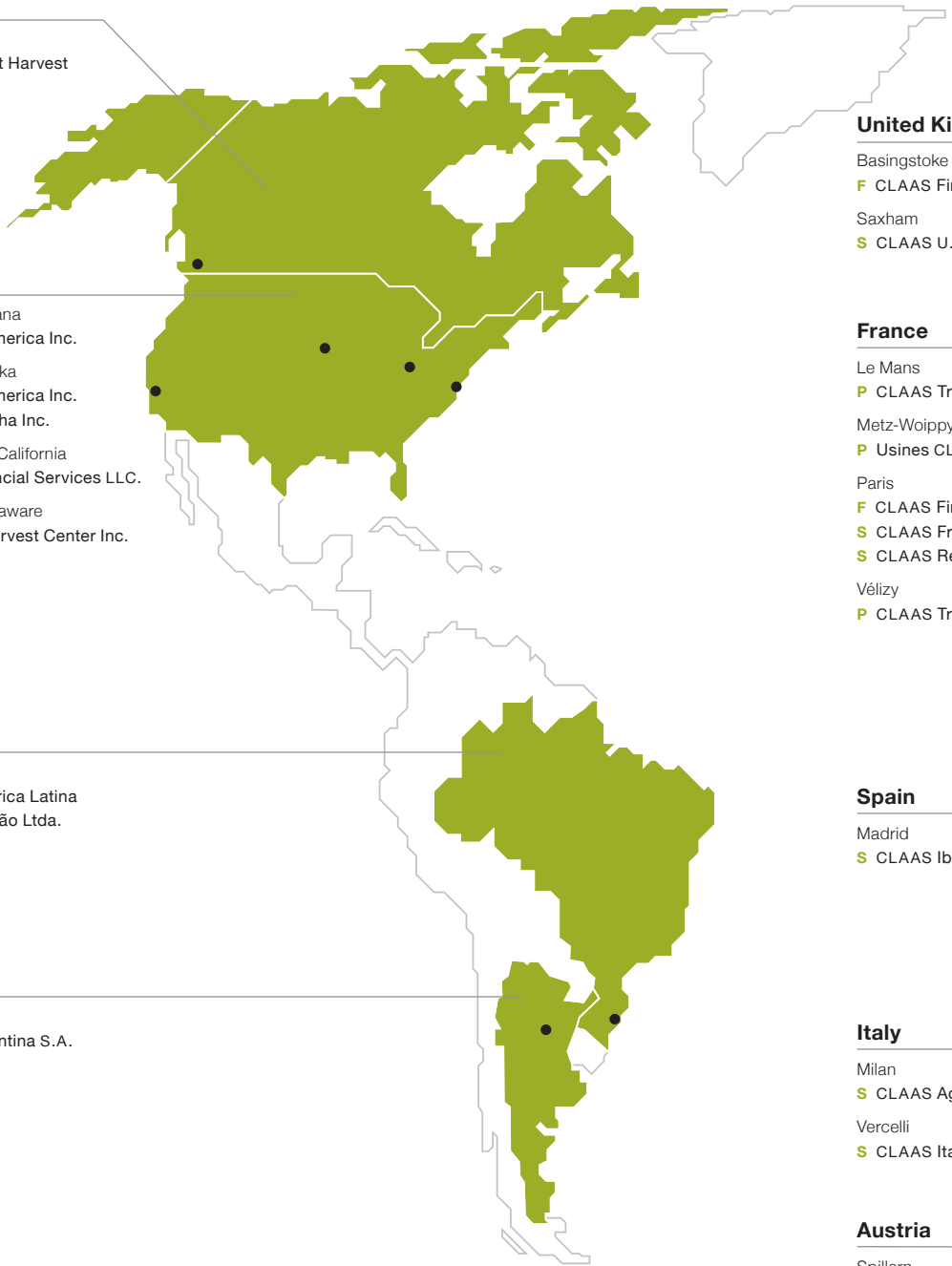
Hanover, November 26, 2018

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

(Dr, Janze)
German Public
Auditor

(Fraiss)
German Public
Auditor

Locations



Canada

Kelowna
S Canada West Harvest Centre Inc.

USA

Columbus / Indiana
S CLAAS of America Inc.

Omaha / Nebraska
S CLAAS of America Inc.
P CLAAS Omaha Inc.

San Francisco / California
F CLAAS Financial Services LLC.

Wilmington / Delaware
S Nebraska Harvest Center Inc.

Brazil

Porto Alegre
S CLAAS América Latina Representação Ltda.

Argentina

Sunchales
S CLAAS Argentina S.A.

United Kingdom

Basingstoke
F CLAAS Financial Services Ltd.

Saxham
S CLAAS U.K. Ltd.

France

Le Mans
P CLAAS Tractor S.A.S.

Metz-Woippy
P Usines CLAAS France S.A.S.

Paris
F CLAAS Financial Services S.A.S.
S CLAAS France S.A.S.
S CLAAS Réseau Agricole S.A.S.

Vélizy
P CLAAS Tractor S.A.S.

Spain

Madrid
S CLAAS Ibérica S.A.

Italy

Milan
S CLAAS Agricoltura S.R.L.

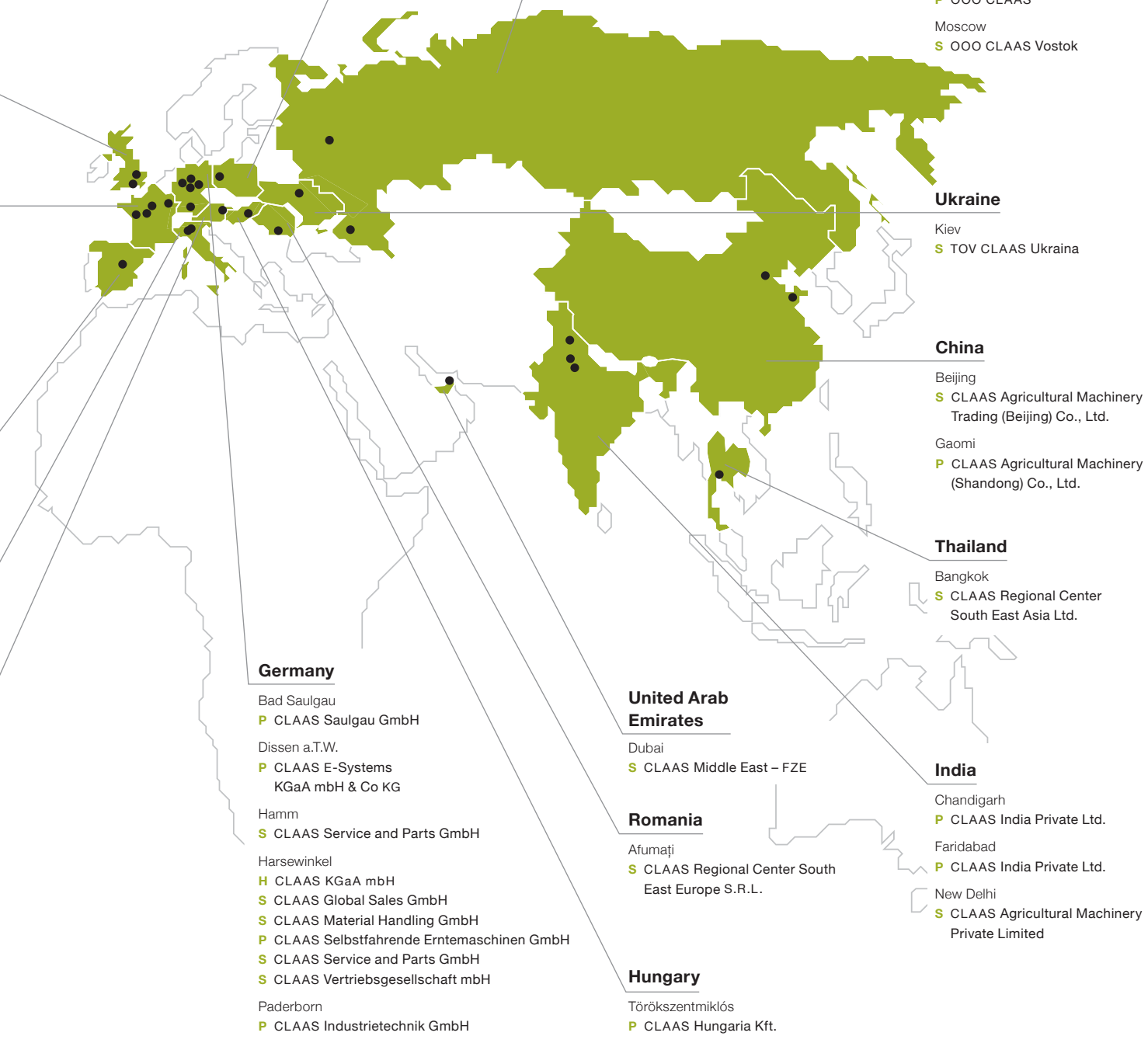
Vercelli
S CLAAS Italia S.p.A.

Austria

Spillern
S CLAAS Regional Center Central Europe GmbH

P Product Company
S Sales Company
F Financing Company
H Holding – Management and Services

Locations



Poland

Poznań
S CLAAS Polska sp. z o.o.

Russia

Krasnodar
P OOO CLAAS

Moscow
S OOO CLAAS Vostok

Ukraine

Kiev
S TOV CLAAS Ukraina

China

Beijing
S CLAAS Agricultural Machinery Trading (Beijing) Co., Ltd.

Gaomi
P CLAAS Agricultural Machinery (Shandong) Co., Ltd.

Thailand

Bangkok
S CLAAS Regional Center South East Asia Ltd.

India

Chandigarh
P CLAAS India Private Ltd.

Faridabad
P CLAAS India Private Ltd.

New Delhi
S CLAAS Agricultural Machinery Private Limited

United Arab Emirates

Dubai
S CLAAS Middle East – FZE

Romania

Afumați
S CLAAS Regional Center South East Europe S.R.L.

Hungary

Törökszentmiklós
P CLAAS Hungaria Kft.

Germany

Bad Saulgau
P CLAAS Saulgau GmbH

Dissen a.T.W.
P CLAAS E-Systems KGaA mbH & Co KG

Hamm
S CLAAS Service and Parts GmbH

Harsewinkel
H CLAAS KGaA mbH
S CLAAS Global Sales GmbH
S CLAAS Material Handling GmbH
P CLAAS Selbstfahrende Erntemaschinen GmbH
S CLAAS Service and Parts GmbH
S CLAAS Vertriebsgesellschaft mbH

Paderborn
P CLAAS Industrietechnik GmbH

Definitions

Capital expenditure = Capital expenditure for intangible assets (excluding goodwill) + capital expenditure for property, plant and equipment

EBIT = Net income + income taxes + interest and similar expenses

EBITDA = EBIT +/- amortization/depreciation/impairment/write-ups of intangible assets; property, plant and equipment; investments; and borrowings

$$\text{Equity and non-current liabilities to non-current assets (in \%)} = \frac{\text{Equity + non-current liabilities}}{\text{Non-current assets}} \times 100$$

$$\text{Equity-to-assets ratio (in \%)} = \frac{\text{Equity}}{\text{Total assets}} \times 100$$

Free cash flow = Cash flows from operating activities – net capital expenditure in intangible assets; property, plant and equipment; borrowings and shares of fully consolidated companies and investments

Liquid assets = Cash and cash equivalents + current securities

$$\text{Return on equity (in \%)} = \frac{\text{Net income}}{\text{Equity}} \times 100$$

$$\text{Return on sales (in \%)} = \frac{\text{Income before taxes}}{\text{Net sales}} \times 100$$

Working capital = Inventories +/- trade accounts receivable/payable +/- notes receivable/payable

Ten-year Overview

in € million	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Financial performance										
Net sales	3,889.2	3,761.0	3,631.6	3,838.5	3,823.0	3,824.6	3,435.6	3,304.2	2,475.5	2,900.8
Research and development costs[1]	233.4	217.6	221.4	203.0	212.3	197.0	181.2	144.3	122.6	124.8
EBITDA	372.7	335.7	251.9	310.5	327.9	420.5	426.1	377.5	200.3	230.0
EBIT	256.8	215.2	129.0	196.8	194.4	334.7	347.6	292.3	116.1	146.9
Income before taxes	225.7	184.5	93.5	157.7	155.1	295.3	315.6	255.3	77.2	112.3
Net income	152.0	115.4	37.6	105.7	113.1	212.3	232.7	181.8	51.5	73.4
Return on sales (in %)	5.8	4.9	2.6	4.1	4.1	7.7	9.2	7.7	3.1	3.9
Return on equity (in %)	10.9	8.9	3.2	8.6	9.6	17.3	21.3	20.9	6.3	9.5
Foreign sales (in %)	78.5	79.1	78.6	77.2	77.2	78.1	77.3	73.5	73.1	75.2
Cash flow / investments / amortization, depreciation, impairment										
Cash flows from operating activities	85.0	345.0	246.0	156.5	50.4	247.6	115.1	244.5	300.5	-140.6
Free cash flow	-83.9	209.6	118.5	38.8	-136.9	82.1	-84.2	156.5	215.8	-264.8
Capital expenditure[2]	160.3	130.7	122.2	128.3	173.2	172.4	163.1	93.7	87.2	125.2
Depreciation / amortization / impairment[3]	112.7	116.2	102.8	111.3	133.3	83.3	78.4	85.1	84.2	83.1
Asset / capital structure										
Non-current assets	1,066.8	995.6	1,002.0	993.0	942.5	820.4	707.3	586.4	561.6	579.1
thereof: development costs recognized as an asset	194.3	183.2	174.9	160.9	141.8	116.1	96.9	89.7	92.3	95.5
thereof: property, plant and equipment	501.5	476.2	480.5	480.7	486.2	460.0	404.3	337.6	330.5	322.4
Current asset	2,317.8	2,237.1	2,135.2	2,350.2	2,170.6	2,105.5	1,913.1	1,803.4	1,716.8	1,627.6
thereof: inventories	903.0	683.9	733.0	873.1	934.9	729.7	682.1	559.6	418.1	519.3
thereof: liquid assets	803.4	937.7	842.4	851.3	699.2	863.7	767.2	818.8	907.7	677.2
Equity	1,395.5	1,293.8	1,160.7	1,231.0	1,183.2	1,226.7	1,094.8	870.1	814.2	775.5
Equity-to-assets ratio (in %)	41.2	40.0	37.0	36.8	38.0	41.9	41.8	36.4	35.7	35.1
Non-current liabilities	958.4	938.8	1,060.2	981.1	656.1	700.0	593.5	497.3	720.6	766.2
Current liabilities	1,030.8	1,000.2	916.3	1,131.1	1,273.8	999.2	932.1	1,022.4	743.6	665.0
Total assets	3,384.7	3,232.8	3,137.2	3,343.2	3,113.1	2,925.9	2,620.4	2,389.8	2,278.4	2,206.7
Net liquidity	197.9	320.3	124.0	46.7	82.7	387.4	333.6	442.9	395.2	166.2
Working capital	1,012.5	839.5	892.3	1,007.2	998.1	843.6	822.7	650.9	512.6	692.8
Equity and non-current liabilities to non-current assets (in %)	220.7	224.2	221.6	222.8	195.2	234.9	238.7	233.2	273.3	266.2
Employees										
Number of employees as of the balance sheet date[4]	11,132	10,961	11,300	11,535	11,407	9,697	9,077	9,060	8,968	9,467
Personnel expenses	693.0	673.5	653.3	650.6	627.0	594.0	548.1	540.4	489.0	522.8

[1] Before capitalized and amortized development costs.
[2] Including development costs recognized as an asset, excluding goodwill.
[3] Of intangible assets (excluding goodwill) and property, plant and equipment.
[4] Including apprentices.

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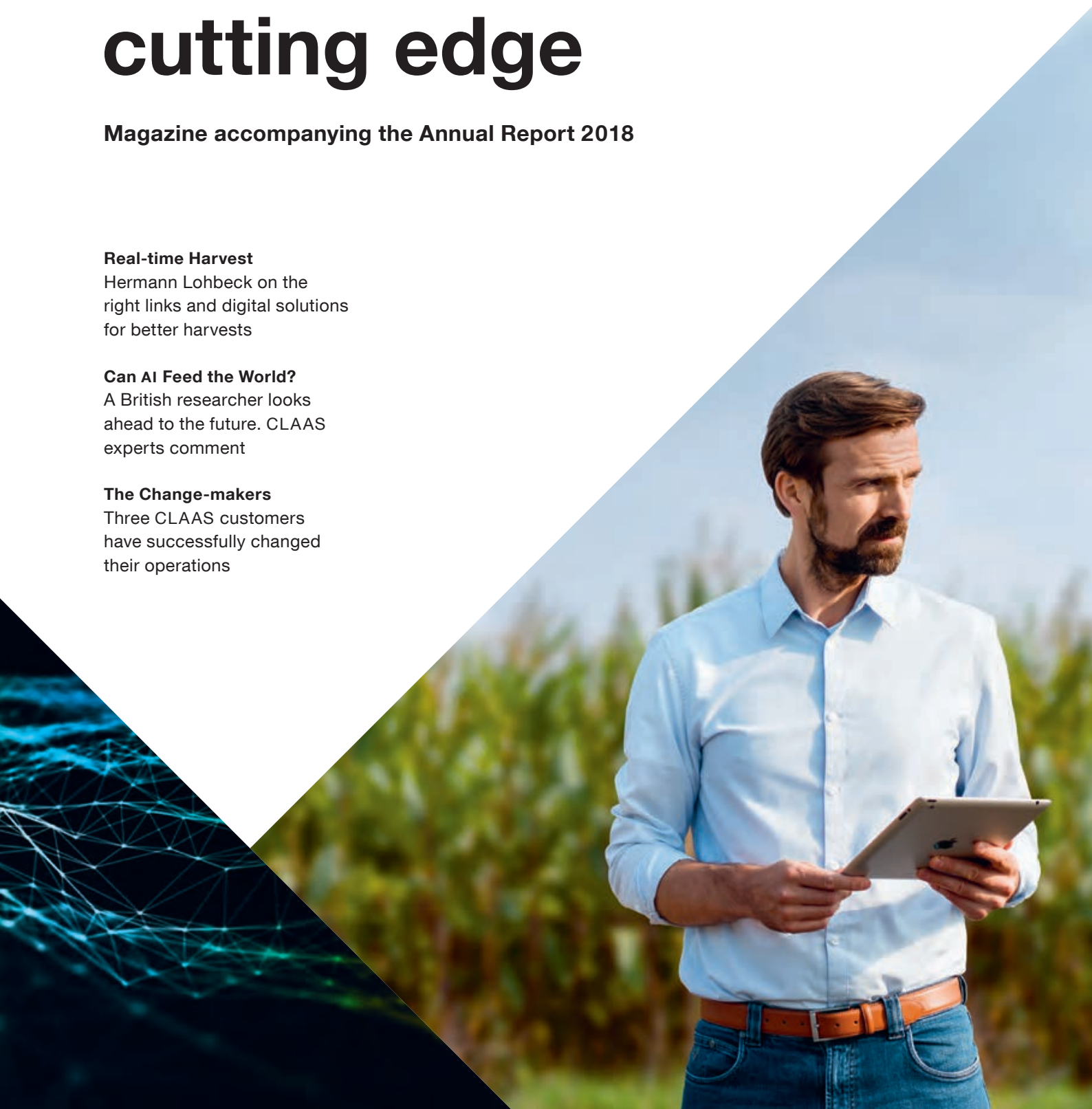
cutting edge

Magazine accompanying the Annual Report 2018

Real-time Harvest
Hermann Lohbeck on the right links and digital solutions for better harvests

Can AI Feed the World?
A British researcher looks ahead to the future. CLAAS experts comment

The Change-makers
Three CLAAS customers have successfully changed their operations



19
countries

35
locations

11,132
employees

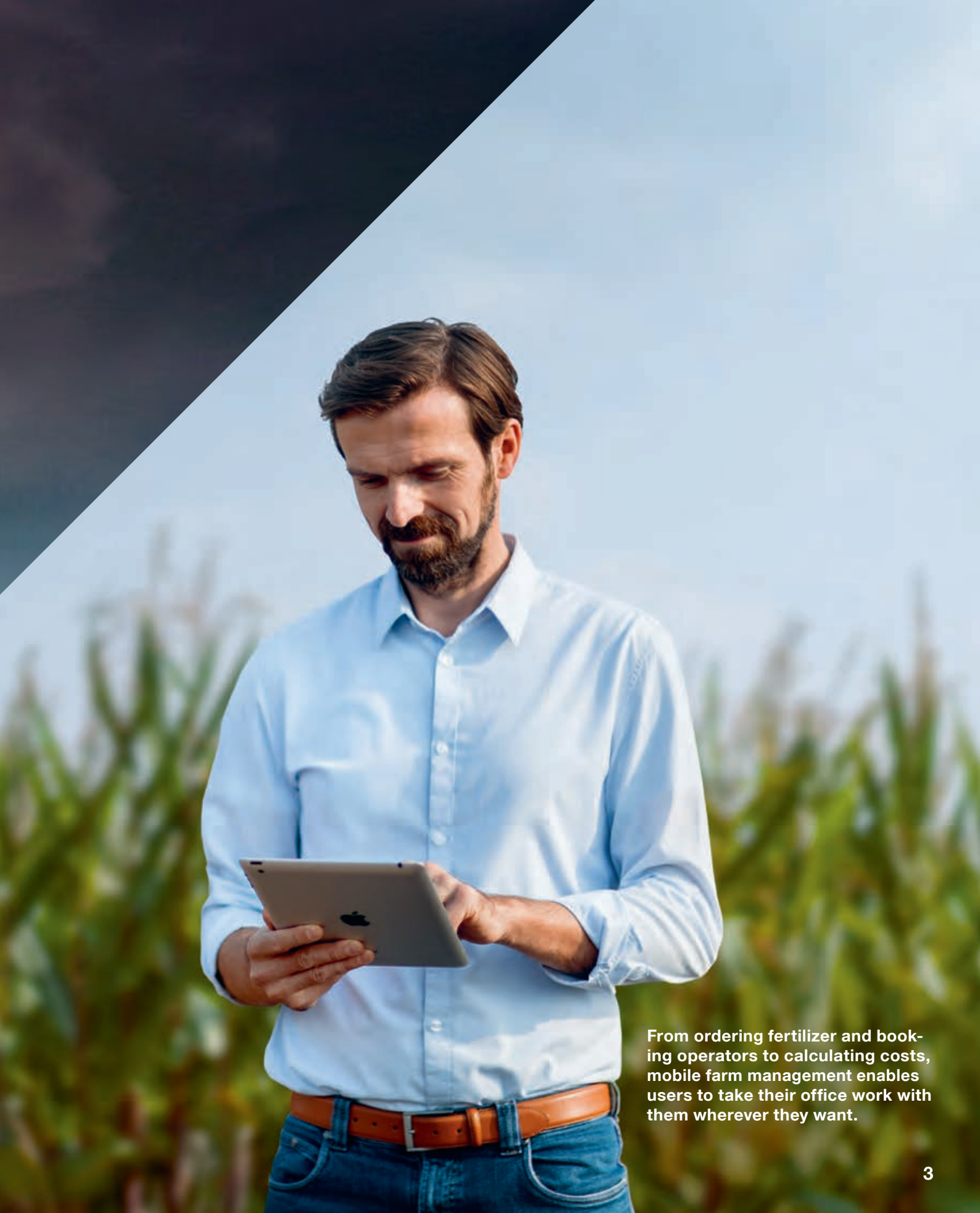
3.889
billion euros in sales

CLAAS is a family business founded in 1913 and is one of the world's leading manufacturers of agricultural equipment. The company, with corporate headquarters in Harsewinkel, Germany, is the European market leader in combine harvesters and the global market leader in forage harvesters. CLAAS is also a top performer in agricultural technology worldwide, with its tractors, agricultural balers, and grassland harvesting machinery. The CLAAS product portfolio also includes digital solutions and state-of-the-art farming information technology.

Magazine 2018

For millennia, agriculture has formed a vital connection between humans and nature, and it remains so today. The difference is that numerous links have been added to the equation. Intrepid farmers, state-of-the-art agricultural equipment, and massive data streams are all doing their part. As a technology leader, CLAAS is a player in this web of connections and continues to move towards digitalized farming – always for the benefit of its customers. The latest Annual Report is therefore dedicated to unearthing the links that tie agriculture together.

Precise weather information paired with cutting-edge harvesting technology allows for greater predictability despite a growing number of storms. Apart from flooding, storms pose the greatest threat worldwide to harvests.



From ordering fertilizer and booking operators to calculating costs, mobile farm management enables users to take their office work with them wherever they want.

Feeding the world also means better distribution. According to the Food and Agriculture Organization, 1.3 billion metric tons of food are wasted each year, which is equal to around half of the global grain harvest.

Foodstuffs have long since become a financial product. Algorithms place bets within milliseconds on changing prices, which has ramifications for agriculture.

Satellites guide harvesting machinery with precision down to the last centimeter, map impacts, and provide weather data on mobile devices. They are an indispensable part of modern agriculture.

Hotbed of digital thinking: CLAAS provides in-house and outside experts with space to develop creative solutions in its very own Greenhouse.

The magazine and the Annual Report are also available online at www.claas-group.com/investor/annual-report

Contents

Real-time Harvest

The growing global population means a greater need for food. At the same time, the economic pressure on many farmers is growing as well. Hermann Lohbeck explains why digital data and the right links are two keys to success for CLAAS and its customers.

Interview: Robert Habi

Mr. Lohbeck, the global population is growing while cropland for growing food shrinks. Is efficient agricultural equipment the answer to making sure everyone has enough to eat?

It is one element, yes. But it isn't the only solution. To achieve that aim, many actors from politics, science and research, agriculture, and industry have to join hands, because huge issues like climate change, global trading structures, or mechanisms governing the global distribution of foods can only be addressed by working together. CLAAS takes its role in this framework very seriously. We are working hard every day to help our customers across the globe generate greater yields from their fields in increasingly shorter harvest periods. We manage this by providing the right hardware and digital technology.

Will it be the case in the future that a farmer can manage his farm from the couch by using a few apps and nothing more?

The trend is moving in that direction at least, even if it's an extreme scenario. You can see it with our self-driving combine harvesters. All of the functions that an operator once had to optimize are now regulated by the machine. In self-driving mode, a model like that delivers harvesting performance of up to 100 metric tons per hour. A human operator can only achieve this kind of efficiency for a limited period of time. But there will never be such a thing as a farmer who has nothing at all to do anymore.

Does software already supersede hardware?

Software is becoming more important. It offers the customer new solutions and enhances our added value. In its most powerful form, we are talking about artificial intelligence, which can help optimize the entire process. This means that various vehicles will increasingly work together as part of a network, just like the combine harvester and trailers do via the Fleet View application in departure logistics. Every charted sequence makes the system smarter.

Is there a "But" here?

Yes, in fact there is. Hardware remains our core competence. Software will complement the harvesting technology, which you can see through CLAAS Sequence Management for CLAAS tractors, through the CEMOS AUTOMATIC adjustment software for combine harvesters, and through the camera-guided AUTO FILL system for forage harvesters.

What information is collected? Where is it collected? And how?

Sensors on the machinery permanently collect information to answer questions such as: How much fertilizer do I need? What are the soil conditions? Customers can send the findings to the cloud and analyze them immediately. The keyword here is remote services. Real-time processing is essential, because what good is remote access to the CLAAS harvester or tractor if the data does not show up on the service technician's display until minutes later? Ideally it would need the 5G wireless standard. It's a key technology, including for autonomous driving as well. We are still waiting for 5G in Germany. The situation looks better internationally, for example in China and the United States.

What were some of last year's highlights for you?

Our footprint in many countries continues to grow. That's why, for me, the first CLAAS combine harvester made in China is a great project, which an international team carried out across many national borders. Generally speaking, we stepped up collaboration and digitalization with external partners through our Greenhouse, where we provide startups and our employees with lots of space to run wild so that innovation continues to be one of our most important driving forces.

Let's take a look at the business side of things: 2017 went better than expected for Forage Harvesting, which you oversee. Then came along the period of drought this summer. How has that had an impact?

The overall feedstuffs market saw 11 percent growth in 2017. We could tell by the increased demand for large harvesting equipment like the DISCO disc mowers and LINER swathers. The trend kept up into summer 2018. However, the devastating drought, especially in Germany and Europe, is reflected in the figures, because many farms had to buy feed. On an international level, the figures look stable.

New links – is that just a digitalization issue?

No, excellent mechanical engineering remains a key issue for us. The focus in agriculture frequently revolves around "links" in a very practical sense. This past summer, we introduced a brand-new ORBIS front attachment for our JAGUAR forage harvester that delivers the best cutting quality during corn harvesting, even in tough weather and soil conditions. You will of course find digitalization here too, since each ORBIS comes equipped with a communication module as standard. It transmits the data to the forage harvester and stores the settings of the JAGUAR. The settings aren't lost, even after switching attachments, which saves time and avoids operating errors.

Let's take a brief look ahead. What things will be important to CLAAS next year?

We will continue to press ahead with digitalization, of course. We have a few machinery developments up our sleeve here. The intuitive controls in the new TUCANO combine harvester are one good example. The idea here is this: hop in and get right to work. Another exciting development is that machinery performance is becoming more important, not ownership, which is why we are going to observe whether the trend towards rentals lasts through the peak loads.

"Hardware remains our core competence. Software is becoming an increasingly important addition."

Hermann Lohbeck

Futures Trading

Today, hedging transactions on exchanges play an essential role in keeping agricultural trading going. For farmers, the day's commodity prices have become just as important and informative as the weather report.

Text: Dirk Böttcher

+++ Pigs: mostly stable. Potatoes: new seasonal high at 32.50 euros. Wheat: favorable start to the weekend. Oilseed: rapeseed down slightly. +++

That is how the daily market updates from Kaack Terminhandel GmbH in Cloppenburg, Germany, read. The brokerage specializing in commodities futures trading acts as an intermediary between market participants. On this hot July morning, analyst Stephanie Stöver-Cordes is puzzling over the information flashing across the three screens on her desk. “The price of potatoes is falling for no pressing reason,” she says. But Stöver-Cordes already thinks she knows why.

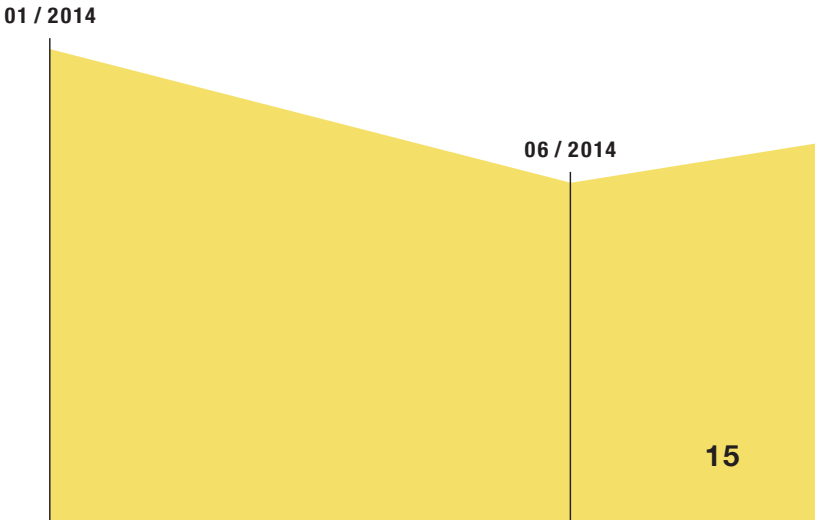
Around 10 a.m., the European Energy Exchange AG (EEX) in Leipzig, Germany, releases initial quotations for potatoes futures contracts. Stöver-Cordes gets to work placing her clients’ orders. Although the EEX is better known for electricity price quotations, it also acts as a futures exchange for potatoes and dairy products. Marketplaces like these bring together the entire agricultural sector: producers, traders, mills, dairies, the food industry, importers, exporters – and speculators.

Long history

The first futures contract was signed on March 13, 1851, on the Chicago Board of Trade (CBOT), which had been established three years earlier. This new financial product was designed to protect producers and traders from the price fluctuations on the market that posed a serious threat to their existences. Volatility could be caused by too much or too little rain decimating crops, or by winter frosts freezing over cities’ waterways and preventing traders from being able to ship their grain, pushing prices up to lofty heights just to send them crashing down again in spring when the ice melted. Standardized futures contracts allowed farmers to sell their wheat at a set price, even though it would not be delivered for another three months. Traders, meanwhile, had the peace of mind that they would receive their goods at the agreed price.

Stephanie Stöver-Cordes
Analyst,
Kaack Terminhandel GmbH

This mechanism continues to drive futures trading to this day. Beside the CBOT, the world’s largest wheat futures exchange, there are also markets in Kansas City, Minneapolis, and Paris. The marketplace in France traded 10,000 contracts a day in 2005. By 2015, that number had already risen to 317,000 – compared to 478,000 in Chicago. Today, Paris’ Euronext is considered to be the leading exchange for European grain. Traders appreciate the hedge effectiveness (the ratio of the actual price to an envisioned target), the trading hours, and the pricing in euros.



Michael Lutzke
Commodity brokerage,
Nord LB

Excitement in Paris

For Michael Lutzke, the morning's prices in Paris are a little disconcerting. A report out of Ukraine stating that the country, an exporter of wheat, was planning to reduce its exports due to drought has triggered a wave of volatility. "That stirs up memories of 2010," Lutzke says. Back then, Russia capped its exports, causing prices to rise. But this time, the panic soon subsides: The report is traced back to a Facebook post by the government, which distances itself from the statement as the day moves on. Prices begin to settle down, but they remain high.

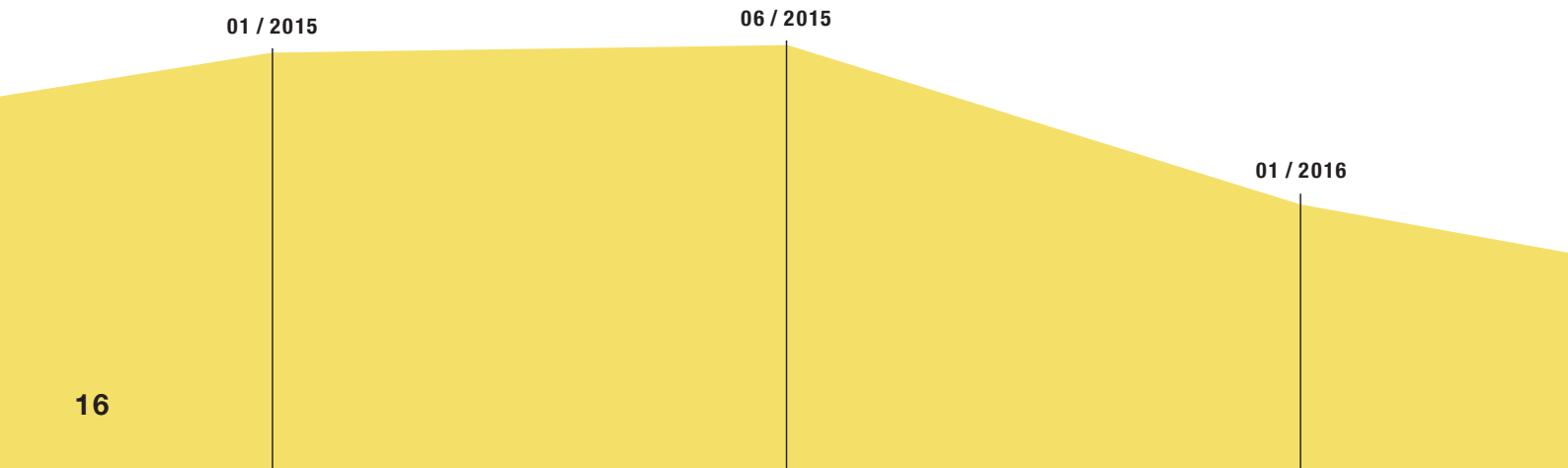
Lutzke has his desk in an open-plan office with eight traders, some of whom are bankers and agricultural economists by trade. "It is important that we understand our clients' business in great depth," he says. Nord LB in Bremen is among the leading providers of commodities futures trading in Germany. The bank does not engage in proprietary trading, instead focusing solely on executing transactions on behalf of clients. Nord LB's trading system, which its clients can also use, gives it access to the largest exchanges around the world. It also works for brokers such as Kaack Terminhandel, whose orders it executes on the markets in its role as a clearing house.

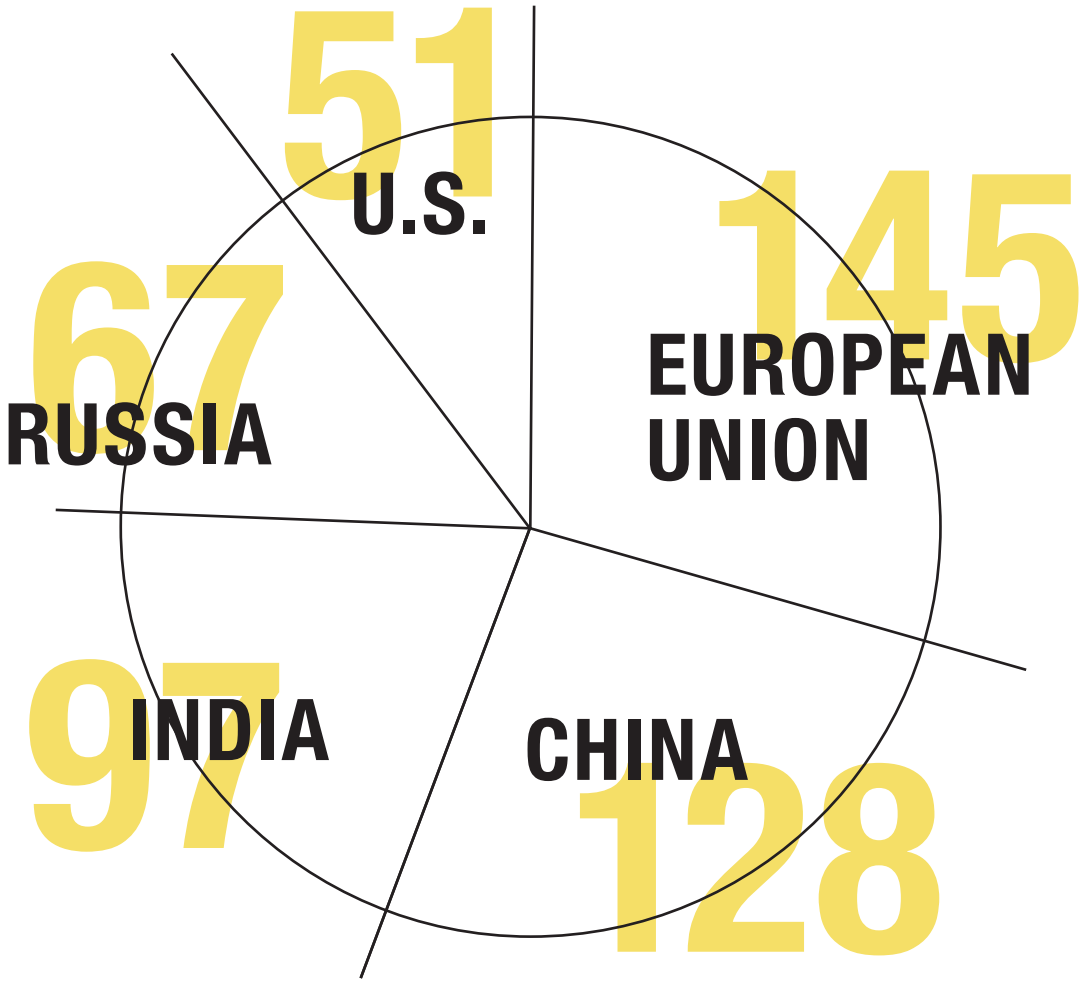
In the past, numerous banks were involved in this market. But today, their number has dwindled. Major banks such as Goldman Sachs and J.P. Morgan are still active, while international agricultural conglomerates such as Cargill use their own trading systems.

"The financial market plays an essential role in agricultural trade," Lutzke says. Prices are influenced by the weather and political decisions. The trade dispute between the U.S. and China is currently turning the oilseed market on its head. Farmers in the United States, along with their counterparts in Brazil, supply the lion's share of the world's soy. The Chinese market, their largest buyer, could now be off-limits. Meanwhile, the drought is the driving factor behind European wheat prices. Back when farmers were preparing to sow their crops in fall, prices stood at less than 150 euros per metric ton. At the time, futures contracts for August guaranteeing them a price of 180 euros seemed like a good deal. But with prices now standing at over 200 euros, those same contracts could be seen as a source of frustration.

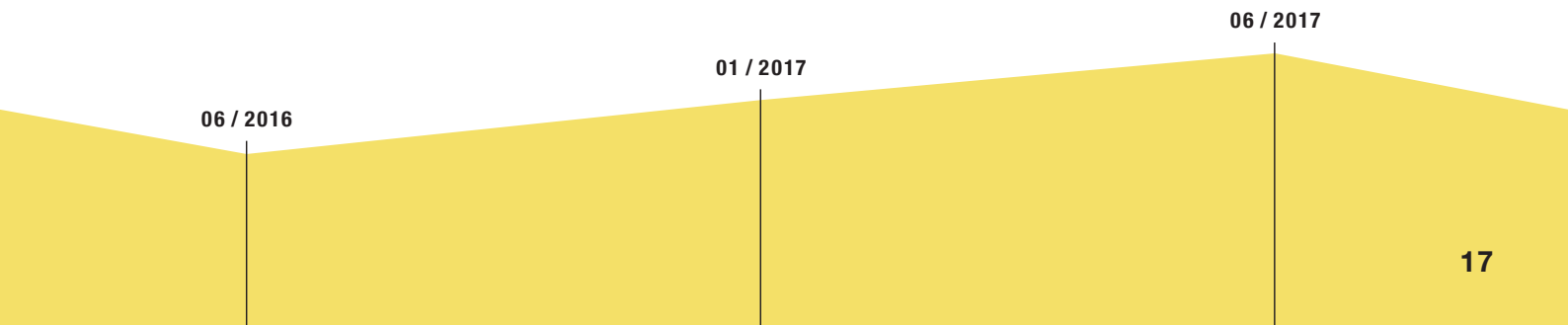
Awareness through price information

And what will the future bring for the price of wheat? This question is also on the minds of Stephanie Stöver-Cordes' clients. "I don't have an answer either, of course," the analyst says. The strict banking supervision rules also prevent her from making recommendations of this nature. "But we can provide information," she adds.

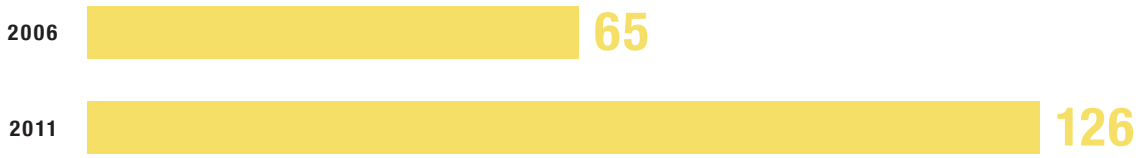




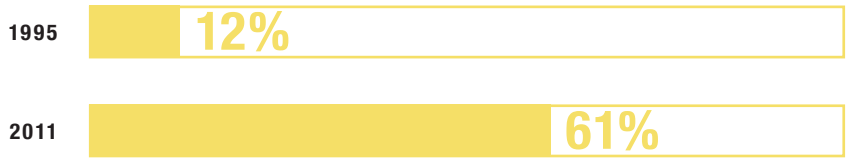
The world's leading wheat producers in 2018 and their production volume in millions of metric tons.



Value of speculative investments in agricultural products worldwide, in billions of U.S. dollars



Share of the overall U.S. futures market accounted for by wheat futures



735 million t

The chart below shows the global consumption of wheat between 2014 and 2018. According to the most recent statistics, the world consumed 735 million metric tons of wheat.

SIMULA-TIONS

CLAAS provides useful tools for creating an optimum marketing strategy. Together with Saatbau, an agricultural trading company, the subsidiary 365FarmNet offers an application called Profit Manager that makes it possible to visualize the effects of the various options available on the financial market. The data that 365FarmNet analyzes on its platform also enables real-time statements regarding the quantity of biomass currently on fields, the cost of production per hectare, and the resulting yield expectations. By combining these insights into the farm's operations and developments on global markets, the system is capable of recommending dozens of earnings and cost strategies while also listing risks and opportunities. It is up to farmers to make a final decision.

Dr. Sören Prehn
Agricultural economist, IAMO Halle

Her explanation for today's falling potato prices is a simple one: "Every Friday, speculators face a dilemma: If it rains on Sunday, prices will fall on Monday because the harvest may just turn out better than expected. If it doesn't rain, prices will rise." This past Friday, most traders expected rain. But come Monday, they realized they had missed the mark.

Speculators are important

In 2011, the CBOT saw trade at 73 times the actual volume of harvested wheat. Back in 2002, that number stood at just 11 times the actual harvest volume. Dr. Sören Prehn sees that as a good sign.

"The term 'speculation' has garnered an undeserved negative connotation," says the agricultural economist at the Leibniz Institute of Agricultural Development in Transition Economies (IAMO) in Halle, Germany. "Speculators ensure liquidity on the futures exchange market, giving farmers a constantly available trading partner to hedge their price risks." That happens on a minute-by-minute basis for day traders. For farmers, who engage only in hedging transactions, several months may go by between purchase and sale.

In Prehn's opinion, these futures exchange markets are important for the continued survival of farms, since they help guarantee profitable prices. But there is plenty of room for improvement, "especially when it comes to making decisions as to when someone acts on the market and as to the quantities involved." To achieve that goal, farmers need better basic knowledge and a marketing plan that also takes their own cost structures into account, he says. Until now, most have used the traditional approach of selling one-third before the harvest, one-third during the harvest, and the rest later on.

In North America, farmers and investors make more creative use of the possibilities offered by futures exchange markets. There are also more hedging options, such as insurance policies that cover harvest failure and loss of income. But they come at a price: Farmers foot a part of the bill, with the rest being picked up by government agencies. Droughts, such as the one currently plaguing farmers in Germany, are therefore at least partially hedged. The only one-off incident for which insurance is available here is hail. As a consequence, the general public (the taxpayer) has to pay for harvest failures – or farmers get stuck with the losses.

It all balances itself out

Michael Lutzke recalls that prices were subject to little volatility just ten years ago. "Since then, however, we've been seeing a phase of extreme volatility, as well as an abundance of information that has the potential to change markets at tremendous speed," he says. As a result, proper risk management is essential for farmers. Ultimately, as the banker points out, there are no real winners or losers on the futures exchange market. "Any gains a buyer achieves result in a loss for the seller – and vice versa," he adds. Or as Stephanie Stöver-Cordes puts it: "In the end, it all balances itself out."

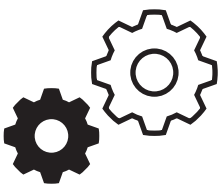
I Spy with My Little Eye

Text: Jörg Huthmann

At CLAAS, the 2018 generation of machinery is the first to automatically send data for the purposes of improving service – only with the customer's consent, of course. This marks a step toward predictive maintenance. It offers benefits for manufacturers, dealers, and customers.

What will machine maintenance look like in the future? Thanks to loads of data, it will be meticulously synchronized, that much is quite certain. Anyone who wants to know in greater detail would do well to ask Axel Holtkotte. The data analysis specialist at CLAAS Service and Parts GmbH uses a CLAAS combine harvester in Hungary to describe how the principle of predictive maintenance works: The harvester is in use. A sensor installed on a shaft under heavy strain records some unusual measurements and sends a data message about this abnormality to CLAAS. At CLAAS, a computer capable of learning with the help of artificial intelligence analyzes the message. It collates the message with several terabytes of other data and arrives at the conclusion that a breakdown warning needs to be triggered. The probability of a malfunction will rise dramatically in the days ahead.

The spare part that may be needed is located in the central warehouse in Hamm and could be in Hungary 48 hours after being requested. The CLAAS service specialist tracking the matter on his monitor doesn't want to take any risks. He decides to send the spare part on its way to Hungary with the next regularly scheduled transport. If it is needed after all, then it will be available immediately and the combine harvester will only be briefly out of commission. If it isn't needed, then it will return after the harvest.



WORKING AGAINST DOWNTIME

If a passenger car breaks down, it is inconvenient at the very least. If a train breaks down on an important line, it can trigger a chain reaction. And outages at power plants or a chemical factory can reach catastrophic proportions, which is why the industrial sector relies on testing and repair procedures to reduce breakdowns – and has been doing so for a very long time.

FIRST-GEN SENSORS MADE OUT OF GLASS

Highly visible equalization tanks for certain liquids were an early type of sensor that indicate a developing problem in good time.

Axel Holtkotte
Analytics specialist,
CLAAS Service and Parts GmbH

The present – for now
CLAAS knows exactly what kind of stress its machines face. Load calculations reveal which parts are subject to particularly heavy wear and what to expect concerning their longevity. Workshop reports and sales figures of spare parts provide some statistical insight. A high level of reliability is an important quality factor and selling point, especially in terms of harvesters, which have to deliver maximum power and performance in increasingly shorter harvest periods. The problem is that every combine harvester, forage harvester, and tractor is used differently in reality, which means they face entirely different loads and stress.

Readings of oil pressure gauges and tachometers, temperature sensors, level indicators, and many other sensors provide clues to the condition of individual machines. Transmitting such data via telemetry is part of the current standards and makes it possible to check the condition of machinery across continents. This method, known as condition monitoring, pertains to individual machines, however.

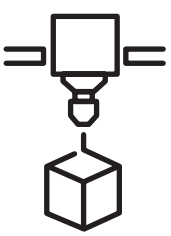
THE AGE OF OIL ISN'T OVER YET

Even in the era of maintenance-free encapsulated ball bearings and tremendous advances in materials science, the oil can and grease gun aren't quite ready to become artifacts in a museum. Every farmer knows where his machines need lubrication, and checking oil levels is not only part of the refueling process for drivers of passenger cars.

4.0

INDUSTRY 4.0 AND THE LAND OF THE CLUELESS

Industry 4.0 needs fast data networks – ideally the 5G standard. Its design enables 100 billion mobile devices or other wireless systems to be connected at the same time. But 5G is only going to be rolled out in 2020. And the expansion of digital infrastructure in Germany is progressing slowly at the moment, especially in rural regions.



3D PRINTING IS THE FUTURE

Dealers and workshops might be able to produce smaller spare parts by themselves in future with 3D printers. It also works with metallic materials through a sintering process. So instead of requesting parts from a warehouse, the workshop printer will simply access a centralized database.

Predictive maintenance goes one crucial step further and uses key building blocks from the Industry 4.0 kit. It starts with cutting-edge sensors that can not only store the readings over longer periods, but also transmit them. The Internet of Things (IoT) refers precisely to this interplay of machinery with smart sensors and the connecting of this data. Large populations or fleets in a market can generate tremendous amounts of data. This trove of big data forms the basis of predictive maintenance. Analyses performed by algorithms capable of learning will then be able to make increasingly accurate predictions, including about the likelihood that certain wear parts will break.

Win, win, win

Predictive maintenance will, in fact, create a win-win-win situation. CLAAS will integrate dealers and workshops and use the insights gained in doing so to improve products and cut production and warranty costs. In turn, this will open up new opportunities for dealers and workshops to support customers even more intensively with innovative service deals. CLAAS customers stand to benefit the most from predictive maintenance, because reliability and service will constantly improve.

WIN, WIN, WIN

Global Shortcuts

Where are there growth opportunities for CLAAS? What markets are in flux?

32.5 million metric tons

Russia is the world's leading exporter of wheat – with some 32.5 million metric tons in the 2017/18 season. Abundant inventories and competitive prices proved beneficial to the export business. And the boom continues: Russia is expected to be the leader again in the season ahead.

8.2%

Global agricultural production is growing at an impressive rate: The ten biggest soy producers have increased their exports by around 8.2 % annually since 2012, while growth in corn exports stands at 7.4 %.

10 billion dollars

India's most influential think tank launched a blockchain project in 2018 that aims to strengthen the country's agriculture sector. The goal: to make smarter use of the subsidy industry amounting to 10 billion U.S. dollars – especially on behalf of farmers. Blockchain technology is meant to improve the distribution of subsidies and the regulation of organic food production.

23.3 billion dollars

Harvest robots, drones that sow crops, and autonomous agricultural equipment have a bright future – and rosy sales prospects. Market analysts expect to see tremendous growth for the agriculture sector in North America. By 2024, sales are projected to climb to 23.3 billion U.S. dollars. By comparison, sales stood at 1.1 billion dollars in 2015.

1°C

Global warming is increasing. Only a handful of regions on Earth have cooled down, and one of those places is the Midwest in the United States, where the average temperature in recent decades has dropped by 1 degree Celsius. How come? Farming. Currently, some 400 million tons of corn is produced each year in the Midwest. So much water evaporates from the large leaves of the corn crops that it creates a cooling effect.

2020

China's agricultural policies are changing radically. By 2020, the country hopes to have reached a major turning point when it comes to farming. Above all, the aim is to feed its growing population. Beijing therefore wants to expand support for the agriculture sector and promote sustainable production methods along with innovations. The Five-Year Plan also includes in-depth research in agricultural biotechnology.

WHEAT BECOMES CLIMATE-RESISTANT

In 2018, researchers achieved something that had until now been considered virtually impossible: the decoding of the wheat genome. However, this feat took 200 scientists from 20 countries 13 years to accomplish. While a mere 20,376 human genes are known, scientists were able to map 107,891 genes for wheat. This accomplishment is of tremendous importance, because the global population is growing, and wheat is one of the most important food staples on the planet. The genome's decoding means that two goals are within reach: climate-resistant wheat and higher yields.

Can AI Feed the World?

Text: Jörg Huthmann

There is one subject that is always part of any conversation about Industry 4.0: AI. But where do things stand regarding the use of artificial intelligence in agriculture and agricultural equipment? And can AI feed the world?

When analyzing images to look for tumors, the detection rate of self-learning computers now beats that of experienced specialists. Social media platforms and search engines use our preferences to deliver tailored advertisements. Carmakers are developing self-driving vehicles. And Hollywood provides alternating scenarios of Terminators that save the world and pose a threat to humanity. So far, the imagination of screenwriters is the only thing behind movie plots, while artificial intelligence is powering everything else.

Springboard innovations

Politicians have now begun to address the subject. In July 2018, the German federal government adopted the cornerstones of an AI strategy. It calls for more academic educators and also the establishment of an agency for springboard innovations that primarily deals with artificial intelligence. As a result, Germany – just like its European neighbors – hopes to improve its standing in the global competition for the best AI ideas. At the same time, this issue is nothing new, given that there was already talk of artificial intelligence more than 30 years ago. What is new, however, is that all of the technological and economic parameters for using AI have now been met. Computing power and memory are becoming increasingly cheaper, while networks continue to grow faster and more extensive. What's more, it is cost-effective to invest in these new technologies and integrate them into machinery that already exists or will be developed. They could take over work described as dull, dirty, and dangerous, for example.

Artificial intelligence and robotics

AI and robotics frequently appear as synonymous expressions, even though a robot control system does not necessarily have AI. It would be an accurate description for autonomous robotics systems like the kind currently being developed by universities and start-ups for agricultural uses. But AI is now increasingly replacing work performed by humans in the insurance, banking, and telecommunications sectors.

Is AI the answer?

The supposed technology issue has therefore even provoked a response from philosophers like Richard David Precht from Germany, who takes a thoroughly critical view of digitalization and AI. Precht does not believe that all key problems can be solved through technology. "Much of the discussion on this matter is nothing more than an attempt to change the direction of the wind with an air pump," he notes in an interview in the weekly news magazine *Der Spiegel*. Even though there has been tremendous technological development, attempts to feed humanity have failed despite overproduction.

He brings up a key issue here: Feeding the world seems to be primarily a matter of distribution that must be handled at the political level. Nevertheless, artificial intelligence helps strengthen the irreplaceable basis of global food production, namely the production capacity of farmers. In the long run, after all, farmers will only be able to deal with increasingly extreme weather conditions, dwindling land for cultivation, and economic pressure with help from reliable data, which is why researchers and companies like CLAAS are working to develop the agricultural equipment of tomorrow with artificial intelligence.

Science

Simon Blackmore laughs as I read him an old software development adage over the phone: “A fool with a tool is still a fool.” Blackmore, who is a professor of Robotic Agriculture at Harper Adams University in the United Kingdom, thinks the figure of speech is certainly a useful one. When asked if it also applies to artificial intelligence, he explains that “the effective use of artificial intelligence is comparable to the proper use of a hammer. Used properly, it can be extremely helpful.” However, because AI as a tool is quite complicated and difficult to program, it is currently not good enough to feed the world, Blackmore says. “This would first require a worldwide mechanization of agriculture and, at the same time, a global education campaign.”

“To feed the world with AI, it would require a worldwide mechanization of agriculture and a global education campaign.”

Simon Blackmore
Professor and Head of Engineering at Harper Adams University (Newport, UK)

The professor not only deals with developments in the field of AI on a scientific level, but also uses them for the development of agricultural robots. Machines can only act autonomously when performing certain tasks by way of AI in the form of self-learning algorithms. Blackmore’s approach is quite disruptive – instead of advancing the current generation of machinery in the form of self-driving equipment or tractor-implement combinations, he prefers to send significantly smaller, specialized robots onto the field. In the future, they could take over tasks such as sowing (drills), crop care and protection, and also harvesting. These machines already exist. Startups supported or assisted by Simon Blackmore, such as Earthrover or the Small Robot Company with their agricultural robots Tom, Dick, and Harry, and an AI named Wilma, are in the process of testing. The core element of AI – the self-learning algorithm – enables these robots to improve their work with increasing experience and to distinguish ripe from unripe crops, for example, or to fight just weeds when it comes to crop protection by using lasers, mechanical means, or precise minimum application of pesticides.

In Professor Blackmore’s scenario, all work would be possible as part of “farming as a service,” with autonomous machines working 24 hours a day, seven days a week, because it is difficult to imagine, for financial reasons alone, that a farmer would replace a larger part of his fleet with robots. Conceivable would be models in which contractors gradually expand their range of equipment and services with robots. However, the question of economies of scale always arises. In large-scale agriculture, high-throughput machines are more efficient than small systems in almost all operations, for example in the vast acreage of North and South America or Russia. The issue of soil conservation through plow-less farming is another point of discussion.

With his vision of the agricultural technology and agriculture of the future, Simon Blackmore succeeds in fulfilling the scientific mission to question existing conditions and rethink them. Meanwhile, these ideas are being tested as experimental vehicles in the field and are already in regular use in horticulture. It remains to be seen what opportunities and risks this will entail for sustainable agriculture and, above all, for the main players: farmers, contractors, and agricultural equipment producers.

Industry

Dr. Carsten Hoff is the Managing Director of CLAAS E-Systems GmbH & Co. KG (CES), where Dr. Boris Kettelhoit oversees Advanced Engineering. The two CLAAS management executives also see artificial intelligence as a useful software tool. As Carsten Hoff notes, while there has been talk of artificial intelligence for more than 30 years, AI has only been able to fully realize its potential recently thanks to fast computers and networks. The ability to learn is the key difference between traditional control technology and software based on AI algorithms, which is why the software specialists regard AI as a factor enabling the advancement of CLAAS equipment. For Carsten Hoff and Boris Kettelhoit, the disruption does not come from turning away from existing product lines, but rather in the way software is programmed and making CLAAS equipment smarter. One prime example of this is CEMOS AUTOMATIC, an assistance system for combine harvesters. The artificial intelligence used in the system learns from the constantly changing harvest conditions over the course of the day and adjusts the threshing. The ability to learn independently and to come up with ideas for what action to take is the key feature of AI. The role of the operator is already limited today to monitoring the automatic settings and the machine process.

“We have to be in control of the technology – in every respect.”

Dr. Carsten Hoff
Managing Director of CLAAS E-Systems GmbH & Co. KG (CES)

The question of self-driving machinery of course arises with regard to combines, forage harvesters, and tractors. Carsten Hoff cites a figure from the automotive industry, according to which properly equipped vehicles will generate up to 20 terabytes of raw data per hour in the future. Data from images of the vehicle’s surroundings will account for most of it. Analyzing the relevant details from this mountain of information in real time in order to generate a command to brake, for example, can only work with the help of AI. Hoff and Kettelhoit note, however, that some problems still need to be resolved, especially when it comes to image recognition. Tasks that are easy for humans, such as identifying a partially concealed hindrance, still pose a challenge to AI systems.

At CES, the team is focusing above all on the robustness of the systems developed there. “We have to be in control of the technology – in every respect,” Carsten Hoff says, capturing this idea in a straightforward way. “If AI learns and then makes decisions, we have to be able to understand those decisions,” he adds. When asked if AI can feed the world, both men point to the proper sequence: Manual labor is followed by mechanization and then automation. The use of AI in agricultural equipment only comes after that. In the meantime, artificial intelligence has begun trading in foodstuffs on the world’s commodity futures exchanges, but whether this serves the interests of feeding the world is another matter altogether.

Generation: Tractor

It all began in Le Mans. That is where the first tractor family rolled off the production line in 2003, making CLAAS a full liner in the field of agricultural equipment. One look at yesterday's standards and today's designs demonstrates impressively that these machines have gained more than just power in the past 15 years.

ATLES 936

Robust, powerful, easy to operate: That is how you could describe the ATLES 936. Equipped with features such as four-point cab suspension and the REVERSHIFT transmission to help change direction under load, it set a standard in 2003 that later models would continue to uphold. For CLAAS, the entry into the standard tractor segment was more than a mere flirtation with an exciting new idea. It was the beginning of a success story.

Power player

The AXION 960 is a perfect example of how much has changed in terms of technology. A more than 80 percent increase in torque over the years to 1,860 Nm today has made it a well-rounded powerhouse. The CMATIC transmission control system provides infinitely adjustable performance no matter what the task. Its hydraulics also pack an impressive punch. Today, it has 220 l of hydraulic oil flowing through its hoses and drives – twice as much as in the original ATLES.

253 hp

– allowed the ATLES to generate 1,050 Nm of torque.

1.95 m

in tire height meant ideal ground clearance and traction.

455 l

could fit in the fuel tank of the ATLES.

9 t

was how much the first big CLAAS standard tractor weighed.

AXION 960

One button changes everything
Still, the increase in power under the hood is just one advancement. If you want to feel the true revolution, take a seat in the cab. Thanks to automation and digitalization, the AXION drives while the driver manages the tractor. As a result, the sophisticated electronics of tools such as CEBIS make it easier for operators to get their jobs done. At the press of a button, drivers can save settings for 20 different attachments and access them at any time. All information is visible on large displays that can be operated while the tractor is in motion.

Eye in the sky
To make this level of convenience possible, today's CLAAS tractors make use of a wide range of sensors and software interfaces, such as TELEMATICS. They also receive support from above. With the help of GPS satellites, the AXION guides attachments across the field either in a straight line or in curves, with precision down to the centimeter.

At home around the world
Thanks to this evolution from robust workhorse to smart powerhouse, CLAAS has made a name for itself in the standard tractor segment. The customer base has grown more and more international ever since the first generation from Le Mans was launched. Today, CLAAS supplies the AXION not only to its main central European markets, but also to Russia and Oceania.

445 hp
and 1,860 Nm of torque make this the most powerful CLAAS standard tractor.

2.10 m
in tire height provide a tremendous footprint.

640 l
in fuel are on board the AXION – enough for hours of work with a full load.

13 t
in weight ensures perfect power transmission.

The Change-makers

There is increasing pressure on farmers to be efficient. New mindsets – and often a large helping of courage – are required in order for their farms to stay sustainable and profitable. Three CLAAS customers talk about how they are continuously reinventing themselves.

Text: Cornelia Theisen

Max von Laer, Gut Fürstenberg

GERMANY

Why do I have 100 percent yields in this field – but only 80 percent in the one next to it? Could it be that, although I have harvested less there, I have also invested fewer working hours and less fertilizer? It is questions like these that farmers have to answer in order to ensure the survival of their farms. One of them is Maximilian von Laer, estate manager at Gut Fürstenberg, which is why he has been working with 365FarmNet for a number of years now. The goal of this collaboration is to fully automate the documentation of sowing, fertilizing, and harvesting at five locations with a total surface area of 1,350 hectares, spread throughout North Rhine-Westphalia. Whereas soil cultivation used to have to be recorded by hand, today an app tracks what the machines are doing – at all times, at every location. “Well, in theory anyway,” says von Laer, laughing.

Even before the switch, the farmer was aware that it would only be the first step. And, of course, everything didn’t always go to plan. A lot had to be honed and adjusted – by both the farmers and 365FarmNet. “This is only possible through close dialogue,” von Laer explains. “And it’s always constructive, because both sides want to become more efficient.”

There were also moments when he wondered whether all the effort would be worthwhile. “But I see it simply as my responsibility,” he stresses. “Toward myself, but especially toward the generations that will come after me.”

Von Laer is looking ahead to the future in suspense, but without fear. And it is this future that the 58-year-old would like to keep actively working toward for a while to come. “We have good yields here, a favorable climate, and huge swathes of land. And as long as it’s there, it will be farmed,” he explains. “The only real question is: under which conditions?” A lot is in flux at the moment, animal husbandry is currently a huge issue for the general population – and Gut Fürstenberg produces a lot of feed. The question of organic farming also comes up again and again. The decision is a fundamental one, not just because it would be a huge investment, but also because the requirements make it almost impossible to carry out organic and conventional farming at the same time. “We have to keep an eye on issues like this, of course,” says von Laer. “But that doesn’t mean that we have to put every trend into practice.”

“I have a responsibility toward the generations that will come after me to push ahead with digital farming.”

Max von Laer,
estate manager at Gut Fürstenberg

POLAND

The Różańskis, Nowe Skórowo

Only around a third of the land that the Różańskis cultivate is actually their own. This came about somewhat accidentally. Back in the 1990s, when it became possible to buy used Western equipment, Józef, the father of the family, was quite simply the only one who owned a combine harvester. However, because it was not working at full capacity with a mere 50 hectares, the enterprising farmer took on additional contracts. And this is how, back then, one thing led to another and today's contractor business came into being over the years. Today, its portfolio includes nearly the full range of farming activities: spreading manure, cultivating the soil, sowing, maintenance, harvesting, and even bank stabilization on the coast.

"Of course, this is only possible with a sensible fleet of vehicles," explains Tomasz, who shares his father's enthusiasm for large agricultural machines and state-of-the-art equipment. This is why a few years ago the Różańskis began successively replacing their machines with new ones; a total of 17 machines have come from CLAAS. "It was a good decision," says Tomasz' brother Piotr in agreement. "The work is more fun, and it's less strenuous. Overall, we are much more productive." One challenge that the brothers have had to face time and again in their quest for growth is the search for good personnel. "We have a great team, but it has to grow with us," the brothers explain. "And it's not easy to find people who actually know how to operate the new machines correctly." At any rate, the number of tasks is growing rather than shrinking, because the Różańskis' customer base is growing. Their secret to success? Efficient, high-quality work.

AUSTRALIA

Ceres Agriculture, New South Hampton

Mark Mason, co-founder and Managing Director of Ceres Agriculture in New South Hampton, is also convinced that farms need innovative ideas in order to survive on the market. One of the four main pillars of his operations, cattle production, is a perfect example of this. While other farms of a similar size keep and fatten up their cattle in feedlots, Mason says that "free-range husbandry has a positive effect on the welfare of the animals and therefore on the quality of the meat."

He keeps his cattle in different paddocks, where a maximum of 100 cattle have access to 30 hectares of grazing area. They receive additional feed in the form of easily digestible, steamed grain flakes that are produced by the farm. He meets 50 percent of his requirements with his own arable land, and his facility is the only one of its kind in Australia. “Of course, it was a significant investment for us,” says Mason. “Back then, when we decided to do it, the technology was completely untested here; nobody believed that our cattle could put on as much weight as they would in a feedlot.” But their courage paid off: The meat has since received numerous awards, and almost half of it is exported. “In recent years, we have been working hard to develop a sustainable business and, in the beginning, we didn’t have anything this big in mind at all,” Mark Mason admits. “But we soon found out how big it had to get for everything to run smoothly. The scaling effect is one factor that helps us to remain competitive internationally,” he goes on to explain. He notes that sustainability is a must in this regard – both in environmental and economic terms.

All for One

The DOMINATOR 370 is something special. Not only is it the first CLAAS combine harvester to be made in China, but it also brought together specialists from different countries as part of the SENO project. They impressively demonstrated that the shared commitment to quality at CLAAS turns cultural differences into real strengths.

Accelerator

Weiming Sun began working at CLAAS in September 2015. He served as the project manager of SENO for the CLAAS subsidiary CMS in China. In his view, partnering across national borders, time zones, and different mindsets is an excellent opportunity to learn from one another, which worked wonderfully for the SENO project. How? By constantly picking up the pace: “Move from slow to fast,” he says. The better team members know each other, the faster the work as a team proceeds. In his experience, there may be considerable differences between European and Chinese mentalities, but they can complement each other well. “The slowdown that sometimes occurs as a result of German thoroughness is made up for by Chinese speed.”

Mass producer

SEBASTIAN PLEULER
AGE: 32
SENO POSITION:
RESPONSIBLE FOR MASS PRODUCTION OF THE DOMINATOR

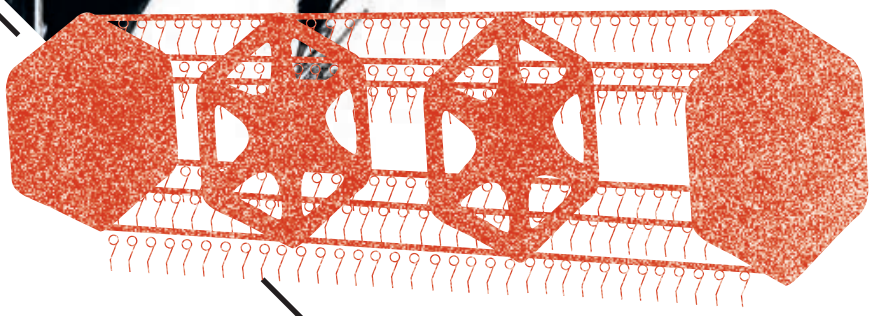
Sebastian Pleuler started out as an intern at CLAAS back in 2006 while simultaneously pursuing his studies in mechanical engineering. Since October 2016, he has been working at the Chinese site, and at 32 years of age he is already responsible for the industrialization phase of the DOMINATOR 370. The engineer hopes to “build a fantastic machine in China, for China,” as he puts it, and is already thinking about larger unit quantities. The shared desire for success inspires him, and he regards the individuality and difference of each team member as strengths that contribute to the project’s success. “Everyone accepts and respects the way their colleagues work and live.” For him, many tasks can be taken care of through lots of communication – through various channels and based on a common working language.

WEIMING SUN
AGE: 36
SENO POSITION:
PROJECT MANAGER FOR CLAAS

Cutterbar expert

SANDOR FARKAS
AGE: 44
SENO POSITION: ENGINEER

A new combine harvester needs the perfect cutterbar – that much is clear. Sandor Farkas makes sure of this in his role as department head in Törökszentmiklós, Hungary, where CLAAS develops and makes cutterbars. When Sandor Farkas was needed for the DOMINATOR in Gaomi, he was prepared to answer the call and assisted with manufacturing the cutterbar on site. He was extremely impressed by the work ethic and sound preparation of the colleagues in China, as well as by how warmly and openly they interact with one another. Apart from smartphones and other means of communication that have now become standard tools, Sandor Farkas believes that “personal contact in particular” is necessary to build a team. If the partnership embraces a curiosity for the culture of other colleagues, the team can quickly remove any obstacles that stand in the way.



Coordinator

KLAUS RUMMEL
AGE: 49
SENO POSITION: PROJECT MANAGER

Klaus Rummel is a project manager with almost 30 years of experience at CLAAS. In the SENO project, he serves as the counterpart to his Chinese colleague Weiming Sun. The plans to develop a new series and not just modify an existing one were especially exciting for Klaus Rummel. Just like his colleagues, he thinks communicating face to face is the fastest way to open the doors to success – no matter what cultures clash in the process. He gives an example: “When fastidious German colleagues who stick to processes come together with fellow team members who like to debate and embody the try-it-out-quickly-and-learn-as-you-go mindset from China, you end up focusing on common objectives and values.” Apart from delivering a top product, this focus among all of the colleagues also extends to family life, Klaus Rummel says.

神农

YUEHU ZHU
AGE: 35
SENO POSITION: SYSTEMS ENGINEER

Systems master-mind

According to Yuehu Zhu, the secret to successful teamwork may sound simple, but it requires a great deal of focus on common objectives. In his view, you have “to truly respect everyone, carefully consider all ideas and suggestions, and respond and judge as objectively as possible.” This is how Yuehu Zhu and his German colleague Christoph Molitor approach all tasks. “For projects like SENO, you have to truly agree on what the common objectives are, at the very least.” One surmountable obstacle, albeit a constant source of misunderstandings, is the language barrier, Yuehu Zhu admits with a smile. That is why he also underscores the importance of English as the common working language.

Products and Services

Combine harvesters

Forage harvesters

Tractors

Balers

Telehandlers

Wheel loaders

Forage harvesting

Electronics expertise

CLAAS Service and Parts

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CLAAS Group Overview

Financial indicators (IFRS)

in € million	2018	2017	Change in %
Financial performance			
Net sales	3,889.2	3,761.0	3.4
Research and development costs[1]	233.4	217.6	7.3
EBITDA	372.7	335.7	11.0
EBIT	256.8	215.2	19.3
Income before taxes	225.7	184.5	22.3
Net income	152.0	115.4	31.7
Free cash flow	-83.9	209.6	-140.0
Financial position			
Equity	1,395.5	1,293.8	7.9
Capital expenditure[2]	160.3	130.7	22.6
Total assets	3,384.7	3,232.8	4.7
Employees			
Number of employees as of the balance sheet date[3]	11,132	10,961	1.6
Personnel expenses	693.0	673.5	2.9

[1] Before capitalized and amortized development costs.
[2] Including development costs recognized as an asset, excluding goodwill.
[3] Including apprentices.

Standpoint

Agriculture is one of the key industries of the 21st century. It can ensure food supplies to feed the world if we manage to link humans, machinery, and nature in a smart way. This is a Herculean task that we enthusiastically tackle every day – because we think in generations.